Harding Lawson Associates

October 15, 1990

19990,001.06
0918MI

State of Hawaii
Department of Land and Natural Resources
Division of Water and Land Development
P. O. Box 373
Honolulu, Hawaii  96809

Attention: Mr. Ed Sakoda

Gentlemen:

Well Completion Reports
Budget Rent-A-Car
Kahului, Maui, Hawaii

Enclosed are well completion reports for three monitoring wells (State Well Nos. 5326-01M to -03M). The wells are located at Budget Rent-A-Car, 865 West Mokuea Place, Kahului, Maui, and are shown on the enclosed site plan (MW-1 through MW-3).

Sincerely yours,

HARDING LAWSON ASSOCIATES

John J. Ward
Associate Hydrogeologist
JJW/PAW/rmc

Enclosure: Site Plan

cc: Hisaka, Furusho, Ayabe, & Goto/Mr. Steven K. Hisaka
Site Plan with Boring Locations

Boring Location and Designation

Monitoring Well Location and Designation

REFERENCE: Site Plan, ECM, Inc., dated 6/19/86.

Harding Lawson Associates
Engineering and Environmental Services

Site Plan with Boring Locations
Subsurface Investigation
Budget Rent-A-Car
Kahului, Maui, Hawaii

PLATE 3

DRAWN
gw1

JOB NUMBER
19990,001.06

APPROVED

DATE
06/90

REVISED DATE
INSTRUCTIONS: Please print or type and submit completed report within 30 days of well completion to the Division of Water & Land Development, P.O. Box 373, Honolulu, HI 96809. An as-built drawing of the well and chemical analysis, if available, should also be submitted. If necessary, phone 548-7543, Hydrology, Geology Section for assistance.

A. STATE WELL NO. 5326-01M WELL NAME MW-1 ISLAND Maui
B. LOCATION 865 West Mokuea Place, Kahului, HI 96732 TAX MAP KEY 3-8-1157
D. DRILLING OR PUMP INSTALLATION CONTRACTOR P.R. Drilling Co., Inc.
E. TYPE OF RIG Mobile B-80 DRILLER Sinistro Villegas
F. DATE OF WELL COMPLETION 06/04/90 DATE OF PUMP INSTALLATION N/A
G. GROUND ELEVATION (msl) 15.5 ft. Top of Drilling Platform (msl) N/A ft. Height of drilling platform above ground surface N/A ft. Bench mark and method used to determine ground elevation Sewer 14.69 ft. MSL; from sewage plans
H. TOTAL DEPTH OF WELL BELOW GROUND 20 feet manhole
I. HOLE SIZE: 
- 6 inch dia. from 0 ft. to 20 ft. below ground
- 6 inch dia. from 20 ft. to 40 ft. below ground
- 6 inch dia. from 20 ft. to ... ft. below ground
J. CASING INSTALLED: 
- 10 ft. below ground
- 2 in. I.D. x 0.154 in. wall solid section to 20 ft. below ground
- 2 in. I.D. x 0.154 in. wall perforated section to 20 ft. below ground
Type of perforation 0.020" machine cut slot size
K. ANNULUS: 
Grouted from 0.25 ft. to 1.8 ft. below ground Gravel packed from 0 ft. to 20 ft. below ground
L. PERMANENT PUMP INSTALLATION: 
- Pump type, make, serial No. N/A Capacity gpm
- Motor type, H.P., voltage, r.p.m. N/A
- Depth of pump intake setting ft. below which elevation is ft.
- Depth of bottom of airline ft. below which elevation is ft.
M. PROPOSED USE Monitoring well
N. INITIAL WATER LEVEL 12.57 ft. below ground.
O. INITIAL CHLORIDE N/A ppm.
P. PUMPING TESTS: Reference point (R.P.) used: Date and time of sampling 06/04/90/1650
- Date and time of measurement Date
- Start water level ft. below R. P.
- End water level ft. below R. P.
- Depth of well ft. below R. P.
- Elapsed Time (hours) Rate Draw- down (ft.) Cl- (ppm) Temp. F
  - to
  - to
  - to

