



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

LAURA H. THIELEN
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WILLIAM D. BALFOUR, JR.
SUMNER ERDMAN
NEAL S. FUJIWARA
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DONNA FAY K. KIYOSAKI, P.E.
LAWRENCE H. MIKE, M.D., J.D.
KEN C. KAWAHARA, P.E.
DEPUTY DIRECTOR

STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

February 17, 2010
Honolulu, Oahu

Joseph Reid
**VIOLATIONS AND APPLICATION FOR
AFTER-THE-FACT WELL CONSTRUCTION / PUMP INSTALLATION PERMITS**
Reid Well (Well No. 5610-03)
Well Construction: 4-inch Casing Diameter, 76-ft Deep Well
Pump Installation: 16 gpm for Domestic use
TMK 3-4-003:003, Hawaii

APPLICANT:

Joseph Reid
9685 SW 19th Ave. Road
Ocala, FL 34476

LANDOWNER:

Same

DESCRIPTION:

Location: (See Exhibit 1)

Dimensions: (See Exhibit 2)

BACKGROUND:

On September 6, 1996, the property was purchased by Joseph and D-on Reid. According to the applicant, at the time of purchase, there was an illegal shed on the property, along with a catchment reservoir and a water well with no pump installed.

On November 9, 1998, the County determined that no Special Management Area permit was required for the construction of a single-family dwelling and related improvements. Sometime thereafter, the single family dwelling was constructed, and a pump was installed in the well with the help of an associate of the applicant named Ray Hendershot.

During January of 2009, Diamond Well Drilling called Commission staff and asked what the process would be to bring an unpermitted well into compliance. Diamond said that they had not drilled the well, but were contacted by the applicant to do a pump replacement.

On April 6, 2009, an after-the-fact Well Construction and Pump Installation Permit application was made by the applicant with assistance from Diamond Well Drilling.

ISSUES/ANALYSIS:

HRS §174-C84(a) and HAR §13-168-12(a) state that:

No well shall be constructed, altered, or repaired and no pump or pumping equipment shall be installed, replaced, or repaired without an appropriate permit from the commission.

Staff spoke to the applicant, who does not know when the well was drilled, nor whom the well was drilled by. However, the applicant stated that they had installed the pump with the assistance of a person named Ray Hendershot.

Prior to submitting the application, staff asked Diamond Well Drilling to drop a camera down the well to provide as much information as possible regarding the construction of the well. Upon review, it appears that the well has been constructed appropriately and in compliance with the Hawaii Well Construction and Pump Installation Standards (HWCPIS). However, the placement of the grout around the annular space is not easily verifiable and therefore complete adherence to the HWCPIS is not known.

Agency review

The application has been sent out for agency review. The County of Hawaii's Planning Department has indicated that a portion of the property is within the Special Management Area (SMA). However, they have also indicated that the well is exempt from an SMA Permit because it is accessory to a structure. No other comments or objections from any other agencies were noted.

Staff review

It appears that the well was drilled prior to the implementation of the Hawaii Well Construction and Pump Installation Standards. As a result, at the time of the well construction there were no specific requirements for grouting. The licensed well driller (Diamond) that helped fill out the application indicated that there was at least some surface sealing done. However, without the proper tools, neither staff nor the driller can verify the depth of the grout in the well.

Additionally, since the well is near the shoreline and the aquifer is perched with no surface water in the immediate vicinity, remediation of the well for grouting uncertainty is not necessary at this time.

FINE CALCULATION:

Staff found three violations: 1) construction of a well without a Well Construction Permit; 2) installation of a pump without a Pump Installation Permit; and 3) no water use reporting.

Refer to Exhibit 3 for a calculation of the fines.

Minimum fine:

For each item, a finding of violation applies a minimum fine of \$250.

None of the violations occurred in a Water Management Area, nor are they repeat violations, so these components add no additional fines.

None of the violations occurred in a Water Management Area, nor are they repeat violations, so these components add no additional fines.

Gravity component:

Gravity factors can be considered in the recommendation of any fine or alternative penalty. Presence of one or more gravity factors can enhance the fine or alternative penalty recommendation. Gravity factors include but are not limited to: significant risk of or actual damage or harm to the water resources or the environment, multiple or repeat violations of the code or regulations, evidence that the violator should have known about the violation, refusal to correct the violation once noticed, failure to meet deadlines as set by the Commission or its staff.

