

SECOND ENVIRONMENTAL FUNDING AGREEMENT

This **SECOND ENVIRONMENTAL FUNDING AGREEMENT** ("**Second Agreement**") is between **CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY**, a California corporation ("**EMC**"), for itself and as Attorney-in-Fact for Union Oil Company of California, a California corporation ("**Union Oil**"), and **THE CITY OF LOS ANGELES**, a California municipal corporation, acting by and through its Board of Harbor Commissioners ("**City**"). EMC and City are referred to collectively as the "**Parties**" and individually as "**Party**."

RECITALS

- A. Pursuant to a grant of tide and submerged lands from the State of California, City is vested with authority to control, manage, protect, and conserve that certain real property known as the Former Unocal Marine Station No. 0692, located at Port of Los Angeles ("**Port**") Berth 78 on Nagoya Way, in San Pedro, California ("**Site**"), as depicted in Exhibit A — Map of Site.
- B. From approximately 1950-1999, Union Oil leased the Site from the City pursuant to Revocable Permit No. 93-34 ("**Revocable Permit**") and operated a marine bulk diesel fuel storage and dispensing station for tugboats and fishing vessels at the Site, also referred to as Union Oil Site No. 35-8031. The Revocable Permit terminated on its own terms.
- C. The Site comprises approximately 0.2 acres of land and is bordered to the north by the former San Pedro Fish Market, to the south by the Los Angeles Harbor Cruise and Whale Watching, to the east by a seawall, and to the west by a sidewalk and Nagoya Way. The Site is currently unoccupied and public access is prohibited.
- D. The Site was previously under the oversight of the Los Angeles Regional Water Quality Control Board ("**Regional Board**"). In 2002, the Site was excavated to remediate petroleum hydrocarbon contamination of soil and groundwater. The excavation was backfilled with pea gravel, non-impacted soil, and clean imported soil. Following Site remediation, Union Oil received case closure from the Regional Board in a "no further action" letter dated December 9, 2004.
- E. Residual impacted soil from the former marine bulk diesel fuel station remains at the Site. EMC has been unable to access and excavate all residual contamination due to physical Site constraints, including overhead and underground utilities, existing building structures, and the proximity of the seawall along the eastern edge.
- F. Contaminated soil and groundwater from sources other than Union Oil's marine bulk diesel fuel station may also be present on the Site, however no alternate sources of contamination have been specifically identified at this time.
- G. On May 6, 2010, the Regional Board reopened the case and issued a new directive to EMC to take additional assessment and corrective action in response to alleged elevated levels of petroleum hydrocarbons in soil and the presence of light non-aqueous phase

liquid (“**LNAPL**”) on the groundwater surface at the Site (“**Regional Board Directive**”) (see Exhibit B — Regional Board Directive). In response to the Regional Board Directive, EMC submitted a Soil Management Plan dated February 14, 2012, a Revised Soil Management Plan dated October 30, 2017, which includes proposed soil cleanup goals for the Site, and a Soil Management Plan Addendum dated March 23, 2018 (collectively, “**SMP**”) for the Site (see Exhibit C — Soil Management Plan Documents). The Regional Board approved by letter the SMP and related work plan addenda and excavation assessments with conditions (“**Approved SMP**”). For the purposes of the Second Agreement, the Approved SMP includes subsequent approvals from the Regional Board relating to the Regional Board Directive and the SMP.

- H. Pursuant to the SMP, residual impacted soil in excess of Site cleanup goals will be excavated to the extent practicable at four locations identified and currently delineated as Areas A, B, C, and D, and any LNAPL encountered in groundwater will be collected and transported offsite for disposal at an appropriate disposal or recycling facility.
- I. In October 2015, the City informed EMC of its plans to redevelop the Site as part of a larger 16-acre redevelopment project called the San Pedro Public Market (“**Redevelopment Project**”).
- J. The Port’s Redevelopment Project was previously separated into phases. Phase 1 addressed the excavation of Area A, except for that which could not be excavated due to interference by utilities needed to sustain the nearby Fish Market (“**Phase 1 Work**”). The remainder of the work, which was to address any remaining excavation of Area A, and the excavation of Areas B, C, and D was to be done in a separate phase.
- K. In May of 2019, the Parties entered into an Environmental Funding Agreement (City Agreement No. 19-3656) to address Phase 1. The Phase 1 Work has since been completed, EMC reimbursed the City for that work, and the Environmental Funding Agreement for the Phase I work terminated on its own terms.
- L. The City has informed EMC of its plan to proceed with the work in (i) the remaining portion of Area A, which could not previously be excavated due to interference by utilities needed to sustain the nearby Fish Market which the City has since demolished, and (ii) Areas B, C and D (“**Phase 2 Work**”).
- M. This Second Agreement is expressly limited to the Phase 2 Work. This Second Agreement does not address the Phase 1 Work. The City will implement the SMP during the Phase 2 Work.
- N. The Parties desire to work cooperatively to ensure timely and efficient implementation of the Redevelopment Project and the Approved SMP.
- O. The Parties therefore enter into this Second Agreement, without admitting any liability for the alleged contamination, to provide for the reimbursement by EMC of Work Costs incurred by City to implement the Approved SMP for the Phase 2 Work.

NOW THEREFORE, in consideration of the mutual covenants and promises, the Parties agree as follows:

TERMS AND CONDITIONS

1. DEFINITIONS, INTERPRETATION, AND EXHIBITS

1.1 **Definitions.** In this Second Agreement, these capitalized words or expressions have the following meanings:

“Affiliate” means any legal entity that controls, is controlled by, or is under common control with, another legal entity. An entity is deemed to “control” another if it owns directly or indirectly at least 50% of the shares or interests entitled to vote.

“Agency-Directed Work” means the following:

- (A) Work conducted by City’s Contractor as necessary to comply with the Regional Board Directive and Approved SMP, limited only to excavating, extracting, sampling, handling, segregating, stockpiling, waste characterization, dewatering, removing, transporting, treating, and/or disposing of any residual soil and/or groundwater contaminated with petroleum hydrocarbons (including any LNAPL) within the Phase 2 Work Area, importing and backfilling new fill, and ambient air monitoring at the property boundary during any trenching, excavation, borings, and/or soil disturbance, all of which is limited only to Phase 2 Work.
- (B) Agency-Directed Work does not include any of the following:
 - (1) Preparation of Environmental Documents required by the Regional Board, as this task will be handled by EMC pursuant to Section 4.1 (Communications with Regional Board).
 - (2) Any SMP activities related to Phase 1 Work or otherwise conducted outside of the Phase 2 Work Area.
 - (3) Excavation and handling of non-impacted soil existing at the Site, unless required to access impacted soil solely within Areas A, B, or C and not excavated for a purpose other than compliance with the SMP.
 - (4) Any and all of costs relating to meetings, administrative time, and staff time of City.

“Applicable Law” means any law, regulation, statute, code, rule, order, guidelines, memoranda, permit, policy, license, certification, decree, or standard

having the effect of law or similar legally effective measure that applies to this Second Agreement.

“Approved SMP” has the meaning set forth in Recital G.

“City” has the meaning set out in the introductory paragraph.

“City Group” means City and the Port, and their respective employees, officials, representatives, agents, contractors, and suppliers of any tier, and other personnel of all of them, and any person acting on their behalf.

“Claim” means any claim, liability, loss, demand, damage (including consequential damage) cost, lien, cause of action of any kind, obligation, requirement, clean-up costs, penalty, fine, interest, and award, and whether arising by law, contract, tort (including negligence), voluntary settlement, or in any other manner.

“Confidential Information” means all information (including business, technical, and other information), data, knowledge, ideas, and work regarding the Agency-Directed Work or the Site that is disclosed or made available directly or indirectly to Contractor Group by City or EMC in any tangible or intangible form. The term “Confidential Information” does not include information that is any of the following: (A) available generally to the public, as evidenced by printed publication or similar proof, through no act or omission of Contractor Group, or (B) independently made available without restriction to Contractor Group by a person with a legal right to do so.

“Contractor” means a legal entity retained by City and approved by EMC as the contractor to implement the Agency-Directed Work.

“Contractor Group” means Contractor and Contractor’s employees, Affiliates, subcontractors, and suppliers of any tier, and shareholders, partners, or members where Contractor is a limited liability company, directors, officers, employees, and other personnel of all of them, and any person acting on their behalf.

“Covered Contamination” means petroleum hydrocarbon and motor vehicle fuel additive contamination that is encountered within the Phase 2 Work Area and removed from the Site pursuant to the Regional Board Directive. The term Covered Contamination does not include (A) any environmental contamination that is released or caused by a person other than EMC or Union Oil or any of their predecessor entities or Affiliates; or (B) any contamination that is naturally occurring.

“Effective Date” means the latest date on the signature page when all Parties have signed this Second Agreement.

“EMC” has the meaning set out in the introductory paragraph.

“EMC Group” means EMC, its Affiliates, its joint interest owners, contractors, and suppliers of any tier, and the shareholders, directors, officers, and employees of all of them.

“Environmental Documents” means any technical reports, memoranda, correspondence, and other environmental related documents regarding the Site or implementation of the Regional Board Directive.

“LNAPL” has the meaning set forth in Recital G.

“Party” means any of EMC, Union Oil, City, or Port, and **“Parties”** means all of them.

“Phase 1 Work” and **“Phase 2 Work”** have the meaning set forth in Recitals J and L.

“Phase 2 Work Area” means the specific lateral and vertical dimensions of excavation as delineated for the Phase 2 Work in Exhibit D — Area of Excavation.

“Port” has the meaning set forth in Recital A.

“Redevelopment Project” has the meaning set forth in Recital I.

“Regional Board” means the Los Angeles Regional Water Quality Control Board.

“Regional Board Directive” has the meaning set forth in Recital G.

“Releasing Parties” means all members of City Group, any Subsequent Owner, and anyone else acting on City Group’s behalf, as well as each of their predecessors, representatives, agents, counsel, successors, heirs, and assigns and their parents, Affiliates, related parties, insurers, subsidiaries, shareholders, members, partners, representatives, agents, and each of their respective past, present, or future directors, officers, members, partners, counsel, and employees, and any other person (natural, and entity, or otherwise) claiming by, through, or under City Group or any Subsequent Owner.

“Revocable Permit” has the meaning set forth in Recital B.

“Second Agreement” has the meaning set out in the introductory paragraph and includes all exhibits listed in Section 1.2(D) (Interpretation and Exhibits).

“Site” has the meaning set forth in Recital A.

“SMP” has the meaning set forth in Recital G.

“Subsequent Owner” means any person or persons taking title to the Site at a future date.

“**Union Oil**” has the meaning set out in the introductory paragraph.

“**Work Costs**” means only those costs incurred by City to perform and implement the Agency-Directed Work as set forth in Exhibit E – Contractors’ Estimates.

1.2 **Interpretation and Exhibits.**

- (A) Reference to the singular includes a reference to the plural and vice-versa, reference to any gender includes all other genders, and the words “includes” and “including” are illustrative, not limiting. The word “or” is not exclusive. The headings in this Second Agreement are included for convenience and do not affect the construction or interpretation of any provision of this Second Agreement.
- (B) References to matters “arising” (or which “arise” or “arises”) “out of this Second Agreement” include matters which occur in connection with this Second Agreement, which flow from this Second Agreement, or which would not have arisen or occurred but for the entering into this Second Agreement, or the performance of or failure to perform obligations under this Second Agreement.
- (C) If a conflict exists between the body of this Second Agreement and the exhibits, the body prevails to the extent of the conflict.
- (D) The following exhibits are attached and made a part of this Second Agreement:
 - (1) Exhibit A — Map of Site
 - (2) Exhibit B — Regional Board Directive
 - (3) Exhibit C — Soil Management Plan Documents
 - (4) Exhibit D — Area of Excavation
 - (5) Exhibit E — Contractors’ Estimates

2. **TERM AND TERMINATION**

- 2.1 **Term.** This Second Agreement is effective from the Effective Date and, subject to Section 7.2 (Pre-Contract Violations, Reporting Violations, and Termination) and Section 7.10 (Survival), terminates on the occurrence of: (A) on December 31, 2024, if the City’s Contractor has not commenced the Agency-Directed Work, or (B) if the Agency-Directed Work has commenced on or before December 31, 2024, upon completion of the Agency-Directed Work and payment by EMC of Work Costs pursuant to this Second Agreement, provided the City timely transfers

Contractor invoice(s) to EMC for reimbursement in accordance with Section 3.1(B)(3) & (4).

3. THE AGENCY-DIRECTED WORK

3.1 **Contractor Services.** EMC and City agree that Griffith Company and Pacific Edge Engineering, Inc. are the approved Contractors. City shall retain Contractors to perform the Agency-Directed Work and shall be responsible for implementation of the Agency-Directed Work. Contractors' contractual engagement shall be solely with City who shall have direct control over the Contractors and shall act in an independent capacity and not on behalf of, or as representative, or agent of EMC Group. City shall not change the Contractors without the prior written approval of EMC.

(A) **Scope of Work, Deliverables, and Budget.** The Contractor's scope of Agency-Directed Work, approved budget for Work Costs, and deliverables are described in Exhibit E – Contractors' Estimates. Any additional Environmental Documents prepared by Contractors for the Agency-Directed Work shall be submitted to EMC for approval, which shall not be unreasonably withheld. EMC shall have the right to comment on said additional documents and request changes or modifications within 10 business days of receipt or such other time period as the Parties agree. The Parties agree to negotiate, in good faith, a resolution if a dispute arises regarding the content of the draft documents. If City or Contractors receive no comment from EMC within the 10-business day comment period, the additional documents shall be considered approved by EMC. Copies of final documents as well as any supporting documentation, such as analytical data, shall be promptly provided to EMC.

(B) **Contract Value, Invoices, and Payment.**

(1) **Contract Value.** The Contractors' estimates, as set forth in Exhibit E are based on actual costs associated with the Agency-Directed Work. The value of the Agency-Directed Work shall not exceed the sum of the Contractors' estimate of \$3,271,123 without the advance written approval of EMC.

(2) **Invoices for Work Costs.** City shall request that its Contractors provide City with 1 invoice for total Work Costs incurred for the Agency-Directed Work performed, along with the cost support and the specific breakdown of incurred costs, within 120 days after completion of the Agency-Directed Work. Within 30 days of receipt of Contractor's invoice (and no later than 150 days after the Agency-Directed Work is completed), City shall determine if the Work Costs billed are appropriate, within budget, and covered under this Second Agreement. City shall promptly return the respective

invoice to Contractors if not acceptable. Within 30 days of the City determining an invoice is appropriate for payment and covered under this Second Agreement, City shall send such final approved invoice to EMC with a cover letter that states that the invoice is approved, and EMC must reimburse the City pursuant to this Second Agreement. City shall also provide any tax forms that need to be completed to process payments as provided in Section 3.1(B)(4) (Payment) below. EMC shall not be billed for City staff time.

- (3) **Payment.** Provided City timely submits an invoice to EMC, EMC shall review and pay the City's invoice within 45 days from the date of receipt unless EMC delivers to City a written objection to the costs within 15 business days from the date of receipt. Objections to costs may include costs related to exclusions set forth in Section 5.4(B). EMC shall timely pay to the City all costs that are not in dispute. The Parties shall cooperate in good faith to resolve issues concerning the invoice. Any disagreement concerning costs that cannot be resolved shall be submitted to the dispute resolution process under Section 6.2 (Resolution of Disputes).

- (C) **Notification of Contractor Claims or Disputes.** Each Party will promptly notify the other Party of any disputes with a Contractor in respect of the Agency-Directed Work, the invoices or payments related to the Agency-Directed Work, or any Claims that may affect the Agency-Directed Work or the Parties' rights and obligations under this Second Agreement.

- (D) **Contractor's Insurance.** City shall require the Contractors who perform the Agency-Directed Work under this Second Agreement to maintain all insurance required by law, maintain liability insurance coverage in accordance with the Contractors' service agreements, and shall name EMC as an additional insured. City shall deliver Contractors' certificates of insurance to EMC upon request.

- 3.2 **Access.** City grants EMC Group a temporary, nonexclusive license to enter the Site as needed to oversee the Agency-Directed Work for the duration of the Phase 2 Work. EMC will provide City with reasonable advance notice of EMC's intent to access the Site, and City agrees to assist EMC in locating and gaining access to areas of the Site where such work will be performed.

- 3.3 **Disposal Facility Designation.** All manifests for Covered Contamination must identify City as the person arranging for the transportation and disposal of Covered Contamination, including designation of the disposal facility. City has authorized Simi-Valley Landfill in Simi Valley, California, Soil Safe of California in Adelanto, California, and Clean Harbors in Buttonwillow, California as the disposal facilities. EMC shall defend, indemnify, and hold harmless City against any cost and liability incurred by City as a direct result of City arranging pursuant

to this Section 3.3 (Disposal Facility Designation) for the transportation and disposal of Covered Contamination.

4. INTERACTIONS WITH REGIONAL BOARD

- 4.1 **Communications with Regional Board.** EMC shall be solely responsible for handling any required communications with the Regional Board to implement the Agency-Directed Work, including the preparation and submission of Environmental Documents to the Regional Board relating to the Agency-Directed Work.
- 4.2 **City Review of Draft Environmental Documents.** Prior to EMC submitting any documents to the Regional Board relating to the Agency-Directed Work, including Environmental Documents, City shall have a right to review and provide comments within 10 business days of receipt of a draft Environmental Document or such other period as the Parties agree in writing. If EMC receives no comment from City within the 10-business day comment period, the documents shall be considered approved by City. EMC, in its sole and reasonable discretion, shall have the right to accept or reject any comments from City. EMC shall promptly provide to City copies of all final Environmental Documents and any documents received from the Regional Board.

5. RELEASES, WAIVERS, AND EXCLUSIONS

5.1 CITY RELEASE.

- (A) Except as set forth in 5.2 below, City, on its behalf and on behalf of Releasing Parties and anyone else acting on Releasing Parties' behalf, waives, releases, and forever discharges EMC Group from any and all Claims arising out of or in any way related to the Revocable Permit, except for any surviving indemnity obligations under Section 21 of the Revocable Permit.
- (B) City, on its behalf and on behalf of Releasing Parties and anyone else acting on Releasing Parties' behalf, releases and forever discharges EMC Group from any and all Claims, including Claims by third parties, arising out of or in any way related to (1) the performance of the Agency-Directed Work, (2) the Work Costs (to the extent paid in full to the satisfaction of City or excused from payment in accordance with Section 3.1(B)(3)&(4)), (3) Covered Contamination (including any LNAPL) encountered in connection with the Agency-Directed Work, and (4) any attorney's fees incurred in connection with any such Claims.

- 5.2 For the avoidance of doubt, Section 5.1 (City Release) shall not release EMC Group from liability for any Claims in connection with any residual soil and/or groundwater contaminated with petroleum hydrocarbons (including any LNAPL)

that was not excavated or otherwise removed as Covered Contamination and was released or caused by EMC, Union Oil or any of their predecessor entities or Affiliates.

5.3 **WAIVER.** The Parties waive any and all rights they may have under any and all statutes or laws that purport to limit the scope of the general release, including section 1542 of the Civil Code of the State of California, which provides as follows: “a general release does not extend to claims that the creditor or releasing party does not know or suspect to exist in his or her favor at the time of executing the release and that, if known by him or her, would have materially affected his or her settlement with the debtor or released party.”

5.4 **EXCLUSIONS.**

- (A) The waiver and release obligations in this Second Agreement apply regardless of the active, passive, contributory, or concurrent negligence or liability without fault of any person released or indemnified.
- (B) EMC accepts no responsibility for, and reserves all rights, claims and defenses, with respect to Claims for environmental contamination that is not Covered Contamination, including but not limited to (1) non-petroleum hydrocarbon contamination found anywhere on the Site, (2) contamination migrating onto the Site, (3) contamination that is released or caused by a person other than EMC or Union Oil or any of their predecessor entities or Affiliates, (4) any contamination that is naturally occurring, and (5) any contamination caused by releases or spills on the Site occurring after the date that Union Oil ceased operating at the Site in 1999, (6) transite pipes identified during excavation. If EMC and City disagree as to whether environmental contamination on the Site is EMC’s responsibility, EMC and City shall resolve the disagreement pursuant to Section 6 (Governing Law and Resolution of Disputes).

