## Well Background Check

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MEMO and ROUTE SLIP (ver. 5/11/10)

WCR 1 Check for Well No. 5407-03 (GW regulation route)

1. From Roy [ ] (initial) [Yes] [No]
   - Initial entry in to well index: [✓] [ ]
   - Ingrid's spreadsheet updated needed/done: [✓] [ ]

Pump Tests Check

- Step-Drawdown Test: followed WCPI Stds: [ ] [✓] [ ] [✓] 70 gpm no test required
- Constant Rate Test: followed WCPI Stds: [ ] [✓] [ ] [✓] 50 gpm no test required

Potential Well Interference: [ ] [ ]
Potential Stream Impacts: [ ] [ ] If yes, stream name(s):
Additional Testing or Data Required: [ ] [ ]
Pump Test Comments Attached: [ ] [ ]
Proposed Pump Capacity is OK.: [ ] [✓]

2. Well Log Check - Geology Code for Well Index: [ ] [ ] [ ] [ ] [ ] [ ]

3. Construction Check [ ] Charley/Ryan (initial)
   - Yes [ ] No [ ] NA [ ]
   - data complete: [✓] [ ] [ ]
   - followed Special Cond & elevations: [✓] [ ] [ ]
   - location unchanged from WCPIPA? [ ] [ ] [ ]
     - If yes, is SMA, CD, TMK changed? [✓] [ ] [ ]

ATTACHMENTS FOR PUMP INSTALLATION PERMIT (2x):
1. COVER LETTER
2. COUNTY COMMENTS (DWS/SMA)
3. DOH COMMENTS
4. DLNR COMMENTS (LD/OCCUDHP)
5. WCR 1 Accept
6. WELL CONST. COMPLETION CERTIFICATE
7. USGS MAP UPDATED
8. PARCEL CHECK
9. WELL DATABASE INPUT CHECK
10. PUMP TEST WORKSHEET
11. WELL As-Built CHECK PRINT

4. Roy [ ] (initial) check (Entered WCR 1/WCCC accept date into database)
5. Susan H. [ ] (initial) finalize
6. Bill [ ] (initial) signature
7. Charley/Ryan [ ] File & Enter PIP issue date if attached/required

<water level below sea level>
-14 ft! CI = 20 ppm = seems unlikely info attached

red penciled completed location too.

not necessary – only WCP or BOTH.

To be sent to driller/pump installer

To Landowner

Staff internal checks
**MEMO and ROUTE SLIP** (ver4/29/10/10) 08/24/11

**WCR 2 Check for Well No. 5407-03** (GW regulation route)

1. From Roy (initial)

**Pump Tests Check** (special condition of PIP? Yes/No)

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**Step-Drawdown Test:**
- followed WCPI Stds analysis attached
  - No test required

**Aquifer Pump Test:**
- followed WCPI Stds T & S analysis attached
  - No test required

**Potential Well Interference:**
- No

**Potential Stream Impacts:**
- No

**Additional Testing or Data Required:**
- No

**Pump Test Comments Attached:**
- No

**Proposed Pump Capacity is OK:**
- Yes

2. **Pump Installation Check**

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**ATTACHMENTS FOR ACCEPTANCE:**

- 1WCR2 ACCEPTANCE LETTER
- 2PUMP INST. COMPLETION CERTIFICATE
- 3METER INSTALL. REPORT (IF NECESSSARY)
- 4WUR FORM(if necessary)
- 5USGS MAP UPDATED
- 6PARCEL CHECK
- 7WELL DATABASE INPUT CHECK
- 8PUMP TEST WORKSHEET
- 9PUMP As-Built CHECK PRINT

- To be sent to driller
- To be sent to landowner/operator
- Staff internal checks

3. Roy (initial) check(Entered WCR 2/PICC accept date into database)

4. Susan H. (initial) finalize

5. Bill (initial) signature

6. Charley/Ryan File
August 31, 2011

Mr. Brett Kayzar
P.O. Box 5349
Hilo, HI 96720

Dear Mr. Kayzar:

Combined Certificate of Well Construction and Pump Installation Completion for
Well No. 5407-03 (TMK 3-1-001:051)

We are pleased to inform you that the Well Construction and Pump Installation work permitted for the 31-190 HBR Well (Well No. 5407-03) is complete and acceptable. We welcome you as a new member to the community of well owners and ground water users in Hawaii. This combined certificate allows you to commence pumping your well for reasonable & beneficial water use.

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

1. If the well is not in use it must be properly capped.

2. 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), HAR, prior to any well sealing or plugging work.

3. In the event that the well operator and/or landowner changes, the Commission shall be notified prior to the change.

4. In the event the benchmark in the concrete base of the well is altered in any way, an updated version of the Well Elevation page of the Well Completion Report Part I shall be submitted to the Commission. If a licensed surveyor had estimated the original benchmark elevation then a licensed surveyor must establish the new benchmark elevation. The Well Elevation portion of the Well Completion Report Part I can be obtained by contacting Commission staff or at our website at www.hawaii.gov/dlnr/cwrm/resources_permits.htm.

5. Your approved pump has a capacity of 25 gpm at a head of 235 ft. In the future, pump replacements of equal or lesser capacity will not require an additional permit from the Commission, but will require the submission of a Well Completion Report Part II by the licensed pump installer. If the pump replacement is greater than the existing pump, you will need to apply for a new pump installation permit.
6. The landowner shall cause the well operator to maintain the installed 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), in accordance with §13-168-7, HAR. Blank water use report forms are also available at www.hawaii.gov/dlnr/cwrm/resources_permits.htm

7. 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. The authorization to drill a well and/or install a pump shall not constitute a determination of correlative water rights. The landowner and well operator are notified that the quantity of water taken from the well and/or the pump capacity could be reduced by the Commission in the future.

8. In the event that your installed pump is less than 70 gallons per minute, and no elevation survey has been completed, you may be required to do one in the future.

Because ground water 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 per day. The Commission needs your help and asks that you to 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 587-0255 or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), 984-2400 (Maui), or 1-800-468-4644 (Lanai & Molokai), extension 70255.

Sincerely,

WILLIAM M. TAM
Deputy Director

RI:ss

c: Rod Diamond
August 31, 2011

Mr. Rod Diamond  
Diamond Construction and Water Well Drilling  
HCR#3 Box 14073  
Keeau, HI 96749  

Dear Mr. Diamond:

**Well Completion Report Parts I & II for Well No. 5407-03**

We received your Well Completion Report Parts I & II for the 31-190 HBR Well (Well No. 5407-03) on **August 29, 2011** and acknowledge that they are complete.

