Council Meeting of
June 15, 2010

Honorable Mayor and Members
of the City Council
City Hall
Torrance, CA

Members of the Council

SUBJECT: Community Development – Approve License Agreement with Honeywell International Inc. for Seven (7) Groundwater Monitoring Wells

RECOMMENDATION

Recommendation of the Community Development Director that City Council approve a License Agreement with Honeywell International Inc. for seven (7) groundwater monitoring wells.

FUNDING

No funding required.

BACKGROUND AND ANALYSIS

The Los Angeles Regional Water Quality Control Board (LARWQCB) has directed Honeywell International Inc., as owner of the property located at 2545 West 190th Street, to install seven (7) monitoring wells at this location. The purpose of the wells is to monitor for possible volatile organic compound contamination, which may have migrated from their site.

Honeywell International Inc. is requesting to install seven (7) groundwater monitoring wells to be located in the public right-of-way. Exhibit "A" of the License Agreement (Attachment A) shows the locations for these proposed wells. Attachment B is a letter from MACTEC Engineering and Consulting Inc. explaining the need for the proposed groundwater monitoring wells and the necessity for the wells to be located in the street.

It is recognized that construction of the wells will disrupt vehicular traffic. Staff has discussed this impact with the applicant and sought alternate locations. However, the applicant has indicated the potential plume migration east of the site must be monitored. Therefore, four (4) of the wells will be installed in the parking lane of Van Ness Avenue and Haas Avenue, and the other three (3) wells will be installed in the center turning lanes of 190th Street. This will have minimum impact or disruption of existing vehicular traffic.

A copy of the License Agreement with Honeywell International Inc. is attached. This Agreement required a $70,000 bond, a $1,110 license fee and a $1,000,000 liability insurance policy if Honeywell International Inc. is not-self-insured. This is a standard agreement used in previous well constructions. It exempts the City from any financial or legal encumbrances associated with the construction, operation, and relocation of actions required as a result of test data obtained from said wells.

The drilling, installation and development of the proposed wells will take approximately one day for each well. The borehole will be ten (10) inches in diameter and approximately 65 feet deep. The monitoring wells will be two (2) inches in diameter. A traffic vault well lid will be set flush with the ground surface and contain a locking watertight cap. A Construction and Excavation Permit will be required by the Community Development Department to regulate work in the public street.

Respectfully submitted,

JEFFERY W. GIBSON
Community Development Director

By: _____
FELIPE SEGOVIA
Building Regulations Administrator

CONCUR:

_____
LeROY J. JACKSON
City Manager

_____
JEFFERY W. GIBSON
Community Development Director

Attachments: A. License Agreement with Exhibit "A"
B. MACTEC Engineering and Consulting Inc.

IGM/cks2283

LICENSE AGREEMENT FOR MONITORING WELLS

THIS AGREEMENT, made and entered into in quadruplicate as of this _____ day of _____, 2010 in the City of Torrance by and between the **CITY OF TORRANCE**, a municipal corporation, hereinafter called the "City", and **HONEYWELL INTERNATIONAL INC.,** a Delaware Corporation, hereinafter called "Grantee";

WHEREAS, Grantee desires to drill seven (7) monitoring wells on a City street easements at locations shown on attached map (Exhibit A); and

WHEREAS, the location and general description of the wells are satisfactory to the City; and

WHEREAS, said monitoring wells are for the purpose of determining the extent of, if any, volatile organic compound migration from the 2545 West 190th Street property in the City of Torrance hereinafter called "Site".

NOW, THEREFORE, the parties hereto agree as follows:

The City hereby grants to Grantee for the term of ten (10) years from the effective date of this Agreement, subject to extensions at the discretion of the City, subject, further, to all the special and general provisions attached hereto and made a part hereof, the right and privilege to construct, erect, maintain, operate, repair, renew, remove and abandon monitoring wells for determining the extent of volatile organic compound migration in the City of Torrance as described and shown on Exhibit "A" attached hereto and made a part thereof.

GENERAL PROVISIONS

I. LOCATION OF WELLS - The wells shall be located as described and shown in Exhibit "A".

II. CONSTRUCTION OF WELLS

A. Time of Construction. The Grantee, in good faith, shall commence the work of constructing the wells within 30 days from the date of this Agreement and shall complete such construction within 30 days after commencing construction.

B. As-Built Drawings and Maps. Within ninety (90) days following the date in which any facilities have been constructed under this Agreement, the Grantee shall file as-built drawings and maps in such form as may be required by the City, showing accurately the location and size of all its facilities then in place, and shall, upon installation of any additional facilities, or upon removal, change or abandonment of all or any portion thereof, file revised as-built drawings and maps showing the location and size of all such additional, removed or abandoned facilities as of that date.

C. Other Approvals. The installation and operation of the wells shall be to existing requirements of the City of Torrance and the Los Angeles Regional Water Control Board.

D. Installation and Testing of Well. The wells shall be installed, sampled and tested in substantial accordance with MACTEC Work Plan Addendum – Additional Groundwater and Soil Vapor Assessment prepared for Honeywell International Inc., for assessment as may be amended or modified with approval of the Regional Water Quality Control Board ("RWQCB").

III. CONFORMANCE REQUIREMENTS

A. Conformance with State Codes. The wells and appurtenances shall be constructed in accordance with all State of California Standards for the construction of well as set forth in State laws, rules or regulations.

B. Conformance with City Ordinances and Permits. The wells and appurtenances shall be constructed in conformity with all City ordinances, rules or regulations in effect at the time of construction, or as prescribed by the City.

C. Conformance with Regulations and Requirements of Boards and Agencies. The wells shall be constructed and maintained in accordance with standards, regulations, or existing requirements of the Los Angeles Regional Water Quality Control Board and the State of California Department of Health Services.

D. In the event Grantee assumes control of the Site, Grantee will maintain the grounds and improvements on the Site in a safe, clean and neat manner to the reasonable satisfaction of the Environmental Division of the Community Development Department of the City. Any containers stored on the Site must be screened from public view.

IV. CLEANUP OF BREAKS AND LEAKS

If any portion of any street shall be damaged by reason of Grantee's construction, operation or maintenance of any facility constructed or maintained under this Agreement, or if any street, sidewalk, sewer, storm drain or other facility be contaminated with waste water, gasoline or other substance due to operations by the Grantee, the Grantee shall, at its own expense, immediately repair or clean up or cause to be repaired or cleaned up any such damage or contamination and put such street, sidewalk, sewer, storm drain or other facility in substantially as good condition as it was before such contamination, to the reasonable satisfaction of the City. Such cleanups shall be accomplished in a timely manner, with as little public disruption as possible.

V. EMERGENCY CREWS

During the term of this Agreement, the Grantee shall provide within a twenty-four (24) hour notification, crews for the purpose of repairs, cleanup, preventing or minimizing serious immediate damage or the threat of damage to people or the environment in the event of an emergency resulting from an earthquake, act of war, civil disturbance, flood, leakage or other cause.

VI. REARRANGEMENT OF FACILITIES

A. Expense of Grantee. Whenever, during the existence of this Agreement, the City shall change the grade, width, or location of any street or improve any street in any manner, including the laying of any sewer, storm drain, conduits, gas, water or other pipes owned or operated by the City or any other public agency, or construct any pedestrian tunnels, or other work of the City (the right to do all of which is specifically reserved to the City without any admission in its part that it would not otherwise have such rights) and such work shall, in the opinion of the City, render necessary any change in the position or location of any facilities of the Grantee in the street, the Grantee shall, at its own cost and expense, do any and all things to effect such change in position or location, in conformity with the written notice of the Community Development Director as provided in Paragraph D below.

B. Expense of Others. When such change in construction or work is done for the accommodation of any person, firm or corporation, the cost of such rearrangement shall be borne by the accommodated party. Such accommodated party, in advance of such rearrangement, shall (a) deposit with the Grantee either cash or a corporate surety bond in an amount, as in the reasonable discretion of the Grantee shall be required to pay the costs of such change in work; and (b) shall execute an instrument agreeing to indemnify, defend and hold harmless the Grantee from any and all damages or claims caused by such rearrangement.

C. Rearrangement of the Facilities of Others. Nothing in this Agreement contained shall be construed to require the City to move, alter or relocate any of its facilities upon said streets, at its own expense, for the convenience, accommodation or necessity of any other public utility, person, firm or corporation, or to require the City or any person, firm or corporation now or hereafter owning a public utility system of any type or nature, to move, alter or relocate any part of its system upon said streets for the convenience, accommodation or necessity of the Grantee. If the wells cannot be located as described in Exhibit "A", Grantor shall furnish Grantee with another reasonable acceptable location for such wells in the immediate vicinity.

D. Notice. The Grantee shall be given not less than thirty (30) days written notice of any change or relocation of facilities which the Grantee is required to make

hereunder. Such notice shall specify in reasonable detail the work to be done by the Grantee and shall specify the time that such work is to be accomplished. In the event that the City shall change the provisions of any such notice given to the Grantee, the Grantee shall be given an additional period not less than thirty (30) days to accomplish such work.

VII. REMOVAL OR ABANDONMENT OF FACILITIES

A. Application to City. At the expiration, revocation or termination of this Agreement or of the permanent discontinuance of the use of its facilities or any portion thereof, the Grantee shall, within thirty (30) days thereafter, make a written application to the City for authority (as determined by the Grantee) either (a) to abandon all, or a portion, of such facilities in place; or (b) to remove all, or a portion, of such facilities. Such application shall describe the facilities desired to be abandoned or removed by reference to the map or maps required by Article II, Section B, of this Agreement and shall also describe with reasonable accuracy the relative physical condition of such facilities.

B. Determination of City. The City shall determine whether such abandonment or removal which is thereby proposed may be effected without detriment to the public interest or under what conditions such proposed abandonment or removal may be safely effected. The City shall then notify the Grantee in writing within 30 days following its receipt of Grantee's application, and according to such reasonable conditions as shall be specified that the Grantee may either effect such abandonment or such removal shall, as appropriate, within ninety (90) days thereafter, either:

1. Remove all or a portion of such facilities; or

2. Abandon in place all or a portion of such facilities, as set forth in the Community Development Director's order.

C. Failure to Properly Abandon. If any facilities to be abandoned in place subject to prescribed conditions shall not be abandoned in accordance with all such conditions, then the City may make additional appropriate orders, including, if deemed desirable, an order that the Grantee shall remove all such facilities in accordance with applicable requirements. In the event the Grantee shall fail to remove any facilities which the Grantee is obligated to remove in accordance with such applicable requirements within such time as may be prescribed by the City, then the City may remove or cause to be removed such facilities at the Grantee's expense and the Grantee shall pay to the City the actual cost thereof plus the current rate of overhead being charged by the City for reimbursable work.