5.5 **NO ADMISSION OF LIABILITY.** The Parties acknowledge and agree that this Second Agreement, the act of entering into it, and any act or omission pursuant to this Second Agreement must not be construed as an admission of any nature.

6. **GOVERNING LAW AND RESOLUTION OF DISPUTES**

6.1 **Governing Law.** This Second Agreement is governed by and interpreted in accordance with the law of the State of California, without regard to its choice of law rules, except that the substantive and procedural rules of the Federal Arbitration Act, 9 U.S.C. §§ 1-16 govern Section 6.2 (Resolution of Disputes).

6.2 **Resolution of Disputes.** The Parties shall exclusively and finally resolve any dispute between them using direct negotiations, mediation, and then litigation as set out in this Section 6.2 (Resolution of Disputes). Direct negotiations shall be

conducted by meeting in person, or via a video conferencing application, and must be attended by an employee or principal from each Party with decision-making authority. If a dispute arising out of this Second Agreement is not resolved by direct negotiations, either Party may initiate mediation by giving notice to the other setting out the disputed issues and the value of the claim. Mediation must be attended by an employee or principal from each Party with decision-making authority. All mediation fees and costs must be paid equally and each Party shall bear its own attorneys' fees and costs in connection with such mediation. If the Parties fail to resolve the dispute within 60 days from notice of mediation, either Party may initiate litigation. The Parties irrevocably and unconditionally agree that any litigation arising out of this Second Agreement may be brought in a court of competent jurisdiction in the County of Los Angeles, State of California.

7. GENERAL PROVISIONS

- 7.1 **Conflict of Interest.** No member of City Group will, in connection with this Second Agreement, the Agency-Directed Work, or the contract with Contractor, (A) give to or receive from any director, employee, or agent of EMC or its Affiliate, any gift, entertainment, or other benefit of significant cost or value, or any commission, fee, or rebate, and (B) enter into any business arrangement with any director, employee, or agent of EMC or its Affiliate (other than as a representative of EMC or its Affiliate) without EMC's prior written consent.
- 7.2 **Pre-Contract Violations, Reporting Violations, and Termination.** City represents and warrants that no event has occurred prior to the Effective Date, which if it had occurred after the Effective Date, would be a violation of Section 7.1 (Conflict of Interest). City shall immediately notify EMC of any violation of Sections 7.1 (Conflict of Interest) or 7.2 (Pre-Contract Violations, Reporting Violations, and Termination). Notwithstanding any other contrary provision of this Second Agreement, EMC may terminate this Second Agreement at any time with immediate effect for any violation of Sections 7.1 (Conflict of Interest) or 7.2 (Pre-Contract Violations, Reporting Violations, and Termination).
- 7.3 **Records and Inspection.** Up until 24 months from the end of the calendar year in which this Second Agreement is terminated, (A) City shall ensure that all members of City Group retain all records related to this Second Agreement (or until expiration of the statute of limitations for taxes or import or export charges), and (B) EMC may inspect at any time all records to confirm that the requirements of this Second Agreement are met.
- 7.4 **Taxes.** Each Party or Contractor is responsible for all liabilities or Claims for taxes that any taxing authority may assess or levy against that Party or Contractor relating to this Agreement or City's contract with Contractor. Each Party shall protect, defend, and indemnify each other Party from any loss, cost, or liability arising from the indemnifying Party's failure to report and discharge such taxes or satisfy such obligations.

- 7.5 **Prior Agreements.** This Second Agreement supersedes all prior and contemporaneous representations, agreements, understandings, and commitments between the Parties concerning the subject matter of this Second Agreement, including but not limited to the Funding Agreement to address Phase 1 Work and the Revocable Permit.
- 7.6 **Amendments.** No amendment to this Second Agreement is effective unless made in writing and signed by authorized representatives of all Parties.
- 7.7 **Notices.** Notices are effective when received by the recipient during the recipient's regular business hours. All notices under this Second Agreement must be in writing and will be deemed properly given when addressed to the appropriate Party at the address set out in the signature page of this Second Agreement. Each Party may change the contact information for notices by notice to the other Party. All such notices will be deemed to have been duly given and received upon mailing or delivery by courier or personal delivery service. Notices delivered by email will only be effective if the email clearly and prominently states that it is an effective notice given under this Second Agreement. Notices which do not comply with the requirements of this Second Agreement are ineffective and do not impart actual or any other kind of notice.
- 7.8 **Counterparts.** The exchange of counterpart signature pages between the Parties constitutes execution and delivery of this Second Agreement and it will not be necessary that the signatures of all Parties be contained in any one counterpart. No Party will be bound to this Second Agreement unless and until all Parties have executed a counterpart. Executed signature pages sent by email, scan, or otherwise by photocopy are valid means of delivery.
- 7.9 **Severability and Savings.** If any provision (or part of a provision, as applicable) of this Second Agreement is determined to be invalid or unenforceable by a court or arbitrator of competent jurisdiction, the invalidity or unenforceability will not affect the other provisions of this Second Agreement, and all provisions not affected by such invalidity or unenforceability will remain in full force and effect. The offending provision (or part of the provision, as applicable) will be modified to be valid and enforceable while achieving to the greatest possible extent, the economic, legal, and commercial objectives of the invalid or unenforceable provision.
- 7.10 **Survival.** All provisions in this Second Agreement containing waivers, disclaimers, representations, warranties, releases, indemnity and defense obligations; all provisions relating to conflict of interest, dispute resolution and governing law, insurance, limitations of liability, retention and inspection of records, tax; and all causes of action which arose prior to termination except to those released under this Second Agreement, survive indefinitely until, by their respective terms, they are no longer operative or are limited by an applicable statute of limitations.

- 7.11 **Binding Effect.** Subject to Section 7.12 (Assignment and Transfer), this Second Agreement will be binding on and inure for the benefit of the rightful successors and permitted assigns of the Parties.
- 7.12 **Assignment and Transfer.**
- (A) **By City.** City represents and warrants that, prior to any sale or transfer of the Site to a Subsequent Owner that takes place before the Agency-Directed Work is complete, City shall do all of the following:
- (1) Provide a copy of this Second Agreement to the Subsequent Owner.
 - (2) Require the Subsequent Owner to agree in writing to assume and be bound by the access and release terms of this Second Agreement.
 - (3) Provide written notice to EMC of the scheduled sale or transfer of the Site at least 1 month before any sale or transfer of the Site is completed.
 - (4) Require as part of the purchase and sale agreement with the Subsequent Owner that the Subsequent Owner provide a provision the same as that contained in Section 5 (Releases, Waivers, and Exclusions) and this Section 7.12(A) (Assignment and Transfer by City) in its purchase and sale agreement with any Subsequent Owner.
 - (5) Promptly notify EMC of the effective transfer of its interest in the Site and provide EMC with a copy of its assignment of this Second Agreement that includes the requirement under Section 7.12(A)(2) (Assignment and Transfer by City).
- 7.13 **By EMC.** EMC may, at any time, assign or transfer all or part of its rights or obligations under this Second Agreement to any person or entity without City's consent.
- 7.14 **Certain Representations and Warranties.** Each Party represents and warrants that it has not sold, assigned, transferred, conveyed, hypothecated, encumbered, or disposed in any other manner or to any person or entity any Claims relating to the subject matter of this Second Agreement.
- 7.15 **Third Party Beneficiaries.** Except as otherwise expressly stated, any person who is not a Party to this Second Agreement does not have any rights under this Second Agreement nor may such person enforce any provision in this Second Agreement.
- 7.16 **No Joint Venture, Partnership, or Fiduciary Relationship.** This Second Agreement does not constitute and must not for any reason be interpreted to create

a partnership, joint venture, or any fiduciary relationship between the Parties, and no Party will have the authority to bind the other Party.

- 7.17 **Construction.** Each Party has participated in the preparation of this Second Agreement and has had the opportunity to consult with legal counsel and any other advisors of its choice to its satisfaction regarding the terms and provisions of this Second Agreement. Each Party bears its own costs incurred to prepare this Second Agreement. As a result, the rule of construction that an agreement be construed against the drafter will not be asserted or applied to this Second Agreement.
- 7.18 **No Waiver of Claims.** Except as provided in Section 5 (Releases, Waivers, and Exclusions), the Parties do not waive, and expressly reserve, all claims and defenses that they may have against each other and all third parties under legal or equitable authority for recovery of all expenses and losses incurred by the Parties to remediate (meaning environmental investigation, assessment, monitoring, excavation, removal, corrective action, response action, mitigation, treatment, decontamination, or cleanup of) the Site.

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IMPORTANT NOTICE: THIS SECOND AGREEMENT CONTAINS PROVISIONS REGARDING INDEMNITIES AND WARRANTIES THAT EXPRESS THE AGREEMENT OF THE PARTIES CONCERNING CLAIMS ARISING OUT OF THIS SECOND AGREEMENT.

The Parties have executed this Second Agreement as evidenced by the following signatures of authorized representatives of the Parties:

EMC:
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY, for itself and as Attorney-in-Fact for Union Oil Company of California

CITY:
THE CITY OF LOS ANGELES

Signature:

Signature:

DocuSigned by:
Harpreet K. Tiwana
5093F586A325438...
Name: Harpreet K. Tiwana
Title: Assistant Secretary
Date: 2024-Aug-30 | 9:41 AM PDT

Name: _____
Title: _____
Date: _____

AGREEMENT NOTICES

AGREEMENT NOTICES

Attention: Theo Foster,
Claims Specialist,
Facility No. 35-8031
Email: theofoster@chevron.com
Phone: 832-854-4428
Address: Chevron Environmental
Management Company
1400 Louisiana Street, #20027
Houston, TX 77002

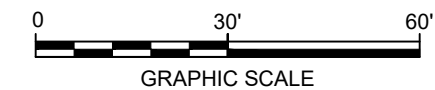
Attention: _____

Email: _____
Phone: _____
Address: City of Los Angeles
Harbor Department
425 S. Palos Verdes Street
San Pedro, CA 90731

APPROVED AS TO FORM AND LEGALITY
Sept. 23 2024
HYDEE FELDSTEIN SOTO, City Attorney
By *[Signature]*
Deputy City Attorney

EXHIBIT A

Map of Site



CHEVRON SITE 358031
FORMER UNOCAL STATION 0692
PORT BERTH 78, NAGOYA WAY, SAN PEDRO, CALIFORNIA

SITE PLAN



FIGURE
2

EXHIBIT B

Regional Board Directive



Los Angeles Regional Water Quality Control Board

August 7, 2023

Mr. John Amato
Chevron Environmental Management Company
324 W. El Segundo Blvd. (MO-142)
El Segundo, CA 90245

**UNDERGROUND STORAGE TANK PROGRAM – PRE-EXCAVATION ASSESSMENT
FORMER UNOCAL MARINE STATION NO. 0692 (D-1 SITE)
BERTH 78, NAGOYA WAY, SAN PEDRO, CA (FILE NO. 907310198A)**

Dear Mr. Amato:

The California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board) is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial uses within the Los Angeles and Ventura counties. As such, the Los Angeles Water Board is the lead regulatory agency for overseeing corrective actions (assessment and/or monitoring activities) and cleanup of releases from leaking underground storage tank (UST) systems at the subject site (Site).

Pursuant to Health and Safety Code Section 25296.10, you are required to take corrective actions (i.e., Preliminary Site Assessment, Soil and Water Investigation, Corrective Action Plan Implementation, and Verification Monitoring) to ensure protection of human health, safety, and the environment. Corrective action requirements are set forth in California Code of Regulations (CCR), Title 23, Chapter 16, Sections 2720 through 2727.

We are in receipt of your "Area D Soil Assessment Report" (the Report) dated July 25, 2023. The Report was submitted by Arcadis on behalf of Chevron Environmental Management Company. This letter intends to provide the Los Angeles Water Board staff's comments upon reviewing the Report.

Update of Site Assessment and/or Corrective Action

Unocal Management Company previously operated two 27,500-gallon diesel, one 20,000-gallon diesel, one 5,000-gallon lube oil, and one 280-gallon waste oil underground storage tanks (USTs) at the site. Between June 2002 and August 2002, approximately 2,710 tons of petroleum hydrocarbon impacted soils were excavated and disposed off-site. On

NORMA CAMACHO, CHAIR | SUSANA ARREDONDO, EXECUTIVE OFFICER

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Mr. John Amato
Former Unocal Marine Station No 0692

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August 7, 2023

December 9, 2004, the Los Angeles Water Board issued a case closure letter for the underground storage tank petroleum releases. At the time of closure, no free product was observed at the site.

In November 2006, the Port of Los Angeles advanced ten direct push borings to 7 feet below ground surface (bgs) at the north and southwest of the property boundary to further assess petroleum impacts from historical releases. Soil and groundwater samples were collected from the borings. Soil samples detected total petroleum hydrocarbons as diesel (TPHd) up to 122,300 milligrams per kilogram (mg/kg), benzene up to 0.043 mg/kg, toluene up to 0.69 mg/kg, ethyl benzene up to 2.3 mg/kg, and xylenes up to 3.5 mg/kg. Groundwater samples detected TPHd up to 256,000 micrograms per liter (µg/L), and tertiary butyl alcohol (TBA) up to 11 µg/L. Groundwater was measured at approximately 7 feet bgs. Subsequently, two groundwater wells (MW-78-1 and MW-78-2) were installed on the southwest boundary of the site along Nagoya Way. Groundwater samples were collected on October 4, 2007 and identified approximately 0.8 inches of petroleum free product.

Based on the above information, the case was re-opened on May 6, 2010.

In April 2018, the Los Angeles Water Board approved the "Soil Management Plan Addendum" (the Addendum) dated March 2018. The Addendum proposed to conduct confirmation soil sampling prior to excavation (pre-excavation assessment). The pre-excavation assessment will consist of soil sampling every 20 feet laterally in the sidewalls and every 200 square feet at the bottom of the excavation starting with four locations around previous excavation soil sample E29.

In February 2021, 18 soil borings (SB-18 through SB-35) were advanced to 13 feet bgs to delineate the excavation extent in Areas A, B, and C in accordance with the "Soil Assessment Work Plan" dated October 28, 2020. The investigation results detected TPHg up to 96 mg/kg and TPHd up to 12,000 mg/kg.

In July 2021, 18 soil borings (SB-36 through SB-41) were advanced to 11 feet bgs to delineate the excavation extent in Areas B and C in accordance with the "Soil Assessment Work Plan" dated October 28, 2020. The investigation results detected TPHg up to 850 mg/kg and TPHd up to 8,400 mg/kg, benzene up to 0.033 mg/kg, and TBA up to 0.01 mg/kg.

In December 2022, the Los Angeles Water Board approved the "Soil Assessment Work Plan Addendum" dated July 25, 2023, which proposed to delineate the lateral and vertical extent of the fuel contamination in the area of the fish market (Area D). Between May and June 2023, 54 soil borings (SB-43 through SB-54, SB-57 through SB-59, SB-61, SB-63 through SB-67, SB-69 through SB-81, and SB-83 through SB-94) were advanced to 13 feet bgs. The investigation results detected TPH total up to 21,250 mg/kg, TPHg up to 600 mg/kg, and TPHd up to 17,100 mg/kg. No benzene, toluene, ethyl benzene, xylenes, and fuel oxygenates were detected.

Mr. John Amato
Former Unocal Marine Station No 0692

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Based on the above results of pre-excavation assessment, Arcadis in the Report identified the lateral and vertical extent of the soil excavation in Areas A-D.

Remedial Excavation Approval (Per CCR, Title 23, §2726)

The Report included the soil analytical results from the pre-excavation assessment and the proposed excavation perimeter and depth. Staff has reviewed the Report and concurs with the excavation perimeter and depth at Areas A, B, C, and D and the implementation of excavation activities as proposed in the Addendum dated March 23, 2018 and the RAP dated October 30, 2017, provided the following conditions are met:

1. Prior to proceeding with the excavation, the Health and Safety Plan contained in the Report must be reviewed and approved by an Industrial Hygienist.
2. Since the excavation or trench is five feet deep or more, it must be shored or sloped. If there is a possibility of soil movement, even shallower excavations have to be shored up. Excavations in disturbed soil may require additional sheeting and bracing.
3. Ambient air monitoring must be conducted at the property boundary to ensure protection of human health, safety, and nuisance in the neighboring area during any trenching, excavation, borings, and/or soil disturbance.
4. Prior to commencing the fieldwork, advanced notice must be given to all adjacent commercial and residential occupants.
5. Ambient air monitoring must be conducted at the property boundary to ensure protection of human health, safety, and nuisance in the neighboring area during any trenching, excavation, borings, and/or soil disturbance.
6. A technical report detailing the results of the soils excavation must be submitted to the Los Angeles Water Board by **November 3, 2023**.

General Requirements

The contractor who conducts the environmental work as required in this directive shall, at all times, comply with all applicable State laws, rules, regulations, and local ordinances specifically including, but not limited to, environmental, procurement, and safety laws, rules, regulations, and ordinances. The contractor shall obtain the services of a Professional Geologist or Engineer, Civil (PG/PE-Civil) to comply with the applicable requirements of the Business and Professions Code, sections 6700 et seq. and/or 7800 et seq. implementing regulations for engineering or geological analysis and interpretation for this case. All documents prepared by the contractor that reflect or rely upon engineering or geological interpretations by the contractor shall be signed and stamped by the PE-Civil/PG indicating her/his responsibility for them, as required by the Business and Professions Code.

Mr. John Amato
Former Unocal Marine Station No 0692

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August 7, 2023

All necessary permits must be obtained from the appropriate agencies prior to the start of work.

Prior to commencing any fieldwork, Los Angeles Water Board staff must be given a minimum of 15 days advance notice in writing, so that one of our staff may be present.

Regulatory Requirement for Electronic Submission of Laboratory Data to the State GeoTracker Internet Database

On September 30, 2004, the State Water Resources Control Board (State Board) adopted the resolution to revise regulations in Chapter 30, Division 3 of Title 23 of CCR, which requires persons to ensure electronic submission of laboratory analytical data (i.e., soil or water chemical analysis) and locational data (i.e., location and elevation of groundwater monitoring wells) via the Internet to the State Board's GeoTracker database. The regulations and other background information are available at <http://geotracker.waterboards.ca.gov>.

In accordance with the regulations, you must upload the following information to the State Board's GeoTracker database: the report (in PDF format), laboratory analytical data (in electronic data format [EDF]), monitoring event information in GEO_WELL format, an updated site map (GEO_MAP) showing the new monitoring well locations, boring logs in PDF (GEO_BORE) to be used to link to well locations, monitoring well latitude and longitude (GEO_XY) survey data, and monitoring well elevation data (GEO_Z). Hard copy paper reports, which have already been electronically uploaded to GeoTracker, are no longer required to be submitted to the Regional Board.

If you have any questions regarding this matter, please contact Jimmie Woo at (213)576-6698 or at jimmie.woo@waterboards.ca.gov.