This completes your obligation under the well construction and pump installation permits. Certificates of well construction and pump installation completion will be issued to the well operator/landowner and you will receive a copy. These certificates transfer responsibility of specific aspects of well usage and maintenance from you to the well operator/landowner.

If you have any questions, please contact Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), 984-2400 (Maui), or 1-800-468-4644 (Lanai & Molokai), extension 70255.

Sincerely,

WILLIAM M. TAM  
Deputy Director

RI:ss

c: Brett Kayzar
That looks good, yes. Thank you.

Sent from my iPhone

On Aug 29, 2011, at 6:30 AM, Ryan.R.Imata@hawaii.gov wrote:

Thanks Daniel. So just to be clear, the initial water encountered was 221' - 235' = -14' msl. Then when the water rose in the column, the water level prior to casing was 221' - 208' = 13' msl. And then after casing it was the same at 13' msl. Is that all correct?

Ryan

Aloha Ryan,

I think this is what happened. The MSL was 221'. However there was a layer of solid rock preventing the water from coming up. Once we passed through this layer (about 235') it was obvious that we had hit water so we continued for about ten feet (to 245') then tripped out. We checked the water level and it came up to 208'. There may be some artisan pressure causing the water level to come up so high. It is common to see perched water in this area so it could also be a small perch giving us that reading as well, though we did not encounter significant perched water at 208' during drilling. Sorry about the competition report numbers. I'll find out what happened there and make sure it doesn't happen again. Let me know if you have any more questions.

Mahalo,

Daniel Diamond
Sent from my iPad

On Aug 25, 2011, at 2:37 PM, Ryan.R.Imata@hawaii.gov wrote:

Hi Rod / Lorrie / Daniel -

For Well No. 5407-03, you are showing the water level at -14 msl. This seems wrong. You reported the ground elevation at 220', but if you’re off by 20', the water level might be more like 6'. Or was the water artesian? Can you explain?

Thanks,

Ryan
WELL CONSTRUCTION PERMIT
31-190 HBR Well, Well No. 5407-03

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

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management, Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of 31-190 HBR Well (Well No. 5407-03) at TMK 3-1-001:051, 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 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 (HAR).
2. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.
3. The well construction permit shall be for construction and testing of the well only. The permittee shall coordinate with the Chairperson and conduct a pumping test in accordance with the HWCPIS. The latest pump test worksheet can be obtained by contacting Commission staff or at www.hawaii.gov/dlnr/cwrmlresources. The permittee shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson. No withdrawal of water shall be made for purposes other than testing without a Certificate of Pump Installation Completion. The permitted pump capacity described on the pump installation permit may be reduced in the event that the pump test does not support the capacity.
4. 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. If it can be shown that the well does not tap basal ground water then this condition may be waived after consultation with and acceptance by Commission staff. However, in no instance can the well be drilled deeper than one-half (1/2) of the theoretical thickness without Commission approval.
5. The permittee shall incorporate mitigation measures to prevent construction debris from entering the aquatic environment, to schedule work to avoid periods of high rainfall, and to revegetate any cleared areas as soon as possible.
6. In the event that historically significant remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and immediately contact the Department of Land and Natural Resources' State Historic Preservation Division. Work may recommence only after written concurrence by the State Historic Preservation Division.
7. 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.
8. The Well Completion Report Part I shall be submitted to the Chairperson within sixty (60) days after completion of work. Please contact staff or visit www.hawaii.gov/dlnr/cwrmlresources_permits.htm for current form.
9. The permittee shall comply with all applicable laws, rules, and ordinances; non-compliance may be grounds for revocation of this permit.
10. The well construction permit application and, if relevant, any related staff submittal approved by the Commission are incorporated into this permit by reference.
11. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.
12. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.
13. 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 the date the permit expires.
14. If the well is not to be used it must be properly capped. If the well is to be abandoned during the course of the project then the permittee must apply for a well abandonment permit in accordance with §13-168-12(f), HAR, prior to any well sealing or plugging work.
15. 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.
16. This permit shall apply to the location shown on the application only. If the well is to be relocated, the permittee shall apply for a new well construction/pump installation permit in accordance with §13-168-12(f), HAR.
17. Special conditions in the attached cover transmittal letter are incorporated herein by reference.

Date of Approval: June 1, 2010
Expiration Date: June 1, 2012

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 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.

Driller's Signature: [Signature]
C-57 License #: BC-23379
Date: 1-3-11

Printed Name: Rod Diamond
Firm or Title: Diamond Construction and Water Well Drilling

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

Attachment
### State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
WELL COMPLETION REPORT - PART I
Well Construction

Instructions: Please print in ink or type and send completed report (with attachments, if applicable) to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. The Commission may not accept incomplete reports. This form shall be submitted within 60 days of the completion of work. For assistance, please consult the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at 587-0225. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlnr/cwrml

1. State Well No.: 5407-03  Well Name: 31-190 HBR Well  Island: Hawaii
2. Address: 31-190 HI Belt Rd., Kamaee & Wailua Gov't Tract, N. Hilo, Hawaii
3. Drilling Company: Diamond Drilling and Pump
4. Drilling method used during construction: Rotary
5. Date Well Construction (drilled, cased, grouted) completed: 1-5-11

**In addition to the driller’s log, if a geologic log was prepared, please submit with this form.**

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

7. Step-Drawdown Test completed? ☐ No ☐ Yes
   Attach Step-Drawdown Test Form (12/17/97 SDPTD Form)

8. Constant Rate Aquifer Test completed? ☐ No ☐ Yes
   Attach Constant Rate Aquifer Test Form (12/17/97 CRPTD Form)

**Water Level Data:**

<table>
<thead>
<tr>
<th>Reference Point Elevation</th>
<th>Depth to Water (ft.)</th>
<th>Water Level ft. above msl</th>
<th>Date / Time of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground= 221 ft.msl</td>
<td>235</td>
<td>-14</td>
<td>1-4-11 am</td>
</tr>
<tr>
<td>Ground= 221 ft.msl</td>
<td>235 204</td>
<td>-14 13</td>
<td>1-4-11 am</td>
</tr>
</tbody>
</table>

9. Initial encountered during drilling
   (this should also be filled in on the driller’s log)

10. Just prior to casing installation
    After casing installation
    (this information should be before any pump tests are performed with casing installed)

11. Chloride: 20 ppm. Temperature: 71 °F
    If this reference point is not the benchmark, the difference between the benchmark and this point is: 4 in.