VIII. INDEMNIFICATION BY GRANTEE

A.

Grantee will indemnify, defend, and hold harmless City, the City Council, each member thereof, present and future, its officers, agents and employees from and against any and all liability, expenses, including defense costs and legal fees, and claims for damages whatsoever, relating to Grantee's activities under this Agreement, including, but not limited to, those arising from breach of contract, bodily injury, death, personal injury, property damage, loss of use, or property loss however the same may be caused and regardless of the responsibility for negligence. The obligation to indemnify, defend and hold harmless includes, but is not limited to, any liability or expense, including defense costs and legal fees, arising from the negligent acts or omissions, or willful misconduct of Grantee, its officers, employees, agents, subcontractors or vendors. It is further agreed, Grantee's obligations to indemnify, defend and hold harmless will apply even in the event of concurrent negligence on the part of City, the City Council, each member thereof, present and future, or its officers, agents and employees, except for liability resulting solely from the negligence or willful misconduct of City, its officers, employees or agents. Payment by City is not a condition precedent to enforcement of this indemnity. In the event of any dispute between Grantee and City, as to whether liability arises from the sole negligence of the City or its officers, employees, agents, subcontractors or vendors, Grantee will be obligated to pay for City's defense until such time as a final judgment has been entered adjudicating the City as solely negligent. Grantee will not be entitled in the event of such a determination to any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

B. Grantee shall indemnify and hold harmless the City, its officers, agents and/or employees from and against all claims, costs, expenses, actions, lawsuits, expenses of response, remediation, or cleanup costs, or damages and liability of any kind whatsoever, including but not limited to attorney fees and expenses, directly or indirectly arising out of or attributable to the release or threatened release of a hazardous substance emanating from the Site. This provision shall not apply to any action brought by a third party against the City. Grantee expressly covenants, warrants and promises not to sue the City, its officers, agents and/or employees in any action for contribution or indemnification for any remediation cleanup costs or response which Grantee undertakes as a result of any release of volatile organic compounds from the site.

This indemnity shall continue in full force and effect, and shall survive the termination of this agreement.

IX. INSURANCE REQUIREMENTS

A. INSURANCE

Licensee shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from, or in connection with, the use of City of Torrance property thereunder by the Licensee, its' agents, representatives, employees or subcontractors. The insurance must be full coverage, or if self-insured, such self insurance must be approved by the City's Risk Manager.

1. Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability.

   a. Primary Bodily Injury with limits of at least $250,000 per person, $500,000 per occurrence and;

   b. Primary Property Damage with limits of at least $100,000 per occurrence, or;

   c. Combined single limits of at least $500,000 per occurrence.

2. General Liability including coverage for premises, products and completed operations, independent contractors/vendors, explosion, collapse and underground hazards, and contractual obligations with combined single limits of at least $1,000,000 per occurrence.

3. Pollution Liability with coverage for:

   a. Bodily injury, sickness, disease, mental anguish or shock sustained by any person, including death;

   b. Property damage including physical injury to or destruction of tangible property including the resulting loss of use thereof, clean-up costs, and the loss of use of tangible property that has not been physically injured or destroyed;

   c. Defense, including costs, charges and expenses incurred in the investigation, adjustment or defense of claims for such compensatory damages, and

   d. Losses caused by pollution conditions that arise from the operations of the licensee described under the Scope of Services of this contract with combined single limits of at least $1,000,000 per occurrence.

4. Workers' Compensation with limits as required by the State of California and Employers Liability with limits of at least $500,000.

B. ADDITIONAL INSURED

The City of Torrance, Los Angeles County-Torrance Civic Center authority, Torrance Public Facilities Building Corporation, Torrance Transit System, Redevelopment Agency of the City of Torrance, Torrance Municipal Water Department, elected officials, officers, agents, employees, volunteers, and members of boards and commissions must be named as additional insureds with respect to liability arising out of the operation or property of Grantee.

C. SUFFICIENCY OF INSURERS

Insurance required by this contract/purchase order will be satisfactory only if issued by companies rated **"B+"** or better in the most recent edition of Best's Key Rating Guide, and only if they are of a financial category of a **"VII"** or better.

D. INCREASE IN REQUIREMENTS

Such insurance shall be maintained by the Grantee for the life of Agreement, and each year on the anniversary of this franchise, Grantee will provide updated evidence that such insurance is in force. The City has the right during the term of this Agreement to amend the insurance requirements to increase the amount and scope of coverage. The City covenants that it will not exercise such right in an unreasonable manner.

X. DEFAULT

A. Effect of Default. In the event that the Grantee shall default in the performance of any of the terms, covenants and conditions herein and such default is curable, the City shall give written notice to the Grantee of such default. In the event that the Grantee does not commence the work necessary to cure such default within thirty (30) days after such notice is sent or prosecute such work diligently to completion, the City may declare this Agreement forfeited. Upon giving written notice thereof to the Grantee, this Agreement shall be void and the rights of the Grantee hereunder shall terminate and the Grantee shall execute an instrument of surrender and deliver same to the City.

B. Force Majeure. In the event Grantee is unable to perform any of the terms of this Agreement by reason of strikes, riots, acts of God, acts of public enemies or other such cause beyond its control, it shall not be deemed to be in default or have forfeited its rights hereunder if it shall commence and prosecute such performance with reasonable promptness as soon as possible to do so.

C. Cumulative Remedies. No provision herein made for the purpose of securing the enforcement of the terms and conditions of this Agreement shall be deemed an exclusive remedy, or to afford the exclusive procedure, for the enforcement of said terms and conditions, but the remedies and procedures herein provided, in addition to those provided by law, shall be deemed to be cumulative.

XI. SCOPE OF RESERVATION

The enumeration herein of specific rights reserved shall not be construed as exclusive or as limiting and general reservation herein made or as limiting such rights as the City may now or hereafter have in law.

XII. NOTICE

All notices, requests, demands, or other communications under this Agreement must be in writing. Notice will be sufficiently given for all purposes as follows:

A. Personal delivery. When personally delivered to the recipient: notice is effective on delivery.

B. First-class mail. When mailed first class to the last address of the recipient known to the party giving notice: notice is effective three mail delivery days after deposit in a United States Postal Service office or mailbox.

C. **Certified mail**. When mailed certified mail, return receipt requested: notice is effective on receipt, if delivery is confirmed by a return receipt.

D. **Overnight delivery**. When delivered by an overnight delivery service, charges prepaid or charged to the sender's account: notice is effective on delivery, if delivery is confirmed by the delivery service.

E. **Facsimile transmission.** When sent by fax to the last fax number of the recipient known to the party giving notice: notice is effective on receipt, provided that (i) a duplicate copy of the notice is promptly given by first-class or certified mail or by overnight delivery, or (ii) the receiving party delivers a written confirmation of receipt. Any notice given by fax will be deemed received on the next business day if it is received after 5:00 p.m. (recipient's time) or on a nonbusiness day. Addresses for purpose of giving notice are as follows:

Grantee:

Attn: Mr. Benny DeHghi
Honeywell International Inc.
~~8~~2525 West 190th Street
Torrance, CA 90504

Fax Number: 310-512-2489

City of Torrance:

City Clerk
3031 Torrance Boulevard
Torrance, CA 90503
Fax: (310) 618-2931

Any correctly addressed notice that is refused, unclaimed, or undeliverable because of an act or omission of the party to be notified will be deemed effective as of the first date the notice was refused, unclaimed or deemed undeliverable by the postal authorities, messenger or overnight delivery service.

Any party may change its address or fax number by giving the other party notice of the change in any manner permitted by this Agreement.

XIII. SUCCESSORS

The terms herein shall inure to the benefit of or shall bind, as the case may be, the successors and assigns of the parties hereto.

XIV. ACCEPTANCE OF AGREEMENT

This Agreement is entered and shall be held and enjoyed only upon the terms and conditions herein contained.

XV. AGREEMENT TO BE STRICTLY CONSTRUED AGAINST GRANTEE

The Agreement is granted upon each and every condition herein contained and shall ever be strictly construed against Grantee. Nothing shall pass hereby unless it be granted in plain and unambiguous terms. Each of said conditions is a material and essential condition to the granting of this Agreement.

XVI. SPECIAL PROVISIONS

A. Bond. This Agreement is granted on the condition that the Grantee has now and shall at all times during the life of this Agreement keep on file with the City a bond running to the City in the sum of Ten Thousand Dollars ($10,000) per well, executed by a reputable indemnity company entitled to do business in the State of California. The said Bond shall contain the condition that the Grantee shall well and truly observe, fulfill and perform each and every term and condition of this Agreement, and that in case of any breach of condition of said Bond the whole amount of the sum therein named shall be taken and deemed to be liquidated damages and shall be recoverable from the principal and from the sureties upon said Bond. The provisions of this paragraph shall not exempt the Grantee from

compliance with any of the laws of the City in force during the term hereof, which require the Grantee to post a Bond other than the bond required by this paragraph.

B. Fees. As reimbursement for administrative costs in the execution of this Agreement, the Grantee shall pay to the City in lawful money of the United States a fee of Six Hundred Dollars ($600) and Eighty-Five Dollars ($85) for each additional well. This payment shall be made to the City prior to the signing of this Agreement and if made by check shall be made payable to the City of Torrance.

C. Independent Laboratory Analysis. Grantee agrees to have all chemical analyses of samples taken from the wells, which are the subject of this Agreement, performed by qualified independent laboratories which are mutually acceptable to the Grantee and to the City. Grantee also agrees to provide, on request, copies of all analytical test reports to the City as soon as said reports are available.

