May 20, 2003

Mr. Asghar Sadri

Dear Mr. Sadri:

Well Completion Report for Well No. 5514-05

We received your Well Completion Report Part II for the Hoolawa-Sadri Well (Well No. 5514-05) on May 9, 2003 and acknowledge that it is complete. Other than the continuing reporting requirements, this completes the permitting requirements for this well.

If you have any questions, please contact Charley Ice of the Commission staff at 587-0251 or toll-free at 984-2400, extension 70251.

Sincerely,

[Signature]

ERNEST Y.W. LAU
Deputy Director

cc: Wailani Drilling, Inc.
MEMO and ROUTE SLIP

WCR 2 Check for Well No. 5514-05 (survey to regulation memo)

1. **Pump Tests Check** (special condition of PIP? Yes/No) Glenn Bause (initial if yes)
   - Step-Drawdown Test:
     - followed WCPI Stds analysis attached
     - proposed pump cap o.k.
   - Aquifer Pump Test:
     - followed WCPI Stds T & S analysis attached
   - Well Interference:
     - estimated Steady-State drawdown at 1-mile radius is _______ ft
     - analysis attached
   - Stream Surface Water Impacted:
     - if yes, iden
   - Geology Code for Well Index:

2. **Pump Installation Check** Mitch Ohye (initial)
   - data complete
   - followed Special Cond & Elev.
   - well database updated

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

4. Roy (initial) check

5. Rob (initial) finalize

6. Dean (initial) signature

7. Charley/Lenore/Ryan File
1. State Well No.: 5514-05 Well Name: Hoolawa-Sadri Well Island: Maui
2. Address: 320 Paani Pl, Paia 96779 Tax Map Key: 2-9-01:32
4. Date Pump Installed: 6/18/01
5. PERMANENT PUMP INFORMATION
   Pump Type, Make, Serial No.: Submersible, Grundfos, 5 HP = 18490015-P10114-05
   Rated Capacity: 2 HP = 16 40 gpm at head of: 366 307 ft
   Motor Type, H.P., Voltage, rpm: Submersible, 2 HP 4 5 HP, 230 volts, 3450 rpm
   Type of flow meter: Turbine which measures in gallons
   Model Number Serial Number
   Pump type (check one):
   □ Deep Well Turbine □ Rotary □ Propeller
   ✓ Submersible □ Rotary-Displacement □ Reciprocating
   □ Centrifugal □ Rotary-Gear □ Impulse
6. Method of flow measurement:
   □ Weir □ Open Pipe □ Orifice* □ Other*, explain below
   *attach schematic
7. Fill in the as-built section on the other side of this sheet.
8. Attach photograph of well and concrete pad clearly showing benchmark on concrete pad.
9. Other remarks/comments:

Pump Installation Contractor (print) Mike Robertson C-57/C-57a/A Lic. No. 20115
Signature ______ Date 4/30/03
Permittee (print) Asghar Sadri
Signature ______ Date 4/30/03
Bench mark elevation surveyed to nearest 0.01 ft. = 134.65 ft. mean sea level

Identify reference point elevation for water level measurements through chase tube 135.2 ft. mean sea level

describe reference point: top of sounding tube

Pump intake depth = 151.5 ft. (referenced to bench mark)

Chase tube depth = 151.5 ft. (referenced to bench mark)

If airline installed, bottom of airline elevation = N/A ft. mean sea level
**Performance Curves 16 GPM**

**Model 16S**

**FLOW RANGE:** 10 - 20 GPM  
**OUTLET SIZE:** 1 1/4" NPT  
**NOMINAL DIA:** 4"

**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.**

4" MOTOR STANDARD, .5 - 5 HP/3450 RPM.  
6" MOTOR STANDARD, 7.5 - 10 HP/3450 RPM.  
Performance conforms to ISO 9906 Annex A  
@ 2 ft. min. submergence.
Performance Curves 40 GPM Model 40S

FLOW RANGE: 24 - 55 GPM OUTLET SIZE: 2" NPT NOMINALdia. 4"

OPERATING RANGE: 24 to 55 GPM
CAPACITIES BELOW 24 GPM
SEE MODEL 25S

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.
4" MOTOR STANDARD, 1-10 HP/3450 RPM.
6" MOTOR STANDARD, 15-20 HP/3450 RPM.
* Also available with 6" motor.

Performance conforms to ISO 9906 Annex A
@ 5 ft. min. submergence.
Wailani Drilling Company  
Mike Robertson  655 Kulike Road Haiku, Maui, Hawaii 96708  
Ph. 808/572-2673  Fax 572-0925  Cellular 264 7079  

5/6/2003  

Return Receipt Fax Memo  

Charley,  

Enclosed are the following items:  

✓ Signed Pump Installation Permit for Hoolawa-Sadri Well No. 5514-05  
✓ Well Completion Report Part II for Hoolawa-Sadri Well No. 5514-05  
✓ Pump Curves for Hoolawa-Sadri Well No. 5514-05  

Please confirm receipt by checking off the enclosed items and faxing a copy of this memo to me at 808/572-0925. Thank you.  

Sincerely,  

Mike Robertson
Dear Mr. Sadri:

Pump Installation Permit  
Hoolawa-Sadri Well (Well No. 5514-05)

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

**Special Conditions**

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

The permittee, well operator, and/or well owner are responsible for all conditions of the permit. Be advised that you may be subject to fines of up to $1000 per day for any violations of your permit conditions starting from the permit approval date.

Please sign and have the contractor sign both permit originals and return one for our files. A copy of your water use report form is enclosed for your use.

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

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

If you have any questions, please call Charley Ice of the Commission staff at 587-0251 or toll-free at 984-2400, extension 70251.

Sincerely,

Peter T. Young  
Chairperson

Enclosure

c: Wailani Drilling, Inc.
PUMP INSTALLATION PERMIT
Hoolawa-Sadri Well, Well No. 5514-

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 Hoolawa-Sadri Well (Well No. 5514-05) at lower Hoolawa Road, Makawao, Maui, TMK 2-9-1:32, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

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

2. The pump installation permit shall be for installation of a 1) 40; 2) 16 gpm rated capacity at 1) 307; 2) 366 ft. of head, or less, pumps in the well.