Since the well was evidently drilled prior to the purchase of the property, there is no gravity component to the Well Construction violation. However, since the pump was installed in 1998, when there was both a requirement by the Commission for a Pump Installation Permit, as well as the Hawaii Well Construction and Pump Installation Standards, a gravity component of \$250 can be applied to both the Pump Installation violation and the water use reporting violation.

Mitigative component:

Mitigative factors can be considered in the recommendation of any fine or alternative penalty. Presence of one or more mitigative factors can reduce or eliminate the fine or alternative penalty recommendation. Mitigative factors include but are not limited to: insignificant impact on the resource, attempt to remedy the violation without notice, good faith effort to remedy violation once noticed, self reporting in a timely manner, and diligent and speedy effort to remedy the violation once noticed.

The applicant attempted to remedy the violation without notice. However, this was only done once they contacted Diamond Well Drilling, who then told them that they needed a permit. Therefore a mitigative factor of -\$100 can be applied to each violation.

Duration calculation:

The duration of each violation can be calculated by determining the start and end date of the violation. Typically, compliance within 30 days would bring the duration of the violation down to one day. Since the applicant came in on their own volition, staff has brought the duration down to one day for each violation.

Total fines:

Using these values, staff has calculated the total fine to be \$950.

RECOMMENDATION:

That the Commission:

- A. Find the applicant in violation of HAR §13-168-12(a).

- B. Impose a fine of \$950 on the applicant as summarized in Exhibit 2 payable within 30 days.
- C. Approve the issuance of an after-the-fact well construction permit for the Reid Well (Well No. 5610-03), subject to the standard conditions in Exhibit 3, and the following special conditions:
 - 1. The well should not be used for drinking water unless it is properly tested and treated.
 - 2. If potable water is used to supply both domestic and irrigation purposes in a single system, the permittee 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.
 - 3. That the permit will be issued after the fine described in Item B is paid by the applicant.
- D. Approve and issue a pump installation permit for a 16 gpm pump, subject to the Standard Pump Installation Conditions in Exhibit 4.
- E. Suspend any current, pending or future applications by the applicant until the fines are paid and the applicant completes the permit process for this well.

Respectfully submitted,



KEN C. KAWAHARA, P.E.
Deputy Director

- Exhibit(s):
- 1. (Location Map)
 - 2. (Well Section)
 - 3. (Fine Calculation)
 - 4. (Standard Well Construction Permit Conditions)
 - 5. (Standard Pump Installation Permit Conditions)

APPROVED FOR SUBMITTAL:



LAURA H. THIELEN
Chairperson

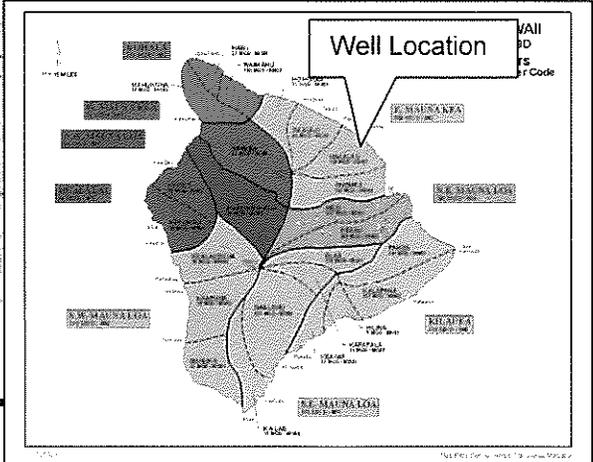
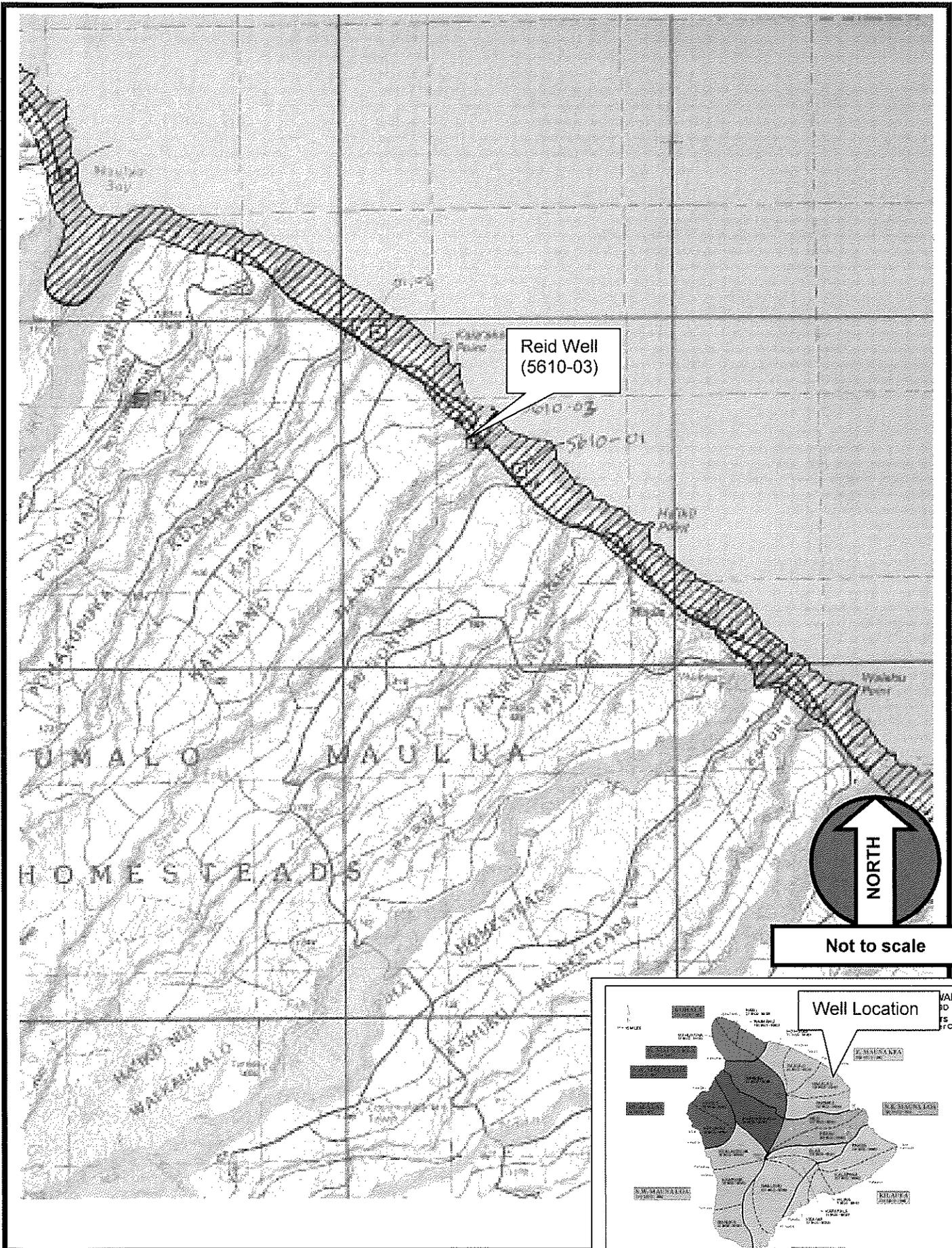


EXHIBIT 1

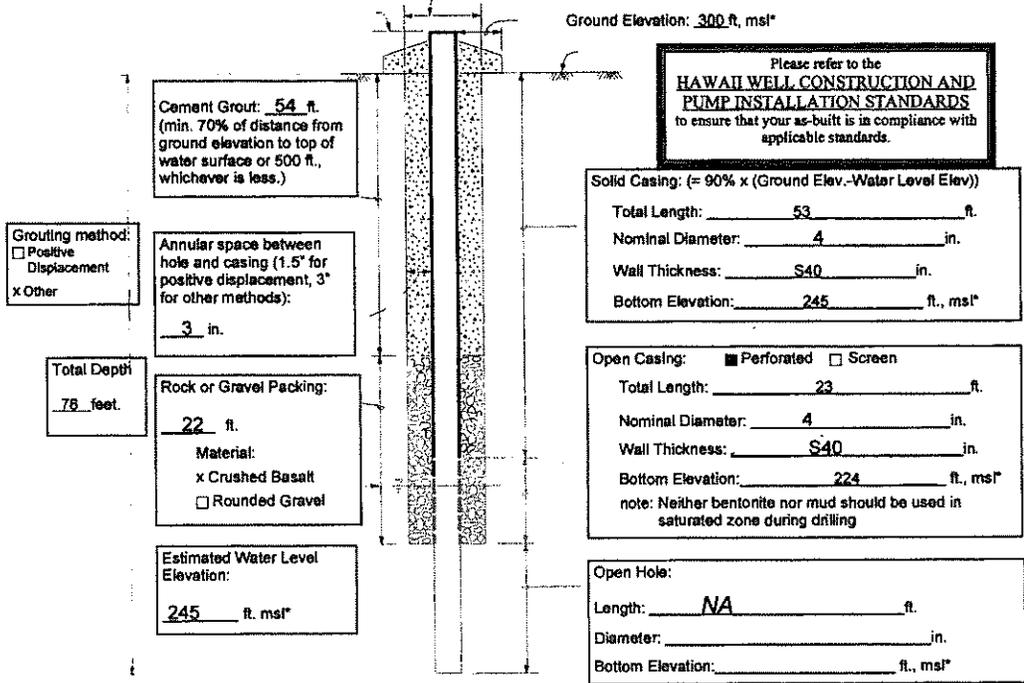
Hole Diameter: 10 inches.