CITY OF TORRANCE
A Municipal Corporation

By _____
Frank Scotto
Mayor of the City of Torrance

HONEYWELL INTERNATIONAL INC.
A Delaware Corporation

By _____
Benny DeHghi
Manager, Environmental Remediation

ATTEST:

_____
Sue Herbers
City Clerk of City of Torrance

APPROVED AS TO FORM:

JOHN L. FELLOWS III
City Attorney

By _____
Patrick Sullivan
Deputy City Attorney

Attachment: Exhibit A

CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

County of Los Angeles

On 5/11/2010 before me, Heather Khuu, Notary Public,
(Here insert name and title of the officer)

personally appeared Benny Dettghi, Manager,

who proved to me on the basis of satisfactory evidence to be the person~~(s)~~ whose name~~(s)~~ is~~/are~~ subscribed to the within instrument and acknowledged to me that he~~/she/they~~ executed the same in his~~/her/their~~ authorized capacity~~(ies)~~, and that by his~~/her/their~~ signature~~(s)~~ on the instrument the person~~(s)~~, or the entity upon behalf of which the person~~(s)~~ acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Heather Khuu
Signature of Notary Public

(Notary Seal)

HEATHER KHUU
Commission # 1776933
Notary Public - California
Orange County
My Comm. Expires Nov 27, 2011

ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

_____
(Title or description of attached document)

_____
(Title or description of attached document continued)

Number of Pages _____ Document Date_____

_____
(Additional information)

CAPACITY CLAIMED BY THE SIGNER

- ☐ Individual (s)
- ☐ Corporate Officer

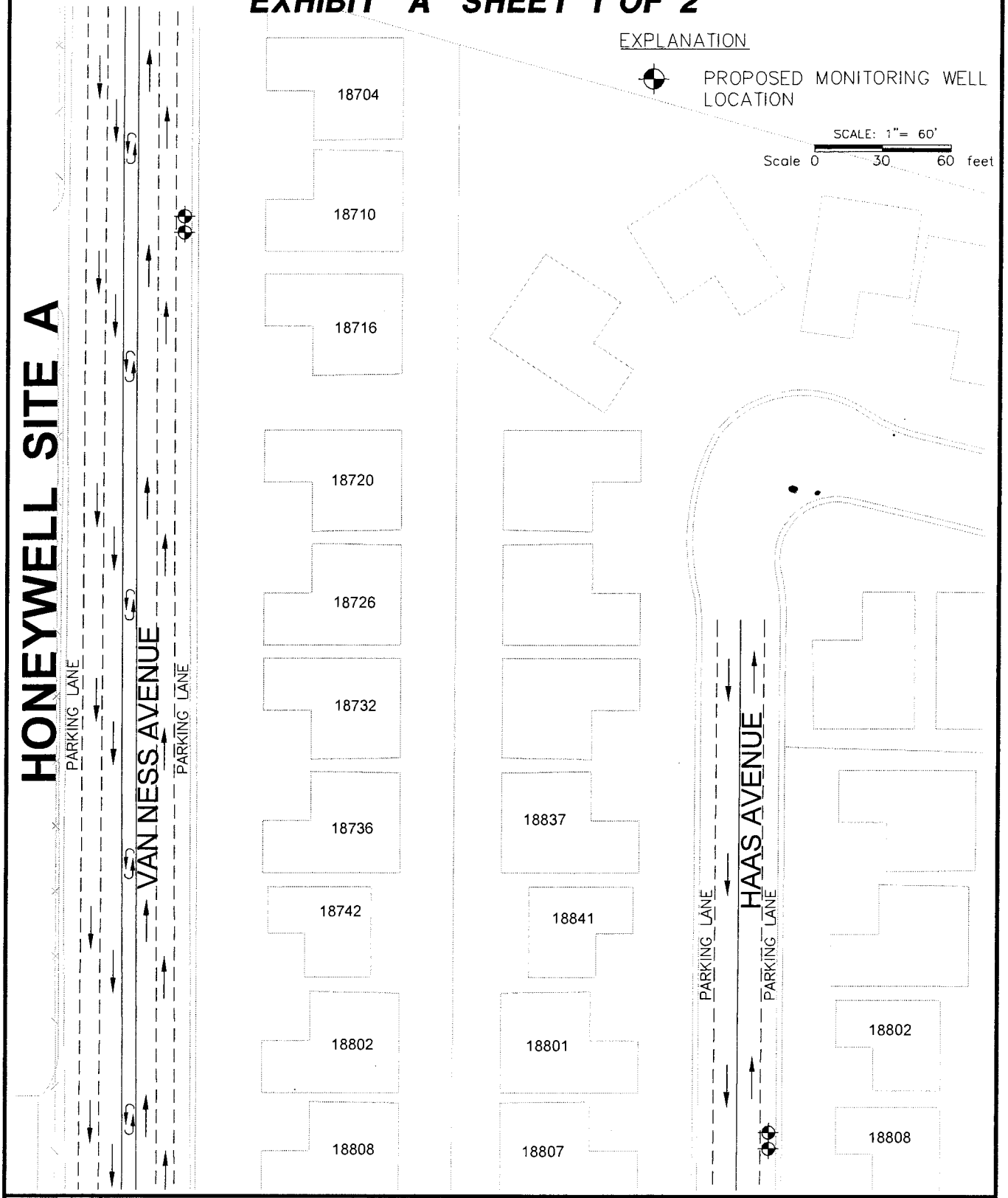
  _____
  (Title)
- ☐ Partner(s)
- ☐ Attorney-in-Fact
- ☐ Trustee(s)
- ☐ Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

Any acknowledgment completed in California must contain verbiage exactly as appears above in the notary section or a separate acknowledgment form must be properly completed and attached to that document. The only exception is if a document is to be recorded outside of California. In such instances, any alternative acknowledgment verbiage as may be printed on such a document so long as the verbiage does not require the notary to do something that is illegal for a notary in California (i.e. certifying the authorized capacity of the signer). Please check the document carefully for proper notarial wording and attach this form if required.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he~~/she/~~they,~~ is /~~are~~) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
  - Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
  - Indicate title or type of attached document, number of pages and date.
  - Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document

EXHIBIT "A" SHEET 1 OF 2

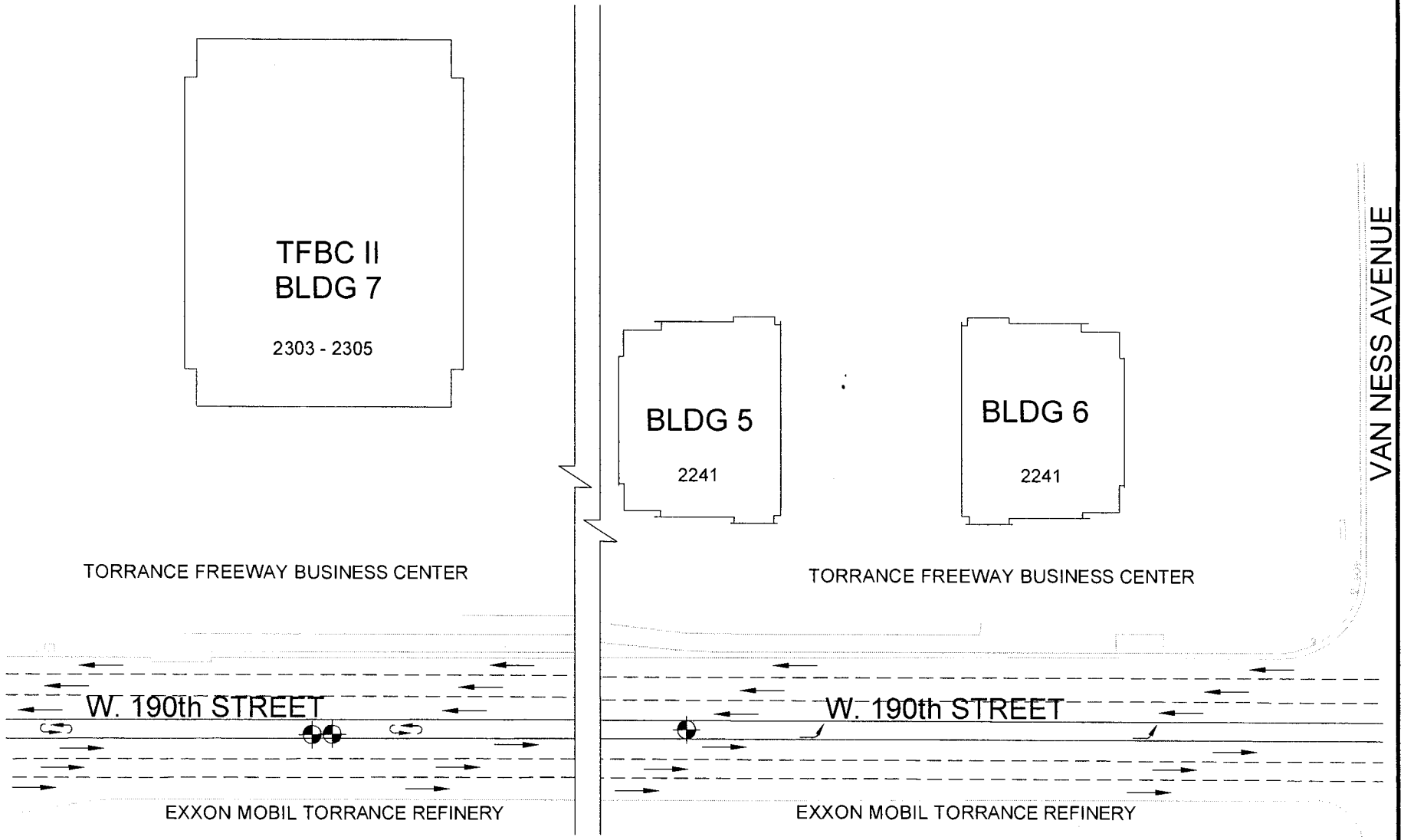


N W E S	MACTEC 2171 CAMPUS DRIVE, SUITE 100 IRVINE, CA 92612	DWG BY MY DATE 4/10 REV BY REVISED REVIEWED BY REVIEWED DATE	HONEYWELL SITE A 2525 & 2545 West 190th Street, Torrance, California PROPOSED GROUNDWATER MONITORING WELLS FOR HONEYWELL INTERNATIONAL EXHIBIT "A" SHEET 1 OF 2 PROJECT NO. 495110-0331

DATE PLOTTED: 4/26/10

FILE: \495110-0331\0410-0331-DETAIL-1

EXHIBIT "A" SHEET 2 OF 2



EXPLANATION

PROPOSED MONITORING WELL LOCATION

NOT TO SCALE

N W E S

MACTEC

2171 CAMPUS DRIVE, SUITE 100
IRVINE, CA 92612

DWG BY	MY
DATE	4/10
REV BY	
REVISED	
REVIEWED BY	
REVIEWED DATE	

HONEYWELL SITE A
2525 & 2545 West 190th Street, Torrance, California

PROPOSED GROUNDWATER MONITORING WELL LOCATION IN 190TH STREET

EXHIBIT "A"
SHEET 2 OF 2
PROJECT NO 495110-0331

DATE PLOTTED: 2/26/10

FILE: \495110-0331\0410-0331-DETAIL-2

ATTACHMENT B

MACTEC

engineering and constructing a better tomorrow

February 23, 2010

Mr. Issa Malki, P.E.
City of Torrance
Community Development Department
3031 Torrance Blvd.
Torrance, CA 90503-2970

Dear Mr. Malki:

On behalf of Honeywell International Inc. (Honeywell), MACTEC is submitting this request to obtain a license agreement to install, sample, and maintain four groundwater monitoring wells within Van Ness and Haas Avenues and three groundwater monitoring wells within W. 190th Street (Exhibit A; Exhibits A1 – A4).

The groundwater monitoring wells will be installed as required in a letter by the Los Angeles Regional Water Quality Control Board (RWQCB) dated November 19, 2009 to Honeywell (Attachment 1). The RWQCB letter requires the installation of perched and deeper zone cluster groundwater monitoring wells to assess offsite groundwater contamination east of Honeywell Site A, 2545 West 190th Street, Torrance, California.