3. The permittee, well operator, and/or well owner shall provide and maintain an approved meter or other appropriate means for measuring and reporting withdrawals and water levels, and appropriate devices or means for measuring chlorides and temperature. These data shall be measured monthly and reported to the Commission on an annual basis, on forms provided by the Chairperson (attached).

4. The proposed use shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to pump water from a well shall not constitute a determination of correlative water rights. The permittee, well operator, and/or well owner shall be notified and by this provision understands that the quantity of water taken from the well could be reduced by the Commission in the future. This permit is not a commitment that the pump capacity permitted here or even some lesser amount is guaranteed in the future.

5. The permittee, well operator, and/or well owner shall complete and submit as-built drawings and Part II - (Permanent) Pump Installation Report of the Well Completion Report (attached) to the Chairperson within sixty (60) days after completion of work.

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

7. The pump installation permit application and any related staff submittal approved by the Commission are incorporated into this permit by reference. This permit is also subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

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

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

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

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

Date of Approval: February 18, 2003
Expiration Date: February 18, 2005

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

Permittee’s Signature: _______________________________
Date: __________

Printed Name: ___________________________ Firm or Title: ___________________________

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

Printed Name: ___________________________ Firm or Title: ___________________________

Please sign both copies of this permit, return one to the Chairperson, and retain the other for your records.
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 Hoolawa-Sadri Well (Well No. 5514-05) at lower Hoolawa Road, Makawao, Maui, TMK 2-9-1:32, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

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

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

Permittee's Signature: Ayshar Sadri
Printed Name: Ayshar Sadri
Firm or Title: owner
Date: 4/30/03

Installer's Signature: Mike Roberts
Printed Name: Mike Roberts
Firm or Title: Wailani Drilling Inc.
Date: 4/30/03

C:\USGS
Department of Health's Safe Drinking Water & Wastewater Branch
Maui Department of Water Supply
Wailani Drilling, Inc.

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

WCR 1 Check for Well No. 5514-05 (survey to regulation memo)

1. Pump Tests Check
   Glenn Bauer __________ (initial)
   
   Step-Drawdown Test:
   - followed WCP1 Stds
   - analysis attached
   - proposed pump cap o.k.

   Aquifer Pump Test:
   - followed WCP1 Stds
   - T & S analysis attached

   Well Interference:
   - estimated Steady-State drawdown at 1-mile radius is __________ ft.
   - analysis attached

   Stream Surface Water Impacted: __________

   Geology Code for Well Index: __________

2. Construction Check
   Mitch Ohye __________ (initial)

   - data complete
   - followed Special Cond & elevations
   - well database updated

   Ingrid Kunimura __________ (initial)

   Latitude: NAD27
   Longitude: NAD83

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

ATTACHMENTS FOR PUMP INSTALLATION PERMIT:
- COVER LETTER
- PERMIT (2x)
- DOH COMMENTS
- LAND DIV. COMMENTS
- WCR 2 FORM
- WUR FORM
- USGS MAP
- PARCEL CHECK
- DATABASE PRINTOUT
- GLENN'S WORKSHEET
- WELL As-Built CHECK PRINT

4. Roy __________ (initial) check
5. Subia __________ (initial) finalize
6. Dean __________ (initial) signature
7. Charley/Lenore/Ryan File

2nd SUBMITTAL

02/24/03
February 24, 2003

MEMORANDUM FOR THE RECORD

FROM: Glenn Bauer

SUBJECT: Aquifer Test Data Reported for Hoolawa-Sadri Well (5514-05)

In looking over the aquifer test data for this well, Wailani Drilling reports a static water level of 1.61 ft., msl and a chloride concentration of 50 mg/L. They pumped the well for 480 minutes (8 hours). During that time the reported chloride concentration did not change. I find the combination of low chloride concentration and lack of change odd due to the low static water level, and the assumption that Ghyben-Herzberg conditions prevail. The Hoolawa Well (5514-01) which is 500± ft. north (nearer the shoreline) of 5514-05 had an initial water level prior to pumping of 14.7 ft., msl, while the chloride concentration varied from 100 to 95 mg/L. The Hoolawa-Cookman well (5514-04) drilled by Wailani Drilling and approximately 2000 ft. southeast (up gradient) of the Hoolawa-Sadri well shows a static water level of 1.78 ft., msl and a chloride concentration of 180 mg/L at the beginning and end of the test.

My concern is that Wailani Drilling is not providing CWRM data that makes hydrological sense. I believe we should write a letter outlining our concern about data reporting.
Return Receipt Fax Memo

Charley,

Enclosed are the following items:

- ✔ Revised Well Completion Report Part I for Ho‘olawa-Sadri Well No. 5514-05
- ✔ Constant Rate Pump Test for Ho‘olawa-Sadri Well No. 5514-05
- ✔ Driller’s Log for Ho‘olawa-Sadri Well No. 5514-05
- ✔ Pump Curves for Ho‘olawa-Sadri Well No. 5514-05
- ✔ Well Head Elevation Survey for Ho‘olawa-Sadri Well No. 5514-05

It was noticed that the casing diameter was less than standard; no action is expected.

Please confirm receipt by checking off the enclosed items and faxing a copy of this memo to me at 808/572-0925. Thank you.