12. As-built section filled in completely

13. Attach photograph of well and concrete pad showing benchmark on concrete pad.

14. GPS coordinates provided in degrees, minutes, seconds

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

16. Remarks:

   ![Diamond Drilling & Pump logo]

   Diamond e-mail: 812011

Licensed Driller: Rod Diamond
C-57 Lic. No.: BC 23379

Signature: ____________________________
Date: 11 MAR 11

WCR1 Form 6/12/07 Page 1 of 5
13. AS-BUILT WELL SECTION
(Please attach as-built if different from diagram provided below)

Elevation at top of casing 222 ft., msl
(to nearest 0.01 ft.)

Hole Diameter: 8.5 in.

Minimum of 2' Radius & 4" Thick Concrete Pad

Ground Elevation: 221 ft., msl

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

Grouting method:
☐ Positive displacement
X Other

Cement Grout: 172 ft.
(min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)

Annular space between hole and casing (1.5" for positive displacement, 3" for other methods):
2 in.

Rock or Gravel Packing:
73 ft.
Material:
X Crushed Basalt
☐ Rounded Gravel

Water Level Elevation:
-14 ft., msl*

Total Depth 245 ft.

Solid Casing Material:
Carbon Steel: compliant with (check one or more):
☐ ANSI/AWWA C200 ☐ API Spec. SL ☐ ASTM A53 ☐ ASTM A139
And compliant with (check one or more):
☐ ASTM A242 or A606 ☐ Type E ☐ Type S ☐ Grade B ☐ Other
Stainless Steel: (check one):
☐ ASTM A409 (production wells) ☐ ASTM A312 (monitor wells)
ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one) ☐ Schedule 40 ☐ Schedule 80
PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one):
☐ Schedule 40 ☐ Schedule 80 ☐ Schedule 120
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. SL ☐ ASTM A53 ☐ ASTM A139
And compliant with (check one or more):
☐ ASTM A242 or A606 ☐ Type E ☐ Type S ☐ Grade B ☐ Other
Stainless Steel: (check one):
☐ ASTM A409 (production wells) ☐ ASTM A312 (monitor wells)
ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one) ☐ Schedule 40 ☐ Schedule 80
PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one):
☐ Schedule 40 ☐ Schedule 80 ☐ Schedule 120
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:
☐ Perforated ☐ Screen

Solid Casing: (≤ 90% x (Ground Elev.-Water Level Elev))
Length: 235 ft.
Nominal Diameter: 4.5 inches
Wall Thickness: Schedule 40 in.
Bottom Elevation: -14 ft., msl

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

Solid Casing: (≤ 90% 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.

Minimum of 2' Radius & 4" Thick Concrete Pad

*) msl = mean sea level

*msl = mean sea level

WCR1 Form 10/19/04 Page 2 of 5
**DRILLER'S LOG**

**WELL NUMBER: 5407-03**

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, Chlorides PPM</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 15</td>
<td>Soil</td>
<td>1-4-11</td>
</tr>
<tr>
<td>15 to 25</td>
<td>Soft Basalt</td>
<td></td>
</tr>
<tr>
<td>25 to 36</td>
<td>Basalt</td>
<td></td>
</tr>
<tr>
<td>36 to 45</td>
<td>Red Clay</td>
<td></td>
</tr>
<tr>
<td>45 to 105</td>
<td>Soft Basalt</td>
<td>1-4-11</td>
</tr>
<tr>
<td>105 to 110</td>
<td>Basalt</td>
<td></td>
</tr>
<tr>
<td>110 to 118</td>
<td>Soft Basalt</td>
<td>1-4-11</td>
</tr>
<tr>
<td>118 to 165</td>
<td>Basalt</td>
<td>1-4-11</td>
</tr>
<tr>
<td>165 to 180</td>
<td>Soft Basalt</td>
<td></td>
</tr>
<tr>
<td>180 to 200</td>
<td>Basalt</td>
<td></td>
</tr>
<tr>
<td>200 to 245</td>
<td>Hard Basalt, Water @235 ft., Water level went up to 208 ft., Chlorides 20 ppm</td>
<td>1-4-11</td>
</tr>
</tbody>
</table>

**Remarks:**

Hard Basalt held back water, once it was punched into the water was there @235 ft., ended drilling @245 ft., the water level then went to 208 ft.
SKETCH OF WELL LOCATION
(Referenced to permanent landmark, i.e. building, road, fence, etc.)

Latitude: N 19 degrees 54 min. 16.08 sec.
Longitude: W 155 degrees 07 min. 55.8 sec.

Frontage Rd.
Benchmark Elevation

221.4

I certify that the elevation shown above:
1) Was done in accordance with acceptable surveying practices
2) Is accurate to the nearest 0.01 ft.
3) Is referenced to mean sea level

Surveyor

License No.

Date
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 31-190 HBR Well (Well No. 5407-03) at TMK 3-1-001:051, 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 25 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: June 1, 2010
Expiration Date: June 1, 2012

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: Joe Casper C-57, C-57a, or A License #: BC-23379 Date: 1-3-11
Printed Name: Rod Diamond Firm or Title: Diamond Construction and Water Well Drilling

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

Attachments
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
WELL COMPLETION REPORT - PART II
Pump Installation

Instructions: Please print in ink or type and send completed report (with attachments, if applicable) to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. The Commission may not accept incomplete reports. This form shall be submitted within 60 days of the completion of work. For assistance, please consult the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at 587-0225. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlnr/cwrm.