The required future monitoring well locations were selected based on analytical results from groundwater sampling at several onsite well locations. After reviewing the analytical results from groundwater sampling, the RWQCB concurred that installation of wells at the locations listed below are needed:

- The parking lane on the eastern side of Van Ness Avenue (Exhibit A1)
- The parking lane on the western side of Haas Avenue (Exhibit A2)
- The south side (east bound traffic lanes) of W. 190th Street (Exhibits A3 and A4).

Monitoring Well Construction Details

Per the RWQCB request, the groundwater monitoring wells will be screened across the perched zone ("A zone," screened above 65 feet below ground surface [bgs]) and in the groundwater ("B zone, screened 70 to 85 feet bgs). A 10-inch steel conductor casing will be installed in the "B Zone" well to approximately 60 feet bgs. Each borehole will be covered with a steel plate, secured with cold asphalt patch, between drilling activities.

The monitoring wells will be constructed with 2-inch diameter Schedule 40 PVC and will be completed with traffic-rated well boxes flush to street surface. The monitoring wells will be secured with locking caps and will likely be sampled until the RWQCB authorizes well abandonment.

MACTEC Engineering and Consulting, Inc.
2141 Campus Drive, Suite 100 • Irvine, CA 92612 • Phone: 949.224.0050 • Fax: 949.224.0073

Mr. Issa Malki P.E.
City of Torrance/
Community Development Department

February 23, 2010

Utility Clearance of Proposed Locations
Prior to drilling any boreholes, a qualified geophysical company will use equipment to assess subsurface utilities at each drilling location. Each drilling location will be cleared with an air-vacuum rig to 8 feet below ground surface to ensure that no utilities or obstructions are present.

Traffic Control
Traffic control will be implemented using the most current version of the Manual on Uniform Traffic Control Devices (MUTCD). It is anticipated that the well installation and sampling work on Van Ness and Haas Avenues will require the closure of one traffic lane. A traffic control plan will be prepared for the work on W. 190th Street as it will likely require the closure of two traffic lanes.

MACTEC would like to begin this field work as soon as possible. Please feel free to contact Tony Marino at (949) 224-0050 ext. 32 or David DeVries at ext. 38 with any questions you may have.

Sincerely,
MACTEC, Inc.

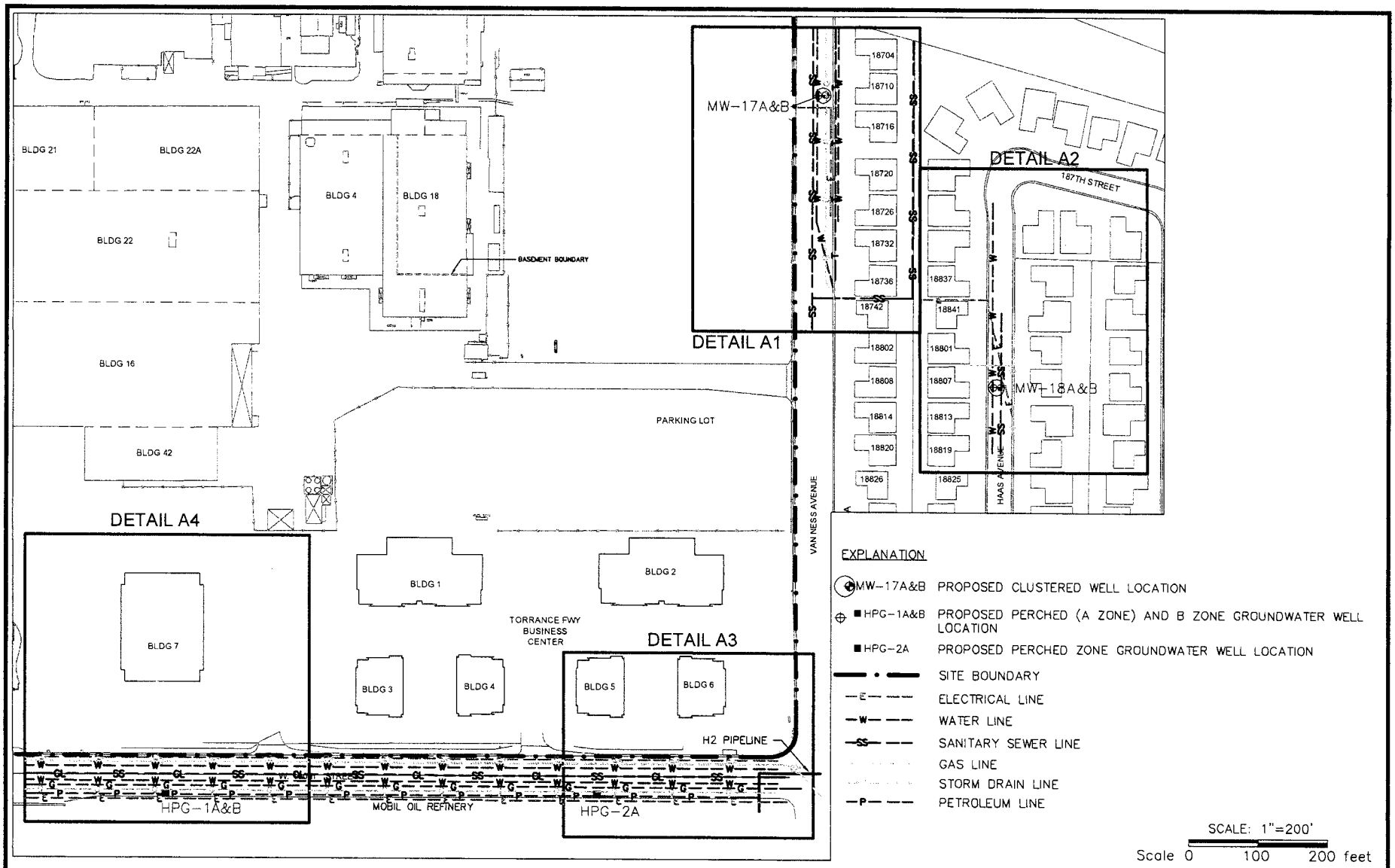
David J. DeVries
Project Manager

Anthony Marino
Senior Geologist

Cc: Benny Dehghi, Honeywell

Enclosures:

Exhibit A – Proposed Groundwater Monitoring Well Locations
Exhibit A1 – Proposed Clustered Well Location in Van Ness Avenue
Exhibit A2 – Proposed Clustered Well Location in Haas Avenue
Exhibit A3 – Proposed Perched Well Location in 190th Street
Exhibit A4 – Proposed Clustered Well Location in 190th Street
Attachment 1 – RWQCB Letter dated November 19, 2009



N
W E
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MACTEC

2171 CAMPUS DRIVE, SUITE 100
IRVINE, CA 92612

DWG BY	MY
DATE	12/09
REV BY	MY
REVISED	2/10
REVIEWED BY	
REVIEWED DATE	

HONEYWELL SITE A
2525 & 2545 West 190th Street, Torrance, California

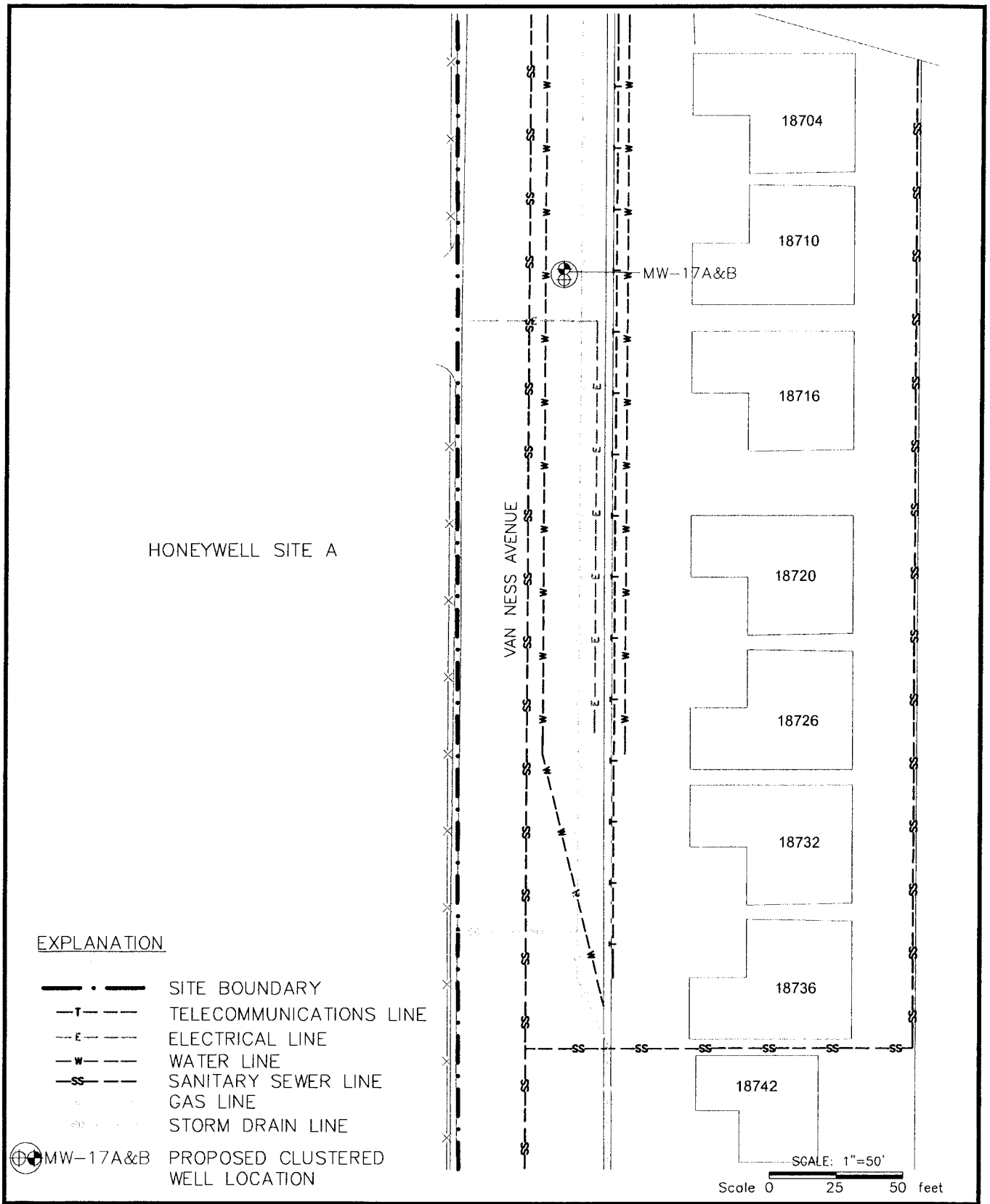
PROPOSED GROUNDWATER MONITORING WELL LOCATIONS