Q. DRILLER'S LOG: See attached Log of Boring
- Depth, ft. Rock Description & Remarks ft.
  - to
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REMARKS: Submitted by (print) John J. Ward Title Associate Hydrogeologist Harding Lawson Associates

Date 10/16/90
State Well No. 5326-01M

*NOTE: Blow counts have been converted to approximate SPT values.
INSTRUCTIONS: Please print or type and submit completed report within 30 days of well completion to the Division of Water & Land Development, P.O. Box 373, Honolulu, HI 96809. An as-built drawing of the well and chemical analysis, if available, should also be submitted. If necessary, phone 548-7543. Hydrology, Geology Section for assistance.

A. STATE WELL NO. 5326-02M WELL NAME MW-2 ISLAND Maui
B. LOCATION 865 West Mokuea Place, Kahului, HI 96732 TAX MAP KEY 3-8-1:157
D. DRILLING OR PUMP INSTALLATION CONTRACTOR P.R. Drilling Co., Inc.
E. TYPE OF RIG Mobile B-80 DRILLER Sinistro Villegas
F. DATE OF WELL COMPLETION 06/04/90 DATE OF PUMP INSTALLATION N/A
G. GROUND ELEVATION (msl) 16.1 ft. Top of Drilling Platform (msl) N/A ft. Height of drilling platform above ground surface N/A ft.
H. TOTAL DEPTH OF WELL BELOW GROUND 24 feet manhole
I. HOLE SIZE: 6 inch dia. from 0 ft. to 24 ft. below ground
J. CASING INSTALLED: 2 in. I.D. x 0.154 in. wall solid section to 10 ft. below ground
K. ANNULUS: Grouted from 0.2 ft. to 9.5 ft. below ground
L. PERMANENT PUMP INSTALLATION: Pump type, make, serial No. N/A Capacity gpm
M. PROPOSED USE Monitoring well
N. INITIAL WATER LEVEL 12.75 ft. below ground. Date and time of measurement 06/06/90 / 1436
O. INITIAL CHLORIDE N/A ppm. Date and time of sampling
P. PUMPING TESTS: Reference point (R.P.) used: which elevation is ft.

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<tr>
<th>Start water level</th>
<th>ft. below R. P.</th>
<th>Date</th>
<th>Start water level</th>
<th>ft. below R. P.</th>
<th>Date</th>
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<td>End water level</td>
<td>ft. below R. P.</td>
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<td>Depth of well</td>
<td>ft. below R. P.</td>
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<th>Elapsed Time (hours)</th>
<th>Rate (gpm)</th>
<th>Drawdown (ft.)</th>
<th>Cl (ppm)</th>
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Q. DRILLER'S LOG: See attached log of boring. Water Level

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<thead>
<tr>
<th>Depth, ft.</th>
<th>Rock Description &amp; Remarks</th>
<th>Water Level</th>
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REMARKS:

Submitted by (print) John J. Ward
Signature

TitleAssociate Hydrogeologist
Harding Lawson Associates
Date 11/1/90
TOC: 15.60 FT MSL (6/8/90)

CEMENT GROUT

2" I.D. SCHEDULE 40 PVC

6" (Nom.) BOREHOLE

BENTONITE SEAL

CSSI 8-12 SAND PACK

2" I.D. SLOTTED PVC 0.020"

DRILL CUTTINGS

Sample Sequence No. Blows/foot Organic Vapors (ppm) Depth (ft)
9023-2001 3 50
9023-2002 5 55
9023-2003 12 4

Equipment Mobile B-80

Elevation 16.1 feet MSL Date 6/4/90

DARK BROWN GRAVEL SILT (ML), soft, moist, odorless (fill).

At 3 feet grading with less gravel.

DARK BROWN SANDY SILT (ML), soft, moist, odorless, trace coralline sand (alluvium).

LIGHT GRAY TO WHITE POORLY-GRADED CORALLINE SAND (SP), medium dense, saturated, trace rounded coralline gravel, odorless (beach sand).