<table>
<thead>
<tr>
<th>1. State Well No.:</th>
<th>5407-03</th>
<th>Well Name:</th>
<th>31-190 HBR Well</th>
<th>Island: Hawaii</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Address:</td>
<td>31-190 HI Belt Rd., Kamuela &amp; wailua Gov't. Tract, N. Hilo, Hawaii</td>
<td>Tax Map Key:</td>
<td>3-1-001-051</td>
<td></td>
</tr>
<tr>
<td>3. Pump Installation Company:</td>
<td>Diamond Drilling and Pump</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Date Pump Installed:</td>
<td>1-5-11 (Month/day/year)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. PERMANENT PUMP INFORMATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump Type, Make, Serial No.:</td>
<td>SUB / GOUlDS / 18GS20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor Type, H.P., Voltage, rpm:</td>
<td>ITT / 2 HP / 230 V / 3450 RPM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump type (check one):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X Submersible</td>
<td>Rotary-Displacement</td>
<td>Propeller</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Centrifugal</td>
<td>Rotary-Gear</td>
<td>Reciprocating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Deep Well Turbine</td>
<td>Rotary</td>
<td>Impulse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Method of flow measurement:</td>
<td>X Flowmeter</td>
<td>Master</td>
<td>Model no.</td>
<td>PT 92412</td>
</tr>
<tr>
<td>□ Weir</td>
<td>□ Open Pipe</td>
<td>□ Orifice*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Other*, explain below</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*attach schematic

7. Fill in the as-built section on the other side of this sheet.
8. Attach the rating curve for the installed pump.
9. Attach photograph of well clearly showing the benchmark on the concrete pad, the well head, and the method of flow measurement.
10. Well Owner: Brett Kayzar / David Koped
    PO Box 5349
    Hilo, HI 96720
    619-952-1363
11. Land Owner: Same

Pump Installation Contractor (print) Rod Diamond C-57/C-57a/A Lic. No. BC 23379
Signature Date 11 MAR 11
7. AS-BUILT PUMP SECTION
(Please attach as-built if different from diagram provided below)

Bench mark elevation surveyed to nearest 0.01 ft. = ___ ft. mean sea level

Elevation of top of chase tube N/A ft. mean sea level

Pump intake depth = 220 ft. (referenced to bench mark)

Chase tube depth = N/A ft. (referenced to bench mark)

If airline installed, bottom of airline elevation = N/A ft. mean sea level
Hi Rod / Lorrie / Daniel -

For Well No. 5407-03, you are showing the water level at -14 msl. This seems wrong. You reported the ground elevation at 220', but if you're off by 20', the water level might be more like 6'. Or was the water artesian? Can you explain?

Thanks,

Ryan
Well Check Program
4/1/04 - Revised for update to Well Standards (February 2004)

Data Input

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Number</td>
<td>5407-03</td>
</tr>
<tr>
<td>Well Name</td>
<td>31-190 HBR</td>
</tr>
<tr>
<td>Ground Elevation</td>
<td>221</td>
</tr>
<tr>
<td>Cement Grout</td>
<td>172</td>
</tr>
<tr>
<td>Grouting Method</td>
<td>other</td>
</tr>
<tr>
<td>Hole Diameter</td>
<td>8.5</td>
</tr>
<tr>
<td>Total Depth</td>
<td>245</td>
</tr>
<tr>
<td>Water Level</td>
<td>-14</td>
</tr>
</tbody>
</table>

Public Water Supply Well? no

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid Casing Material</td>
<td>pvc plastic</td>
</tr>
<tr>
<td>Schedule 40</td>
<td></td>
</tr>
<tr>
<td>Solid Casing Length</td>
<td>235</td>
</tr>
<tr>
<td>Solid Casing Diameter</td>
<td>4.5</td>
</tr>
<tr>
<td>Solid Casing Wall Thickness</td>
<td>0.000</td>
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<tr>
<td>Open Casing Length</td>
<td>10</td>
</tr>
</tbody>
</table>

Results

### Well Depth

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical Thickness of Aquifer</td>
<td>-574</td>
</tr>
<tr>
<td>1/4 Aquifer Thickness</td>
<td>-143.5</td>
</tr>
<tr>
<td>Depth of Well below Sea Level</td>
<td>-24 too deep</td>
</tr>
</tbody>
</table>

### Well Casing

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Wall Thickness Material</td>
<td>pvc plastic</td>
</tr>
<tr>
<td>Minimum Thickness per standards</td>
<td>no requirement</td>
</tr>
<tr>
<td>Wall Thickness Provided</td>
<td>0 no standard</td>
</tr>
<tr>
<td>Minimum Length of Solid Casing</td>
<td>211.5</td>
</tr>
<tr>
<td>90% of ground to top of aquifer</td>
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</tr>
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<td>Length of solid casing Provided</td>
<td>235 okay</td>
</tr>
<tr>
<td>Casing Material Schedule 40</td>
<td>in compliance</td>
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<tr>
<td>(for pvc only - check for 200' limit)</td>
<td>too deep for plastic</td>
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### Annular Space

<table>
<thead>
<tr>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Depth of Grouting</td>
<td>164.5</td>
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<tr>
<td>Calculated Depth of Grouting</td>
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<td>Depth of Grouting provided</td>
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<td>Minimum Annular Space required</td>
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<td>Thickness of Annular Space</td>
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<td>TO:</td>
<td>INIT.</td>
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<tr>
<td>CHENG, C.</td>
<td></td>
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<tr>
<td>DANBARA, S.</td>
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<tr>
<td>HARDY, R.</td>
<td></td>
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<tr>
<td>ICE, C.</td>
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</tr>
<tr>
<td>IMATA, R.</td>
<td></td>
</tr>
</tbody>
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**WELL NUMBER**: 5407-03  
**WELL NAME**: 31-190 HBR

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<tr>
<th>application type</th>
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<tr>
<td>1 WCP COVER LETTER</td>
<td>✓</td>
</tr>
<tr>
<td>2 WCP</td>
<td></td>
</tr>
<tr>
<td>3 WELL CHECK PRINTOUT</td>
<td>✓</td>
</tr>
</tbody>
</table>

**COMMENTS**:  
- date rec'd:  
- issues?:  
- if checked, send to applicant:  

| 6 | SDWB | ✓ |
| 7 | WWB | ✓ |
| 8 | CBW | ✓ |
| 9 | HEER | ✓ |
| 10 | LD | ✓ |
| 11 | HP | ✓ |
| 12 | LUC | not in CD | ✓ |
| 13 | OCCL | not in CD | ✓ |
| 14 | SMA | in SMA | ✓ |
| 15 | BWS (Oahu) | | |

**NOTES:**  
**DRILLER**: Rod Diamond  
Diamond Construction and Water Well Drilling  
23379  
HCR#3 Box 14073  
Keeau HI 96749  
| phone | 966-4129 |
| fax | 966-4129 |
| cell | 987-8100 |

**PUMP CAPACITY**: 25  
**WELL OWNER**: Brett Kayzar  
**LAND OWNER**: Brett Kayzar  
**COMMENT DEADLINE**: 7/15/10
July 12, 2010

Mr. Rod Diamond
Diamond Construction and Water Well Drilling
HCR #3 Box 14073
Keeau, HI 96749

Dear Mr. Diamond:

Pump Installation Permit
31-190 HBR Well (Well No. 5407-03)

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 586-4700 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 587-0255.