EXHIBIT
A

PROJECT NO.
495105-1310.2201

DATE PLOTTED: 2/22/10

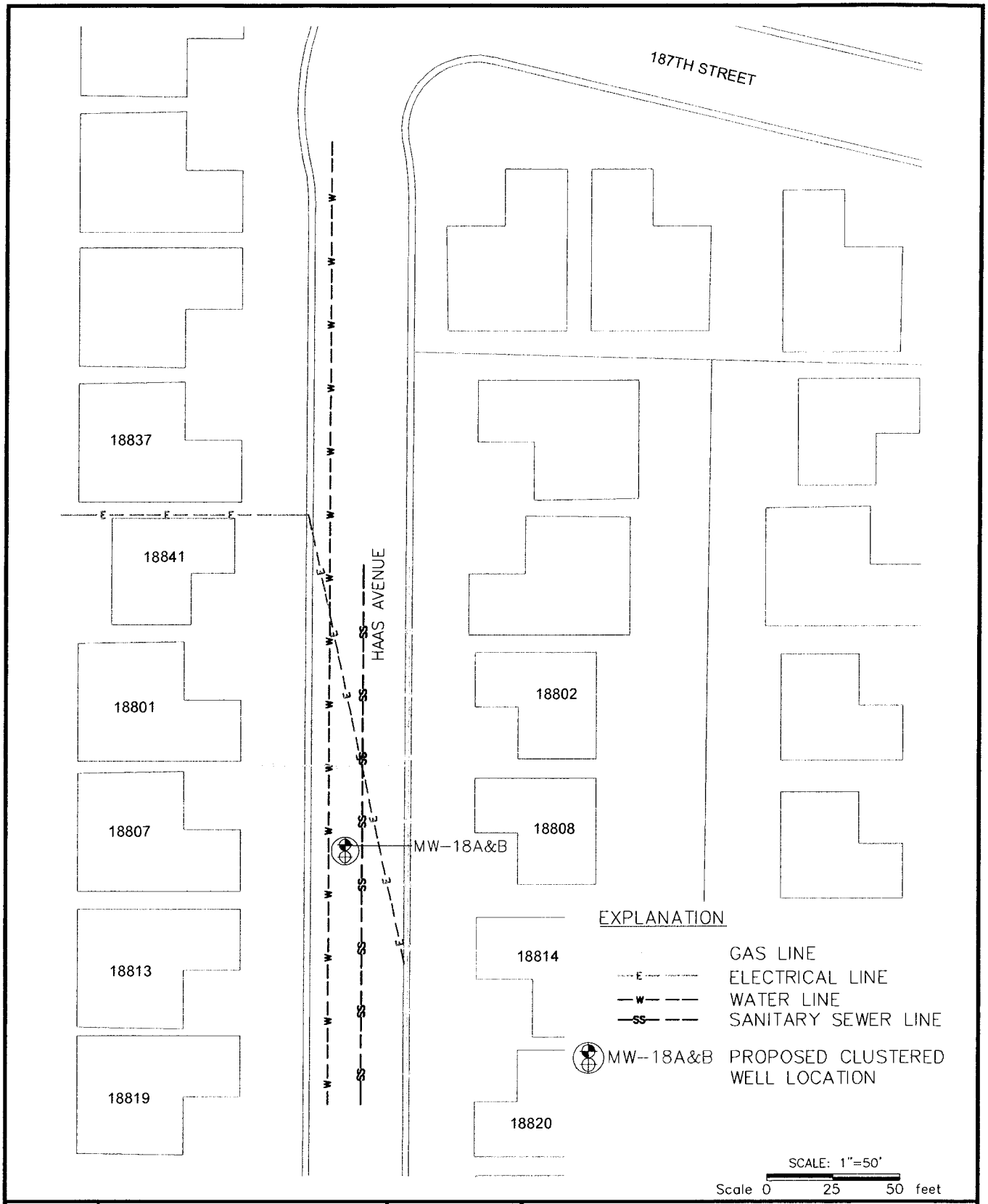
FILE: 495105-1310.2201\0210-1310-2201-SP2



N W E S	MACTEC 2171 CAMPUS DRIVE, SUITE 100 IRVINE, CA 92612	DWG BY MY DATE 2/10 REV BY REVISED REVIEWED BY REVIEWED DATE	HONEYWELL SITE A 2525 & 2545 West 190th Street, Torrance, California PROPOSED CLUSTERED WELL LOCATION IN VAN NESS AVENUE EXHIBIT A1 PROJECT NO 495105-1310.2201

DATE PLOTTED: 2/22/10

FILE: \495105-1310.2201\0210-1310-2201-DETAIL-A1



N
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MACTEC

2171 CAMPUS DRIVE, SUITE 100
IRVINE, CA 92612

DWG BY	MY
DATE	2/10
REV BY	
REVISED	
REVIEWED BY	
REVIEWED DATE	

HONEYWELL SITE A
2525 & 2545 West 190th Street, Torrance, California

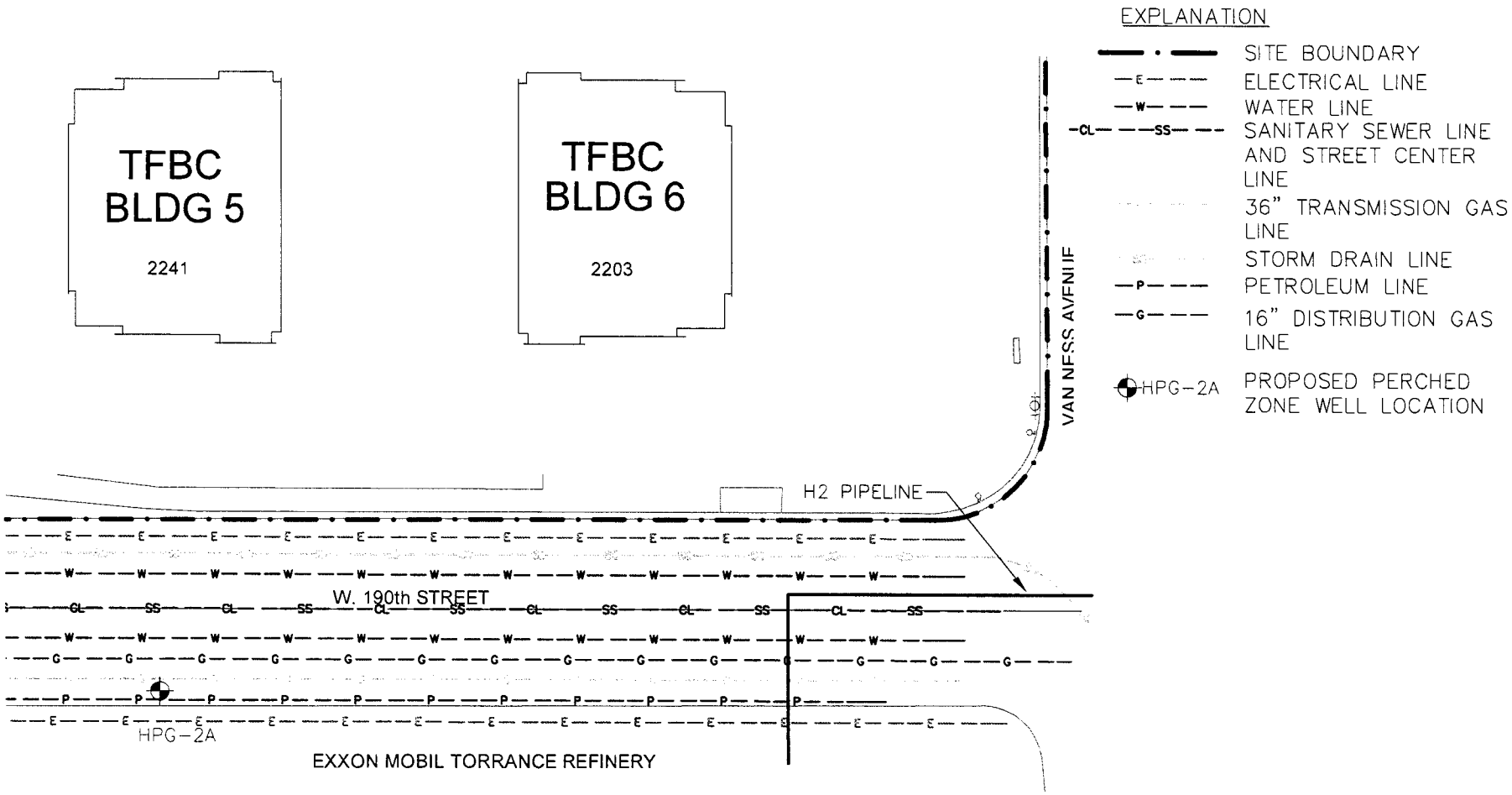
PROPOSED CLUSTERED WELL LOCATION IN HAAS AVENUE

EXHIBIT
A2

PROJECT NO.
495105-1310.2201

DATE PLOTTED: 2/22/10

FILE: \495105-1310.2201\0210-1310-2201-DETAIL-A2



NOT TO SCALE:

N W E S

MACTEC

2171 CAMPUS DRIVE, SUITE 100
IRVINE, CA 92612

DWG BY	MY
DATE	2/10
REV BY	
REVISED	
REVIEWED BY	
REVIEWED DATE	

HONEYWELL SITE A
2525 & 2545 West 190th Street, Torrance, California

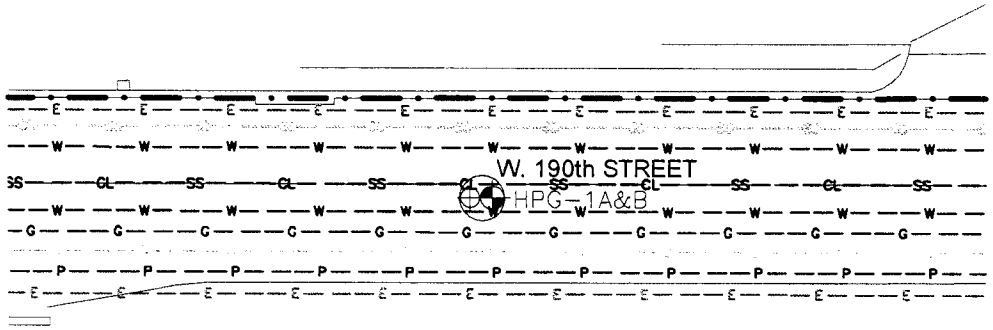
PROPOSED PERCHED ZONE WELL LOCATION IN 190TH STREET