Elevation at top of casing 301 ft., msl*

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

Ground Elevation: 300 ft., msl*

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



Cement Grout: 54 ft.
(min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)

Grouting method:
 Positive Displacement
 Other

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

Total Depth
76 feet.

Rock or Gravel Packing:
22 ft.
Material:
 Crushed Basalt
 Rounded Gravel

Estimated Water Level Elevation:
245 ft., msl*

Solid Casing: (= 90% x (Ground Elev.-Water Level Elev))
Total Length: 53 ft.
Nominal Diameter: 4 in.
Wall Thickness: S40 in.
Bottom Elevation: 245 ft., msl*

Open Casing: Perforated Screen
Total Length: 23 ft.
Nominal Diameter: 4 in.
Wall Thickness: S40 in.
Bottom Elevation: 224 ft., msl*
note: Neither bentonite nor mud should be used in saturated zone during drilling

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 -) Example: Estimated + 2 ft. Water Level Elev. Bottom Elevation of Well Limit = (2 -) = -18.5 ft.

STANDARD WELL CONSTRUCTION PERMIT CONDITIONS

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 Reid Well (Well No. 5610-03), Hawaii, TMK 3-4-003:003, subject to the Hawaii Well Construction & Pump Installation Standards (February 2004) which include but are not limited to the following conditions:

1. The Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work by this permit commences 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 one-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Commission, to accurately record water levels. The permittee shall coordinate with the Commission and conduct a pumping test in accordance with the attached **Aquifer Pump Testing Procedure (attached)**. The permittee shall submit to the Commission the test results as a basis for supporting an application to install a permanent pump and withdraw water for use. No permanent pump may be installed until a pump installation permit is approved and issued by the Commission.
3. 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 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 shall stop work and contact the Department's Historic Preservation Division (587-0045) 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 Commission within sixty (60) days after completion of work:
 - a. Well completion report, (**attached - Part I, Well Construction Report**).
 - b. Elevation (referenced to mean sea level, msl) survey by a Hawaii-licensed surveyor.
 - c. As-built sectional drawing of the well.
 - d. Plot plan and map showing the exact location of the well.
 - e. Complete pumping test records, including time, pumping rate, drawdown, chloride content, and other water quality data.
8. The permittee shall comply with all applicable laws, rules, and ordinances.
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 if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Commission upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Commission no later than three (3) months prior to the date the permit expires. If the commencement or completion date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.
11. If the well is not to be used it must be properly capped. If the well is to be abandoned then the applicant must apply for a well abandonment permit in accordance with §13-168-12(f) prior to any well sealing or plugging work.
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. The well construction permit application and staff submittal approved by the Commission at its February 17, 2010 meeting are incorporated into the permit by reference.

STANDARD PUMP INSTALLATION PERMIT CONDITIONS

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 Reid Well (Well No. 5610-03) at, Hawaii, TMK **3-4-003:003**, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

1. The Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work 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 16 gpm capacity, or less, pump in the well.
3. The permittee 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 Commission (**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 is 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 applicant shall complete and submit as-built drawings and Part II - (Permanent) Pump Installation Report of the Well Completion Report (**attached**) to the Commission within sixty (60) days after completion of work.
6. The applicant shall comply with all applicable laws, rules, and ordinances.
7. The pump installation permit application and staff submittal approved by the Commission at its February 17, 2010 meeting are incorporated into the permit by reference.
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 Commission upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Commission no later than three (3) months prior to the date the permit expires. If the commencement or completion date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.
9. If the well is not to be used it must be properly capped. If the well is to be abandoned then the applicant must apply for a well abandonment permit in accordance with §13-168-12(f) prior to any well sealing or plugging work.
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.