Boring completed at 24.0 feet on 6/4/90.

State Well No. 5326-02M
INSTRUCTIONS: Please print or type and submit completed report within 30 days of well completion to the Division of Water & Land Development, P.O. Box 373, Honolulu, HI 96809. An as-built drawing of the well and chemical analysis, if available, should also be submitted. If necessary, phone 944-1542, Hydrology, Geology Section for assistance.

A. STATE WELL NO. 5326-03M WELL NAME MW-3 ISLAND Maui

B. LOCATION 865 West Mokuea Place, Kahului, HI 96732 TAX MAP KEY 3-8-1:157


D. DRILLING OR PUMP INSTALLATION CONTRACTOR P.R. Drilling Co., Inc.

E. TYPE OF RIG Mobile B-80 DRILLER Sinfriso Villegas

F. DATE OF WELL COMPLETION 06/05/90 DATE OF PUMP INSTALLATION N/A

G. GROUND ELEVATION (msl) 15.2 ft. Top of Drilling Platform (msl) N/A ft. Height of drilling platform above ground surface N/A ft. Bench mark and method used to determine ground elevation Sewer 14.69 ft. MSL; from sewer plans

H. TOTAL DEPTH OF WELL BELOW GROUND 21.5 feet manhole

I. HOLE SIZE: 6 inch dia. from 0 ft. to 21.5 ft. below ground inch dia. from ft. to ft. below ground inch dia. from ft. to ft. below ground

J. CASING INSTALLED: 2 in. I.D. x 0.154 in. wall solid section to 10 ft. below ground 2 in. I.D. x 0.154 in. wall perforated section to 20 ft. below ground Type of perforation 0.020" machine cut slot size

K. ANNULUS: Grouted from 0 ft. to 8.5 ft. below ground Gravel packed from 8.5 ft. to 14.7 ft. below ground

L. PERMANENT PUMP INSTALLATION: Pump type, make, serial No. N/A Capacity gpm Motor type, H.P., voltage, r.p.m. N/A Depth of pump intake setting ft. below which elevation is ft. Depth of bottom of airline ft. below which elevation is ft.

M. PROPOSED USE Monitoring well Date and time of measurement 06/06/90 1:344 Date and time of sampling

N. INITIAL WATER LEVEL 11.90 ft. below ground.

O. INITIAL CHLORIDE N/A ppm.

P. PUMPING TESTS: Reference point (R.P.) used: which elevation is ft.

Q. DRILLER'S LOG: See attached log of boring.

R. WATER LEVEL

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REMARKS: Submitted by (print) John J. Ward Title Associate Hydrogeologist

Signature

Date 01/11/90
TOC: 14.65 FT MSL (6/8/90)

Equipment Mobile B-80
Elevation 15.2 feet MSL Date 6/5/90

4" ASPHALTIC CONCRETE
DARK BROWN WELL-GRADED GRAVEL (GW), medium dense, moist (base course)
DARK BROWN GRAVELLY SILT (ML), medium stiff to stiff, moist, odorless (fill)
DARK BROWN SANDY SILT (ML), stiff, moist, odorless, trace roots (alluvium)
YELLOW-BROWN POORLY GRADED CORALLINE SAND (SP), loose, moist, medium grained, odorless (dune sand)
DARK YELLOW-BROWN SILTY SAND (SM), loose, moist, odorless
DARK BROWN SANDY SILT (ML), soft to very soft, saturated, moderate hydrogen sulfide odor, few roots (alluvium).
LIGHT BROWN POORLY GRADED CORALLINE SANDY GRAVEL (GP), medium dense, saturated, odorless (beach deposit).

Boring completed at 21.5 feet on 6/5/90.