Sincerely,

[Signature]

M. Robertson
State of Hawai‘i
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
WELL COMPLETION REPORT - PART I
Well Construction

Instructions: Please print in ink or type and send completed report (with attachments, if applicable) to the Commission on Water Resource Management, P.O. Box 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 987-2228. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlr/wcm/

1. State Well No.: 5514-05 Well Name: Ho‘ola‘awal Sadri
2. Address: 320 Pa‘ani Pl, Paia 96779 Tax Map Key: 2-9-01:32
3. Drilling Company: Wailani Drilling
4. Drilling method used during construction: ☑ Rotary ☐ Percussion ☐ Other (describe)
5. Date Well Construction (drilled, cased, grouted) completed: 6/12/01
6. Was the subject well cored? ☑ Yes ☐ No
7. Initial water-level encountered 16.8 ft. below ground Date and time of measurement: 5/23/01
8. Step-Drawdown Test completed? ☑ Yes ☐ No Attach Step-Drawdown Test form (1211797 SDPTD Form)
9. Constant Rate Aquifer Test completed? ☑ Yes ☐ No Attach Constant Rate Aquifer Test form (1211797 CRPTD Form)
10. Water-level: 1.61 ft. above msl Date and time of measurement: 6/18/01
11. Chloride: 50 ppm Date and time of sampling: 6/18/01
12. Temperature: 70°F Date and time of measurement: 6/18/01

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 40 gpm at a head of 36 ft. (5 HP)
17. Remarks:

Licensed Driller (print) Mike Robertson C-57 Lic. No. 20115
Signature
Date 6/18/01
Permittee (print) Asghar Sadri
Signature
Date 6/18/01
13. AS-BUILT WELL SECTION

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

Top of sounding tube 135.24 ft.
Hole Diameter: 12 1/2 in.
Elevation at top of casing 134.65 ft., msl*
(to nearest 0.01 ft.)

Minimum of 2" Radius & 4" Thick Concrete Pad

Ground Elevation: 134.65 ft., msl

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

Cement Grout: 12.0 f.t.
(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:
1.61 ft., msl*

2.0% x (Ground Elev. - Water Level Elev.)

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

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

Length: 151 ft.
Nominal Diameter: 6 in.
Wall Thickness: 0.25 in.
Bottom Elevation: -16.19 ft., msl

Open Casing: X Perforated  [Screen
Length: 20 ft.
Nominal Diameter: 6 in.
Wall Thickness: 0.25 in.
Bottom Elevation: -36.19 ft., msl

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

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

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

Stainless Steel: (check one):
○ ASTM A409 (production wells)  ○ ASTM A312 (monitor wells)

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

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

Thermoset Plastic: (check one)
○ Filament Wound Resin Pipe conforming to ASTM D2996
○ Centrifugally Cast Resin Pipe conforming to ASTM D2997
○ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
○ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
○ PTFE Fluorocarbon Tubing conforming to ASTM D3296
○ FEP Fluorocarbon Tubing conforming to ASTM D3296

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

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

Stainless Steel: (check one):
○ ASTM A409 (production wells)  ○ ASTM A312 (monitor wells)

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

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

Thermoset Plastic: (check one)
○ Filament Wound Resin Pipe conforming to ASTM D2996
○ Centrifugally Cast Resin Pipe conforming to ASTM D2997
○ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
○ Glass Fiber ReinforcedResin Pressure Pipe conforming to AWWA C950
○ PTFE Fluorocarbon Tubing conforming to ASTM D3296
○ FEP Fluorocarbon Tubing conforming to ASTM D3296

Page 91201 Page 2 of 4
Pumping Test No. Constant Rate  | Test conducted on: June 18, 2001
--- | ---
5514-05 | 
Discharge 10587.50 ft³/d | 

Transmissivity [ft²/d]: $2.62 \times 10^4$
## Pumping Test No. Constant Rate

**Test conducted on:** June 18, 2001

**Discharge:** 10587.50 ft³/d

**Distance from the pumping well:** 1.00 ft

**Static water level:** 133.68 ft below datum

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<th>Water level</th>
<th>Drawdown</th>
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</table>
December 10, 2002

Mr. Asghar R. Sadri

Dear Mr. Sadri:

Well Completion Report for Well No. 5514-05

We have received your Well Completion Report Part I for the Ho'olawa-Sadri Well (Well No. 5514-05). However, matters which must be addressed before we accept your report as complete are as follows:

1. The wellhead elevation survey must be completed and filed with the Commission.

The permit for this well expires April 23, 2003. No work under this permit may be done after that date. Until the Well Completion Report is accepted, the pump installation permit cannot be issued. Without a pump installation permit, no water may be used from the well.

If you have any questions, please contact Charley Ice of the Commission staff at 587-0251 or toll-free at 984-2400 (Maui), extension 70251.

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

CI: ss

c: Wailani Drilling, Inc.
## 1. Pump Tests Check

**Glenn Bauer** *(initial)*

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Yes</th>
<th>No</th>
<th>If No, Describe Deficiency</th>
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</thead>
<tbody>
<tr>
<td>Step-Drawdown Test</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>followed WCPI Stds</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>analysis attached</td>
<td>☐</td>
<td>☐</td>
<td></td>
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<tr>
<td>proposed pump cap o.k.</td>
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**Aquifer Pump Test**

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<td>followed WCPI Stds</td>
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<tr>
<td>T &amp; S analysis attached</td>
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**Well Interference**

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**Stream Surface Water Impacted**

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**2. Construction Check**

**Mitch Ohye** *(initial)*

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<tr>
<td>followed WCPI Stds</td>
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<tr>
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**3. Charley/Lenore/Ryan** *(initial)*

*Take action based on above analysis*

**ATTACHMENTS FOR PUMP INSTALLATION PERMIT:**

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

*not necessary – only WCP.*

*To be sent to applicant*

**4. Roy** *(initial)*

**5. Subia** *(initial)*

**6. Linnel** *(initial)*

**7. Charley/Lenore/Ryan**

*File*
Performance Curves 40 GPM

Model 40S

FLOW RANGE: 24 - 55 GPM
OUTLET SIZE: 2" NPT
NOMINAL DIA. 4"

OPERATING RANGE: 24 to 55 GPM
CAPACITIES BELOW 24 GPM
SEE MODEL 25S

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

4" MOTOR STANDARD, 1-10 HP/3450 RPM.
6" MOTOR STANDARD, 15-20 HP/3450 RPM.
* Also available with 6" motor.

Performance conforms to ISO 9906 Annex A
© 5 ft. min. submergence.
Performance Curves 16 GPM

Model 16S

FLOW RANGE: 10 -20 GPM

OUTLET SIZE: 1⅛ " NPT

NOMINAL DIA. 4"

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

4" MOTOR STANDARD, 5-5 HP/3450 RPM.

6" MOTOR STANDARD, 7.5 -10HP/3450 RPM.