Sincerely,

Yi Lu, Ph.D., P.G.
Supervisor of LA River Watershed Unit
Underground Storage Tank Section

cc via Email:

Joe Liles, Water Replenishment District of Southern California
Rita Brenner, Port of Los Angeles
Daniel Fischer, Arcadis

EXHIBIT C

Soil Management Plan Documents

**REVISED SOIL MANAGEMENT PLAN
CHEVRON SITE NO. 35-8031
FORMER UNOCAL MARINE STATION NO. 0692
Berth 78, Nagoya Way, San Pedro, California
(File No. 907310198A)**

October 30, 2017

Prepared for:

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Prepared by:

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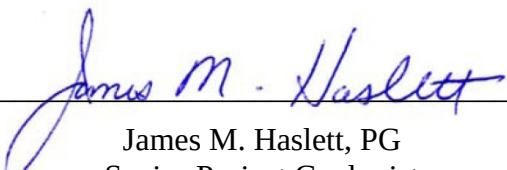

James M. Haslett, PG
Senior Project Geologist
PG No. 5641



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- Appendix B – Historical Soil Analytical Results
- Appendix C – Historical Groundwater Analytical Results
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DISTRIBUTION

Copy 1: Mr. Jimmie Woo, Los Angeles Regional Water Quality Control Board
Mr. Daniel Carrier, Chevron Environmental Management Company
Ms. Rita Brenner, Port of Los Angeles
Leidos Project File

**REVISED SOIL MANAGEMENT PLAN
CHEVRON SITE NO. 35-8301
FORMER UNOCAL MARINE STATION NO. 0692**

1. INTRODUCTION

On behalf of Chevron Environmental Management Company (CEMC), Leidos, Inc. (Leidos) has prepared this revised Soil Management Plan (SMP) for Chevron Site No. 35-8031 (Former Unocal Marine Station No. 0692) in San Pedro, California. On February 14, 2012, SAIC Energy, Environment & Infrastructure, LLC (SAIC) submitted an SMP to the Los Angeles Regional Water Quality Control Board (LARWQCB). To date, the LARWQCB has not responded to the initial SMP. The purpose of this revised SMP is to identify measures for managing potential environmental and human health risks associated with residual petroleum hydrocarbons remaining in soil adjacent to Chevron Site No. 35-8031 (Site) based on current Site conditions and changing regulatory requirements.

2. BACKGROUND

2.1 SITE DESCRIPTION

The Site is located at Port of Los Angeles (Port), Berth 78 on Nagoya Way in San Pedro, California (Figure 1). From about 1950 to 1999, the property was used as a marine bulk diesel fuel storage and dispensing station for tugboats and fishing vessels. The former Site features included two 27,000-gallon diesel underground storage tanks (USTs), one 20,000-gallon diesel UST, one 5,000-gallon lube-oil UST, and one 280-gallon used-oil UST (Figure 2). Following Site decommissioning, the Port planted grass on the former marine station property, and fenced the Site to prevent public access. The Site remains unoccupied.

The Site is bordered to the north by the San Pedro Fish Market, to the south by Los Angeles Harbor Cruise and Whale Watching, to the east by a seawall and the channel, and to the west by a public parking area and Nagoya Way (Figure 2).

In a letter dated June 29, 2010, the Port indicated that the Site is within the San Pedro Waterfront and Promenade area, but no Site specific plans for redevelopment were indicated (Port, 2010). In October of 2015, the Port informed CEMC that plans for redevelopment were moving forward, but a schedule had not been finalized. According to a correspondence from the Port dated March 8, 2017, redevelopment of the Site vicinity could begin as early as November of 2017.

2.2 SITE GEOLOGY AND HYDROGEOLOGY

The Site elevation is approximately 10 feet above mean sea level (feet MSL). The nearest surface water is the Main Channel of the Los Angeles Harbor, located immediately east of the Site. The Main Channel enters the Los Angeles Outer Harbor 4,000 feet south/southeast of the Site (Figure 1).

Shallow soil beneath the Site consists of Recent alluvium fill dredged from the adjacent Main Channel and placed on top of in-situ Recent alluvium. The Recent alluvium is underlain by the Pleistocene Lakewood and San Pedro formations (California Department of Water Resources [DWR], 1961). Soil encountered during previous assessments consists of coarse- to very fine-

grained sand with lesser amounts of silt, to 20 feet below ground surface (bgs), the maximum depth investigated (GeoResearch, 1993a). This soil is interpreted to represent Recent alluvium.

The Site is located at the western edge of the West Coast Groundwater Basin. In the Site vicinity, groundwater occurs in the Recent alluvium as a perched water-table aquifer. Groundwater in the underlying Lakewood Formation occurs within the Gage Aquifer. Groundwater within the San Pedro Formation occurs in the Lynwood and Silverado aquifers (DWR, 1961). Due to saltwater intrusion and poor water quality, none of the aquifers in the Site vicinity have designated beneficial uses. According to the GeoTracker Groundwater Ambient Monitoring and Assessment website, there are no active groundwater production wells within 2 miles of the site (Leidos, 2017).

Groundwater monitoring was initially conducted at the Site in the fourth quarter in 1991. Results of groundwater monitoring indicated that the shallow groundwater flow direction fluctuates between eastward and westward with the tides (Appendix A). The depth to groundwater beneath the Site also fluctuates with the tides from 4 to 11 feet bgs (GeoResearch, 1993a; SAIC, 2012). Shallow groundwater beneath the site is interpreted to represent a perched water-table aquifer.

2.3 SUMMARY OF PREVIOUS WORK

2.3.1 Underground Storage Tank History

The Site operated as a marine bulk diesel fuel storage and dispensing station for tugboats and fishing boats from about 1950 until 1999. Former Site features included two 27,500-gallon single-walled diesel USTs, one 20,000-gallon single-walled diesel UST, one 280-gallon single-walled used-oil UST, and one 5,000-gallon lube-oil UST (see Figure 2).

On September 14, 1989, the 5,000-gallon lube-oil UST failed a precision tank and line test, and was subsequently removed on September 27, 1989 (GeoResearch, 1991a). On October 2, 1995, the 280-gallon used-oil UST was removed from the Site (GeoResearch, 1995a).

In December 1999 and January 2000, the three diesel USTs and associated aboveground piping and manifold were removed from the Site. The USTs were visually inspected by Vapor Extraction Technology, Inc. (VET) and were found to be in good condition with no holes or corrosion (VET, 2000a).

2.3.2 Site Assessment and Remediation History

On September 27, 1989, GeoResearch observed the removal of the 5,000-gallon lube-oil UST (GeoResearch, 1991a). Laboratory analytical results of soil samples collected from beneath the former UST location indicated elevated total recoverable petroleum hydrocarbon (TRPH) concentrations (Appendix B).

Between May 8 and August 22, 1991, GeoResearch advanced 11 soil borings (B2 through B12) to evaluate the lateral extent of the total petroleum hydrocarbons (TPH) as diesel (TPHd) and TRPH concentrations in the soil (GeoResearch, 1991b). The borings were located adjacent to the three diesel USTs, and to the west, north, and south of the Site. Groundwater monitoring wells MW-1 through MW-6 were installed in borings B1, B2, B4, B6, B8, and B9, respectively. Laboratory analytical results indicated elevated TPHd concentrations, with maximum hydrocarbon concentrations detected in samples collected from 7 feet bgs (see Appendix B for soil analytical results and Appendix C for groundwater analytical results).

On October 2, 1995, GeoResearch observed the removal of the 280-gallon used-oil UST (GeoResearch, 1995a). Laboratory analytical results of soil samples collected from beneath the former UST and from the soil stockpile indicated elevated TRPH concentrations (Appendix B).

On December 19, 1995, GeoResearch submitted a Remedial Action Plan (RAP) for the Site. The RAP proposed installation of a bio-venting system to remediate hydrocarbons in soil and groundwater beneath the Site (GeoResearch, 1995b). However, during a 1997 meeting between Unocal and the LARWQCB, it was decided that due to the discontinuation of operations at the Site, hydrocarbon-affected soil would be excavated and remediated at a Unocal-approved facility (VET, 2000b).

In December of 1999 and January of 2000, Wayne Perry, Inc. removed the three diesel USTs (VET, 2000a). Thirty-four soil samples were collected from the bottom and sidewalls of the excavations (T1 through T23), from beneath product piping (PL1 through PL5), and from soil stockpiles (SP1 through SP5). Laboratory analytical results indicated elevated TRPH, TPHd, and TPH as gasoline (TPHg) concentrations (see Figure 2 for sample locations and Appendix B for soil analytical results). During excavation, groundwater was encountered at approximately 8 feet bgs and was removed with a vacuum truck. Pacific Technical Services transported 1,200 gallons of liquid to Crosby and Overton for disposal. A total of 352.41 tons of hydrocarbon-containing soil were removed from the UST excavations and transported to TPS Technologies for recycling. Following removal of the diesel USTs, each excavation was backfilled with pea gravel to approximately 6 feet bgs. A low-permeability plastic liner was placed on top of the pea gravel. The remaining excavation was backfilled with clean imported soil and compacted to a minimum of 95-percent relative density.

In 2002, Gradient Engineers Inc. (Gradient) supervised the advancement of 16 direct-push soil borings (GP1 through GP16) and six hand-augered borings (HA1 through HA6) in areas throughout the Site (see Figure 2). The borings reached a maximum depth of 12 feet bgs. The borings were continuously sampled from the surface to the total depth of each boring (Gradient, 2002a). Soil analytical results indicated TPHd concentrations up to 49,000 mg/kg (Appendix B).

Prior to excavation activities in June 26 and August 2, 2002, Gradient oversaw the destruction of four of the groundwater monitoring wells (MW-1 through MW-4) at the Site (Gradient, 2002b).

In June and August of 2002, Gradient personnel oversaw the excavation of hydrocarbon-impacted soil at the Site (see Figure 3 for the approximate extent of the excavation and Appendix B for laboratory results). Excavated soil was segregated into non-impacted and impacted stockpiles based on field observations. Groundwater was encountered at approximately 7 feet bgs. Maximum depth of the excavation was 13 feet bgs, approximately 6 feet below groundwater. A total of 23,620 gallons of liquid were removed from the excavation and transported off site for disposal. In addition, 2,710.02 tons of petroleum hydrocarbon-containing soil were removed from the UST excavations and transported to TPS Technologies for recycling. The excavation was backfilled with pea gravel to approximately 6 feet bgs. A low-permeability plastic liner was placed on top of the pea gravel. The remaining excavation was backfilled with non-impacted soil from the excavation and clean imported soil and compacted to a minimum of 95-percent relative density (Gradient, 2002b).

On July 29, 2003, Gradient personnel directed the installation of six on-site groundwater monitoring wells (MW-7 through MW-12) to a total depth of approximately 20 feet bgs

(Gradient, 2003). Soil samples were collected at multiple depths and retained for laboratory analysis (Figure 2 for well locations and Appendix B for analytical results).

On August 18, 2003, Gradient personnel collected groundwater samples from newly installed on-site groundwater monitoring wells MW-7 through MW-12 and existing off-site wells MW-5 and MW-6 for laboratory analysis (Gradient, 2003). The depth to groundwater beneath the Site ranged from 4.15 feet to 6.65 feet below the top of well casings (Appendix C).

On December 18 and 29, 2003, Gradient personnel advanced 10 direct-push soil borings (GP17, GP18, and GP20 through GP27) to 12 feet bgs, and one direct-push soil boring (GP19) to 20 feet bgs (Figure 2). The purpose of the investigation was to evaluate soil conditions outside the extent of the remedial excavation. Soil samples were collected at approximately 5, 8, and 12 feet bgs (and 15 and 20 feet bgs for GP19) and retained for laboratory analysis. On December 29, 2003, Gradient personnel also advanced one hand-auger soil boring (HA7) to 10 feet at an angle of approximately 45° under the property to the north of the Site. The true depth of this boring was approximately 7 feet bgs. Soil samples were collected at approximately 5 and 10 feet (actual depths of 3.5 and 7 feet bgs; Gradient, 2004).

In 2004, ENSR International (ENSR) prepared and submitted a Request for Site Closure report to the agency (ENSR, 2004). The closure request was approved by the LARWQCB in a letter dated December 9, 2004. On January 17 and 18, 2005, ENSR destroyed the remaining groundwater monitoring wells (MW-5 through MW-12) and submitted a well destruction report to the LARWQCB (ENSR, 2005).

In November of 2006, Pacific Edge Engineering, Inc. (Pacific Edge) advanced 10 direct-push soil borings (UC1 through UC10) at the Site on behalf of the Port (Pacific Edge, 2007). Groundwater grab samples were collected from four of the direct-push locations (UC1, UC2, UC7, and UC9). Based on the results of the initial sampling, two groundwater monitoring wells (MW-B78-1 and MW-B78-2) were installed (see Figure 2, Appendix B, and Appendix C).

Following the installation of the groundwater monitoring wells in 2006, sampling events through September 4, 2007, did not indicate free-floating petroleum materials (Pacific Edge, 2008). However, on October 4, 2007, approximately 0.07 foot of light non-aqueous phase liquid (LNAPL) was measured in MW-B78-2 (Appendix C).

On March 31, 2009, the two wells were again sampled (Pacific Edge, 2009). LNAPL was not measured in either well; however, a strong hydrocarbon odor was noted in each groundwater sample and a hydrocarbon film was observed on the outside of the bailer used to collect the sample from MW-B78-2 (Appendix C).

Based on the results of Pacific Edge's 2006 assessment and the presence of LNAPL in well MW-B78-2, the LARWQCB reopened the UST case for the Site in a letter dated April 23, 2010.

In December of 2012, The Source Group, Inc. (SGI) conducted a passive soil gas investigation for the Ports 'O Call Village, Berths 75-79 (SGI, 2013). The purpose of the investigation was to identify soil vapor constituents in soil prior to upcoming redevelopment activities. Soil gas samples SG-78 through SG-82 were collected in the vicinity of the Site. Soil gas analytical results indicated the presence of petroleum hydrocarbons in samples SG-78 and SG-80, with the maximum hydrocarbon concentrations detected in the sample collected from SG-78 (see Appendix D for soil gas investigation results).

In September of 2014, Pacific Edge hand-augered 10 soil borings (PC1 through PC10) in the area between the eastern property boundary and the seawall (Port, 2015). The purpose of the investigation was to evaluate hydrocarbon concentrations in the soil between the eastern edge of the 2002 excavation and the sea wall. Laboratory analytical results of soil samples collected from the borings indicated TPHd concentrations up to 15,270 milligrams per kilogram (mg/kg), TPHg concentrations up to 1,100 mg/kg, benzene concentrations up to 0.0018 mg/kg, naphthalene concentrations up to 0.610 mg/kg, and no detectable ethylbenzene (Appendix B).

In June 2016, Pacific Edge advanced 15 soil borings (SB1 through SB4, SB6 through SB14, SB16, and SB17 (Pacific Edge, 2016). The purpose of the investigation was to further evaluate the extent of residual hydrocarbons to the north, south, and west of the Site (see Appendix B for the boring locations). Results of the investigation indicated the maximum hydrocarbon concentrations were detected in boring SB4 at 8 feet bgs in the capillary fringe (see Appendix B for soil analytical results). Complete delineation of residual hydrocarbons could not be completed in some areas because boring locations were limited by existing buildings.

2.3.3 Groundwater Monitoring History

Quarterly groundwater monitoring began in May 1991. The lateral extents of dissolved-phase hydrocarbons have been delineated off site to the west/northwest; however, due to structural and environmental impediments (i.e., buildings and seawall/Main Channel water way), it has not been feasible to delineate dissolved-phase hydrocarbons in any other off-site areas (Appendix C).

Groundwater monitoring for wells MW-5 through MW-12 was conducted from the third quarter of 2003 through the third quarter of 2004 (ENSR, 2004). The maximum TPHd concentration (8,800 micrograms per liter [$\mu\text{g/L}$]) and the maximum TPHg concentration (320 $\mu\text{g/L}$) were detected in samples collected from well MW-10, located near the southwestern corner of the Site. Benzene was detected in one sample from the fourth quarter of 2003 (0.53 $\mu\text{g/L}$) and methyl tertiary butyl ether (MTBE) was detected in one sample from the fourth quarter of 2003 in well MW-9 (5.6 $\mu\text{g/L}$). No other benzene, toluene, ethylbenzene, and xylenes (BTEX) or MTBE concentrations were detected during quarterly monitoring events (Appendix C). The wells were destroyed following case closure received from the LARWQCB in 2004.

During groundwater monitoring of wells MW-1 through MW-6 during 1999 and 2001, LNAPL was detected in wells MW-1, MW-2, and MW-4 at thicknesses of up to 0.20 foot (ENSR, 2004). LNAPL recovery was conducted on wells MW-1, MW-2, and MW-4 through June of 2000, resulting in the recovery of 0.78 gallon of LNAPL (Appendix C). On October 4, 2007, approximately 0.07 foot of LNAPL was encountered in well MW-B78-2. LNAPL was not measured in the well during subsequent monitoring events (Pacific Edge, 2009).

On March 21, 2017, the Port's consultant sampled wells MW-B78-1 and MW-B78-2 to evaluate current groundwater conditions prior to destroying the wells in April 2017. Results of laboratory analytical testing indicated TPHd concentrations ranging from 1,300 $\mu\text{g/L}$ to 4,400 $\mu\text{g/L}$, and no detectable TPHg, polynuclear aromatic hydrocarbons (PAHs), or volatile organic compounds (VOCs; Port, 2017).

2.4 DISTRIBUTION OF RESIDUAL PETROLEUM HYDROCARBONS AND OXYGENATES

2.4.1 Soil

During remediation activities in 2002, CEMC's contractor excavated more than 2,700 tons of hydrocarbon-impacted soil and transported the soil off site for disposal. The size of the excavation was approximately 145 feet long by 59 feet wide. The excavation extended to a maximum depth of 13 feet bgs, with an average depth of 8 feet bgs.

Results of confirmation soil sampling following excavation indicated a maximum TPHg concentration of 2,400 mg/kg (E11-6), a maximum TPHd concentration of 96,000 mg/kg (E31-9), a maximum naphthalene concentration of 6 mg/kg (E14-6), and BTEX and MTBE concentrations below the laboratory reporting limits (Gradient, 2002b). Soil samples collected during subsequent post-excavation assessment activities (Gradient, 2003; Gradient, 2004; Pacific Edge, 2007; Port, 2015; Pacific Edge, 2016) indicated a maximum TPHg concentration of 3,900 mg/kg (boring SB4 at 8 feet bgs), a maximum TPHd concentration of 122,300 mg/kg (boring UC7 at 6.5 feet bgs), a maximum total TPH concentration of 130,000 mg/kg (boring UC7 at 6.5 feet bgs), a maximum benzene concentration of 0.430 mg/kg (boring UC7 at 6.5 feet bgs), a maximum ethylbenzene concentration of 2.3 mg/kg (boring UC1 at 6.5 feet bgs), and a maximum naphthalene concentration of 12 mg/kg (boring SB4 at 8 feet bgs). Maximum values of left in-place hydrocarbon concentrations in soil are summarized below.

Previous excavation activities removed hydrocarbon-impacted soil to below groundwater across most of the Site, to an average depth of 8 feet bgs. However, the lateral extent of hydrocarbon-containing soil could not be excavated in all directions due to the following physical constraints:

- Presence of buildings to the north and south of the Site,
- Overhead and underground obstructions to the west of the Site, and
- The proximity of the seawall along the eastern edge of the Site.

Figure 3 shows the extent of the excavation and the estimated extent of residual hydrocarbons in soil beneath and adjacent to the Site. Maximum values of left-in-place concentrations in soil are generally located outside the limits of the previous excavation.

Analyte	Maximum Concentration (mg/kg)	Sample/Boring/Well ID	Depth (feet bgs)
TPHg	3,900	SB4	8
TPHd	122,300	UC7	6.5
Total TPH	130,000	UC7	6.5
Benzene	0.430	UC7	6.5
Ethylbenzene	2.3	UC1	6.5
Naphthalene	12	SB4	8
MTBE	ND	multiple borings	multiple depths
Benzo(a)pyrene	0.150	PC6	5
Chrysene	0.89	GP14	7
Benzo(a)anthracene	1.3	PC7	5

ND = not detected above the method detection limit.

2.4.2 Groundwater

From October of 1999 through June of 2000, LNAPL was recovered from wells MW-1, MW-2 and MW-4. Total LNAPL recovered was 0.78 gallon. In October of 2007, approximately 0.07 foot of LNAPL was detected in MW-B78-2. However, no measurable LNAPL was encountered in the most recent sampling event occurring on March 31, 2009 (Pacific Edge, 2009).

Historically, maximum TPHg and TPHd concentrations were detected in well MW-10, located in the southwestern portion of the Site. Maximum benzene and MTBE concentrations were detected in wells MW-2 and MW-1, respectively, in the vicinity of the former USTs. The remaining two wells at the Site (MW-B78-1 and MW-B78-2) were last sampled on March 21, 2017, prior to well destruction. Results of laboratory analytical testing indicated TPHd concentrations ranging from 1,300 µg/L to 4,400 µg/L, and no detectable TPHg, PAHs, or VOCs (Port, 2017). Maximum current and historical dissolved-phase concentrations in groundwater are summarized below.