State Well No. 5326-03M
WELL CONSTRUCTION PERMIT

for

Kahului-Budget Monitor Wells
Well Nos. 5326-01M to 06M
Kahului, Maui

TO: Budget Rent a Car
865 West Mokuea Place
Kahului, HI 96732

In accordance with the Department of Land and Natural Resources Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", your application to construct a maximum of six ground water monitor wells (Well Nos. 5326-01M to 06M) within Tax Map Key: 3-8-1:157 is approved, subject to the following conditions:

1. The Division of Water Resource Management (DWRM), Geology-Hydrology Section, shall be notified at 548-7543, before any work by this permit commences.

2. The wells shall be used for monitoring only.

3. The following shall be submitted to DWRM, P.O. Box 373, Honolulu, Hawaii 96809 within 30 days after completion of the wells:
   b. Elevation (referenced to mean sea level) survey by a Hawaii-licensed surveyor.
   c. As-built sectional drawings of the wells.
   d. Plot plan and map showing the exact locations of the wells.
   e. Complete pumping test record, including time, pumping rate, drawdown, chloride content, and water quality data.
   f. Periodic reports of monitoring and testing results.
4. The applicant shall comply with all applicable laws, rules, and ordinances.

5. This permit may be revoked if work is not started within six months of the date of issuance or if work is suspended or abandoned for six months. The work shall be completed within two years of the date of issuance.

6. Upon completion of monitoring operations, the applicant shall obtain a well construction permit to seal the wells with cement grout in a manner approved by the Commission.

\[\text{Signature}\]

WILLIAM W. PATY

JUN 22 1990

Date of Issuance

Enc. (Well Completion Report form)

cc: USGS
    Department of Health
        Drinking Water Branch
        Ground Water Protection Program
    Maui Department of Water Supply
    Harding Lawson Associates
REVISED OF WATER RESOURCE MANAGEMENT

FROM: ______________________ DATE: ______________ FILE IN: 5326-01M 06N

TO: INITIAL: ______________________ PLEASE: ______________________ REMARKS: ______________________

_ _ _ M. TAGOMORI _ _ _ See Me _ _ _ S. Kokubun
_ _ _ G. Matsumoto _ _ _ Take Action By _ _ _ L. Nanbu
_ _ _ G. Akita _ _ _ Route to Your Branch _ _ _ F. Ching
_ _ _ L. Chang _ _ _ Review & Comment _ _ _ L. Choo
_ _ _ Y. Shiroma _ _ _ Draft Reply _ _ _ ______________________
_ _ _ E. Sakoda _ _ _ Acknowledge Receipt _ _ _ ______________________
_ _ _ D. Nakano _ _ _ Xerox ___ copies _ _ _ ______________________
_ _ _ W. Rozeboom _ _ _ File _ _ _ ______________________
_ _ _ S. Samuels _ _ _ Mail _ _ _ ______________________
_ _ _ E. Hirano _ _ _ For Information _ _ _ ______________________
_ _ _ T. Kam _ _ _ ______________________
_ _ _ A. Monden _ _ _ ______________________
_ _ _ H. Young _ _ _ ______________________
_ _ _ D. Lee _ _ _ ______________________
_ _ _ G. Miyashiro _ _ _ ______________________

______________________________
______________________________
To: Division of Water and Land Development  
P.O. Box 373  
Honolulu, Hawaii 96809  
Attention: Edwin Sakoda

From: M. Winsor Clardy

Date: June 1, 1990

Subject: Application for Well Construction Permit

Job No.: 19990,001.06

Remarks:

Harding Lawson Associates has been contracted to perform a subsurface investigation at the Budget Rent-a-Car Maui baseyard lot in Kahului, Maui. We plan to install a maximum of six groundwater monitoring wells. Enclosed are a check for the $25.00 application fee, the "Application for Well Construction Permit" and associated plans showing the site location and area of possible well locations. The final locations will be determined during a site reconnaissance after the area has been toned for underground utilities.

Please contact us if there are any questions regarding the application.