Performance conforms to ISO 9906 Annex A
© 2 ft. min. submergence.
Geographic Coordinates:
Lat.  20° 55' 50.4"
Long. 156° 14' 29.5"

PLOT PLAN
(Provide Latitude and Longitude of well referenced to NAD27 to nearest second)
November 5, 2002

To: State Water Comm.

Re: Delay in submitting

Enclosed are Well Completion Reports for the following wells:

- Ho’olawa
- Uaoa-Gros
- Huelo-Jone

These Well Completion Reports are beyond the 60-day period due to a misunderstanding of what determined a “completed well”, as well as delays in receiving the survey. It was our understanding that until all work was done on a well, including its well elevation survey, that it was not “complete”, and that we were to hold all paperwork until we secured all such required documentation.

After a recent conversation with Charley Ice, we now understand that you wish us to submit the Well Completion Report Part I within 60 days of drilling, casing, grouting and pump testing the well. Many reports may have to be submitted without their well elevation surveys due to continued difficulty in scheduling surveyors to complete such surveys on Maui.

We have a limited number of surveyors on Maui, and their scheduling is often several months out. A further problem in securing well head elevation surveys are the simple facts that these are small jobs for the surveyors, often in remote areas, and not profitable for their trouble.

We appreciate you patience as we do our best to comply with the requests and standards of the State Water Commission, and in supplying you with the reports and documentation that you wish to receive.

Sincerely,

Michael Robertson
Wailani Drilling Inc.
November 1, 2002

To: State Water Commission

From: Michael Robertson

Re: Well Completion Report Part I w/o Survey

Enclosed is Well Completion Report Part I for the following well:

Ho’olawa-Sadri Well, No.5514-05

This Well Completion Report is being submitted without a survey. We have exhausted every effort to complete the well requirements. However, we have been unable, due to circumstances beyond our control, to secure the well elevation survey for this well. We have included an estimated well head elevation on the Well Completion Report Part I for your information.

We are hereby turning this matter over to the State Water Commission. We are requesting that Wailani Drilling Inc. be released of any further responsibility regarding this matter, and that the Well Completion Report Part I be considered complete on our part.

We appreciate your consideration of this matter.

Sincerely,

Michael Robertson
1. State Well No.: 5514-05  
2. Well Name: Ho'ola'au-Sadri  
3. Island: Maui  
4. Address: 320 Pa'ani Pl  
5. Pāia 96779  
6. Tax Map Key: 2-9-01:32  

### Drilling Company: Wailani Drilling

### Drilling Method Used During Construction: 
- [X] Rotary  
- [ ] Percussion  
- [ ] Other (describe)  

### Date Well Construction (drilled, cased, grouted) completed: 6/12/01

---

### Initial Water-Level Encountered
- 16.8 ft. below ground
- Date and time of measurement: 5/23/01

---

### Step-Drawdown Test Completed? 
- [X] No  
- [ ] Yes

### Constant Rate Aquifer Test Completed? 
- [ ] No  
- [X] Yes

### Parameters Prior to Pump Test:
- Water-level: 4.32 ft. above msl
- Date and time of measurement: 6/18/01
- Chloride: 50 ppm
- Date and time of sampling: 6/18/01
- Temperature: 70°
- Date and time of measurement: 6/18/01

---

### Fill in the As-Built Section on the Other Side of This Sheet.

---

### 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.)

### Remarks:
- Due to circumstances beyond our control, we have been unable to secure a well head elevation for this well. Therefore, our elevations are estimated. (* letter attached)

---

### Licensed Driller (print): Mike Robertson  
### C-57 Lic. No.: 20115  
### Signature: [signature]  
### Date: 6/18/01

---

### Permittee (print): Asghar Sadri  
### Signature: [signature]  
### Date: 6/18/01
13. AS-BUILT W SECTION (Please attach as-built if different from drawing provided below)

**Solid Casing Material:**

- Carbon Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- Stainless Steel: (check one):
  - ASTM A106
  - ASTM A409 (production wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
  - Schedule 40
  - Schedule 80
  - Schedule 120
- Thermoset Plastic: (check one)
  - Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrally Cast Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - FEP Fluorocarbon Tubing conforming to ASTM D3296

**Open Casing Material:**

- Carbon Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- Stainless Steel: (check one)
  - ASTM A106
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)
  - Other
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
  - Schedule 40
  - Schedule 80
  - Schedule 120
- Thermoset Plastic: (check one)
  - Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrally 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
Wailani Drilling Company

Return Receipt Fax Memo

Charley,

Enclosed are the following items:

- Signed Well Completion Report Part 1 for Nahiku-Mau (Well No.4803-01)
- Driller's Log for Nahiku-Mau (Well No.4803-01)
- Elevation Certificate for Nahiku-Mau (Well No.4803-01)

- Signed Well Completion Report Part 1 for Nahiku-Harlow (Well No.4904-01)
- Driller's Log for Nahiku-Harlow (Well No.4904-01)
- Elevation Certificate for Nahiku-Harlow (Well No.4904-01)
- Constant Rate Pump Test results for Nahiku-Harlow (Well No.4904-01)

- Signed Well Completion Report Part 1 for Haiku-Robertson #2 (Well No.5615-06)
- Driller's Log for Haiku-Robertson #2 (Well No.5615-06)
- Elevation Certificate for Haiku-Robertson #2 (Well No.5615-06)
- Constant Rate Pump Test results for Haiku-Robertson #2 (Well No.5615-06)

- Signed Well Completion Report Part 1 for Huelo-Jones (Well No.5413-12)
- Driller's Log for Huelo-Jones (Well No.5413-12)
- Elevation Certificate for Huelo-Jones (Well No.5413-12)
- Constant Rate Pump Test results for Huelo-Jones (Well No.5413-12)

- Signed Well Completion Report Part 1 for Uaoa-Grossman (Well No.5616-08)
- Driller's Log for Uaoa-Grossman (Well No.5616-08)
- Elevation Certificate for Uaoa-Grossman (Well No.5616-08)
- Constant Rate Pump Test results for Uaoa-Grossman (Well No.5616-08)

- Signed Well Completion Report Part 1 for Ho‘olawa-Sadri (Well No.5514-05)
- Driller's Log for Ho‘olawa-Sadri (Well No.5514-05)
- Letter regarding no survey for Ho‘olawa-Sadri (Well No.5514-05)
- Constant Rate Pump Test results for Ho‘olawa-Sadri (Well No.5514-05)

Please confirm receipt by checking off the enclosed items and faxing a copy of this memo to me at 808/572-0925. Thank you.