Analyte	Historic Maximum Dissolved Concentration (µg/L)	Well ID	Current Maximum Dissolved Concentration (µg/L)	Well ID
TPHg	350	MW-10	ND<50	MW-B78-1, MW-B78-2
TPHd	13,000	MW-10	4,400	MW-B78-2
Benzene	34	MW-2	ND>0.50	MW-B78-1, MW-B78-2
MTBE	76	MW-1	ND>0.50	MW-B78-1, MW-B78-2
Benzo(a) Pyrene	NA	NA	ND>0.19	MW-B78-1, MW-B78-2

ND = not detected above the method detection limit indicated

NA = not analyzed

Historically, hydrocarbon concentrations have displayed stable or decreasing levels for all hydrocarbon constituents (Appendix C). The benzene and MTBE concentrations in groundwater have decreased by about two orders of magnitude and are now below the method detection limits.

3. REVISED SOIL MANAGEMENT PLAN

The purpose of this revised SMP is to identify measures for managing potential environmental and human health risks associated with residual petroleum hydrocarbons remaining in soil adjacent to the Site based on current conditions and changing regulatory requirements. Based on previous investigations, primary contaminants of concern (COCs) include TPHg and TPHd in soil and groundwater. Based on the depth of COCs in the soil (primarily 5 to 9 feet bgs, with some COCs as shallow as 2 feet bgs at the edges of the sloped excavation), it is likely that only construction/utility workers would be exposed to contaminants at concentrations that could pose

potential health risks. Soil excavation is proposed as the mitigation measure that is protective of the environment and human health.

As described herein, the primary objective of the SMP is to remove, to the extent practicable, the bulk of residual petroleum hydrocarbon impacts within the area of proposed redevelopment that exceeds the proposed excavation goals for petroleum hydrocarbons in soil prior to the start of the Port's main subsurface construction activities. The residual petroleum hydrocarbon impacts have been delineated in soils between a depth interval of approximately 5 and 9 feet bgs. The proposed soil cleanup goals that will be used to determine the limits of the excavation are discussed below.

3.1 PROPOSED SOIL CLEANUP GOALS

Soil cleanup goals were previously established for the Site prior to the remedial Site excavation completed in 2004. Soil cleanup goals were established for COCs including BTEX and PAHs. Cleanup goals were not established for TPH.

The soil cleanup criteria for BTEX and PAHs for protection of human health and the environment were previously developed and presented in the March 8, 1993 *Health and Environmental Risk Assessment for Groundwater and Soil Cleanup Levels*, prepared by GeoResearch (GeoResearch, 1993b). The specific criteria used in the GeoResearch risk assessment were developed to address the following:

- Inhalation of soil vapors by construction/utility workers, and
- Protection of groundwater quality.

The soil cleanup criteria were determined by selecting indicator components of diesel fuel that represent maximum mobility and/or toxicity. The indicator compounds included BTEX, naphthalene, and benzo(a)pyrene, and were selected because of their presence in diesel fuel, their potential to cause toxic effects in saltwater aquatic organisms and humans, and their ability to migrate in groundwater and soil. The SMP submitted by SAIC on February 14, 2012, proposed using these previously established cleanup goals for BTEX and PAHs.

In 2016, the Port indicated that they were working with the LARWQCB to standardize cleanup goals for VOCs and PAHs at sites throughout the Port. The Port is seeking to use the cleanup goals for the former GATX Los Angeles Marine Terminal site (Berths 171-173) as the standard cleanup goals for environmental sites within the Port. The cleanup goals for the former GATX site were developed by evaluating several risk-based screening models.

As discussed above, cleanup goals for TPH were not previously established for the Site. Therefore, CEMC proposes a soil cleanup goal for total TPH that is consistent with the prior waste-discharge requirement issued for remedial activities at the nearby former Chevron marine terminal located along Swinford Avenue at Port Berth 100 (see LARWQCB Order 92-045).

Soil cleanup goals for total TPH, BTEX, naphthalene, MTBE, tert-butyl-alcohol (TBA), benzo(a)pyrene, chrysene, and benzo(a)anthracene, the selected indicator COCs, are presented below in Table A.

Table A. Proposed Soil Cleanup Goals	
Constituent	Cleanup Goal
Total TPH*	1,000 mg/kg
Benzene	0.055 mg/kg
Toluene	56 mg/kg
Ethylbenzene	3.9 mg/kg
m,p-Xylene	7.2 mg/kg
o-Xylene	320 mg/kg
Naphthalene	8.2 mg/kg
MTBE	0.0073 mg/kg
TBA	0.0056 mg/kg
Benzo(a)pyrene	0.55 mg/kg
Chrysene	0.22 mg/kg
Benzo(a)anthracene	0.22 mg/kg

*Berth 100 Cleanup Goal

3.2 PROPOSED AREAS OF SOIL EXCAVATION

Interpretations of the lateral distribution of residual TPHg and TPHd in soil between 5 and 9 feet bgs within the vicinity of the Site are shown on Figure 3. Soil analytical data collected by CEMC and the Port are presented on the same figure, and the TPHd and TPHg isoconcentration contour lines have been constructed to delineate estimated soil impacts.

This revised SMP proposes to excavate impacted soil in excess of Site cleanup goals, to the extent practicable, at four locations identified as Areas A, B, C, and D (Figure 3). Area A will be excavated during Phase I of excavation activities, while Areas B, C, and D will be excavated during Phase II of excavation activities (see further discussion in section 3.2.8, below).

Impacted soil with total TPH concentrations in excess of 1,000 mg/kg reported in the 5- to 9-foot depth interval to the south of the Site (Area A) has been adequately delineated by soil borings SB13, SB14, SB16, and SB17 and sidewall sample E36 (see Appendix B). Area A comprises an area of approximately 60 feet long by 20 feet wide and 10 feet deep.

Impacted soil with total TPH concentrations in excess of 1,000 mg/kg in the 5- to 9-foot depth interval in the area located at the southwestern edge of the former remedial soil excavation (Area B) has been delineated laterally by soil samples collected from borings GP27, GP26, GP23, and GP24, and sidewall samples E52, E49, and E36 (Appendix B). Area B comprises an area approximately 90 feet long by 35 feet wide by 10 feet deep.

Impacted soil with total TPH concentrations in excess of 1,000 mg/kg reported in the 5- to 9-foot depth interval in the area located along the eastern boundary of the remedial excavation (Area C) extends inland from the seawall to the previous excavation for the entire length of the Site. Area C comprises an area approximately 150 feet long by 10 feet wide by 10 feet deep.

Impacted soil with total TPH concentrations in excess of 1,000 mg/kg reported in the 5- to 9-foot depth interval in the area located along the northern boundary of the remedial excavation (Area D) has not been completely delineated due to physical Site constraints (buildings). Upon removal of the buildings located to the north of Area D, soil impact in these areas will be delineated in the field to the extent practicable by collecting and analyzing soil samples, if

possible. Based on available data, Area D comprises an area approximately 90 feet long by 40 feet wide by 10 feet deep.

Procedures for the proposed excavation activities are described below.

3.2.1 Implementation of Soil Management Plan

If hydrocarbon-impacted soil related to the operations of former Unocal Marine Station No. 0692 is encountered during redevelopment at the San Pedro Waterfront and Promenade area, excavation will be conducted to remove soil above the revised soil cleanup goals, to the extent practicable. In Area C, the ability to remove impacted soil may be limited by the condition of the seawall.

3.2.2 Storm Water Management

During soil excavation, hazardous materials in heavy equipment and contaminants in exposed soils (and possibly dewatered groundwater) may potentially adversely impact the quality of storm water runoff from the Site. It will be the responsibility of the prime contractor to prepare a Storm Water Pollution Prevention Plan (SWPPP) for the excavation activities in accordance with the requirements of the National Pollutant Discharge Elimination System, General Permit for Discharges of Storm Water Associated with Construction Activities, Water Quality Order 2009-0009-DWQ (as amended by 2010-0014-DWQ and 2012-006-DWQ), adopted by the State Water Resource Control Board. The purpose of the SWPPP is to minimize the potential for soil erosion and for the discharge of pollutants during construction activities.

3.2.3 Fugitive Dust Control/Management

Excavation of impacted soils at the Site may generate dust, and the soil exposed during excavation activities may be subject to wind erosion. As a result, short-term fugitive dust emissions may cause a temporary increase in localized particulate concentrations. The highest potential for dust emissions would occur when soils are dry. Particulates with an aerodynamic diameter of 10 microns or less (PM₁₀) are often considered by air pollution control agencies to be the pollutant of greatest concern from construction activities.

Soil excavation activities are subject to, and will comply with, emission control measures established by the South Coast Air Quality Management District (SCAQMD) Rule 402 (Nuisance, 1976), Rule 403 (Fugitive Dust 1976, Amended 2005) and Rule 1166 (VOC Emissions from Decontamination of Soil, 1988, Amended 2001). It will be the responsibility of the prime contractor to ensure proper dust mitigation and control by complying with the provisions of SCAQMD Rules 402, 403 and 1166.

Based on the size and location of the excavations, appropriate SCAQMD emission-control measures and dust-management practices will be implemented during all Site construction activities. Daily logs of all dust-control measures implemented will be documented by the Port or its contractor. These logs will be maintained at a designated location during Site construction activities.

3.2.4 Excavated Soil

Any soil stockpiled on site will be isolated from the public by fencing or other means of Site control. Control measures (i.e., water spraying, cover) for the stockpiles will be implemented to minimize dust plumes. In the event of rain, excavated soil in the stockpiles will be covered with

anchored plastic sheeting, or an equivalent cover, to minimize erosion of the stockpiled soil and mixing with storm water runoff.

The prime contractor will segregate VOC-impacted soil and stockpile separately from other excavated materials. The total volume of stockpiled VOC-impacted soil shall not exceed the limits stipulated by the SCAQMD Rule 1166 permit. VOC-impacted soil will be handled, stored and transported in accordance with the SCAQMD Rule 1166 permit. Excavated soil exceeding cleanup goals will be disposed of off site in accordance with all applicable federal and State regulations. Prior to off-site disposal, the excavated soil will be appropriately classified to determine whether the waste will constitute a hazardous or non-hazardous waste. Waste characterization will include waste-stream delineation, representative sampling, analysis, and statistical evaluation in accordance with the guidelines contained in United States Environmental Protection Agency's (EPA's) *Test Methods for Evaluating Solid Waste, Physical/Chemical Method, SW-846, Third Edition* (EPA, 1986). If the soil is determined to be non-hazardous, then further evaluation may be needed to determine which non-hazardous waste landfills are able to accept the waste.

"Clean" stockpiles will be sampled by the prime contractor to determine if the soil meets the Port's requirements for reuse as clean backfill, as outlined in their document "Environmental Guidance for Industrial Fill Material" (2016). Soil not exceeding the cleanup goals and meeting the Port requirements for reuse as clean backfill (Port, 2016) will be placed back into the excavation following receipt of approval from the Port.

3.2.5 Confirmation Soil Sampling

A confirmation soil sampling plan will be implemented during excavation activities. The plan will include the collection of soil samples from the sidewalls and bottom of the excavated areas. Soil samples will be collected approximately every 20 feet laterally in the sidewalls of the excavations, and approximately every 200 square feet in the bottom of the excavations. The soil samples will be analyzed by a State of California Environmental Laboratory Accreditation Program-certified laboratory for the following constituents:

- Total TPH (C₆-C₄₀) using EPA Method 8015B;
- A full scan of VOCs using EPA Method 8260B; and
- Benzo(a)pyrene, chrysene, and benzo(a)anthracene using EPA Method 8270C.

3.2.6 Management of Extracted Groundwater and Light Non-Aqueous Phase Liquid

Groundwater at the Site has been encountered at depths ranging from approximately 4 to 11 feet bgs. Based on previous excavation activities at the Site, it is likely that construction activities will encounter groundwater and require dewatering of the groundwater.

In the event that groundwater dewatering is necessary, and that groundwater is impacted with petroleum hydrocarbons related to former marine station operations, appropriate engineering techniques will be implemented to minimize the amount of dewatering necessary during construction activities. Dewatered groundwater will be contained in an appropriate storage tank. In the event of rain, the containment may be covered to prevent the accumulation of rain water. Dewatered groundwater will be characterized to determine disposal options and subsequently transported off site for disposal at an appropriate disposal or recycling facility.

If LNAPL is encountered on the groundwater during excavation, the LNAPL will be collected using absorbent booms or a vacuum truck to the maximum extent practicable. The LNAPL will be characterized and transported to an appropriate disposal or recycling facility.

3.2.7 Backfill and Compaction

On completion of soil excavation activities, the excavations will be backfilled in a method similar to that used to backfill the former marine station Site excavation in 2002. Due to shallow groundwater, the excavation cavities will be backfilled with ¾-inch diameter rock up to approximately 6 feet bgs. Filter fabric will be placed over the base rock and clean imported soil and excavated soil that does not exceed cleanup goals will be placed over the filter fabric up to surface grade. A certificate will be obtained from the supplier of the imported soil material regarding the chemical composition of the soil to ensure it is free of contamination and meets the Port's analytical requirements for clean imported fill (Port, 2016). The imported soil material will be moisture-conditioned as needed and compacted to a minimum 95-percent relative compaction, based on the ASTM Test Method D1557.

3.2.8 Implementation Schedule

This revised SMP will be implemented during redevelopment activities in the San Pedro Waterfront and Promenade area. The schedule for redevelopment has not been finalized, but according to information provided by the Port in a meeting on September 7, 2017, redevelopment of the Site vicinity could begin as early as December of 2017.

Redevelopment in the Site vicinity will be conducted in two phases. Phase I will include excavation activities in Area A and may begin as soon as December of 2017 and last through April of 2018. Phase II excavation activities will include Areas B, C, and D and are not expected to begin until sometime in 2020.

Leidos and/or the Port will notify the LARWQCB once the schedules have been finalized, and will keep the LARWQCB apprised of any changes in the work schedule as redevelopment proceeds.

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REPORT LIMITATIONS

This technical document was prepared on behalf of CEMC and is intended for its sole use and for use by the local, state, or federal regulatory agency that the technical document was sent to by Leidos. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges that they do so at their own risk, and that Leidos shall have no responsibility or liability for the consequences thereof.

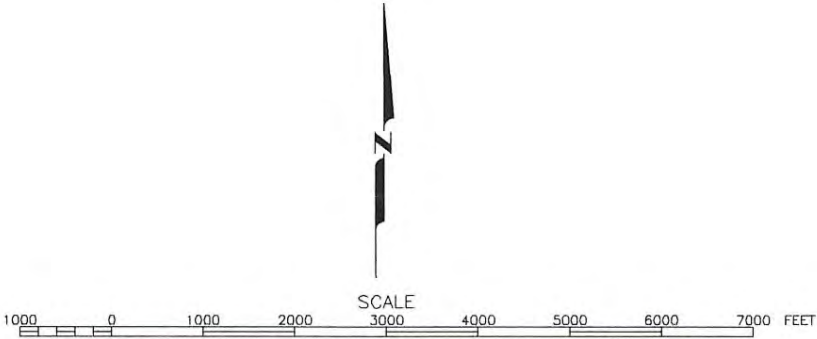
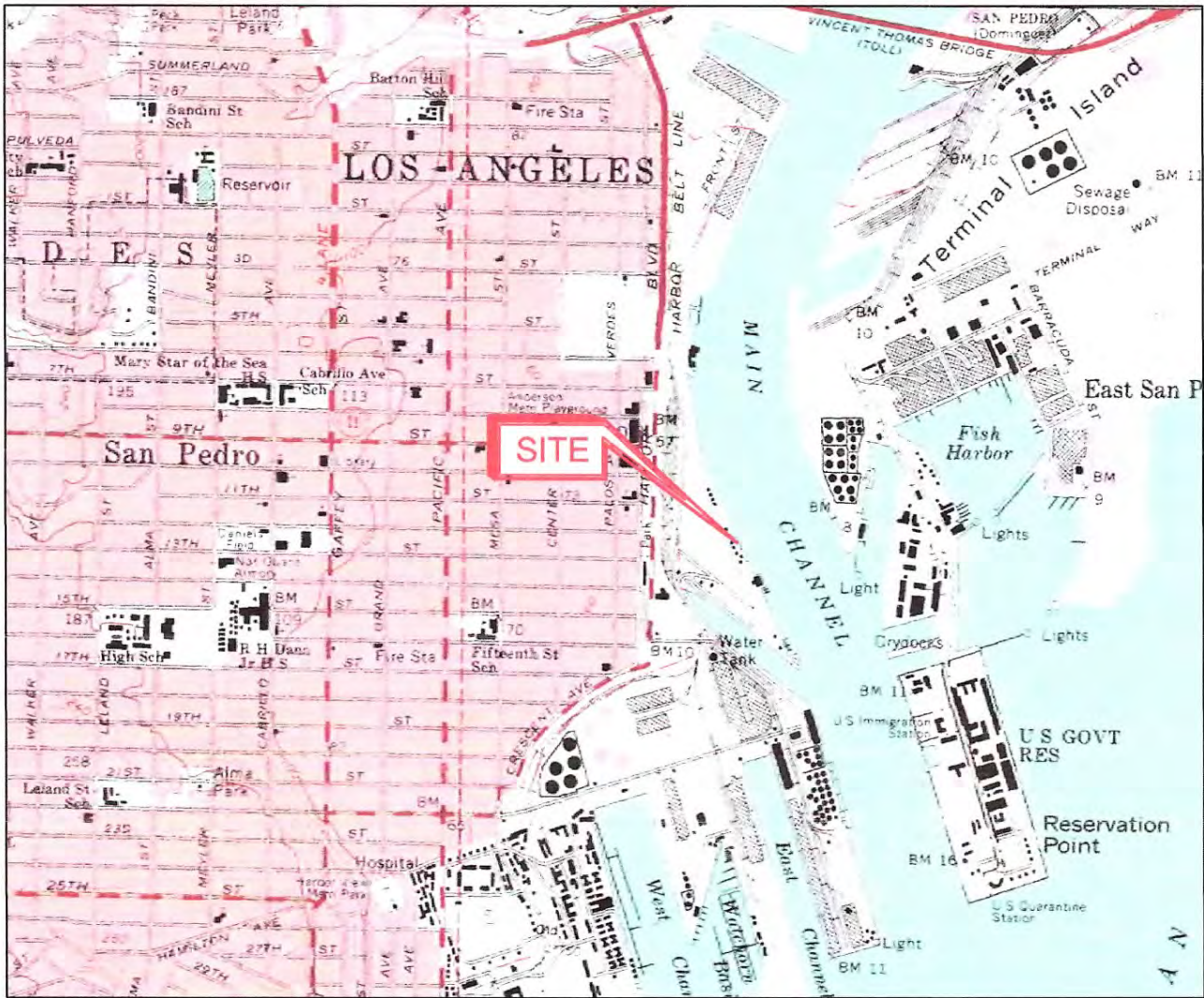
Site history and background information provided in this technical document are based on sources that may include interviews with environmental regulatory agencies and property management personnel and a review of acquired environmental regulatory agency documents and property information obtained from CEMC and others. Leidos has not made, nor has it been asked to make, any independent investigation concerning the accuracy, reliability, or completeness of such information beyond that described in this technical document.

Recognizing reasonable limits of time and cost, this technical document cannot wholly eliminate uncertainty regarding the vertical and lateral extent of impacted environmental media.

Opinions and recommendations presented in this technical document apply only to site conditions and features as they existed at the time of Leidos site visits or site work and cannot be applied to conditions and features of which Leidos is unaware and has not had the opportunity to evaluate.

All sources of information on which Leidos has relied in making its conclusions (including direct field observations) are identified by reference in this technical document or in appendices attached to this technical document. Any information not listed by reference or in appendices has not been evaluated or relied on by Leidos in the context of this technical document. The conclusions, therefore, represent our professional opinion based on the identified sources of information.