JJW/MWC/ms-h:0568MI

Attachments

cc:
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
Division of Water Resource Management

APPLICATION FOR

X WELL CONSTRUCTION PERMIT
 _ PUMP INSTALLATION PERMIT

INSTRUCTIONS: Please print or type and send completed application with attachments to the Division of Water and Land Development, P.O. Box 372, Honolulu, Hawaii 96829. Application must be accompanied by a non-refundable filing fee of $25.00 payable to the Department of Land and Natural Resources. (Filing fee waived for government agencies.) If necessary, phone 548-7341, Hydrology/Geology Section for assistance.

1. WELL LOCATION
Island Maui Tax Map Key 3-8-1: 157
Address 865 West Mokuea Place Kahului, Maui, Hawaii 96732
(Attach a USGS map (scale 1"=2000') and property tax map showing well location referenced to established property boundaries.)

2. WELL OWNER
Firm Name Budget Rent a Car
Contact Person Mike Heaton
Address 865 West Mokuea Place Kahului, Hawaii 96732
Phone (808) 871-8811

3. LANDOWNER
Firm Name State of Hawaii
Contact Person John Sakamoto
Address Kahului Airport Terminal Kahului, Maui, Hawaii 96732
Phone (808) 877-0078

4. PROPOSED CONTRACTOR FOR: _Well Drilling _ Pump Installation
Name PR Drilling Co.
Address 235 Kellog Street Wahiawa, Hawaii 96786
Contractor's License No. 9-6272
Phone (808) 622-2631

5. PROPOSED WORK
☐ Drill New Well ☐ Deepen ☐ Redrill
☐ Alter ☐ Seal ☐ Replace Pump
☐ Install New Pump ☐ Modify Pump
☐ Abandon
(Briefly describe the proposed work and fill in the diagram on the back of this form.)

6. PROPOSED AMOUNT OF WITHDRAWAL 0 gallons per day

7. PROPOSED PUMP INFORMATION (Not Applicable)
Pump Type: ☐ Vertical Turbine ☐ Submersible ☐ Centrifugal
☐ Diesel ☐ Gas ☐ Electric:
Rated Pump Capacity gallons per minute (gpm)

8. Well Owner (print) Michael Heaton
Signature Date 1/20/90

9. Landowner (print) John Sakamoto
Signature Date 1/30/90

For Official Use Only:
Field Checked By ___________________________ Latitude ________________ Hydrologic Unit __________
Date ___________________________ Longitude ________________ State Well No. 5326-01M

HARDING LAWSON ASSOCIATES
HONOLULU, HAWAII

Received
MAY 3 1 1990

HARDING LAWSON ASSOCIATES
Briefly describe the proposed work:

Up to six two-inch diameter observation wells are proposed for the Budget Rent-a-Car lot at Kahului, Maui, to monitor the presence of petroleum hydrocarbons on the water table. Following installation of the wells groundwater samples will be obtained for chemical analyses.

PROPOSED SECTION OF WELL

Elevation at top of casing 22 ft., msl.

Ground Elev. 20 ft., msl*

Cement Grout 5 ft.

Solid Casing:

Material Sch 40, PVC, Flush Treaded
Length 15 ft.
Diameter 2 in.
Wall thickness 0.154 in.

Hole Dia. 6 in.

Total Depth 20 ft.

Rock Packing 15 ft.

Casing: / Perforated /\Screen

Material Sch 40, PVC, Flush Treaded
Length 5 ft.
Diameter 2 in.
Wall thickness 0.154 in.
Openings 1.72 sq. in./L.F.

Open Hole:

Length 0 ft.
Diameter NA in.

*Approximate elevation at time of filing application. Final elevation (msl) by a surveyor licensed by the State must be submitted at start of construction.
**PAYMENT**

TO THE ORDER OF

Department of Land and Natural Resources
Division of Water and Land Development
P.O. Box 373
Honolulu, HI 96809

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**INVOICE**

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Well Construction Permit App.
Well Nos. 5326-01M to 05M

Location Map
Subsurface Investigation
Budget Rent-a-Car Maui
Kahului, Maui, Hawaii

Harding Lawson Associates
Engineering and Environmental Services

DRAWN
gw1

JOB NUMBER
19990,001.06

APPROVED

DATE
05/90

REVISED DATE