Sincerely,

Ann Robertson
FAX: Transmitting 10 pages, including this one; call 587-0251 with any reception problems.

TO: Asghar Sadri
FROM: Charles Ice

Date: 11 Dec 01

Transmitting:
1. signed (validated) permit
2. copy of original permit and cover letter w/ important instructions (3 pp)
3. memo requesting renewal of permit
4. original application (2 pp)
5. 2 maps

Survey completed
has not paid for survey
survey won’t be missed

Return Fax: 587-0219
Return Post: P.O.Box 621, Honolulu 96809
**CONSTANT-RATE PUMP TEST DATA**

Pumped Well No. 5514 - 05  
Pumped Well Name Hollen - Sodr  
Target Q 55 gpm  
Observation well no. N/A  
Distance between Obs. & Pumped Well N/A ft.  
Reference pt. for depth to water 13 ft. msl est.  
Static Water Level @ start of test 4.32 ft. msl est.  

Water level measurements by: □ steel tape  □ pressure transducer  □ airline

START TEST Date: 6/18/91  Time of day: 7:30 a.m.

<table>
<thead>
<tr>
<th>START TEST Date: 6/18/91</th>
<th>Time of day: 7:30 a.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Meter Reading Start: 575 gals</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Suggested elapsed time (min)</th>
<th>Actual elapsed time (min)</th>
<th>Depth to water (feet)</th>
<th>Drawdown (unchanged to nearest 0.1 ft)</th>
<th>Pumping rate Q (gpm)</th>
<th>EC (milliS)</th>
<th>CI (mg/l)</th>
<th>Temp. °F or °C</th>
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Data in this table is for: □ Pumped Well  □ Observation Well

Remarks: Start Test  
Start pump/Cl taken

Water level measurements taken by: □ steel tape  □ pressure transducer  □ airline
<table>
<thead>
<tr>
<th>Suggested elapsed time</th>
<th>Actual elapsed time</th>
<th>Depth to water (nearest 0.1 ft)</th>
<th>Drawdown (uncorrected to nearest 0.1 ft)</th>
<th>Pumping rate Q (gpm)</th>
<th>EC (milliSiemens)</th>
<th>Cl⁻ (mg/l)</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>(min)</td>
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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:

2.7, 6400, 00 gals

¹ Chloride sampling required
² Use same ending drawdown figure as start for recovery
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**Data in this table is for:**
- X Pumped Well
- Observation Well

**Remarks:**
- 50% recovery achieved
- 80% recovery not achieved

**END TEST** Date: 6/18/01 Time of day: 4:30 pm

**ADDITIONAL REMARKS:**

Person in charge of pump test (print): Mike 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.
**CONSTANT-RATE PUMP TEST DATA**

Table 2 (CRPTD Form 12/17/97)

**Pumped Well No.** 5514-05

**Pumped Well Name** Dodieon - Sand  

**Target Q** 55 gpm

Observation well no. N/A

Distance between Obs. & Pumped Well N/A ft.

Reference pt. for depth to water 135.29 ft. msl

Static Water Level @ start of test: 1.61 ft. msl

Water level measurements by:  

steel tape  

pressure transducer  

airline

START TEST Date: 6/18/01  
Time of day: 7:30 a.m.

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Data in this table is for:

- Pumped Well
- Observation Well

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

**Table 2 (CRPFD Form 12/17/97)**

Data in this table is for:
- **☐** Pumped Well
- **☐** Observation Well

Remarks:

- 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:

\[27,640.50\] gals
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**Table 2 (CRPTD Form 12/17/87)**

**Data in this table is for:***
- [ ] Pumped Well
- [ ] Observation Well

**Remarks**
- [ ] 80% recovery achieved
- [ ] 80% recovery not achieved

**END TEST Date:** 6/18/81  **Time of day:** 4:30 p.m.

**ADDITIONAL REMARKS:**

**Person in charge of pump test (print):** Mike Robertson

**Signature:** [Signature Image]

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.
Mr. Asghar R. Sadri

Dear Mr. Sadri:

Well Construction Permit
Ho'olawa-Sadri (Well No. 5514-05)

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

Special Conditions

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

2. The well casing must be at least 0.20 inches thick to conform to Standards.

This permit does not authorize work for your permanent pump installation. Approval and issuance of your pump installation permit is contingent upon completed application and information provided to and accepted by Commission staff as required in the Well Construction & Pump Installation Standards (11/23/97) and any special conditions performed under this permit. However, a permanent pump may be installed prior to the permanent pump installation permit issuance in accordance with the Commission's April 15, 1996 Declaratory Ruling No. DEC-ADM96-G9, which states that:

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

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

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

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

If you have any questions, please call Charley Ice of the Commission staff at 587-0251 or toll-free at 984-2400 extension 70251.

Enclosures

c. Wailani Drilling Company
WELL CONSTRUCTION PERMIT

Ho'olawa-Sadri, Well No. 5514-05

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management’s Administrative Rules, Section 13-168, entitled “Water Use, Wells, and Stream Diversion Works”, this document permits the construction and testing of Ho'olawa-Sadri (Well No. 5514-05) at Ho'olawa Stream, Ho'olawa Road, Makawao, Maui, TMK 2-9-1:32, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (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 1/4-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 for water. 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 subject to the Hawaii Well Construction & Pump Installation Standards (January 23, 1997: HWCPIS). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

10. The permit may be revoked 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 of the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon 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(1) 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, 2001
Expiration Date: April 23, 2003

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

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the 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: [Signature]
Printed Name: [Printed Name]
Firm or Title: [Firm or Title]
Date: 5/4/01

Driller’s Signature: [Signature]
Printed Name: [Printed Name]
Firm or Title: [Firm or Title]
License #: [License #]
Date: 5/4/01

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

Attachment c: USGS
Department of Health’s Safe Drinking Water, Wastewater, and Clean Water Branches
UDS, Division of Water Quality

32
WELL NUMBER: 5514-05

DRILLER'S LOG

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Remarks:
WELL NUMBER: 5514-05

DRILLER'S LOG

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Remarks:
April 30, 2001

Mr. Asghar R. Sadri

Dear Mr. Sadri:

Well Construction Permit
Ho'olawa-Sadri (Well No. 5514-05)

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

Special Conditions

1. Attached for your information is a copy of the Department of Health's (DOH) review comments. Please note DOH's requirements related to discharge of effluent from well drilling and testing activities.
2. The well casing must be at least 0.28 inches thick to conform to Standards.