Figures



Chevron Environmental Management Company
CHEVRON SITE NO. 35-8031
FORMER UNOCAL MARINE STATION NO. 0692
BERTH 78, NAGOYA WAY
SAN PEDRO, CALIFORNIA

SITE LOCATION MAP

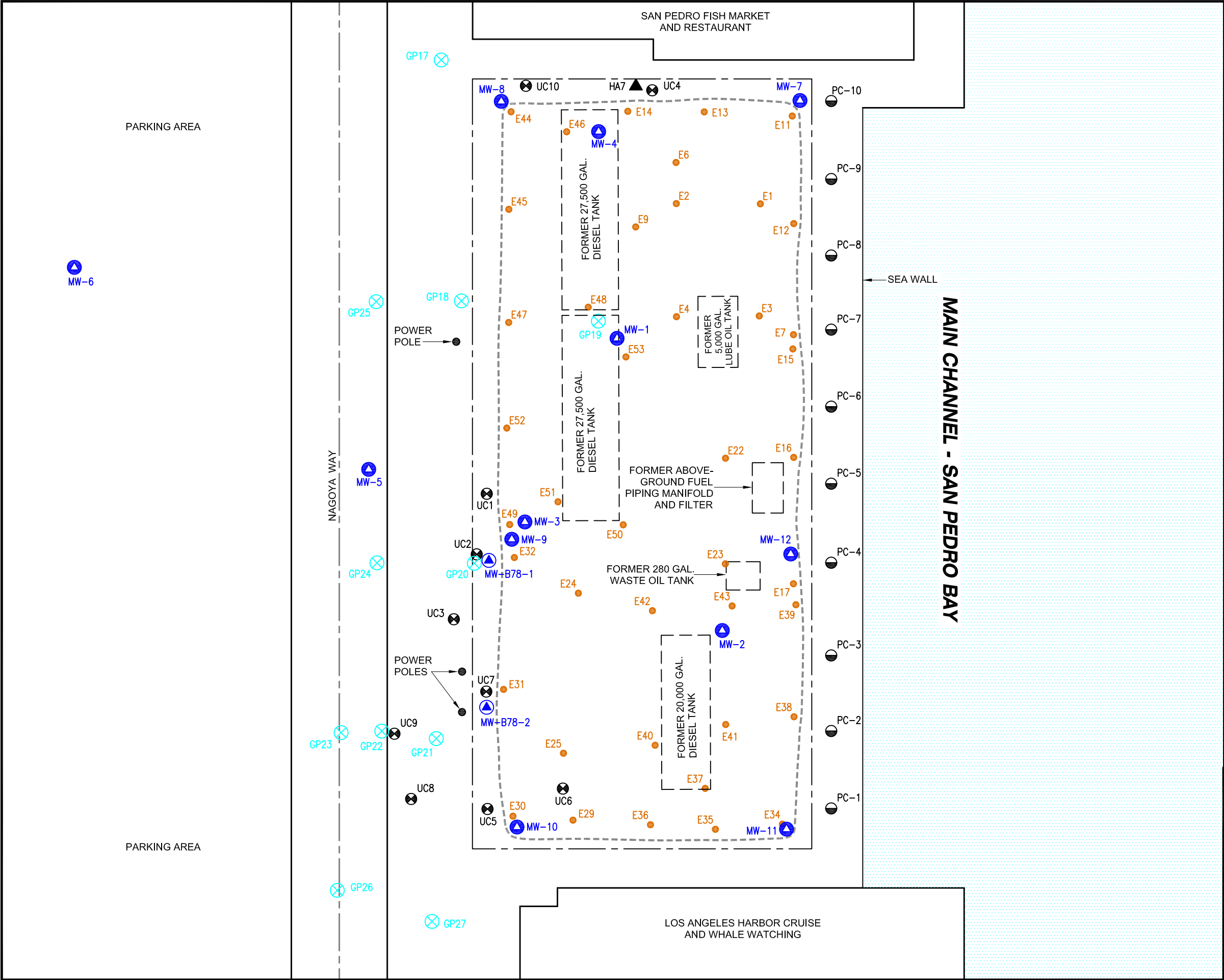
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date	11/16	date	date	
job no.	319981.00.16.C.150B.0301.0100	file no.	SITE LOCATION MAP	



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REFERENCE: USGS 7.5-MINUTE QUADRANGLES OF SAN PEDRO: CALIFORNIA (1964, PHOTOREVISED 1981)

FILE: P:\ECI\1039-BRE\Drafting\35-8031\FIGURE\B8031-001B.dwg [Layout1]



EXPLANATION

- GROUNDWATER MONITORING WELL
- GEOPROBE SAMPLE LOCATION (PACIFIC EDGE, 2006)
- FORMER GROUNDWATER MONITORING WELL
- SAMPLE LOCATION (GRADIENT, JUNE-AUGUST, 2002 EXCAVATION)
- GEOPROBE BORING LOCATION (GRADIENT - DECEMBER 18 AND 29, 2003)
- HAND AUGER BORING LOCATION (GRADIENT - DECEMBER 12, 2003)
- HAND AUGER BORING LOCATION (PACIFIC EDGE 2014)
- APPROXIMATE SOIL EXCAVATION LIMIT (2002)

REFERENCE:
MAP FROM GADIENT ENGINEERS, INC.,
FIGURE NO. 3 DATED MARCH 2004

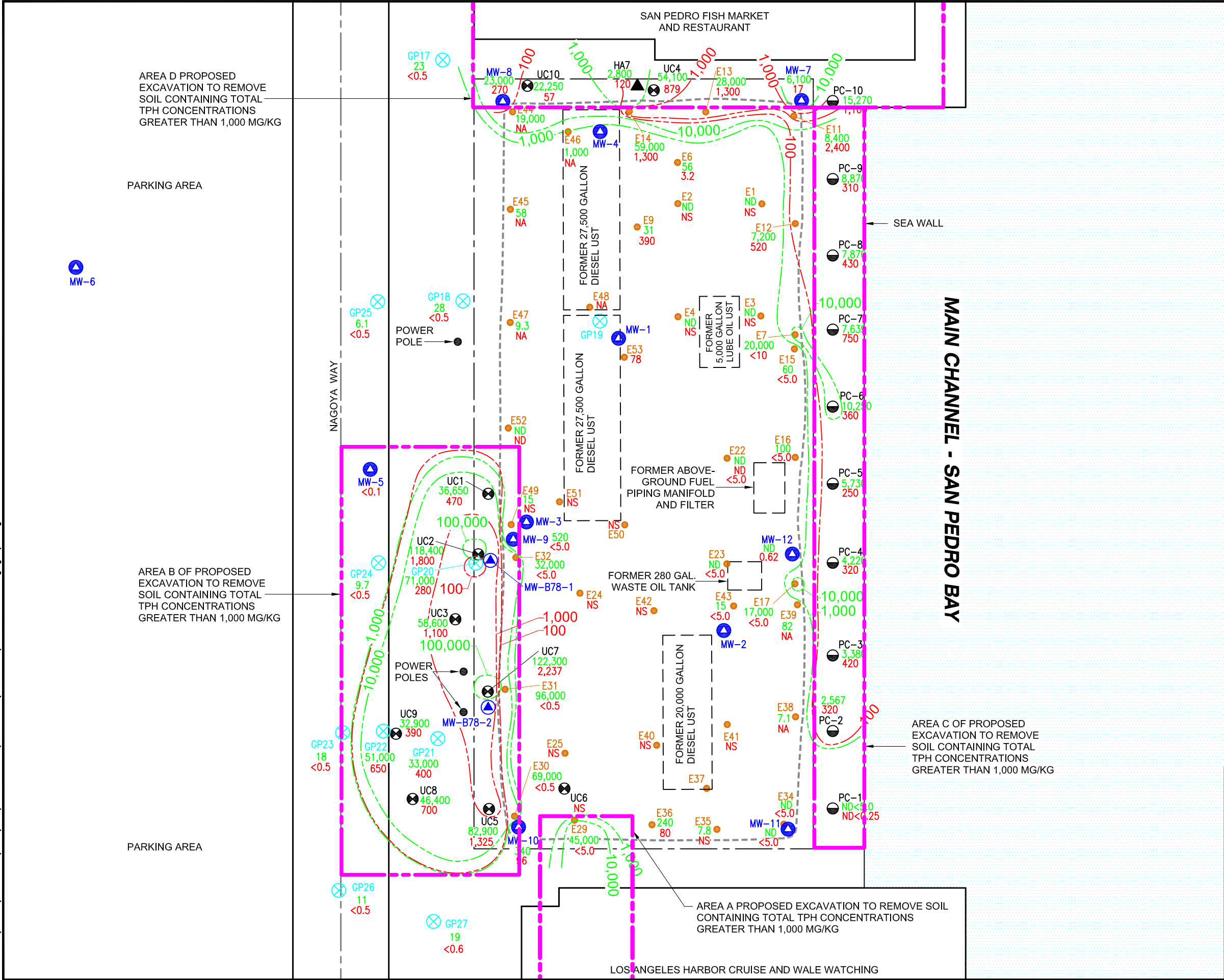
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Chevron Environmental Management Company
CHEVRON SITE NO. 35-8031
MARINE BERTH 78
SAN PEDRO, CALIFORNIA

SITE PLAN

DRAWN	HDS	REVISED	DSF	APPROVED	FIGURE NO.
DATE	05/17	DATE	10/06/17	DATE	2
JOB NO.	320215.00.17.C.150A.0201.0100	FILE NO.	B8031-001B		

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EXPLANATION

- GROUNDWATER MONITORING WELL
- GEOPROBE SAMPLE LOCATION (PACIFIC EDGE, 2006)
- FORMER GROUNDWATER MONITORING WELL
- SAMPLE LOCATION (GRADIENT, JUNE-AUGUST, 2002 EXCAVATION)
- GEOPROBE BORING LOCATION (GRADIENT - DECEMBER 18 AND 29, 2003)
- HAND AUGER BORING LOCATION (GRADIENT - DECEMBER 12, 2003)
- HAND AUGER BORING LOCATION (PACIFIC EDGE 2014)
- APPROXIMATE SOIL EXCAVATION LIMIT (2002)
- CONCENTRATION IN MILLIGRAMS PER KILOGRAM (mg/kg) FOR:
 - 23,000 TOTAL PETROLEUM HYDROCARBONS AS DIESEL (TPHd)
 - 2,400 TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (TPHg)
 - ND (<0.5) NOT DETECTED ABOVE THE METHOD DETECTION LIMIT INDICATED
 - NS NO SAMPLE COLLECTED
 - NA SAMPLE NOT ANALYZED
- APPROXIMATE LOCATION OF ISOCONCENTRATION LINE; QUERIED WHERE LOCATION IS CONJECTURAL FOR:
 - TPHd (mg/kg)
 - TPHg (mg/kg)

REFERENCE:

- MAP FROM GADIENT ENGINEERS, INC., FIGURE NO. 3 DATED MARCH 2004.
- TPHd VALUES FROM THE PORT OF LOS ANGELES DATA HAS BEEN RECALCULATED TO SHOW ONLY THE C11 TO C28 RANGE.

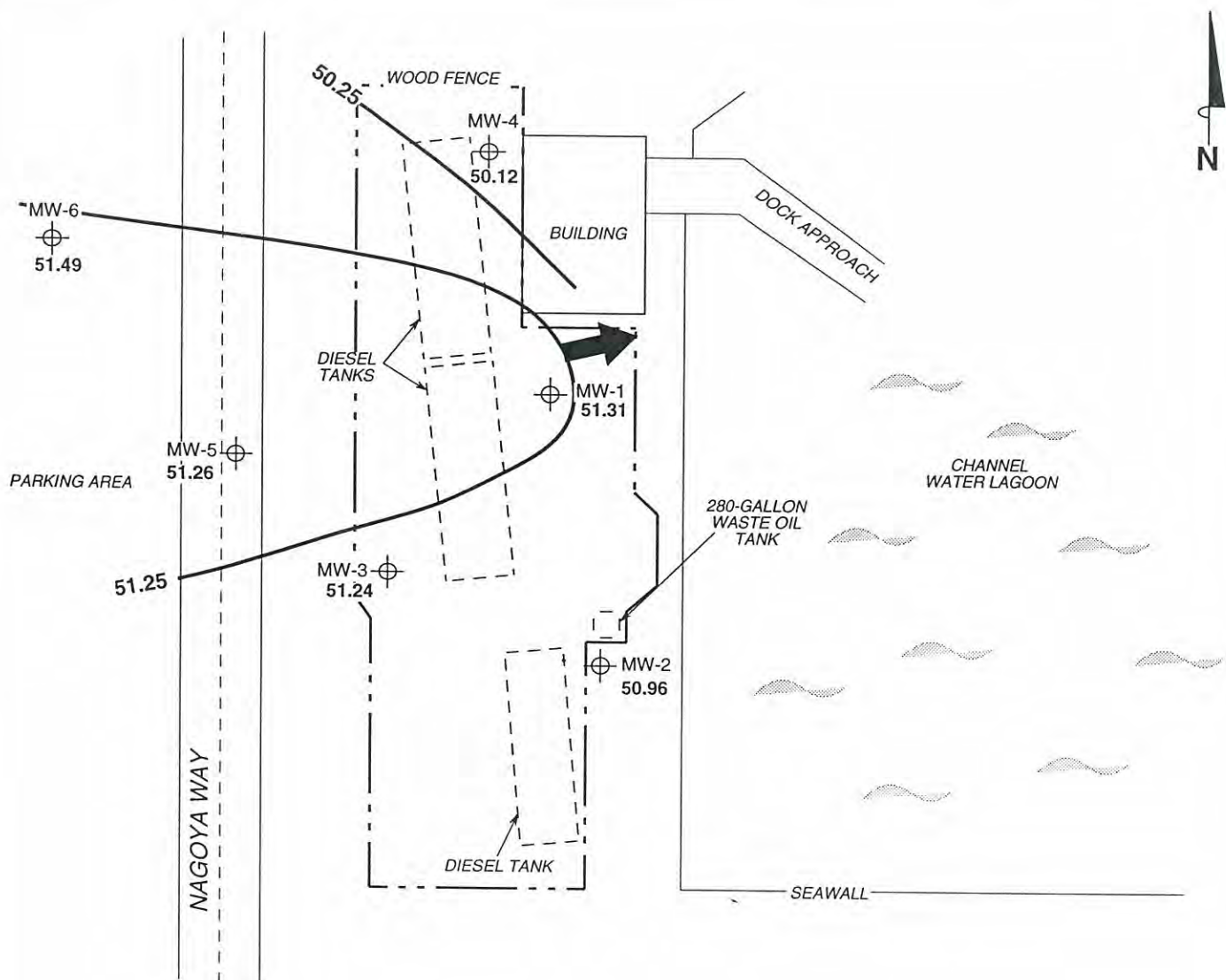
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Chevron Environmental Management Company
CHEVRON SITE NO. 35-8031
FORMER UNOCAL MARINE STATION NO. 0692
BERTH 78, NAGOYA WAY
SAN PEDRO, CALIFORNIA

TPHd AND TPHg CONCENTRATIONS IN SOIL
FROM 5 TO 9 FEET BELOW GROUND SURFACE

DRAWN	HDS	REVISED	DSF	APPROVED	FIGURE NO.
DATE	05/17	DATE	10/06/17	DATE	3
JOB NO.	320215.00.17.C.150A.0201.0100			FILE NO.	
					B8031-002B

Appendix A:
Historical Groundwater Monitoring Results



NOTES:

Contour lines are interpretive based on fluid levels measured in wells. Elevations are in feet above mean sea level.

LEGEND

- MW-6  Monitoring Well with Groundwater Elevation (feet)
- 51.25  Groundwater Elevation Contour
-  General Direction of Groundwater Flow

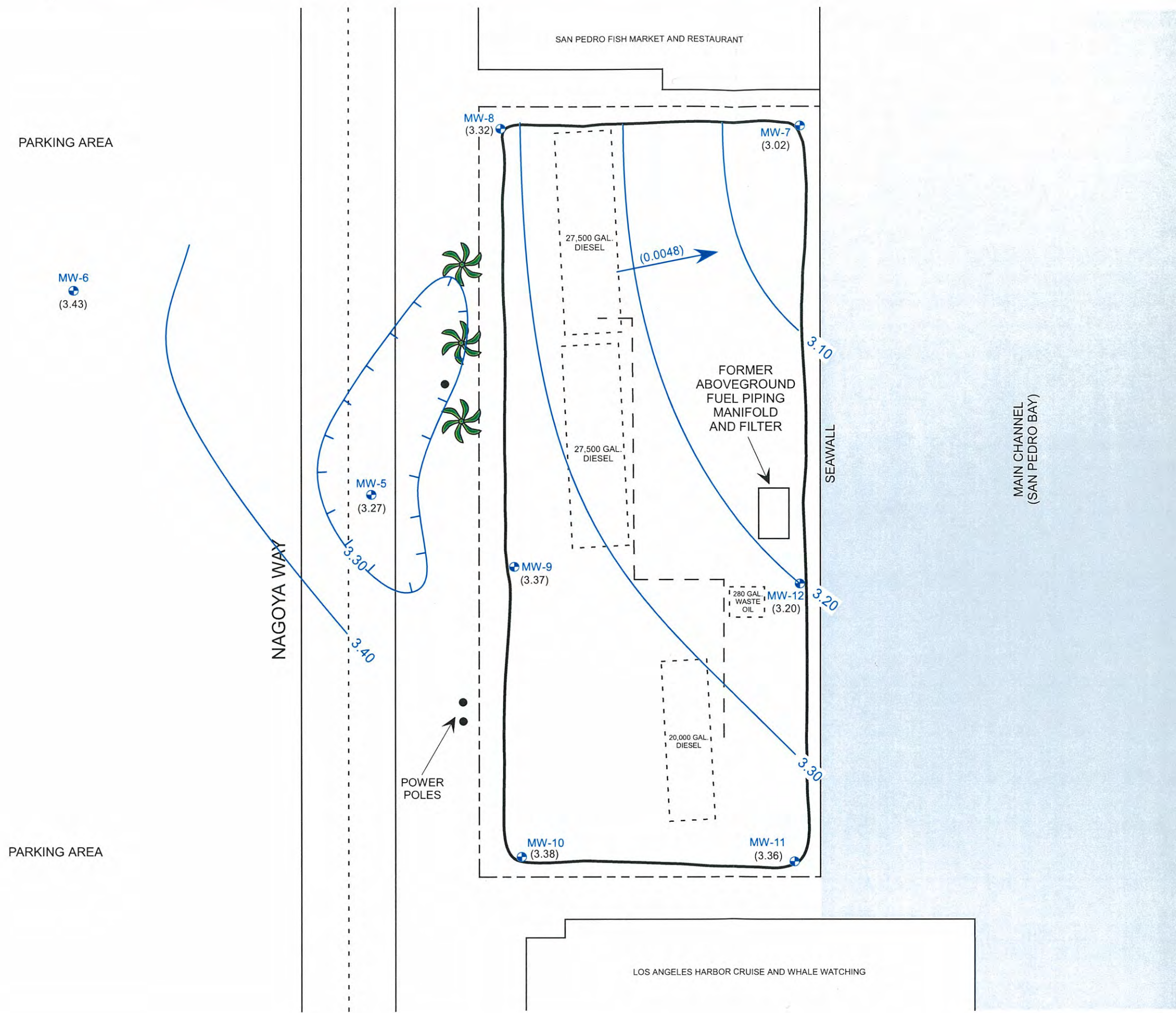
**GROUNDWATER ELEVATION
CONTOUR MAP
June 1, 2000**

Unocal Station 0692
San Pedro Marine BR-78
San Pedro, California

**TRC Alton
Geoscience**



FIGURE 2



LEGEND

-  Groundwater Monitoring Well
-  Palm Tree
-  Groundwater Contour
-  3.40 Groundwater Contour Elevation
-  (3.43) Groundwater Elevation
-  (0.0048) Groundwater Flow Direction and Gradient (feet/foot)



Gradient Engineers, Inc.
A LEIGHTON GROUP COMPANY

Project No.	302260005
Approx. Scale	1" = 20'
Engr./Geol.	KRL
Drafted By	RJP
Date	October 2003