EXHIBIT **A3**

PROJECT NO. 495105-1310.2201

DATE PLOTTED: 2/22/10

FILE: \495105-1310.2201\0210-1310-2201-DETAIL-A3



EXPLANATION

- SITE BOUNDARY
- ELECTRICAL LINE
- WATER LINE
- SANITARY SEWER LINE AND STREET CENTER LINE
- 36" TRANSMISSION GAS LINE
- STORM DRAIN LINE
- PETROLEUM LINE
- 16" DISTRIBUTION GAS LINE
- HPG-1A&B PROPOSED CLUSTERED WELL LOCATION

NOT TO SCALE

N W E S

MACTEC

2171 CAMPUS DRIVE, SUITE 100
IRVINE, CA 92612

DWG BY	MY
DATE	2/10
REV BY	
REVISED	
REVIEWED BY	
REVIEWED DATE	

HONEYWELL SITE A
2525 & 2545 West 190th Street, Torrance, California

PROPOSED CLUSTERED WELL LOCATION IN 190TH STREET

EXHIBIT **A4**

PROJECT NO. 495105-1310.2201

DATE PLOTTED 2/22/10

FILE: \495105-1310.2201\0210-1310-2201-DETAIL-A4

California Regional Water Quality Control Board
Los Angeles Region

Linda S. Adams
Cal/EPA Secretary

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: http://www.waterboards.ca.gov/losangeles

Arnold Schwarzenegger
Governor

November 19, 2009

Mr. Benny DeHghi, Manager
Remediation and Evaluation Services
Honeywell International, Inc.
2525 West 190th Street
Torrance, CA 90504-6099

APPROVAL OF ADDITIONAL SITE CHARACTERIZATION AND SOIL DATA GAP ASSESSMENT PURSUANT TO CALIFORNIA WATER CODE SECTION 13267, HONEYWELL SITE A, 2525 WEST 190TH STREET, TORRANCE, CALIFORNIA, 90504 (SCP NO. 1043, SITE ID NO. 2040278)

Dear Mr. DeHghi:

Enclosed is a Regional Board Order for technical report requirements pursuant to California Water Code (CWC) Section 13267. The Order is in response to June 30, 2009 workplan addenda prepared by Mactec Engineering and Consulting, Inc. (Mactec) on behalf of Honeywell International, Inc. (Honeywell). The workplans are as follows:

- *"Work Plan Addendum – Additional Groundwater and Soil Vapor Assessment"* (groundwater workplan)
- *"Work Plan Addendum – Soil Data Gap Assessment"* (data gap workplan)

Regional Board staff has reviewed the workplans and provides the requirements contained in the Order. You shall comply with the Order to fully characterize soil, soil vapor and groundwater contamination at the referenced site.

The State Water Resources Control Board (State Water Board) adopted regulations requiring the electronic submittals of information over the Internet using the State Water Board GeoTracker database. You are required not only to submit hard copy reports required in this Order but also to comply by uploading all reports and correspondence prepared to date and additional required data formats to the GeoTracker system. Information about GeoTracker submittals, including links to text of the governing regulations, can be found on the Internet at the following link:

http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal

If you have any questions, please contact the project manager Mr. Steve Rowe, at (213) 576-6755 or srowe@waterboards.ca.gov.

Sincerely,

Samuel Unger, AEO for

Adnan S. Siddiqui, Unit Chief
Site Cleanup Program, Unit III

Enclosure: Requirement to Provide Technical Report (California Water Code Section 13267 Order)
cc: Mr. David DeVries, Mactec
Ms. Ellona Hess, Scott Management Company
Ms. Leanna Carter, Storage, Etc.

California Regional Water Quality Control Board
Los Angeles Region

Linda S. Adams
Cal/EPA Secretary

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: http://www.waterboards.ca.gov/losangeles

Arnold Schwarzenegger
Governor

REQUIREMENT TO SUBMIT TECHNICAL REPORTS FOR ADDITIONAL SITE CHARACTERIZATION AND DATA GAP ASSESSMENT (CALIFORNIA WATER CODE SECTION 13267[1] ORDER)

HONEYWELL SITE A FACILITY
2525 WEST 190TH STREET, TORRANCE, CA, 90504
SCP NO. 1043, SITE ID NO. 2040278

You are legally obligated to respond to this Order. Please read this carefully.

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the state regulatory agency responsible for protecting water quality in Los Angeles and Ventura Counties. To accomplish this, the Regional Board issues investigative orders and requirements for submission of technical documents (reports, workplans, etc.) authorized by the Porter-Cologne Water Quality Control Act.

You are the responsible party identified for conducting necessary site investigation and remediation at the above-referenced property (Site).You have submitted a "*Work Plan Addendum – Additional Groundwater and Soil Vapor Assessment*" (groundwater workplan) and a "*Work Plan Addendum – Soil Data Gap Assessment*" (data gap workplan), both dated June 30, 2009 and prepared by your consultant Mactec Engineering and Consulting, Inc. (Mactec). The groundwater workplan was based on meetings with Regional Board staff and recommendations in a January 31, 2008 "*2007 Remedial Investigation Report*" by Mactec in response to a Regional Board directive (letter) dated November 19, 2007. The letter also required a remedial action plan (RAP) for soil. In response, Mactec submitted an April 15, 2008 "*Vadose Zone Conceptual Remedial Action Plan*", which described potential cleanup methods and recommended data gap assessment prior to developing the RAP. The data gap workplan outlines this proposed data gap investigation. This Order provides our approval of the workplan and requirements.

Site Background

The Site is a 32-acre commercial property located within a mixed commercial and residential area of Torrance, California (Figure 1). Prior to 1960, the Site was undeveloped. Since 1961, the property has been used for manufacturing aerospace components. Chlorinated solvents were used as degreasing agents for cleaning equipment and parts until the mid-1990. Honeywell still uses the facility for aerospace manufacturing. Since 2000, part of the Site has been sold and redeveloped, including Storage, Etc. and the Torrance Freeway Business Center (TFBC).

The Site lies in the West Coast Groundwater Basin of the Los Angeles Coastal Plain. According to the California Department of Water Resources (DWR) Bulletin 104, the Site is underlain by the Lakewood Formation, and the

[1] California Water Code section 13267 states, in part: (b)(1) In conducting an investigation. . ., the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or, discharging, or who proposes to discharge waste within its region ... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

top of the Gardena aquifer occurs at approximately 113 feet below ground surface (bgs). Based on Site-specific boring logs, subsurface lithology generally consists of interbedded sand and silty sand along with silt and clay from the surface to 125 feet bgs, the total depth investigated. First groundwater occurs within discontinuous, perched fine-grained sand zones at 30-35 feet bgs in the west to 50-60 feet bgs in the central and eastern portions of the Site. A second, laterally continuous groundwater zone occurs within fine- to medium-grained sand at 65-70 feet bgs. Both of these water-bearing zones may be part of the Bellflower aquitard. Perched zone groundwater generally flows toward the east-southeast, whereas groundwater in the deeper zone generally flows toward the northeast.

Soil, soil vapor and groundwater have been impacted with volatile organic compounds (VOCs), including 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethene (1,1-DCE), tetrachloroethene (PCE) and trichloroethene (TCE). Groundwater is also impacted with 1,4-dioxane. Groundwater monitoring of perched and deeper zone wells is conducted on a quarterly basis. In 2002, an 8-month soil vapor extraction (SVE) pilot test was conducted in the western portion of the Site to evaluate SVE design parameters. However, to date there has been no full-scale remediation conducted at the Site. Soil and soil vapor delineation is mostly complete, but some data gaps remain. The lateral and vertical extent of contaminated groundwater both onsite and offsite has not been fully delineated.

Proposed Work

The purpose of this work is to investigate potential offsite migration of the shallow soil vapor plume, complete delineation of contaminated groundwater both onsite and offsite and to resolve source area data gaps to facilitate the selection of an appropriate cleanup method. The groundwater workplan proposes the following (Figure 2):

- Install three perched and deeper zone cluster groundwater monitoring wells
- Drill and install three soil vapor probes along the eastern Site boundary

The data gap workplan proposes a tiered approach to investigate source areas as follows:

- Step1: Install and sample 65 temporary shallow soil vapor probes (Figure 3)
- Step2: Install and sample additional temporary soil vapor probes to assess VOCs from Step 1
- Step3: Install and sample semi-permanent multi-depth soil vapor probes to vertically assess soil vapor and perched groundwater based on results from Steps 1 and 2.

Samples from vadose and saturated zones will also be used for bench testing to evaluate remediation technologies.

Regional Board Requirements

Based on our review of the workplans and documents in the file, the proposed monitoring well installation, soil vapor sampling and soil data gap assessment activities are approved. However, our review indicates there are some additional data gaps that were not adequately addressed in the workplans. Therefore, the proposed work is approved with the following requirements:

1. **Soil Vapor Delineation**

   Previous soil vapor data from the *"January 2008 Site-Wide Soil Vapor Monitoring Report"* by Mactec dated April 15, 2008 show that the PCE soil vapor plume has not been fully defined. Therefore, you must drill at least two soil vapor borings north of Building #21 and #22A to define the northern extent of the PCE plume. In each boring, install vapor probes and collect soil vapor samples at 5, 10, 20, 30 and 40 feet bgs. If groundwater is encountered, collect a groundwater sample using a Hydropunch or equivalent tool.

2. **Soil Data Gap Investigation**

The proposed soil data gap investigation shall be modified as follows:

a) Analyze all 5-foot soil matrix samples for VOCs and 1,4-dioxane

b) Collect additional 5-foot soil matrix samples in the following areas (Figure 1):
   1. Former 1,1,1-TCA degreaser tank east of sample P18
   2. Former TCE waste drum 60 feet southeast of sample P18
   3. Former 1,1,1-TCA tank near sample P11
   4. Near samples P28, P35-39, P53, SV35, SV72, SV85 and SV93

c) Collect 1-foot soil matrix samples near P3-P5, P8 and P9. Analyze for PCBs by EPA Method 8082

d) Collect soil matrix samples at 1-foot and 5-feet bgs near P8, P33 and P34. Analyze as follows:
   1. 1-foot bgs: Title 22 Metals by EPA Method 6010/7000
   2. 5-feet bgs: Total petroleum hydrocarbons as carbon chain (TPHcc) by EPA Method 8015M

e) Collect 1-foot soil matrix samples and analyze for semi-volatile organic compounds (SVOCs) by EPA Method 8270C in the following areas:
   1. Near samples P8, P18, P22, P33 and P34
   2. Near sample P6 (1 foot and 5 feet bgs)

f) Conduct soil vapor sampling for VOCs by EPA Method 8260B at 5 feet bgs in the following areas:
   1. Near samples P7, P10, P12, P15, P19, P20, P23, P28
   2. Near samples SV-35, SV-72, SV-85 and SV-93

3. **Lateral Groundwater Delineation**

Install additional groundwater monitoring wells as follows:

a) Deeper zone well west of MW-14B to define upgradient TCE and 1,1-DCE plumes
b) Cluster well southeast of MW-3A/B to define offsite 1,1-DCE plumes
c) Perched zone well south of MW-7A to define offsite perched TCE plume
d) Cluster well northeast of Building 18 to define 1,1-DCE, TCE and PCE plumes

4. **Field Screening**

Collect soil samples from monitoring well boreholes at minimum 5-foot intervals for lithologic logging and field-screening for VOCs using a photoionization detector (PID). The PID must be equipped with the appropriate lamp to detect the range of VOCs encountered at the Site. Based on the field-screening results, you must collect additional soil samples for laboratory analyses, as appropriate.