Sincerely,

LAURA H. THIELEN
Chairperson

Enclosure

c: Brett Kayzar (with applicable comments – DOH SDWB, WWB, CWB)
USGS
Hawaii DWS
PUMP INSTALLATION PERMIT
31-190 HBR Well, Well No. 5407-03

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 31-190 HBR Well (Well No. 5407-03) at TMK 3-1-001:051, 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 25 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: June 1, 2010
Expiration Date: June 1, 2012

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: __________________________ C-57, C-57a, or A License #: BC-23379 Date: ________________

Printed Name: Rod Diamond Firm or Title: Diamond Construction and Water Well Drilling

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

Attachments
July 12, 2010

Mr. Rod Diamond
Diamond Construction and Water Well Drilling
HCR#3 Box 14073
Keeau, HI 96749

Dear Mr. Diamond:

Well Construction Permit
31-190 HBR Well (Well No. 5407-03)

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 a permanent pump. As part of the Chairperson's approval, the following special conditions were added and are part of your permit under Permit Condition 17:

Special Conditions

1. 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 586-4700 to check compliance with construction noise permit requirements for this project.

2. The well exceeds 200' limit for PVC and well shall be grouted in lifts to be in compliance with Section 2.4 (d) of the Hawaii Well Construction and Pump Installation Standards.

Please refer to the Permit Processes Worksheet (transmitted with your acknowledgement letter) for further information regarding the process of drilling a well and installing a pump.

No withdrawal of water shall be made other than for testing purposes until a certificate of pump installation completion has been issued by the Commission.

Please sign both permit originals and return one copy to the Commission office for our files. For copies of the aquifer pump test worksheet, please call staff or visit www.state.hi.us/dlnr/cwrm/forms.htm.

IMPORTANT - Drilling work shall not commence until a fully signed permit is returned to the Commission. The permit shall be prominently displayed or made available at the construction site during construction. 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.

If you have any questions, please call Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), 984-2400 (Maui), or 1-800-468-4644 (Lanai & Molokai), extension 70255.

Sincerely,

LAURA H. THIELEN
Chairperson

Enclosures

c: Brett Kayzar (with applicable comments – DOH SDWB, WWB, CWB)
USGS
Hawaii DWS
WELL CONSTRUCTION PERMIT
31-190 HBR Well, Well No. 5407-03

Note: This permit shall be prominently displayed at the construction 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 31-190 HBR Well (Well No. 5407-03) at TMK 3-1-001:051, 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 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 (HAR).

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

3. The well construction permit shall be for construction and testing of the well only. The permittee shall coordinate with the Chairperson and conduct a pumping test in accordance with the HWCPIS (the latest pump test worksheet can be obtained by contacting Commission staff or at www.hawaii.gov/dlnr/cwrmlresources_permits.htm). The permittee shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson. No withdrawal of water shall be made for purposes other than testing without a Certificate of Pump Installation Completion. The permitted pump capacity described on the pump installation permit may be reduced in the event that the pump test does not support the capacity.

4. 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. If it can be shown that the well does not tap basal ground water then this condition may be waived after consultation with and acceptance by Commission staff. However, in no instance can the well be drilled deeper than one-half (1/2) of the theoretical thickness without Commission approval.

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

6. In the event that historically significant remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and immediately contact the Department of Land and Natural Resources’ State Historic Preservation Division. Work may recommence only after written concurrence by the State Historic Preservation Division.

7. 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.

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

9. The permittee shall comply with all applicable laws, rules, and ordinances; non-compliance may be grounds for revocation of this permit.

10. The well construction permit application and, if relevant, any related staff submittal approved by the Commission are incorporated into this permit by reference.

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

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

13. 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 the date the permit expires.

14. If the well is not to be used it must be properly capped. If the well is to be abandoned during the course of the project then the permittee must apply for a well abandonment permit in accordance with §13-168-12(f), HAR, prior to any well sealing or plugging work.

15. 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.

16. This permit shall apply to the location shown on the application only. If the well is to be relocated, the permittee shall apply for a new well construction/pump installation permit in accordance with §13-168-12(f), HAR.

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

Date of Approval: June 1, 2010
Expiration Date: June 1, 2012

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 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.

Driller’s Signature: ___________________________ C-57 License #: BC-23379 Date: ___________________________
Printed Name: Rod Diamond Firm or Title: Diamond Construction and Water Well Drilling

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

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<tr>
<td>Well Name</td>
<td>31-190 hbr</td>
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<tr>
<td>Ground Elevation</td>
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<td>Cement Grout</td>
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<td>Grouting Method</td>
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### Results

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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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#### Well Depth

- **Depth of Grouting**
  - Calculated Depth of Grouting: 135.8
  - Depth of Grouting provided: 154 okay

#### Well Casing

- **Minimum Wall Thickness**
  - Material: pvc plastic
  - Minimum Thickness per standards: no requirement
  - Wall Thickness Provided: 0 no standard
- **Minimum Length of Solid Casing**
  - 90% of ground to top of aquifer: 174.6
  - Length of solid casing Provided: 200 okay

#### Annular Space

- **Depth of Grouting**
  - Calculated Depth of Grouting: 135.8
  - Depth of Grouting provided: 154 okay
- **Minimum Annular Space required**
  - Thickness of Annular Space: 2 okay
FROM: Ken C. Kawahara, P.E., Deputy Director  
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application  
31-190 HBR Well (Well No. 5407-03) TMK: 3-1-001:051

TO: Dr. Pualalaokalani Aiu, Administrator  
Historic Preservation  
Attn: Theresa Donham

April 28, 2010

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 June 1, 2010. 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 or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255. If you require additional information regarding specific information that can be provided by the applicant, please contact the applicant directly at the contact information provided on the application form.

RI:ss  
Attachment(s)

RESPONSE:

[ ] This is a [ ] public (county or state) project [ ] private project and [ ] will [ ] may disturb historic sites.

We concur that the work described under this permit will not disturb historic sites.