GROUNDWATER CONTOUR MAP

Former Unocal Service
Station No. 0692
Marine Berth 78
San Pedro, California

Figure No. 5

PARKING AREA

MW-6
(3.22)

3.20

NAGOYA WAY

3.20

MW-5
(3.21)

3.15

MW-8
(3.18)

SAN PEDRO FISH MARKET AND RESTAURANT

MW-7
(3.22)

27,500 GAL.
DIESEL

27,500 GAL.
DIESEL

FORMER
ABOVEGROUND
FUEL PIPING
MANIFOLD
AND FILTER

MW-9
(3.07)

POWER
POLES

280 GAL.
WASTE
OIL

MW-12
(3.05)

20,000 GAL.
DIESEL

MW-10
(3.10)

MW-11
(3.05)

PARKING AREA

LOS ANGELES HARBOR CRUISE AND WHALE WATCHING

SEAWALL

MAIN CHANNEL
(SAN PEDRO BAY)

LEGEND

-  Groundwater Monitoring Well
-  Palm Tree
-  Groundwater Contour
-  3.20 Groundwater Contour Elevation
-  (3.22) Groundwater Elevation
-  (0.0056) Groundwater Flow Direction and Gradient (feet/foot)

0 10 20 40
Scale in Feet



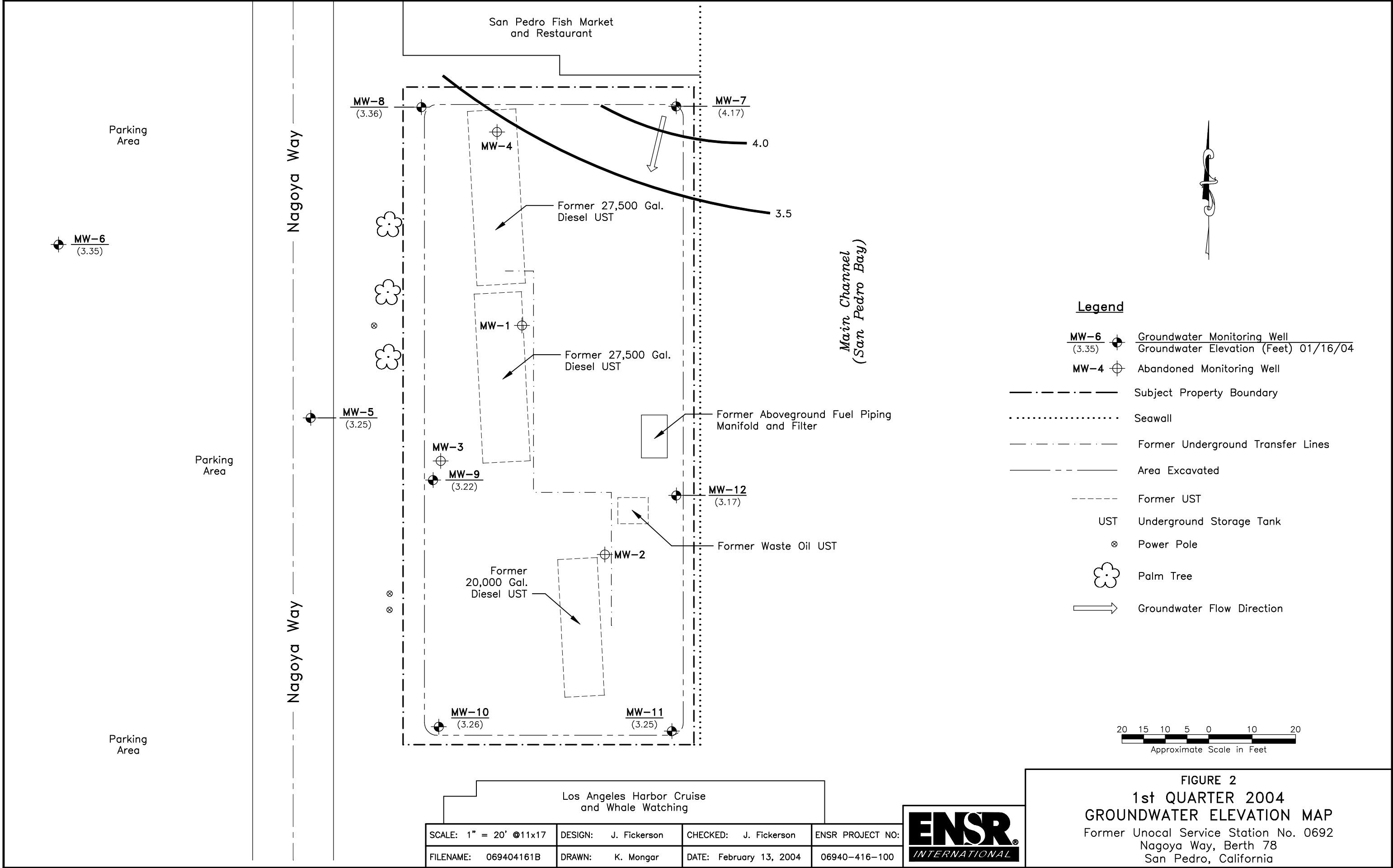
Leighton Consulting, Inc.
A LEIGHTON GROUP COMPANY

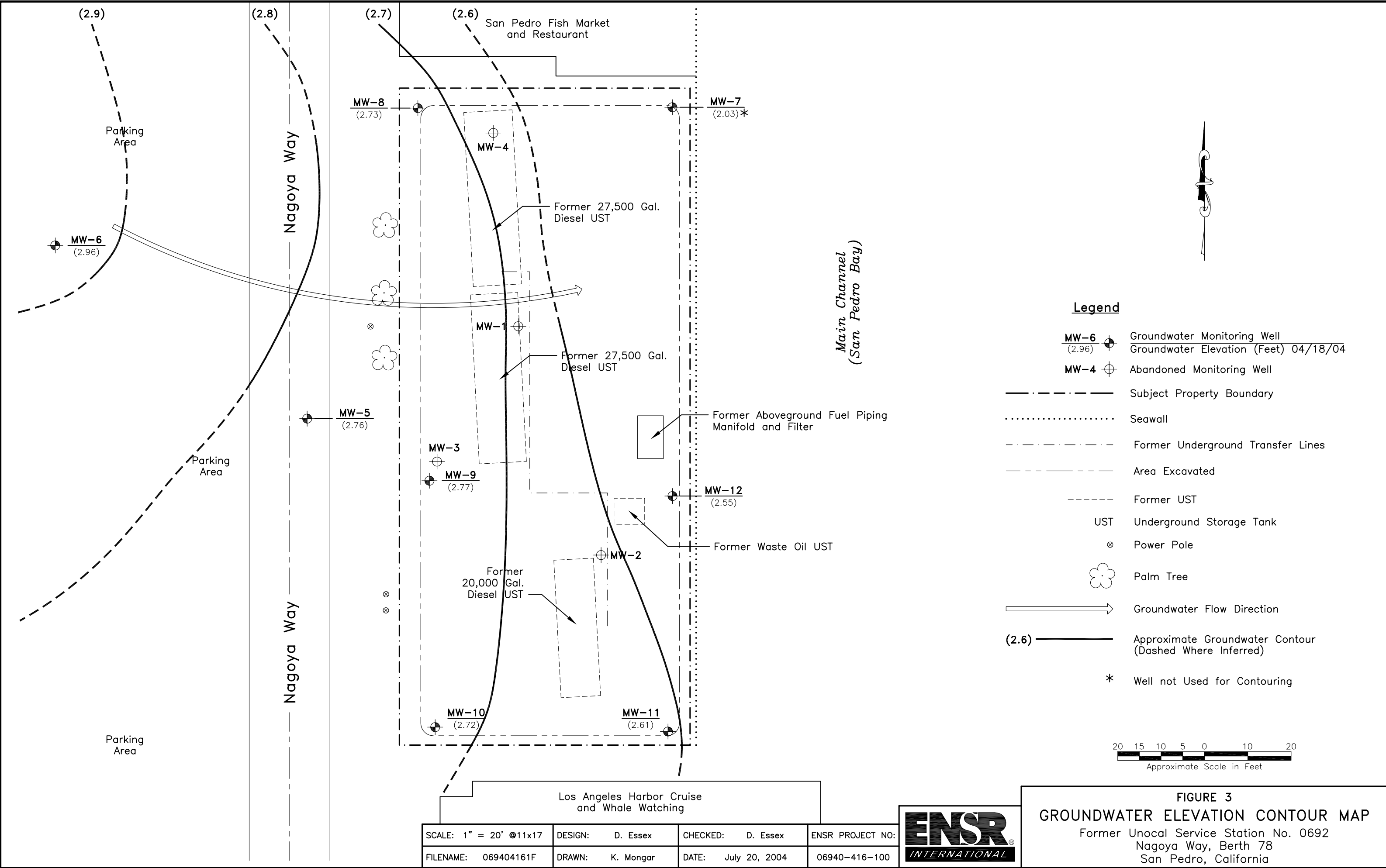
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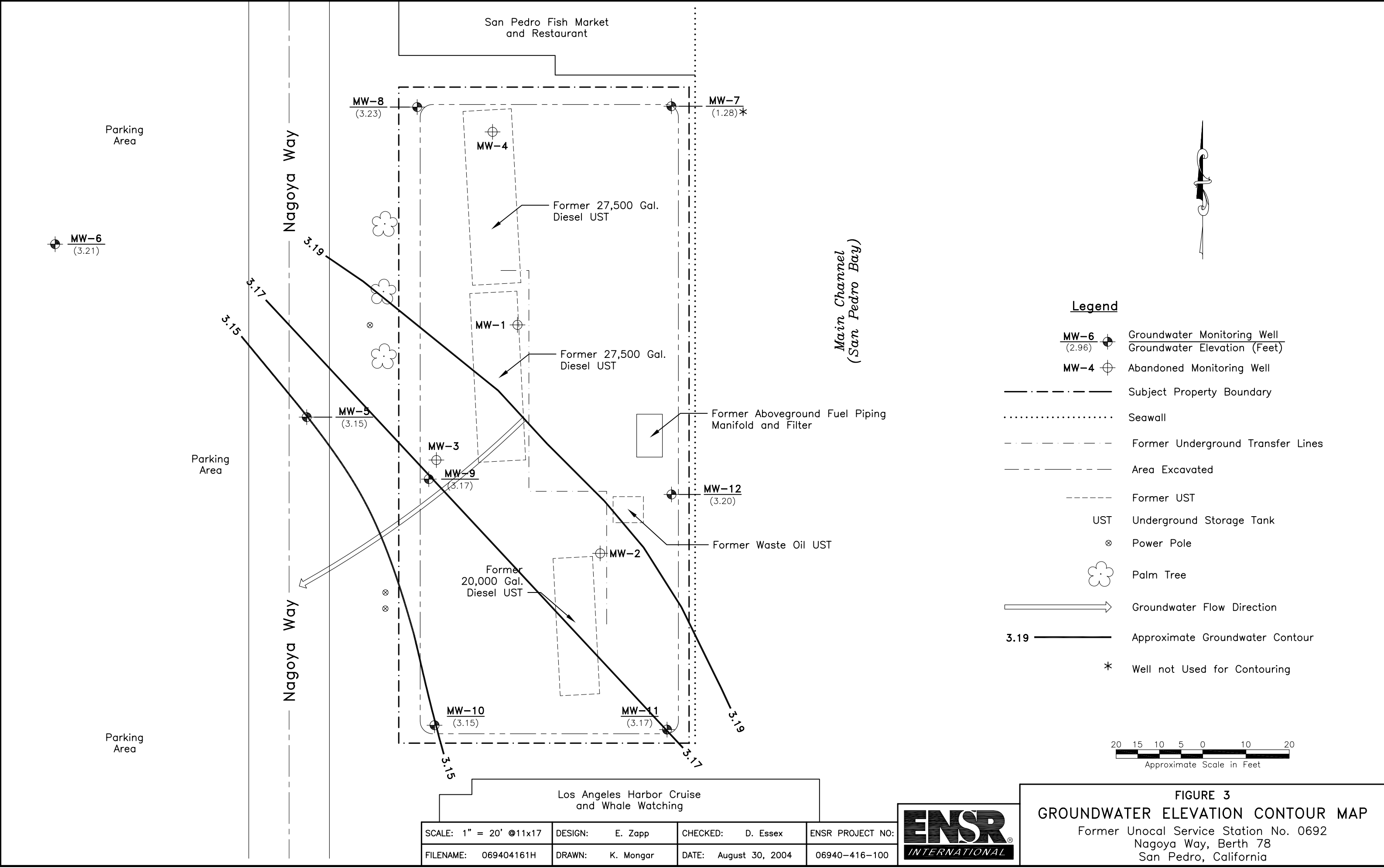
GROUNDWATER CONTOUR MAP

Former Unocal Service
Station No. 0692
Marine Berth 78
San Pedro, California

Figure No. 3







SCALE: 1" = 20' @11x17	DESIGN: E. Zapp	CHECKED: D. Essex	ENSR PROJECT NO:
FILENAME: 069404161H	DRAWN: K. Mongar	DATE: August 30, 2004	06940-416-100



Appendix B:
Historical Soil Analytical Results

TABLE 2
SUMMARY OF LABORATORY RESULTS FOR TPH-D, TRPH, AND BTEX IN SOIL
UNOCAL BULK PLANT 9991, BERTH 78, PORT OF LOS ANGELES,
SAN PEDRO, CALIFORNIA
Page 1

DATE SAMPLED	SAMPLE NUMBER	DEPTH	TPH-D	TRPH	B T E X			
		(ft)	mg/kg	mg/kg	-----mg/kg-----			
	LABORATORY METHOD:		CAL DOHS	EPA 418.1	-----EPA 8020-----			
5/8/91	B2-1'-1	1	330	38	<0.005	<0.005	<0.005	<0.015
5/8/91	B2-4'-2	4	16000	47000	0.011	0.084	4.4	11
5/8/91	B2-7'-3	7	19	210	<0.005	<0.005	<0.005	<0.015
5/8/91	B2-10'-4	10	12	50	<0.005	0.006	0.006	<0.015
5/9/91	B3-1'-1	1	4.1	190	<0.005	<0.005	<0.005	<0.015
5/9/91	B3-4'-2	4	2200	4600	<0.005	0.008	0.028	0.085
5/9/91	B3-7'-3	7	10000	11000	<0.005	0.060	0.34	0.32
5/9/91	B3-10'-4	10	16000	13000	<0.005	0.21	0.39	2.0
5/8/91	B4-1'-1	1	4500	8900	<0.005	0.006	0.006	0.021
5/8/91	B4-4'-2	4	21000	9400	<0.005	<0.005	0.52	2.6
5/8/91	B4-7'-3	7	22000	17000	<0.005	<0.005	1.2	5.7
5/8/91	B4-10'-4	10	3200	3600	<0.005	<0.005	0.013	0.037
5/9/91	B5-1'-1	1	3900	8700	<0.005	<0.005	<0.005	<0.015
5/9/91	B5-4'-2	4	5600	6200	<0.005	<0.005	<0.005	<0.015
5/9/91	B5-7'-3	7	480	530	<0.005	0.006	0.016	0.045
5/9/91	B6-1'-1	1	6400	11000	<0.005	0.027	0.070	0.30
5/9/91	B6-4'-2	4	2900	12000	<0.005	0.036	0.098	0.37
5/9/91	B6-7'-3	7	7500	3200	0.006	0.015	0.022	0.067
5/9/91	B6-10'-4	10	2.7	<10	<0.005	<0.005	<0.005	<0.015
5/9/91	B7-1.5'-1	1.5	8000	14000	<0.005	0.047	0.030	0.078
5/9/91	B7-4'-2	4	16000	40000	<0.005	0.070	0.088	0.31
5/9/91	B7-7'-3	7	1600	4800	<0.005	<0.005	<0.005	<0.015

See final table page for description of abbreviations

BERTH78.TBLKATHY100191L

TABLE 2
SUMMARY OF LABORATORY RESULTS FOR
TPH-D, TRPH, AND BTEX IN SOIL
UNOCAL BULK PLANT 9991, BERTH 78, PORT OF LOS ANGELES,
SAN PEDRO, CALIFORNIA
Page 2

DATE SAMPLED	SAMPLE NUMBER	DEPTH	TPH-D	TRPH	B T E X			
		(ft)	mg/kg	mg/kg	-----mg/kg-----			
	LABORATORY METHOD:		CAL DOHS	EPA 418.1	-----EPA 8020-----			
6/17/91	B8-1-1'	1	1.0	330	<0.005	<0.005	<0.005	<0.015
6/17/91	B8-2-4'	4	<1.0	210	<0.005	<0.005	<0.005	<0.015
6/17/91	B8-3-7'	7	<1.0	<10	<0.005	<0.005	<0.005	<0.015
6/17/91	B8-4-10'	10	<1.0	<10	<0.005	<0.005	<0.005	<0.015
6/17/91	B9-1-1'	1	5.0	<10	<0.005	<0.005	<0.005	<0.015
6/17/91	B9-2-4'	4	<1.0	160	<0.005	<0.005	<0.005	<0.015
6/17/91	B9-3-7'	7	<1.0	<10	<0.005	<0.005	<0.005	<0.015
6/17/91	B9-4-10'	10	6.0	33	<0.005	<0.005	<0.005	<0.015
8/22/91	B10-1-1'	1	1100.	10000	0.05	<0.005	0.95	2.2
8/22/91	B11-1-1'	1	<10	140	<0.005	<0.005	<0.005	<0.015
8/22/91	B11-2-4'	4	40	1400	<0.005	<0.005	<0.005	<0.015
8/22/91	B11-3-7'	7	18	20	<0.005	<0.005	<0.005	<0.015
8/22/91	B12-1-1'	1	<10	<10	<0.005	<0.005	<0.005	<0.015
8/22/91	B12-2-4'	4	<10	<10	<0.005	<0.005	<0.005	<0.015
8/22/91	B12-3-7'	7	7900	26000	0.008	<0.005	1.2	2.8
8/22/91	B12-4-9'	9	4000	na	na	na	na	na

See final table page for description of abbreviations

TABLE 3
SUMMARY OF LABORATORY RESULTS FOR
MERCURY, NICKEL, LEAD, AND VANADIUM IN SOIL
UNOCAL BULK PLANT 9991, BERTH 78, PORT OF LOS ANGELES,
SAN PEDRO, CALIFORNIA
Page 1

DATE SAMPLED	SAMPLE NUMBER	DEPTH (ft)	BORING NUMBER	MERCURY mg/kg	N1 Pb V -----mg/kg-----		
					LABORATORY METHOD: EPA 245.5 -----METALS BY ICP-----		
5/8/91	2-1'-1	1	B2	<0.049	2.3	40	26
5/8/91	B2-4'-2	4	B2	<0.048	0.08	8.9	13
5/8/91	B2-7'-3	7	B2	<0.048	<0.2	3.1	18
5/8/91	B2-10'-4	10	B2	<0.046	2.5	<2.3	28
5/9/91	B3-1'-1	1	B3	0.037	6.2	8.2	27
5/9/91	B3-4'-2	4	B3	<0.048	7.1	12	26
5/9/91	B3-7'-3	7	B3	<0.047	<0.2	18	15
5/9/91	B3-10'-4	10	B3	<0.029	<0.2	17	19
5/8/91	B4-1'-1	1	B4	<0.048	0.3	20	14
5/8/91	B4-4'-2	4	B4	<0.047	0.3	11	19
5/8/91	B4-7'-3	7	B4	<0.049	<0.2	7.6	19
5/8/91	B4-10'-4	10	B4	<0.038	0.3	3.0	18
5/9/91	B5-1'-1	1	B5	0.057	0.7	5.8	11
5/9/91	B5-4'-2	4	B5	0.834	0.7	22	12
5/9/91	B5-7'-3	7	B5	0.043	0.3	3.6	7.6
5/9/91	B6-1'-1	1	B6	0.061	0.5	17	19
5/9/91	B6-4'-2	4	B6	0.119	1.1	34	18
5/9/91	B6-7'-3	7	B6	0.056	<0.2	15	10
5/9/91	B6-10'-4	10	B6	<0.030	7.2	3.3	38
5/9/91	B7-1.5'-1	1.5	B7	<0.037	<0.2	4.7	13
5/9/91	B7-4'-2	4	B7	<0.039	1.5	5.6	20
5/9/91	B7-7'-3	7	B7	<0.045	0.6	4.6	14