5. **Revised Site Plan**

Submit a revised site plan showing additional soil and soil vapor sampling, and groundwater monitoring well locations in accordance with Items #1, #2 and #3 above for our review by **December 18, 2009.**

6. Vertical Groundwater Delineation

The groundwater workplan does not address the vertical extent of groundwater contamination. Prior discrete-depth groundwater data collected from the Site showed high VOCs concentrations at 105 feet bgs and detectable levels down to 120 feet bgs. In order to characterize the vertical extent of groundwater contamination, you must install deep groundwater monitoring wells near contaminant plume sources and downgradient areas. At a minimum, groundwater monitoring wells are required at the following locations:

b) Near MW-5 and MW-11 to investigate 1,1-DCE and 1,4-dioxane plumes
c) Near MW-1 and MW-12 to investigate PCE and TCE plumes

All of the deep borings must be continuously cored for lithology using appropriate drilling methods. The contact between the Bellflower aquitard and Gardena aquifer must be verified with soil matrix samples. The vertical groundwater investigation shall be conducted in a manner that does not allow potential cross-contamination between multiple water-bearing zones.

7. Groundwater Characterization Workplan

Submit a workplan to investigate the full vertical extent of impacted groundwater in accordance with Item #6 above for our review by **January 29, 2010.**

8. Analytical Program

All laboratory analyses must be done by a California Department of Public Health (CPDH) Environmental Laboratory Accreditation Program (ELAP)-approved laboratory for the following constituents:

a) Soil, soil vapor and groundwater must be analyzed for VOCs by EPA Method 8260B
b) Soil and groundwater must also be analyzed for 1,4-dioxane by EPA Method 8270C
c) Analyze select soil samples for metals, PCBs, TPHcc or SVOCs as specified above

9. Site Characterization Report

Submit an updated site characterization report documenting the results, conclusions and recommendations from the investigation for our review by **March 31, 2010.** The report must include the following items:

a) Conceptual site model showing all known and potential sources, release mechanisms, transport media, exposure pathways and potential receptors
b) Well construction summary table for all groundwater monitoring wells

10. Perjury Statement

Past technical submittals did not include a statement that the reports were submitted under penalty of perjury pursuant to Section 13267 of the California Water Code (CWC). In the March 31, 2010 report and subsequent reports, you are required to include a perjury statement in compliance with CWC Section 13267. The perjury statement shall be signed by a senior authorized Honeywell International Inc. representative (and not by a consultant). It shall be in the following format:

"I, [NAME], do hereby declare, under penalty of perjury under the laws of State of California, that I am [JOB TITLE] for Honeywell International Inc., that I am authorized to attest that the veracity of the information contained in [NAME AND DATE OF REPORT} is true and correct, and that this declaration was executed at [PLACE], [STATE], on [DATE]."

As presented in State Water Resources Control Board Resolution 92-49, professionals should be qualified, licensed where applicable, and competent and proficient in the fields pertinent to the required activities. Moreover, the final report submitted to this Regional Board must be reviewed, signed and stamped by a California registered geologist, or a California registered civil engineer with at least five years hydrogeologic experience. Furthermore, the California Business and Professions Code Sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under the direction of registered professionals. Therefore, all future work must be performed by or under the direction of a registered geologist or registered civil engineer. A statement is required in the final report that the registered professional in responsible charge actually supervised or personally conducted all the work associated with the work plan and final report.

Pursuant to Section 13267(b) of the California Water Code (CWC), you are hereby directed to submit the technical documents to this Regional Board by the specified due dates listed above. Furthermore, pursuant to Section 13268 (b)(1) of the CWC, failure to submit the required technical report may result in the imposition of civil liability penalties by the Regional Board of up to $1,000 per day for each day the technical document is not received after the specified due date and without further warning.

We believe that the burdens, including costs, of this report bear a reasonable relationship to the need for these documents and the benefits to be obtained from the documents. If you disagree and have information about the burden, including costs, of complying with these requirements, provide such information in writing to Mr. Steve Rowe within ten days of the date of this letter so that we may reconsider the requirements.

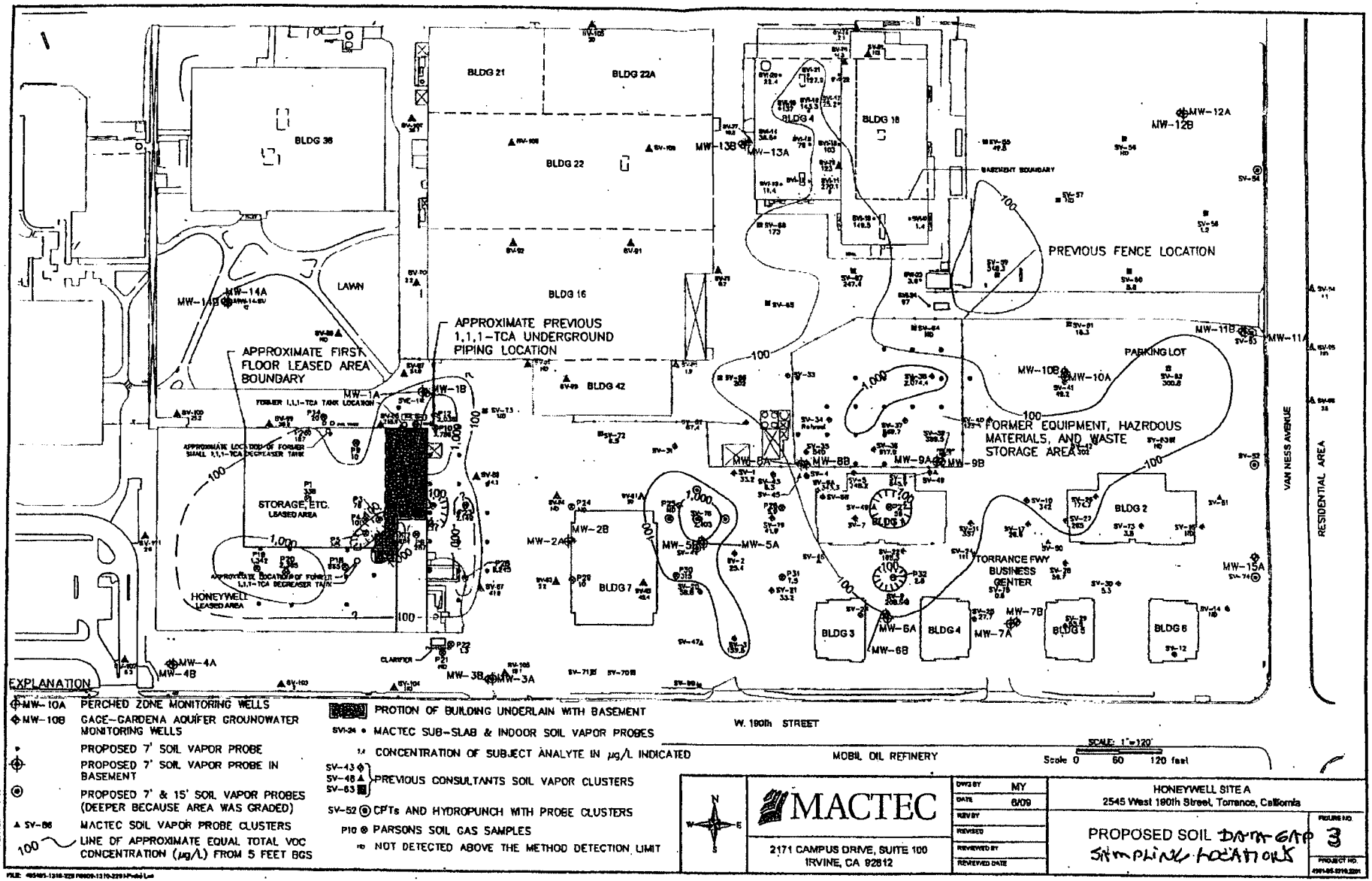
Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must *receive* the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

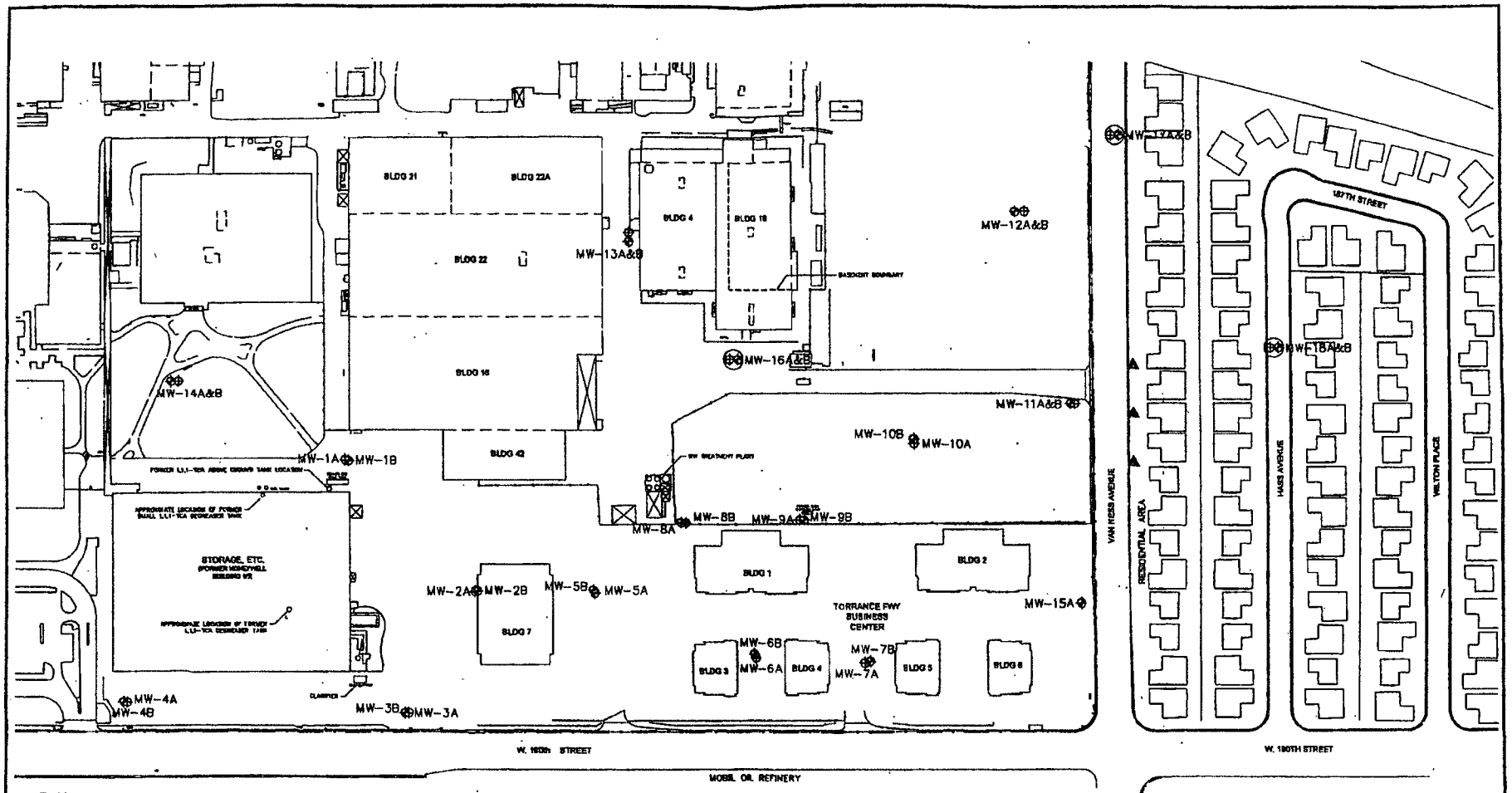
SO ORDERED.