[ ] We do not concur that the work described under this permit will not disturb historic sites. We require the following for our concurrence:

Contact Person: Theresa Donham  
Phone: 933-7653

Signed: ____________________________  
Date: 6/9/10
April 28, 2010

TO: Honorable Chivome L. Fukino, M.D., Director
    Department of Health
Attention: Acting Chief, Wastewater Branch
Stuart Yamada, Chief, Safe Drinking Water Branch
Alec Wong, Chief, Clean Water Branch
Dr. Keith Kawaoka, Office of Hazard Evaluation and Emergency Response

FROM: Laura H. Thielen, Chairperson
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
31-190 HBR Well (Well No. 5407-03)

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 June 1, 2010. 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 587-0255.

RI: Attachment(s)

RESPONSE:

This well qualifies as a source which will serve as a source of possible 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.

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 characteristics. 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 possible and non-potable purposes in a single system, the user shall eliminate cross-connections and backflow connections by physically separating possible and non-potable systems by an air gap and an approved backflow preventer and by clearly labeling all non-potable systems 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 or 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 [ ]

In the event that the location of the well changes but is still within the parcel described on this application, our division considers the comments to still be applicable, and we do not need to review the new location.

Contact Person: L. Haner, Phone: 966-4705

Signed: [Signature]

Date: June 3, 2010

Laura H. Thielen, Chairperson
Subject: Well Construction/Pump Installation Permit Application(s)

Well No(s): 3069-02, 3160-04, 4157-02, 3686-03, 3767-13, 5407-03, 5100-02, 2189-02, 9446-10, 3067-17, 3087-78

The Department of Health, Clean Water Branch (CWB) 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 (HAR), Title 11, Chapter 55, Appendix I, effective October 22, 2007, and compiled June 15, 2009. Treated process wastewater effluent covered by this general permit includes well drilling slurries, lubricating fluids wastewater, and well purge wastewater. This general permit does not cover well pump testing. The applicable Notice of Intent (NOI) Forms and filing fee shall be submitted at least 30 calendar days before the start of discharge to the:

Department of Health
Clean Water Branch
919 Ala Moana Boulevard, Room 301
Honolulu, Hawaii 96814-4920

The CWB-NOI Forms are available online at http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html. Inquiries may be directed to the CWB at (808) 586-4309 or by fax (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 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 the 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.
3. For Construction Activities Disturbing One (1) or More Acres of Total Land Area

By HAR, Title 11, Chapter 55, Appendix C, effective October 22, 2007, and compiled June 15, 2009, an NPDES permit or Notice of General Permit Coverage is required before the start of the construction activities that result in the disturbance of one (1) or more acres of total land area, including clearing, grading, and excavation. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NOI (see Comment No. 1, above) shall be submitted 30 calendar days before the start of construction activities.
April 28, 2010

TO: Morris Atta, Administrator
Land Division

FROM: Ken C. Kawahara, P.E., Deputy Director
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
31-190 HBR Well (Well No. 5407-03) TMK 3-1-001:051

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 June 1, 2010. 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 587-0255.

RESPONSE:

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

[X] 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

[X] Other comments: Original source of private title is Grant 912 issued prior to statehood.

Contact Person: Gary Martin
Phone: 587-0421

Signed: Gary Martin
Date: 6/1/10
In General:

Q = 250 gpd
use = Domestic
location = Oahu, HI
(above ground) UIC line
grd. elev. = 20 ft
well dia. = 4.5" ( drilled )
well depth = 220 ft

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 June 1, 2010. 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 587-0255.

RESPONSE:

This well qualifies as a source which will serve as a source of palatable 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 Portable Water Systems, §11-20-29.

This well does not qualify as a source serving a public water system (serves less than 25 people of 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 minimizing 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 apertures 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 permissible 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.

In the event that the location of the well changes or is still within the parcel described on this application, our division considers the comments to still be applicable, and we do not need to review the new location.

No comments/objections.

Contact Person: Michael Miyahira
Phone: 587-4588
Date: 5/12/10

Signed: ____________________________
CWRM Application Source: 31-190 HBR Well
(State Well No. 5407-03)

Safe Drinking Water Branch Engineering Section

See attached private water wells information sheet.

Underground Injection Control (UIC)

In general, a shallow well, or a well that recharges quickly from local rainfall, should not be used as a potable water source because such a well increases the risk of having unsatisfactory groundwater quality that when consumed may compromise health. Factors that directly influence a well’s groundwater quality include wastewater disposal systems (cesspools, septic systems, drainage wells), lawn/garden/crop-growing activities, and even the proximity to the ocean where salt water intrusion may occur.
**WARNING!** As the owner of a privately-owned well, you should **NOT** assume that water from your well is safe for consumption. It is your responsibility to make sure that your well water is safe to drink. The only way to do this is to have your well regularly tested for bacteriological and chemical contaminants.

There are no regulations controlling water quality in private wells serving individual residences as there are for public water systems (public or privately owned utilities supplying water to 25 or more people or 15 service connections). In other words, there are no enforceable limits for contaminants and no requirements for regular testing. Private wells are often found in rural areas, where many activities such as onsite wastewater disposal can contaminate the ground water.

**U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) RECOMMENDATIONS**

The EPA recommends that private well owners test their well water each year for such contaminants as Total Coliform Bacteria, Nitrates, as well as any other contaminants that may be of concern in your area. More frequent testing may be appropriate if you suspect a problem. EPA also suggests that you consider testing for pesticides, organic chemicals, and heavy metals before using it for the first time. Please refer to the EPA website on Private Drinking Water Wells at [http://www.epa.gov/safewater/privatewells/faq.html](http://www.epa.gov/safewater/privatewells/faq.html)

**OTHER CONTAMINANTS**

Water testing can be very expensive. It is important that you spend time to identify what other potential contaminants may be of concern. Please refer to the EPA website on Private Drinking Water Wells at [http://www.epa.gov/safewater/privatewells/whatyoucando.html](http://www.epa.gov/safewater/privatewells/whatyoucando.html) for more helpful information. Be aware of what land how you use and dispose of household and garden chemicals. Also determine the location of nearby septic tanks or cesspools, and agricultural or industrial activities in the area. General information on known chemical contamination of ground water in Hawaii can also be found at the DOH website [www.hawaii.gov/health/environmental/water/sdwb/conmaps/pdf/conmaps05.pdf](http://www.hawaii.gov/health/environmental/water/sdwb/conmaps/pdf/conmaps05.pdf)

**LABORATORIES**

Local commercial laboratories can be found in the yellow pages of the telephone book under "Laboratories, Analytical." Whenever possible, utilize a laboratory that is certified or approved for the specific drinking water tests and carefully follow their instructions for collecting, storing, and transporting the samples. Just be sure to ask the lab to use EPA approved methods for drinking water analysis. A list of labs certified or approved by the Department of Health can be found at [www.hawaii.gov/health/environmental/water/sdwb/sdwb/pdf/Testing%20Labs.pdf](http://www.hawaii.gov/health/environmental/water/sdwb/sdwb/pdf/Testing%20Labs.pdf). As lab certification status changes constantly, confirm their status when you contact the lab. Please note that the list is limited to currently regulated contaminants in public water systems.