See final table page for description of abbreviations

BERTH78.TBLKATHY100191L

TABLE 3
SUMMARY OF LABORATORY RESULTS FOR
MERCURY, NICKEL, LEAD, AND VANADIUM IN SOIL
UNOCAL BULK PLANT 9991, BERTH 78, PORT OF LOS ANGELES,
SAN PEDRO, CALIFORNIA
Page 2

DATE SAMPLED	SAMPLE NUMBER	DEPTH(f t)	BORING NUMBER	MERCURY mg/kg	Ni Pb V -----mg/kg-----		
					-----METALS BY ICP-----		
				LABORATORY METHOD:	EPA 245.5		
6/17/91	B8-1-1'	1	B8	<0.050	8.1	4.4	30
6/17/91	B8-2-4'	4	B8	<0.048	9.3	5.8	21
6/17/91	B8-3-7'	7	B8	<0.047	<5.3	<1.8	7.1
6/17/91	B8-4-10'	10	B8	<0.043	<5.3	2.4	10
6/17/91	B9-1-1'	1	B9	<0.040	<5.3	2.3	8.7
6/17/91	B9-2-4'	4	B9	<0.050	<5.3	<1.8	9.4
6/17/91	B9-3-7'	7	B9	<0.046	<5.3	<1.8	6.3
6/17/91	B9-4-10'	10	B9	<0.042	<5.3	<1.8	10
8/22/91	B10-1-1'	1	B10	0.0041	3.2	2.5	8.7
8/22/91	B11-1-1'	1	B11	0.12	16	12	32
8/22/91	B11-2-4'	4	B11	0.2	4.9	18	11
8/22/91	B11-3-7'	7	B11	0.04	3.1	4.5	8.8
8/22/91	B12-1-1'	1	B12	0.051	7.5	7.5	20
8/22/91	B12-2-4'	4	B12	0.015	3.5	4.4	11
8/22/91	B12-3-7'	7	B12	0.0036	3.3	1.9	11

See final table page for description of abbreviations

DESCRIPTION OF ABBEVIATIONS
FOR TABLES 2,3,4 AND 5

TPH-D = total petroleum hydrocarbons - diesel
TRPH = total recoverable petroleum hydrocarbons
B = benzene
T = toluene
E = ethylbenzene
X = total xylenes
Ni = nickel
Pb = lead
V = vanadium
ft = feet
mg/kg = milligrams per kilogram
 μ g/kg = micrograms per kilogram
mg/L = milligrams per liter
 μ g/L = micrograms per liter
na = not analyzed
< = less than detection limit

GEOTEST

An Environmental Monitoring and Testing Service

(310)498-9515 (800)624-5744

LABORATORY REPORT

ANALYST: WK

GEOTEST PROJECT NO.: 94500-25

CLIENT ID: 9540604500

MATRIX: SOIL

ANALYSIS OF TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
LUFT MANUAL (Modified EPA method 418.1)

UNITS:	SAMPLE ID	DATE ANALYZED	TRPH	DETECTION
			mg/Kg	LIMIT mg/Kg
	METHOD BLANK	10/03/95	ND	10
	1	10/03/95	24000	10
	2	10/03/95	10000	10

TABLE 1
SOIL ANALYTICAL RESULTS SUMMARY
 FORMER UNOCAL STATION #0692

SAMPLE DATE	SAMPLE LOCATION / ID	DEPTH (Feet bgs)	TPHd (ppm)	TPHg (ppm)	BENZENE (ppm)	TOLUENE (ppm)	ETHYL-BENZENE (ppm)	XYLENES (ppm)	MTBE (ppm)	TOTAL LEAD (ppm)	REFERENCE
12/20/99	T1-9.5	9.5	2,400	na	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	ND<0.035	26	This Report
12/20/99	T2-10	10	52,000	na	ND<0.80	ND<0.80	ND<0.80	ND<2.4	ND<5.6	20	This Report
12/20/99	T3-5.5	5.5	25,000	na	ND<0.40	ND<0.40	ND<0.40	ND<1.2	ND<2.8	na	This Report
12/20/99	T4-5	5	12,000	na	ND<0.40	ND<0.40	ND<0.40	ND<1.2	ND<2.8	na	This Report
12/20/99	T5-4	4	10,000	na	ND<0.20	ND<0.20	ND<0.20	ND<0.60	ND<1.4	na	This Report
12/20/99	T6-5	5	9,800	na	ND<0.40	ND<0.40	ND<0.40	ND<1.2	ND<2.8	na	This Report
12/20/99	T7-5	5	590	na	ND<0.0050	0.023	ND<0.0050	0.019	ND<0.035	na	This Report
12/20/99	T8-5	5	10,000	na	ND<0.010	ND<0.010	ND<0.010	ND<0.030	ND<0.070	na	This Report
01/06/00	T9-8	8	79,000	na	ND<5.0	9.3	16	98	ND<35	11	This Report
01/06/00	T10-8	8	44,000	na	ND<10	ND<10	42	130	ND<70	34	This Report
01/06/00	T11-7	7	44,000	na	ND<10	22	27	160	ND<70	na	This Report
01/06/00	T12-7	7	41,000	na	ND<10	33	34	210	ND<70	na	This Report
01/06/00	T13-6.5	6.5	72,000	na	ND<4.0	7.0	11	61	ND<28	na	This Report
01/06/00	T14-6.5	6.5	46,000	na	ND<4.0	10	14	85	ND<28	na	This Report
01/06/00	T15-6.5	6.5	57,000	na	ND<4.0	14	16	100	ND<28	na	This Report
01/06/00	T16-6.5	6.5	73,000	na	ND<4.0	9.7	10	72	ND<28	na	This Report
01/20/00	T17-7	7	1,900	na	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	ND<0.035	15	This Report
01/20/00	T18-6.5	6.5	62,000	na	ND<8.0	ND<2.0	3.7	12	ND<14	na	This Report
01/20/00	T19-6.5	6.5	42,000	na	ND<4.0	ND<4.0	7.7	28	ND<28	na	This Report
01/20/00	T20-6.5	6.5	78,000	na	ND<1.0	ND<1.0	ND<1.0	ND<3.0	ND<7.0	na	This Report
01/20/00	T21-6.5	6.5	22,000	na	ND<1.0	1.4	2.4	17	ND<7.0	na	This Report
01/20/00	T22-6	6	65,000	na	ND<4.0	17	31	180	ND<28	na	This Report
01/20/00	T23-6	6	39,000	na	ND<4.0	14	19	110	ND<28	na	This Report
12/20/99	SP-1	na	11,000	51	ND<0.050	ND<0.050	0.13	0.36	ND<0.35	na	This Report
12/20/99	SP-2	na	280	ND<1.0	ND<0.0050	ND<0.0050	0.015	0.042	ND<0.035	na	This Report
12/20/99	SP-3	na	220	na	ND<0.0050	ND<0.0050	ND<0.0050	0.015	ND<0.035	13	This Report
01/04/00	SP-4	na	15,000	150	ND<0.20	ND<0.20	0.22	0.86	ND<1.4	na	This Report
01/19/00	SP-5	na	32,000	3,300	ND<4.0	21	23	130	ND<28	25	This Report
02/03/00	PL1-3	3	19,000	na	ND<0.10	0.21	0.21	0.60	ND<0.70	23	This Report
02/03/00	PL1-6	6	10,000	na	ND<0.25	ND<0.25	2.5	7.1	ND<1.8	ND<5.0	This Report
02/03/00	PL2-3	3	2,900	na	ND<0.040	ND<0.040	0.050	0.12	ND<0.28	12	This Report

TABLE 1
SOIL ANALYTICAL RESULTS SUMMARY
 FORMER UNOCAL STATION #0692

SAMPLE DATE	SAMPLE LOCATION / ID	DEPTH (Feet bgs)	TPHd (ppm)	TPHg (ppm)	BENZENE (ppm)	TOLUENE (ppm)	ETHYL. BENZENE (ppm)	XYLENES (ppm)	MTBE (ppm)	TOTAL LEAD (ppm)	REFERENCE
02/03/00	PL3-2.5	2.5	26	na	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	ND<0.035	20	This Report
02/03/00	PL4-2	2	150	na	ND<0.0050	0.013	ND<0.0050	0.022	ND<0.035	67	This Report
02/03/00	PL5-2	2	370	na	ND<0.0050	0.015	ND<0.0050	0.025	ND<0.035	22	This Report

NOTES: ND = Not detected at or above laboratory detection limits.
 REFERENCE = Source of the analytical data.
 bgs = below ground surface; stockpile samples are below surface of stockpile.
 ppm = parts per million.
 Total Lead by EPA method 7420.
 TPHd= Total petroleum hydrocarbons as diesel, by EPA Method 3550B/8015B.
 TPHg= Total petroleum hydrocarbons as gasoline, by EPA Method 8015B.
 BTEX and MTBE by EPA Method 5030B/8021B.

SR
 QA/QC

Table 1
Soil Sample Laboratory Results
TPH-d

Former Unocal Service Station No. 0692

Sample ID	Date Sampled	Depth	TPH-d mg/kg
GP1-2'	1/21/2002	2'	270
GP1-7'	1/21/2002	7'	23,000
GP1-12'	1/21/2002	12'	7.9
GP2-2'	1/21/2002	2'	360
GP2-7'	1/21/2002	7'	44,000
GP3-2'	1/21/2002	2'	1,200
GP3-7'	1/21/2002	7'	170
GP4-2'	1/21/2002	2'	9.9
GP4-7'	1/21/2002	7'	41,000
GP5-2'	1/21/2002	2'	15
GP5-7'	1/21/2002	7'	14,000
GP5-12'	1/21/2002	12'	27,000
GP6-2'	1/21/2002	2'	240
GP6-7'	1/21/2002	7'	10
GP7-2'	1/21/2002	2'	9
GP7-7'	1/21/2002	7'	44
GP7-12'	1/21/2002	12'	19
GP8-2'	1/21/2002	2'	14,000
GP8-7'	1/21/2002	7'	33,000
GP8-12'	1/21/2002	12'	17
GP9-2'	1/21/2002	2'	310
GP9-7'	1/21/2002	7'	9,400
GP9-12'	1/21/2002	12'	24
GP10-2'	1/21/2002	2'	13,000
GP10-7'	1/21/2002	7'	1,200
GP10-12'	1/21/2002	12'	78
GP11-2'	1/21/2002	2'	3,300
GP11-7'	1/21/2002	7'	21,000
GP12-2'	1/21/2002	2'	81
GP12-7'	1/21/2002	7'	13,000
GP13-2'	1/21/2002	2'	570
GP13-7'	1/21/2002	7'	4,300
GP14-2'	1/21/2002	2'	<5.0
GP14-7'	1/21/2002	7'	49,000
GP15-2'	1/21/2002	2'	15
GP15-7'	1/21/2002	7'	18,000
GP16-2'	1/21/2002	2'	2,200
GP16-7'	1/21/2002	7'	6.2
HA1-2'	1/21/2002	2'	25
HA1-4'	1/21/2002	4'	75
HA2-2'	1/21/2002	2'	17
HA2-4'	1/21/2002	4'	<5.0
HA3-2'	1/21/2002	2'	15
HA3-4'	1/21/2002	4'	<5.0
HA4-2'	1/21/2002	2'	<5.0
HA4-3'	1/21/2002	3'	17
HA5-2'	1/21/2002	2'	20,000
HA5-7'	1/21/2002	7'	11,000
HA6-8'	1/21/2002	8'	5,300

TPH-d
ND

Total Petroleum Hydrocarbons as diesel by EPA Method 8015M
Not detected above laboratory detection limits

Table 2
Soil Sample Laboratory Results
BTEX/MTBE/Oxygenates/and PAHs
Former Unocal Service Station No. 0692

302260-001

Page 1 of 1

Sample ID	Date Sampled	Depth	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	m,p-Xylene mg/kg	o-Xylene mg/kg	MTBE mg/kg	Other Oxygenates mg/kg	PAH's mg/kg
GP2-7'	1/21/2002	7'	<10	2	<10	3	<10	<25	ND	ND
GP4-7'	1/21/2002	7'	<10	2.1	7.2	27	8.4	<25	ND	Anthracene 2.3 Chrysene 3.0 Fluorene 11.0 Naphthalene 15.0 Phenanthrene 34.0
GP8-7'	1/21/2002	7'	<10	2.6	<10	6.4	<10	<25	ND	Anthracene 2.5 Chrysene 0.89 Fluorene 6.9 Naphthalene 4.7 Phenanthrene 14.0
GP14-7'	1/21/2002	7'	<10	<10	1.8	5.7	<10	<25	ND	Anthracene 0.74 Chrysene 0.89 Fluorene 6.9 Naphthalene 4.7 Phenanthrene 14.0

ND Not Detected Above Laboratory Limits

MTBE Methyl Tertiary Butyl Ether

BTEX, MTBE and Oxygenates by EPA Method 8260B

PAH's by EPA Method 8310

TABLE 1.
Stockpile Soil Sample Laboratory Results
Former Unocal Service Station No. 0692

302260003
Page 1 of 1

Sample ID	Date Sampled	TPH-d ^{HP} /EFH mg/kg	TPH-g ^{HP} /VFH mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	m,p-Xylene mg/kg	o-Xylene mg/kg	MTBE mg/kg	VOCs mg/kg	Oxygenates mg/kg
SP1-1	06/25/02	190 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
SP1-2	06/25/02	140 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
SP2-1	06/25/02	30 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
SP2-2	06/25/02	320 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
SP3-1	06/25/02	29,000 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
SP3-2	06/25/02	4,300 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
SP3-3	06/25/02	1,700 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
SP3-4	06/25/02	4,100 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
SP4-1	06/26/02	480	--	--	--	--	--	--	--	--	--
SP4-2	06/26/02	15,000	1,700	<0.010	<0.010	<0.010	<0.010	<0.010	<0.025	***	All ND
SP5-1	07/03/02	570 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
SP5-2	07/03/02	390 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
SP5-3	07/03/02	1,000 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
SP5-4	07/03/02	18,000 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
SP6-1	07/03/02	140 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
SP6-2	07/03/02	130 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
SP6-3*	07/10/02	9,200 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
SP7-1	07/15/02	5,700	490	--	--	--	--	--	--	--	--
SP7-2	07/15/02	5,800	370	--	--	--	--	--	--	--	--
SP8-1	07/18/02	5,100	--	--	--	--	--	--	--	--	--
SP9-1	07/17/02	10	--	--	--	--	--	--	--	--	--
SP9-2	07/17/02	27	--	--	--	--	--	--	--	--	--
SP10-1	08/01/02	28,000	--	--	--	--	--	--	--	--	--

TPH-d^{HP} Total Petroleum Hydrocarbons as Diesel by EPA Method 8015M
^{HP} HP Labs analyzed for C₁₂-C₂₄
EFH Extractable Fuel Hydrocarbons by EPA Method 8015M
Del Mar Analytical analyzed for C₈-C₄₀
TPH-g^{HP} Total Petroleum Hydrocarbons as Gas by EPA Method 8015M
^{HP} HP Labs analyzed for C₅-C₁₁
VFH Volatile Fuel Hydrocarbons by EPA Method 8015M
Del Mar Analytical analyzed for C₆-C₁₂
MTBE Methyl Tertiary Butyl Ether
ND Not Detected Above Laboratory Limits
VOCs Volatile Organic Compounds
Bold Indicates concentrations above laboratory detection limits
*** See Table 3 for VOC results
mg/lg Milligrams per Kilogram

Unless otherwise specified, soil samples were analyzed by EPA Method 8260B

*Please note that soil sample designation SP6-2 was inadvertently used twice.
The soil sample collected on 7/10/02 was changed to SP6-3.

TABLE 2.
Main Excavation Soil Sample Laboratory Results
(TPH-d, TPH-g, BTEX, and Oxygenates)
Former Unocal Service Station No. 0692

302260003

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Sample ID	Date Sampled	Depth (feet)	TPH-d ^{HP} /EFH mg/kg	TPH-g ^{HP} /VFH mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	m,p-Xylene mg/kg	o-Xylene mg/kg	MTBE mg/kg	VOCs mg/kg	Oxygenates mg/kg
E1-9	06/25/02	9	<10 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
E2-9	06/25/02	9	<10 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
E3-9	06/25/02	9	<10 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
E4-9	06/25/02	9	<10 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
E5-2	06/25/02	2	750 ^{HP}	<10 ^{HP}	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	ND
E5-6	06/26/02	6	6,000	2,500	<0.370	<0.370	<0.370	<0.370	<0.370	<0.930	***	ND
E6-2	06/25/02	2	660 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
E6-6	06/25/02	6	67,000 ^{HP}	<10 ^{HP}	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	ND
E6-9	06/27/02	9	56	3.2	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	***	ND
E7-2	06/25/02	2	<10 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
E7-6	06/25/02	6	20,000 ^{HP}	<10 ^{HP}	<5	<5	<5	<5	<5	<5	--	ND
E8-3	06/25/02	3	<10 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
E8-6	06/25/02	6	34,000 ^{HP}	<10 ^{HP}	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	ND
E9-2	06/25/02	2	<10 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
E9-9	06/27/02	9	31	320	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	***	ND
E10-2	06/25/02	2	360 ^{HP}	<10 ^{HP}	--	--	--	--	--	--	--	--
E10-6	06/27/02	6	15,000	580	<0.094	0.13	0.59	0.92	1.0	<0.240	***	ND
E11-2	06/27/02	2	1,200	<1.0	--	--	--	--	--	--	--	--
E11-6	06/27/02	6	8,400	2400	<0.099	<0.099	<0.099	<0.099	<0.099	<0.250	***	ND
E12-2	06/27/02	2	140	<1.0	--	--	--	--	--	--	--	--
E12-6	06/27/02	6	7,200	520	<0.095	<0.095	<0.095	<0.095	<0.095	<0.240	ND	ND
E13-2	06/27/02	2	1,200	<1.0	--	--	--	--	--	--	--	--
E13-6	06/27/02	6	28,000	1300	<0.220	<0.220	<0.220	<0.220	<0.220	<0.560	***	ND
E14-2	06/27/02	2	6,400	<1.0	--	--	--	--	--	--	--	--
E14-6	06/27/02	6	59,000	1300	<0.220	<0.220	<0.220	<0.220	<0.220	<0.540	***	ND
E15-2	07/03/02	2	60 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
E15-6	07/03/02	6	23 ^{HP}	<5.0 ^{HP}	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	ND
E16-2	07/03/02	2	100 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
E16-6	07/03/02	6	<10 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
E17-2	07/03/02	2	100 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
E17-6	07/03/02	6	17,000 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
E18-2	07/03/02	2	46 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
E18-6	07/03/02	6	3,000 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
E19-2	07/03/02	2	12,000 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
E19-6	07/03/02	6	76,000 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
E20-2	07/03/02	2	<10 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
E20-6	07/03/02	6	<10 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
E21-2	07/03/02	2	<10 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--
E21-6	07/03/02	6	32,000 ^{HP}	<5.0 ^{HP}	--	--	--	--	--	--	--	--

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[illegible]

TABLE 2.
Main Excavation Soil Sample Laboratory Results
(TPH-d, TPH-g, BTEX, and Oxygenates)
Former Unocal Service Station No. 0692