November 19, 2009

Tracy J. Egoscue
Executive Officer

Attachments: Figure 1. Site Plan with Prior Sampling Locations
Figure 2. Proposed Well and Soil Vapor Probe Locations
Figure 3. Proposed Soil Data Gap Sampling Locations


BLDG 36
BLDG 21
BLDG 22A
BLDG 22
BLDG 16
BLDG 42
BLDG 4
BLDG 18
BLDG 2
BLDG 3
BLDG 7
BLDG 5
BLDG 6
LAWN
PARKING LOT
PREVIOUS FENCE LOCATION
APPROXIMATE PREVIOUS 1,1,1-TCA UNDERGROUND PIPING LOCATION
APPROXIMATE FIRST FLOOR LEASED AREA BOUNDARY
FORMER EQUIPMENT, HAZRDOUS MATERIALS, AND WASTE STORAGE AREA
STORAGE, ETC. LEASED AREA
HONEYWELL LEASED AREA
TORRANCE FWY BUSINESS CENTER
VAN NESS AVENUE
RESIDENTIAL AREA
W. 190th STREET
MOBIL OIL REFINERY
MW-1A
MW-1B
MW-2A
MW-2B
MW-3A
MW-3B
MW-4A
MW-4B
MW-5A
MW-5B
MW-6A
MW-6B
MW-7A
MW-7B
MW-8A
MW-8B
MW-9A
MW-9B
MW-10A
MW-10B
MW-11A
MW-11B
MW-12A
MW-12B
MW-13A
MW-13B
MW-14A
MW-14B
MW-15A
EXPLANATION
MW-10A PERCHED ZONE MONITORING WELLS
MW-10B GAGE-GARDENA AQUIFER GROUNDWATER MONITORING WELLS
PROPOSED 7' SOIL VAPOR PROBE
PROPOSED 7' SOIL VAPOR PROBE IN BASEMENT
PROPOSED 7' & 15' SOIL VAPOR PROBES (DEEPER BECAUSE AREA WAS GRADED)
SV-86 MACTEC SOIL VAPOR PROBE CLUSTERS
100 LINE OF APPROXIMATE EQUAL TOTAL VOC CONCENTRATION (µg/L) FROM 5 FEET BGS
PROTION OF BUILDING UNDERLAIN WITH BASEMENT
SV1-24 MACTEC SUB-SLAB & INDOOR SOIL VAPOR PROBES
1.4 CONCENTRATION OF SUBJECT ANALYTE IN µg/L INDICATED
SV-43 SV-46 SV-63 PREVIOUS CONSULTANTS SOIL VAPOR CLUSTERS
SV-52 CPTs AND HYDROPUNCH WITH PROBE CLUSTERS
P10 PARSONS SOIL GAS SAMPLES
ND NOT DETECTED ABOVE THE METHOD DETECTION LIMIT
SCALE: 1"=120'
Scale 0 60 120 feet
MACTEC
2171 CAMPUS DRIVE, SUITE 100
IRVINE, CA 92612
DWG BY MY
DATE 8/09
REV BY
REVISED
REVIEWED BY
REVIEWED DATE
HONEYWELL SITE A
2545 West 190th Street, Torrance, California
PROPOSED SOIL GAS GRID SAMPLING LOCATIONS
FIGURE NO. 3
PROJECT NO.



EXPLANATION

- MW-10A — PERCHED ZONE MONITORING WELLS
- MW-10B — GAGE-GARDENA AQUIFER GROUNDWATER MONITORING WELLS
- MW-16A&B — PROPOSED CLUSTERED WELL LOCATION
- ▲ — PROPOSED SOIL VAPOR PROBE LOCATION
- — · — · — SITE BOUNDARY

SCALE: 1"=150'
Scale 0 75 150 feet

MACTEC
2171 CAMPUS DRIVE, SUITE 100
IRVINE, CA 92612

DWG BY	JTL
DATE	7/05
REV BY	MY
REVISED	8/09
REVIEWED BY	
REVIEWED DATE	

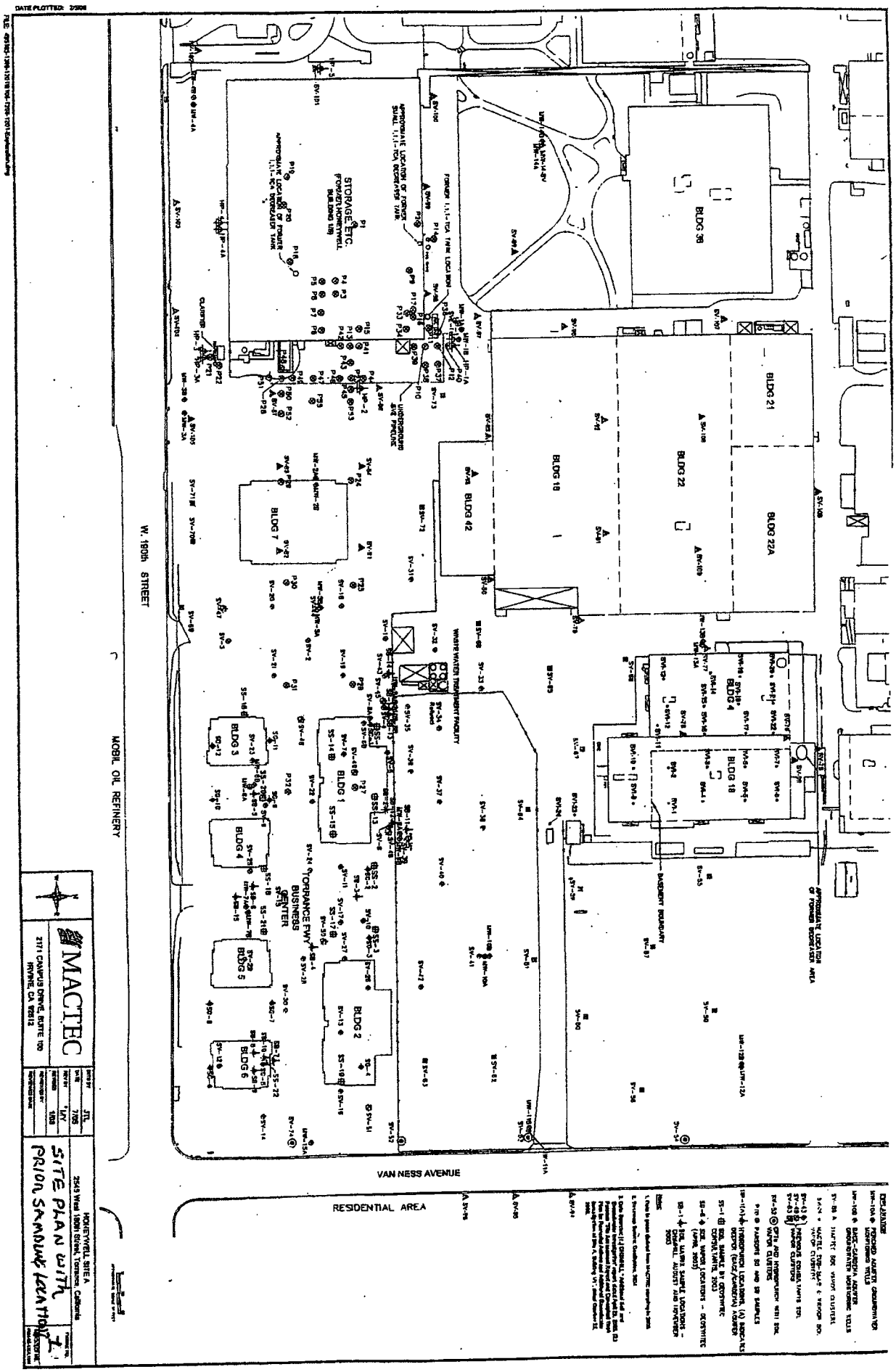
HONEYWELL SITE A
2545 West 190th Street, Torrance, California

PROPOSED WELL AND SOIL VAPOR PROBE LOCATIONS

FIGURE NO. 2

PROJECT NO. 495103-1310

30


DATE PLOTTED: 2/3/08
W. 190th STREET
MOBIL OIL REFINERY
VAN NESS AVENUE
RESIDENTIAL AREA
STORAGE ETC.
BLDG 36
BLDG 21
BLDG 22
BLDG 22A
BLDG 18
BLDG 42
BLDG 7
BLDG 1
BLDG 2
BLDG 3
BLDG 4
BLDG 5
BLDG 6
BLDG 4
BLDG 18
WASTE WATER TREATMENT FACILITY
TORRANCE FWY
BUSINESS CENTER
BASEMENT BOUNDARY
APPROXIMATE LOCATION OF FORMER DEGREASER AREA
MACTEC
2171 CAMPUS DRIVE, SUITE 100
IRVINE, CA 92612
HONEYWELL SITE A
2545 West 190th Street, Torrance, California
SITE PLAN WITH
PRIOR SAMPLING LOCATION