**RESULTS**

Once the lab provides you with the test results, you will be in a better position to determine if your well water is safe to drink or what contaminant you need to treat for. Generally, you should compare the results with Federal ([www.epa.gov/safewater/mcl.html](http://www.epa.gov/safewater/mcl.html)) and State ([www.hawaii.gov/health/environmental/water/sdwb/sdwb/pdf/State%20MCL.pdf](http://www.hawaii.gov/health/environmental/water/sdwb/sdwb/pdf/State%20MCL.pdf)) drinking water standards. Where your test results are greater than the State or Federal maximum contaminant levels, your well water should be considered as **unsafe** for consumption.
TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attention: - Acting Chief, Wastewater Branch
Stuart Yamada, Chief, Safe Drinking Water Branch
Alec Wong, Chief, Clean Water Branch
Dr. Keith Kawaoka, Office of Hazard Evaluation and Emergency Response

FROM: Laura H. Thielen, Chairperson
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
31-190 HBR Well (Well No. 5407-02)

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 June 1, 2010.** 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 587-0255.

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 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 II, 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 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 located near the proposed well site (information attached).

- An NPDES permit is required.

- Other relevant DOH rules/regulations, information, or recommendations are attached.
### General Information

**Application Information**
- **Permit ID:** 20491
- **IWS Type:** Cesspool-New
- **Legacy File #:** N/A
- **Island:** Hawaii
- **eHawaii ID:** N/A
- **Status:** Plan Approved
- **Variance ID:**
- **Source:** WWB

**Project Information**
- **Engineer:** Ronald D Nickel
- **TMK:** 331001051
- **Street Address:**
- **Street Address 2:**
- **Suite/Apt.:**
- **City:** HI
- **Zip Code:**

**Payment Information**
- **Payment Type:** Check
- **Check Number:** 3738
- **Amount:** $100.00
- **Check Date:** 2/22/2006
- **Payor:** ERICKSON

**Review Information**
- **Submit Date:** 2/22/2006
- **Reviewed:** 4/12/2006
- **Plan Approved:** 4/12/2006
- **No Final Approval Ltr:**
- **Inspection Date:**
- **Final Approval:**
- **Termination Date:**

**Payment Information**
- **Approval to Build:**
- **Exception Report:**
- **Inspection Deficiency Report:**

**Added By:** phsieh 2/26/2007 10:55 AM  **Last Modified:**

---

http://onestop.eha.local/wwb/Permits/PermitFacility.aspx?couponID=c6e7bf31-4a16-468f-9fb6-bd2d387636078&FileNumber=081B=tabFacd
IWS System Information

Cesspool Information

| Cesspool Depth: | 10 ft |
| Cesspool Diameter: | 6 ft |
| Cover Diameter: | ft |
| Size of access thru cover: | in |
| 6" Inspection Port w/Cap to Grade: | |
| Lining Type: | |
| Remarks: | 

Added By: phsieh 2/26/2007 10:55 AM   Last Modified:

Save
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR NEW APPLICATIONS

FROM: RYAN                     DATE: 20-Apr-10  SUSPENSE DATE: 27-Apr-10

TO:  INIT.  TO:  INIT.  FOR:  PLEASE:
FUJII, N.  ____  KUNIMURA, I.  ____  Approval  See Me
HARDY, R.  ____  NAKAMA, L.  ____  1  Review & Comment
HOAGBIN, S.  ____  UYENO, D.  ____  3  Signature  Take Action
ICE, C.  ____  YODA, K.  ____  Information
IMATA, R.  ____
KAWAHARA, K.  ____

WELL NUMBER 5407-03  WELL NAME 31-190 HBR  WUP Number na

☐ WELL CONSTRUCTION  ☐ PUMP INSTALLATION  ☐ WUPA

ATTACHMENTS 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/CDUP/SMA pre-screen

(SMA map printout http://gis.hicentral.com/website/parcelzoning/viewer.htm, or INGRID’S SMA/CD MAP)
(LUC map printout http://luc.state.hi.us/luc_maps.htm, or INGRID’S SMA/CD MAP)

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

INCOMPLETE ACTION DATES:

DATE  ACTION

9 expire notices - status of this week
Did you respond to his email yet? This is part of it.

☐ I will do,
April 28, 2010

Mr. Rod Diamond
Diamond Construction and Water Well Drilling
HCR #3 Box 14073
Keeau, HI 96749

Dear Mr. Diamond:

Well Construction/Pump Installation Permit Application for Well No. 5407-03

We acknowledge receipt, on April 16, 2010, of your completed Well Construction/Pump Installation permit application and filing fee for the 31-190 HBR Well (Well No. 5407-03). You can expect your application to be processed within ninety (90) days from this date.

For your information, the attached table describes the process, responsible parties, and deadline requirements for drilling or modifying a well and installing, modifying, or replacing a pump.

By this acceptance letter, we are also notifying the well operator/landowner that water may not be pumped for purposes other than testing until the certificate of well construction/pump installation completion letter is issued to the well operator and landowner. Additionally, the permitted pump capacity described on the pump installation permit may be reduced in the event that the pump test does not support the capacity. No certificate of pump installation will be issued until the Commission has determined that the pump capacity will not have adverse effects on the aquifer, other nearby wells, or streams. In other words, you may need to remove the pump and install a smaller pump at the Commission’s discretion before you can withdraw water for purposes other than testing.

If you have any questions about your permit application, please contact Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), 984-2400 (Maui), or 1-800-468-4644 (Lanai & Molokai) extension 70255.

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director

RI:ss
Attachment
c: Brett Kayzar
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 June 1, 2010. 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 587-0255.

RESPONSE:

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

In the event that the location of the well changes but is still within the parcel described on this application, our division considers the comments to still be applicable, and we do not need to review the new location.