This permit does not authorize work for your permanent pump installation. Approval and issuance of your pump installation permit is contingent upon completed application and information provided to and accepted by Commission staff as required in the Well Construction & Pump Installation Standards (1/23/97) and any special conditions performed under this permit. However, a permanent pump may be installed prior to the permanent pump installation permit issuance in accordance with the Commission's April 15, 1998 Declaratory Ruling No. DEC-ADM98-G5, which states that:

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

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

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

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

If you have any questions, please call Charley Ice of the Commission staff at 587-0251 or toll-free at 984-2400 extension 70251.

Aloha,

GILBERT S. COLOMA-AGARAN
Chairperson

Enclosures

c. Wailani Drilling Company
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 Ho'olawa-Sadri (Well No. 5514-05) at Ho'olawa Stream, Ho'olawa Road, Makawao, Maui, TMK 2-9-1:32, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (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 1/4-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 rules, rules, and ordinances; non-compliance may be grounds for revocation of this permit.

9. The well construction permit application is incorporated into this permit by reference and is subject to the Hawaii Well Construction & Pump Installation Standards (January 23, 1997; 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, 2001
Expiration Date: April 23, 2003

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

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

Permittee's Signature: _______________________________ Date: __________________

Printed Name: _______________________________ Firm or Title: _______________________________

Driller's Signature: _______________________________ C-57 License # : __________________ Date: __________________

Printed Name: _______________________________ Firm or Title: _______________________________

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

Attachment

- USGS
  Department of Health Safe Drinking Water, Wastewater, and Clean Water Branches
  Maui Department of Water Supply
  Wailani Drilling Company
**OMISSION ON WATER RESOURCE MANAGEMENT**

**ROUTE SLIP FOR PERMIT ISSUANCE**

**FROM:** CHARLEY B.
**DATE:** 25 Apr 01  
**SUSPENSE DATE:**

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**WELL NUMBER:** 5514-01  
**WELL NAME:** Hoolawa, Sadri

**WELL CONSTRUCTION**

**ATTACHMENTS FOR WELL CONSTRUCTION PERMIT:**

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

- [ ] TO BE SENT TO APPLICANT
- [ ] FOR OFFICE USE ONLY

**PUMP INSTALLATION**

**ATTACHMENTS FOR PUMP INSTALLATION PERMIT:**

- [ ] 1 COVER LETTER
- [ ] 2 PERMIT (2x)
- [ ] 3 DOH COMMENTS
- [ ] 4 LAND DIV. COMMENTS
- [ ] 5 WCR FORM
- [ ] 6 WUR FORM

- [ ] TO BE SENT TO APPLICANT
- [ ] FOR OFFICE USE ONLY
Transmitted for your review and comment is a copy of the captioned well application which includes a request for a pump installation permit.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. **Please respond by returning this cover memo form by April 23, 2001.**

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Charley Ice of the Commission staff at 587-0251.

**RESPONSE:**

- [ ] A water lease/permit is **required** of this applicant and an application for such will be requested by our division.
- ✗ ✗ A water lease/permit is **not** required of this applicant.
- [ ] A water lease/permit has been obtained by the applicant through lease no. ____________________________
- [ ] Other relevant Land Division rules/regulations, information, or recommendations are attached.
- [ ] No objections
- ✗ ✗ Other comments: **Original source of private title is Land Commission Award No. 960 issued between 1845 and 1855.**

**Contact Person:** Gary Martin  
**Phone:** 587-0421

**Signed:** Gary Martin  
**Date:** 4/12/01
TO: Honorable Bruce S. Anderson, Director
   Department of Health
   Attention: Dennis Tulang, Wastewater Branch
            William Wong, Safe Drinking Water Branch

FROM: Gilbert S. Coloma-Agaran, Chairperson
   Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
Ho'olewa-Sadri (Well No. 5614-05)

Transmitted for your review and comment is a copy of the captioned well application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by April 23, 2001.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Charley Iice of the Commission staff at 587-0251.

Ckly
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, §11-30-30.

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

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

[ ] No comments/objections

Contact Person: MELV W. HAMAMO
Phone: 586-4268

Signed: Molecular Date: 4/17/01
Attached Comments for Well Drilling and Pump Installation Permit Applications Proposing the use of Submersible Pumps

The Department of Health, Safe Drinking Water Branch has the following general comment for Well Drilling/Pump Installation Permit Applications Proposing Use of Submersible Pumps:

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. Please review your pump specifications to be sure that the submersible pump(s) you are proposing to use do not contain materials which could result in either groundwater contamination or drinking water contamination.

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 1997. Treated process wastewater effluent covered by this general permit includes well drilling slurries, lubricating fluids wastewaters, and well purge wastewaters. This general permit does not cover well pump testing. The applicable Notice of Intent Forms and filing fee shall be submitted at least thirty (30) days before the start of discharge to the Department of Health, Clean Water Branch at 919 Ala Moana Boulevard, Room 301, Honolulu, Hawaii 96814-4920 or P.O. Box 3378, Honolulu, Hawaii 96801-3378. Inquiries may be directed to the Clean Water Branch at (808) 586-4309 or by fax at (808) 586-4352.