No comments/objections

Contact Person: ____________________________ Phone: ____________________________

Signed: ____________________________ Date: ____________________________
April 28, 2010

TO: Morris Atta, Administrator  
    Land Division

FROM: Ken C. Kawahara, P.E., Deputy Director  
    Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application  
         31-190 HBR Well (Well No. 5407-03) TMK 3-1-001:051

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 June 1, 2010. 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 587-0255.

RESPONSE:

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

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

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

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

[ ] No objections

[ ] Other comments:

Contact Person: ___________________________ Phone: ___________________________

Signed: ___________________________ Date: ___________________________
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 June 1, 2010.** 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 or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255. If you require additional information regarding specific information that can be provided by the applicant, please contact the applicant directly at the contact information provided on the application form.

**RESPONSE:**

[ ] This is a [ ] public (county or state) project [ ] private project and [ ] will [ ] may disturb historic sites.

[ ] We concur that the work described under this permit will not disturb historic sites.

[ ] We do not concur that the work described under this permit will not disturb historic sites. We require the following for our concurrence:

Contact Person: ___________________________ Phone: ______________

Signed: ___________________________ Date: ______________
Ms. Bobby Jean Leithead Todd  
Planning Director  
Planning Department  
County of Hawaii  
101 Aupuni Street, Suite 3  
Hilo, HI 96720  

Dear Ms. Todd:  

Special Management Area Use Permit Requirements for  
Well Construction/Pump Installation Permit Application  
31-190 HBR Well (Well No. 5407-03)  

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 SMA permitting  
requirements specific to your division. **Please respond by returning this cover memo form by June 1,  
2010.** 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 587-0255.  

Sincerely,  

[Signature]

Chairperson  

RI:ss  

RESPONSE:  

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

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

[ ] No objections  

[ ] Other comments:  

Contact Person: ___________________________ Phone: ___________________  

Signed: ___________________________ Date: ___________________
Assessed values and Building Details reflect tax year 2010 for Oahu, and 2009 for all other islands. Taxes reflect tax year 2009.

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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.

Copyright ©4/19/2010 by Hawaii Information Service
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Click here to enter search criteria for prior complaints history ->
For prior complaints and disciplinary history, contact licensing and business information center at (808) 587-3295.
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REMARKS:  
LINE (1) 31-190 HBR Well  
LINE (2) Grosskreutz Well  
LINE (3) Modification for WUPA No. 772  
LINE (4)  
LINE (5)  
LINE (6)  
LINE (7)  
LINE (8)  
LINE (9)  
LINE (10)
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 the non-refundable filing fee of $25.00 payable to the Dept of Land and Natural Resources. The application may not accept incomplete applications. For assistance, call the Administration Branch at 808-668-3486. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

WELL LOCATION INFORMATION

6. LANDOWNER’S NAME/COMPANY
   Brett Kayzar / David Koped

Landowner’s Contact same

Well Operator’s Mailing Address
31-190 Hawaii Belt Rd.
PO Box 5349
Hilo, HI 96720

Well Operator’s Phone
619-692-1363

Landowner’s Fax
619-291-9442

Well Operator’s Fax

Landowner’s E-mail
brettkayzar@yahoo.com

PROPOSED WELL CONSTRUCTION

8. Construction Type
   X Drilled

10. Proposed Work
   X Install New Pump
   ☐ Replace Pump

11. Proposed Pumping Rate, gpm (gallons per minute)
   25

12. Proposed Amount of Withdrawal, gpd (gallons per day)
   250

13. Method of flow measurement
   ☐ Open Pipe
   ☐ Weir
   ☐ Orifice
   ☐ Other

9. Is this well part of a battery of wells? [Yes X 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. Deferred)
   X 16 Domestic Number of units to be served:
   1

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

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

17. Military (describe)

20. Other (describe)

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

22. Conservation District Use Permit (CDUP)

X Well is in Conservation District

X CDUP P

☐ Not Required (attach documentation from CDU)

I have not checked with CCC about whether or not a CDUP is required. I understand that checking with the County 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.

23. Historic Preservation District (HPD) of the DLNR

I have 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 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. Additionally, the history of past land use is attached.

24. Water Use Permit No. (if applicable)
   ☐ Additional remarks, explanations, etc. (attach additional sheet if more space is needed)
   ☐ Deferred

NOTE: Signing below indicates that the signatures understand and swear that the information provided is accurate and true to the best of their knowledge. For assistance, call the Administration Branch at 808-668-3486. The application may not accept incomplete applications. For more information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

24. WELL DRILLER (Must be filled out if application is for Well Construction) Rodney K Diamond
   License/business name
   BC23379
   HCR #3 Box 14073 Keaau HI 96749
   987-8100 966-4129

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation) Rodney K Diamond
   License/business name
   BC23379
   HCR #3 Box 14073 Keaau HI 96749
   987-8100 966-4129
PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Elevation at top of casing: 201 ft., msl

Hole Diameter: 8.5 inches

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

Ground Elevation: 200 ft., msl

Cement Grout: 154 ft.
(min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)

Grouting method:
1. Positive Displacement
2. Other

Annular space between hole and casing (1.5' for positive displacement, 3' for other methods):

2 in.

Total Depth: 220 feet

Rock or Gravel Packing:
66 ft.

Material:
- x Crushed Basalt
- o Rounded Gravel

Estimated Water Level Elevation:
6 ft., msl

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

Total Length: __ 200 ft.
Nominal Diameter: __ 4.5 in.
Wall Thickness: __ S40 in.
Bottom Elevation: __ 0 ft., msl*

Open Casing:
- Perforated
- Screen

Total Length: __ 20 ft.
Nominal Diameter: __ 4.5 in.
Wall Thickness: __ S40 in.
Bottom Elevation: __ 20 ft., msl*

Open Hole:
Length: __ NA ft.
Diameter: __ in.
Bottom Elevation: __ ft., msl*

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

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or,
Bottom Elevation of Well Limit = (Water Elevation - 41 x Water Level Elevation / 4)
Example: Estimated + 2 ft. Water Level Elev.>>> Bottom Elevation of Well Limit = (2 - 41 x (2) / 4) = -18.5 ft.

Solid Casing Material:
Carbon Steel: compliant with (check one or more): • ANSI/AWWA C200 • API Spec. 5L • ASTM A53 • ASTM A139
And compliant with (check one or more): • ASTM A424 (or A606) • 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)
- X Filament Wound Resin Pipe conforming to ASTM D2296
- Centrifuagally Cast Resin Pipe conforming to ASTM D2297
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3206

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 A424 (or A606) • 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
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WCPI App. Form 5/20/09