2. For Well Pump Testing

The discharger shall take all measures necessary to prevent the discharge of pollutants from entering State waters. Such measures shall include, if necessary, containment of the initial discharge until the discharge is essentially free of pollutants. If the discharge is entering a stream or river bed, best management practices shall be implemented to prevent the discharge from disturbing the clarity of the receiving water. If the discharge is entering a storm drain, the discharger must obtain written permission from the owner of that storm drain prior to discharge. Furthermore, best management practices shall be implemented to prevent the discharge from collecting sediments and other pollutants prior to entering the storm drain.
### SECTION 1: WELL LOCATION INFORMATION

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<thead>
<tr>
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<th>Proposed Use</th>
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<td>Proposed Withdrawal</td>
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<td>Aquifer Sector</td>
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<td>System Sustainable Yield</td>
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### SECTION 2: WELL SECTION DATA (enter data in grey cells only)

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<th>Elevation at top of casing</th>
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<th>Rock Packing</th>
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<th>Calculated Aquifer Thickness</th>
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<table>
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<th>County Water Supply (Y/N ?)</th>
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### SECTION 3: CHECKLIST (values to check are shaded)

#### Well Depth
- Theoretical Thickness of Aquifer: 246 ft.
- 1/4 Aquifer Thickness: 61.5 ft.
- Depth of Well below Sea Level: 30 ft. okay (refer to HWCPIS Section 2.2)

#### Well Casing
- Minimum Wall Thickness
  - Material: PVC
  - County or Non-County: non-county
  - Minimum Thickness per standards: 0.280 in.
  - Wall Thickness Provided: 0.250 in. too small (refer to HWCPIS Section 2.4 c)
  - Minimum Length of Solid Casing
    - 90% of ground to top of aquifer: 129.6 ft.
    - Length of solid casing Provided: 160 ft. okay (refer to HWCPIS Section 2.4 d)
  - Casing Material: Sch 40
  - okay (refer to HWCPIS Section 2.4 e)

#### Annular Space
- If the cell above reads #N/A, reference HWCPIS

#### Depth of Grouting
- Calculated Depth of Grouting: 100.8 ft.
- Depth of Grouting provided: 120 ft. okay (refer to HWCPIS Section 2.6 c)
- Thickness of Annular Space: 3.25 in. okay (refer to HWCPIS Section 2.6 d)
TO: Honorable Bruce S. Anderson, Director
   Department of Health
   Attention: Dennis Tulang, Wastewater Branch
   William Wong, Safe Drinking Water Branch

FROM: Gilbert S. Coloma-Agaran, Chairperson
   Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
          Ho'olaw-Sadri (Well No. 5514-05)

Transmitted for your review and comment is a copy of the captioned well application.

We would appreciate your comments on the captioned application for any conflicts or
inconsistencies with the programs, plans, and objectives specific to your department. Please respond
by returning this cover memo form by April 23, 2001

Please find the attached maps to locate the proposed well. If you have any questions about this
permit application, request additional information, or request additional review time, please contact
Charley Ice of the Commission staff at 587-0251.

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
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devices should be routinely inspected and tested.

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

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

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

No comments/objections

Contact Person: Lori N. Kajiwara
   Phone: 586-4294

Signed: Lori N. Kajiwara
   Date: 4-20-2001
Mr. Asghar Sadri

Dear Mr. Sadri:

**Well Construction/Pump Installation Permit Application for Well No. 5514-05**

We acknowledge receipt, on April 4, 2001, of your completed Well Construction/Pump Installation permit application and filing fee for the Ho'olawa-Sadri (Well No. 5514-05). You can expect your application to be processed within ninety (90) days from this date.

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

Please be aware that your driller may have unfinished business with the Water Commission. It would have to be resolved before we could accept his signature on a permit, and no work shall commence unless a copy of the permit has been fully signed by both permittee and driller.

If you have any questions about your permit application, please contact Charley Ice of the Commission staff at 587-0251 or toll-free at 984-2400 extension 70251.

Sincerely,

Linnel T. Nishioka
Deputy Director

C: Wailani Drilling Company
TO: Honorable Bruce S. Anderson, Director
Department of Health
Attention: Dennis Tulang, Wastewater Branch
William Wong, Safe Drinking Water Branch

FROM: Gilbert S. Coloma-Agaran, Chairperson
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
Ho'olawa-Sadri (Well No. 5514-05)

Transmitted for your review and comment is a copy of the captioned well application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by April 23, 2001.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Charley Ice of the Commission staff at 587-0251.

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).

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

No comments/objections

Contact Person: ___________________________ Phone: ____________

Signed: ___________________________ Date: ____________
TO:        Dean Y. Uchida, Administrator
          Land Division
FROM:      Linnel T. Nishioka, Deputy Director
          Commission on Water Resource Management
SUBJECT:   Well Construction/Pump Installation Permit Application
          Ho'olawa-Sadri (Well No. 5514-05)

Transmitted for your review and comment is a copy of the captioned well application which includes a request for a pump installation permit.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. Please respond by returning this cover memo form by April 23, 2001.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Charley Ice of the Commission staff at 587-0251.

RESPONSE:

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

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

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

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

[ ] No objections

[ ] Other comments:

Contact Person: ___________________________ Phone: ______________

Signed: __________________________________ Date: ______________
TO: Honorable Bruce S. Anderson, Director  
Department of Health  
Attention: Dennis Tulang, Wastewater Branch  
William Wong, Safe Drinking Water Branch

FROM: Gilbert S. Coloma-Agaran, Chairperson  
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application  
Ho'olawa-Sadri (Well No. 5514-05)

Transmitted for your review and comment, is a copy of the captioned well application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by April 23, 2001.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Charley Ice of the Commission staff at 587-0251.

C:kky  
Attachment(s)

RESPONSE:

The 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, §§11-20-20.

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

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

No comments/objections.

Contact Person: Lori N. Kajiwara  
Phone: 808-4294

Signed: Lori N. Kajiwara  
Date: 4-20-2001
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**REMARKS:**

LINE (1) WC/PIP Appl. for Well No. 5514-05
LINE (2)
LINE (3)
LINE (4)
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PUBLIC RECORD DATA

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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.
QMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR NEW APPLICATIONS

FROM: CHARLEY               DATE: 4-Apr-01               SUSPENSE DATE: __________

TO: BAUER, G.               INIT. LUM, A.               FOR: 3 Approval
TO: CHING, F.               INIT. NAKANO, L.               3 Signature
TO: FUJII, N.               INIT. NAKANO, D.               4 Information
TO: HARDY, R.               INIT. NISHIOKA, L.               5-16-01
TO: HIGA, D.                INIT. OHSHI, M.               3
TO: HIRANO, E.               INIT. SAKODA, E.               4
TO: ICE, C.                 INIT. SUBIA, S.               5
TO: IMATA, R.               INIT. SWANSON, S.               6
TO: JINNAI, R.              INIT. UYENO, D.               7
TO: KUNIMURA, I.            INIT. YODA, K.               8

WELL NUMBER 65 IU - 05
WELL NAME Hoolawa-Sadri

☐ 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 CONTRACTOR VERIF.  □
8 ALL INFO FILLED IN  ☑
9 BACKGROUND CHECK  □

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

INCOMPLETE ACTION DATES:

DATE ACTION
4 Apr 01 completed appl.

LOCATION ON MAP:  withdrawal area 2 pumps??

BUOWER IP in acceptance since background
check is still pending. See V in report.

☑ Need to follow up w/ letter to Ruben 2926-01
accepting WTR. (May 19, 2000).
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

2. WELL NAME: Hoolau-Sadri Well
island: Maui
Address: End of Hoolau Road
Tax Map Key: 2-9-01-32

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

2. WELL NAME: Hoolau-Sadri Well
island: Maui
Address: End of Hoolau Road
Tax Map Key: 2-9-01-32

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

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

   *State Well No.: [If unknown, please call Commission at 808-643-0228]

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

5. PROPOSED PUMP INFORMATION: Rated Pump Capacity: 20 gpm

   Pump Type (check one):
   [ ] Deep Well Turbine [ ] Rotary
   [ ] Submersible (1) 2 HP (1) 5 HP [ ] Rotary-Displacement
   [ ] Centrifugal [ ] Reciprocating [ ] Impulse

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

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

   [ ] Irrigation (crop)
   [ ] No. of Acres: 10
   [ ] Military
   [ ] Other (explain):

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 2,500 gallons per day
   (b) METHOD OF FLOW MEASUREMENT: Flowmeter

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

9. REMARKS, EXPLANATIONS:
   Will stack pumps for dual system, pressure
   operated, for hours of
   service, and for deep irrigation

   [ ] None

   [ ] Other (explain)

   Well Owner: Asghar Sadri
   (print legibly)
   Signature: Asghar Sadri
   Date: 3/26/01

   Landowner: [ ]
   (print legibly)
   Signature: [ ]
   Date: [ ]

   Commissioner: Waianichi
   (print legibly)
   Signature: [ ]
   Date: [ ]

For official use only
Aquifer System No. 5514-05
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

- 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/Wall Abandonment report and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basalt Wells - bottom elevation of well shall not be deeper than 1/4 of soil cover thickness or, Bottom Elevation of Well Limit = (Water Elevation - 0.25 x Soild Cover Thickness)

Example: Estimated + 2 ft, Water Level Elev. ---+ Bottom Elevation of Well Limit = (2 - 0.25 x 0.5) = -1.5 ft.

Solid Casing Material:
Carbon Steel compliant with (check one or more): ANSI/AWWA C200  API Spec. 5L  ASTM A23  ASTM A139
And compliant with (check one or more): ASTM A242  Type E  Type S  Grade B  Other
Stainless Steel: (check one):
- ASTM A403 (production wells)  ASTM A312 (monitor wells)

ASB Plastic conforming to ASTM F490 and ASTM D1927: (check one)
- Schedule 40  Schedule 80

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

Thermoset Plastic: (check one)
- Phenolic Resin Pipe conforming to ASTM D2068
- Centriline Cast Resin Pipe conforming to ASTM D2097
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3917
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3298
- FEP Fluorocarbon Tubing conforming to ASTM D3295

Open Casing Material:
Carbon Steel compliant with (check one or more): ANSI/AWWA C200  API Spec. 5L  ASTM A23  ASTM A139
And compliant with (check one or more): ASTM A242  Type E  Type S  Grade B  Other
Stainless Steel: (check one):
- ASTM A403 (production wells)  ASTM A312 (monitor wells)

ASB Plastic conforming to ASTM F490 and ASTM D1927: (check one)
- Schedule 40  Schedule 80

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

Thermoset Plastic: (check one)
- Phenolic Resin Pipe conforming to ASTM D2068
- Centriline Cast Resin Pipe conforming to ASTM D2097
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3917
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3298
- FEP Fluorocarbon Tubing conforming to ASTM D3295

HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS

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

- Annular space between hole and casing (min. 3")
- Total Depth 130 ft.
- Rock or Gravel Packing: 11 ft. or more
- Estimated Water Level Elevation: 6 ft. msl
OWNER'S AUTHORIZATION

We, Shirley D. Kiakona and Jack Kiakona, being the owners of the property located at TMK 2-2-9-1-32 hereby authorize Asghar Sadri to proceed with obtaining a well drilling permit on said property prior to closing of escrow. Drilling of well shall not start until after closing of escrow.

Shirley D. Kiakona

Jack Kiakona
Roland Tejano

To: ka]
Subject: RE: info request

-----Original Message-----
From: ka] [mailto:lkajiwara@haha.health.state.hi.us]
Sent: Thursday, April 12, 2001 4:23 PM
To: ReTejano@email.health.state.hi.us
Subject: info request

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septic tank/cesspool info

the property are multi-lots (original T.M.K (2) 2-8-3018) and served by septic and cesspool.

File No. 3823 "Will Steel"
submit date: 2/3/97
plan approval date: 2/20/97
inspection date: 3/15/99
final use approval date: 4/29/99
# of bedrooms: 3

File No. 3823-007 "Donald O Connors"
submit date: 4/14/97
plan approval: 4/16/97
final approval: no final inspection
no final approval for use.

File 3823-008 "Dennis Vandeveldt"
submit date: 10/30/2000
approval date: 10/31/2000
inspection date: 3/15/2000
approval date: on the process

2: 2-4-01:32 hoolawe-sadri well, end of hoolawe road.

File 3751
submit date: 9/8/95
approval date: 9/9/96
inspection date: 12/1/96
final approval: 1/25/97

thank you
roland