302260003
Page 3 of 3

Sample ID	Date Sampled	Depth (feet)	TPH-d ^{HP} /EFH mg/kg	TPH-g ^{HP} /VFH mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	m,p-Xylene mg/kg	o-Xylene mg/kg	MTBE mg/kg	VOCs mg/kg	Oxygenates mg/kg
E47-3	07/18/02	3	<5.0	--	--	--	--	--	--	--	--	--
E47-8	07/18/02	8	9.3	--	--	--	--	--	--	--	--	--
E48-13	07/18/02	13	7,000	--	--	--	--	--	--	--	--	--
E49-3	08/01/02	3	<5.0	--	--	--	--	--	--	--	--	--
E49-8	08/01/02	8	15	--	--	--	--	--	--	--	--	--
E50-10	08/01/02	10	2,300	--	--	--	--	--	--	--	--	--
E51-10	08/01/02	10	16,000	190	<0.18	<0.18	<0.18	<0.18	<0.18	<0.46	--	ND
E52-3	08/02/02	3	<5.0	--	--	--	--	--	--	--	--	--
E52-8	08/02/02	8	<5.0	--	--	--	--	--	--	--	--	--
E53-10	08/02/02	10	3,500	78	<0.0018	<0.0018	0.0039	0.034	0.0022	<0.0044	--	ND

TPH-d^{HP} Total Petroleum Hydrocarbons as Diesel by EPA Method 8015M
HP HP Labs analyzed for C₁₂-C₂₄

EFH Extractable Fuel Hydrocarbons by EPA Method 8015M
Del Mar Analytical analyzed for C₈-C₄₀

TPH-g^{HP} Total Petroleum Hydrocarbons as Gas by EPA Method 8015M
HP HP Labs analyzed for C₅-C₁₁

VFH Volatile Fuel Hydrocarbons by EPA Method 8015M
Del Mar Analytical analyzed for C₆-C₁₂

MTBE Methyl Tertiary Butyl Ether

ND Not Detected Above Laboratory Limits

VOCs Volatile Organic Compounds

Bold Indicates concentrations above laboratory detection limits

* Detection limit increased 10 times due to sample dilution

** Detection limit increased 100 times due to sample dilution

*** See Table 3 for VOC results

mg/kg Milligrams per Kilogram

Unless otherwise specified, soil samples were analyzed by EPA Method 8260B

TABLE 3.
Main Excavation Soil Sample Laboratory Results
(Volatile Organic Compounds)
Former Unocal Service Station No. 0692

302260003

Page 1 of 1

Sample ID	Date Sampled	Depth (feet)	n-Butyl-benzene mg/kg	sec-Butyl-benzene mg/kg	Chloroform mg/kg	Isopropyl-benzene mg/kg	p-Isopropyl-toluene mg/kg	Naphthalene mg/kg	n-Propyl-benzene mg/kg	1,2,4-Trimethyl-benzene mg/kg	1,3,5-Trimethyl-benzene mg/kg	All Other VOCs mg/kg
E5-6	06/26/02	6	1.4	1.7	ND	1.4	ND	ND	1.4	ND	ND	ND
E6-9	06/27/02	9	ND	ND	ND	ND	ND	0.0098	ND	ND	ND	ND
E9-9	06/27/02	9	ND	ND	ND	ND	ND	ND	0.0021	ND	ND	ND
E10-6	06/27/02	6	ND	1.5	ND	0.88	1.1	6.3	1.7	3.0	0.29	ND
E11-6	06/27/02	6	ND	ND	0.10	0.14	ND	0.33	ND	ND	ND	ND
E13-6	06/27/02	6	ND	1.3	ND	0.80	0.46	3.9	1.5	ND	ND	ND
E14-6	06/27/02	6	ND	1.5	ND	0.70	0.58	6.0	1.4	ND	ND	ND
E36-8	07/15/02	8	0.48	0.54	ND	0.31	ND	ND	0.55	ND	ND	ND
E37-10	07/15/02	10	0.42	0.53	ND	0.26	ND	ND	0.24	ND	ND	ND
SP4-2*	06/26/02	--	ND	ND	ND	ND	ND	ND	0.011	ND	ND	ND

ND Not Detected Above Laboratory Limits

Bold Indicates concentrations above laboratory detection limits

mg/kg Milligrams per Kilogram

* Stockpile Soil Sample

Soil samples were analyzed by EPA Method 8260B

Table 2
Laboratory Results for Soil
Former Unocal Service Station #0692

302260005

Sample ID	Date	TPH-d (EFH) (mg/Kg)	TPH-g (VFH) (ug/Kg)	B (µg/Kg)	E (µg/Kg)	T (µg/Kg)	X (µg/Kg)	MTBE (8260B) (µg/Kg)	DIPE (µg/Kg)	ETBE (µg/Kg)	TAME (µg/Kg)	TBA (µg/Kg)
MW-7-8'	7/29/2003	6,100	17,000	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
MW-7-11'	7/29/2003	140	<440	<4.4	<4.4	<4.4	<4.4	<8.9	<8.9	<8.9	<8.9	<44
MW-7-16'	7/29/2003	<5.0	<450	<4.5	<4.5	<4.5	<4.5	<9.1	<9.1	<9.1	<9.1	<45
MW-8-7'	7/29/2003	23,000	270,000	<1,000	<1,000	<1,000	<1,000	<2,000	<2,000	<2,000	<2,000	<10,000
MW-8-10'	7/29/2003	280	<500	<4.4	<4.4	<4.4	<4.4	<8.7	<8.7	<8.7	<8.7	<44
MW-8-15'	7/29/2003	<5.0	<430	<4.3	<4.3	<4.3	<4.3	<8.6	<8.6	<8.6	<8.6	<43
MW-9-7'	7/29/2003	520	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
MW-9-10'	7/29/2003	150	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
MW-9-15'	7/29/2003	10	<450	<4.5	<4.5	<4.5	<4.5	<9.0	<9.0	<9.0	<9.0	<45
MW-10-7'	7/29/2003	340	96,000	<250	<250	<250	<250	<500	<500	<500	<500	<2,500
MW-10-10'	7/29/2003	1,500	<430	<4.3	<4.3	<4.3	<4.3	<8.6	<8.6	<8.6	<8.6	<43
MW-10-15'	7/29/2003	11	<450	<4.5	<4.5	<4.5	<4.5	<8.9	<8.9	<8.9	<8.9	<45
MW-11-7'	7/29/2003	<5.0	<450	<4.5	<4.5	<4.5	<4.5	<9.1	<9.1	<9.1	<9.1	<45
MW-11-10'	7/29/2003	<10	<440	<4.4	<4.4	<4.4	<4.4	<8.7	<8.7	<8.7	<8.7	<44
MW-11-15'	7/29/2003	<5.0	<450	<4.5	<4.5	<4.5	<4.5	<9.0	<9.0	<9.0	<9.0	<45
MW-12-7'	7/29/2003	<5.0	620	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
MW-12-10'	7/29/2003	<5.0	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
MW-12-15'	7/29/2003	<10	<430	<4.3	<4.3	<4.3	<4.3	<8.6	<8.6	<8.6	<8.6	<43

LEGEND

TPH-d = Total petroleum hydrocarbons as diesel
EFH = Laboratory refers to TPH-d as extractable fuel hydrocarbons (EFH)
TPH-g = Total petroleum hydrocarbons as gasoline
VFH = Laboratory refers to TPH-g as volatile fuel hydrocarbons (VFH)
BETX = Benzene, Ethylbenzene, Toluene and total Xylenes
MTBE = Methyl Tertiary Butyl Ether
DIPE = Di-Isopropyl Ether
ETBE = Ethyl Tertiary Butyl Ether
TAME = Tertiary Amyl Methyl Ether
TBA = Tertiary Butanol

<5.0 Not detected above laboratory reporting limits

Table 1
Laboratory Results
for Soil Samples
Former Unocal Service Station #0692

302260005

Sample ID	Date	TPH-d (EFH) (mg/Kg)	TPH-g (VFH) (µg/Kg)	B (µg/Kg)	E (µg/Kg)	T (µg/Kg)	X (µg/Kg)	MTBE (8260B) (µg/Kg)	DIPE (µg/Kg)	ETBE (µg/Kg)	TAME (µg/Kg)	TBA (µg/Kg)
GP17-5'	12/18/2003	<5.0	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP17-8'	12/18/2003	23	<420	<4.2	<4.2	<4.2	<4.2	<8.4	<8.4	<8.4	<8.4	<42
GP17-12'	12/18/2003	<10	<450	<4.5	<4.5	<4.5	<4.5	<9.0	<9.0	<9.0	<9.0	<45
GP18-5'	12/18/2003	28	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP18-8'	12/18/2003	26	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP18-12'	12/18/2003	17	<440	<4.4	<4.4	<4.4	<4.4	<8.7	<8.7	<8.7	<8.7	<44
GP19-15'	12/18/2003	14	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP19-20'	12/18/2003	85	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP20-5'	12/18/2003	<5.0	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP20-8'	12/18/2003	71,000	280,000	<1,000	<1,000	<1,000	<1,000	<2,000	<2,000	<2,000	<2,000	<10,000
GP20-12'	12/18/2003	16	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP21-5'	12/18/2003	110	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP21-8'	12/18/2003	33,000	400,000	<1,200	<1,200	<1,200	<1,200	<2,500	<2,500	<2,500	<2,500	<12,000
GP21-12'	12/18/2003	110	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP22-5'	12/29/2003	<5.0	<590	<5.9	<5.9	<5.9	<5.9	<12	<12	<12	<12	<59
GP22-8'	12/29/2003	51,000	650,000	1,200	1,200	1,200	1,200	<2,500	<2,500	<2,500	<2,500	<12,000
GP22-12'	12/29/2003	<5.0	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP23-5'	12/29/2003	<5.0	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP23-8'	12/29/2003	18	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP23-12**	12/29/2003	5.9	--	--	--	--	--	--	--	--	--	--
GP24-5'	12/29/2003	6.0	<570	<5.7	<5.7	<5.7	<5.7	<11	<11	<11	<11	<57
GP24-8'	12/29/2003	9.7	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP24-12**	12/29/2003	<5.0	--	--	--	--	--	--	--	--	--	--

Table 1
Laboratory Results
for Soil Samples
Former Unocal Service Station #0692

302260005

Sample ID	Date	TPH-d (EFH) (mg/Kg)	TPH-g (VFH) (µg/Kg)	B (µg/Kg)	E (µg/Kg)	T (µg/Kg)	X (µg/Kg)	MTBE (8260B) (µg/Kg)	DIPE (µg/Kg)	ETBE (µg/Kg)	TAME (µg/Kg)	TBA (µg/Kg)
GP25-5'	12/29/2003	6.1	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP25-8'	12/29/2003	<5.0	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP26-4'	12/29/2003	<5.0	<570	<5.7	<5.7	<5.7	<5.7	<11	<11	<11	<11	<57
GP26-8'	12/29/2003	11	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
GP26-12'	12/29/2003	<5.0	--	--	--	--	--	--	--	--	--	--
GP27-5'	12/29/2003	19	<590	<5.9	<5.9	<5.9	<5.9	<12	<12	<12	<12	<59
GP27-8'	12/29/2003	<7.5	<500	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<50
HA7-5'	12/29/2003	2,800	120,000	<280	<280	<280	<280	<570	<570	<570	<570	<2,800
HA7-10'	12/29/2003	1,600	35,000	<250	<250	510	<250	<500	<500	<500	<500	<2,500

LEGEND

TPH-d = Total petroleum hydrocarbons as diesel

EFH = Laboratory refers to TPH-d as extractable fuel hydrocarbons (EFH)

TPH-g = Total petroleum hydrocarbons as gasoline

VFH = Laboratory refers to TPH-g as volatile fuel hydrocarbons (VFH)

BETX = Benzene, Ethylbenzene, Toluene and total Xylenes

MTBE = Methyl Tertiary Butyl Ether

DIPE = Di-Isopropyl Ether

ETBE = Ethyl Tertiary Butyl Ether

TAME = Tertiary Amyl Methyl Ether

TBA = Tertiary Butanol

* = Sample not analyzed within Methods specified holding times

-- = Sample not analyzed

<1.0 = Not detected above laboratory reporting limits

Table 1
Soil Quality Summary - TPH*
Berth 78 - Former UNOCAL Site
(mg/kg)

Sample	Depth	Date	C7	C8	C9- C10	C11- C12	C13- C14	C15- C16	C17- C18	C19- C20	C21- C22	C23- C24	C25- C28	C29- C32	C33- C36	C37- C40	C41- C44	C7-C44 Total
UC1	6.5	11/27/2006	<	10.0	460.0	2,100.0	6,600.0	9,400.0	8,600.0	5,500.0	2,500.0	950.0	1,000.0	620.0	330.0	62.0	<	38,000.0
UC2	6.5	11/27/2006	<	<	1,800.0	7,600.0	20,000.0	36,000.0	21,000.0	18,000.0	9,000.0	2,800.0	4,000.0	2,900.0	950.0	110.0	<	120,000.0
UC3	6.5	11/27/2006	<	<	1,100.0	4,000.0	9,500.0	18,000.0	12,000.0	7,800.0	3,800.0	1,700.0	1,800.0	1,300.0	780.0	80.0	<	61,000.0
UC4	6	11/27/2006	<	8.8	870.0	4,500.0	12,000.0	15,000.0	9,000.0	5,100.0	3,700.0	1,800.0	3,000.0	1,900.0	620.0	37.0	<	58,000.0
UC5	6.5	11/27/2006	<	25.0	1,300.0	6,000.0	15,000.0	20,000.0	20,000.0	13,000.0	4,600.0	2,500.0	1,800.0	1,300.0	860.0	530.0	<	88,000.0
UC7	6.5	11/27/2006	<	37.0	2,200.0	8,500.0	23,000.0	32,000.0	29,000.0	18,000.0	6,800.0	3,100.0	1,900.0	1,200.0	520.0	460.0	350.0	130,000.0
UC8	7	11/27/2006	<	<	700.0	2,500.0	8,100.0	11,000.0	9,800.0	7,500.0	3,600.0	1,800.0	2,100.0	1,700.0	1,400.0	2,000.0	1,900.0	54,000.0
UC9	7	11/27/2006	<	<	390.0	1,800.0	5,200.0	7,600.0	7,200.0	5,400.0	2,500.0	1,800.0	1,400.0	1,600.0	1,100.0	2,100.0	1,700.0	40,000.0
UC10	7	11/27/2006	<	<	57.0	980.0	3,900.0	5,800.0	5,000.0	3,800.0	1,500.0	650.0	620.0	580.0	330.0	350.0	290.0	24,000.0

***LEGEND** **TPH = Total Petroleum Hydrocarbon - EPA Method 8015B (M) C7-C44**

C = Carbon Chain Range

"<" in C7 through C41-C44 columns indicates compound not detected. Laboratory detection limits for individual carbon chain ranges was not supplied by laboratory.



Table 2
Soil Quality Summary - VOCs*
Berth 78 - Former UNOCAL Site
San Pedro, California
(ug/kg)

Boring ID	Sample Depth	Date Sampled	Parameter	Value	Units
UC1	6.5	11-27-06	Benzene	< 930.0	ug/kg
	6.5	11-27-06	Diisopropyl Ether (DIPE)	< 930.0	ug/kg
	6.5	11-27-06	Ethanol	< 470,000.0	ug/kg
	6.5	11-27-06	Ethylbenzene	2,300.0	ug/kg
	6.5	11-27-06	Ethyl-t-Butyl Ether (ETBE)	< 930.0	ug/kg
	6.5	11-27-06	Methyl-t-Butyl Ether (MTBE)	< 1,900.0	ug/kg
	6.5	11-27-06	o-Xylene	< 930.0	ug/kg
	6.5	11-27-06	p/m-Xylene	3,500.0	ug/kg
	6.5	11-27-06	Tert-Amyl-Methyl Ether (TAME)	< 930.0	ug/kg
	6.5	11-27-06	Tert-Butyl Alcohol (TBA)	< 19,000.0	ug/kg
	6.5	11-27-06	Toluene	< 930.0	ug/kg
UC2	6.5	11-27-06	Benzene	< 96.0	ug/kg
	6.5	11-27-06	Diisopropyl Ether (DIPE)	< 96.0	ug/kg
	6.5	11-27-06	Ethanol	< 48,000.0	ug/kg
	6.5	11-27-06	Ethylbenzene	< 96.0	ug/kg
	6.5	11-27-06	Ethyl-t-Butyl Ether (ETBE)	< 96.0	ug/kg
	6.5	11-27-06	Methyl-t-Butyl Ether (MTBE)	< 190.0	ug/kg
	6.5	11-27-06	o-Xylene	< 96.0	ug/kg
	6.5	11-27-06	p/m-Xylene	< 190.0	ug/kg
	6.5	11-27-06	Tert-Amyl-Methyl Ether (TAME)	< 96.0	ug/kg
	6.5	11-27-06	Tert-Butyl Alcohol (TBA)	< 1,900.0	ug/kg
	6.5	11-27-06	Toluene	< 96.0	ug/kg
UC7	6.5	11-27-06	Benzene	430.0	ug/kg
	6.5	11-27-06	Diisopropyl Ether (DIPE)	< 93.0	ug/kg
	6.5	11-27-06	Ethanol	< 46,000.0	ug/kg
	6.5	11-27-06	Ethylbenzene	370.0	ug/kg
	6.5	11-27-06	Ethyl-t-Butyl Ether (ETBE)	< 93.0	ug/kg
	6.5	11-27-06	Methyl-t-Butyl Ether (MTBE)	< 190.0	ug/kg
	6.5	11-27-06	o-Xylene	320.0	ug/kg
	6.5	11-27-06	p/m-Xylene	1,200.0	ug/kg
	6.5	11-27-06	Tert-Amyl-Methyl Ether (TAME)	< 93.0	ug/kg
	6.5	11-27-06	Tert-Butyl Alcohol (TBA)	< 1,900.0	ug/kg
	6.5	11-27-06	Toluene	690.0	ug/kg



Boring ID	Sample Depth	Date Sampled	Parameter	Value	Units
UC9	7	11-27-06	Benzene	< 940.0	ug/kg
	7	11-27-06	Diisopropyl Ether (DIPE)	< 940.0	ug/kg
	7	11-27-06	Ethanol	< 470,000.0	ug/kg
	7	11-27-06	Ethylbenzene	< 940.0	ug/kg
	7	11-27-06	Ethyl-t-Butyl Ether (ETBE)	< 940.0	ug/kg
	7	11-27-06	Methyl-t-Butyl Ether (MTBE)	< 1,900.0	ug/kg
	7	11-27-06	o-Xylene	< 940.0	ug/kg
	7	11-27-06	p/m-Xylene	< 1,900.0	ug/kg
	7	11-27-06	Tert-Amyl-Methyl Ether (TAME)	< 940.0	ug/kg
	7	11-27-06	Tert-Butyl Alcohol (TBA)	< 19,000.0	ug/kg
	7	11-27-06	Toluene	< 940.0	ug/kg

*** VOCs = Volatile Organic Compounds - EPA Method 8260B (5035 Preparation)**



Table 1 - TPH in Soil Summary
Berth 78
(mg/kg)

Sample ID	Sample Date	Depth (ft)	C6	C7	C8	C9-C10	C11-C12	C13-C14	C15-C16	C17-C18	C19-C20	C21-C22	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C41-C44	Total TPH	TPH as Gas	TPH as Diesel
Berth 171-173 Final Cleanup Levels:						TPH as gas (C4-C12) = 180 mg/kg			TPH as diesel (C9-C24) = 180 mg/kg				TPH as motor oil (C25-C36) = 2,500 mg/kg								
PC1-2'	9/16/2014	2	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	27.0	< 25.0	< 25.0	< 25.0	93.0	< 0.26	< 25.0
PC1-5'	9/16/2014	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	6.9	< 0.25	< 5.0
PC2-3'	9/16/2014	3	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.4	11.0	11.0	12.0	8.6	13.0	19.0	16.0	15.0	7.4	120.0	< 0.31	48.0
PC2-4'	9/16/2014	4	< 49.0	< 49.0	< 49.0	63.0	470.0	1,100.0	1,500.0	1,000.0	720.0	210.0	< 49.0	< 49.0	< 49.0	< 49.0	< 49.0	< 49.0	5,200.0	370.0	4,693.0
PC2-6'	9/16/2014	6	< 50.0	< 50.0	< 50.0	67.0	290.0	580.0	840.0	570.0	540.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	2,900.0	320.0	2,567.0
PC3-2'	9/16/2014	2	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.6	7.5	11.0	11.0	10.0	19.0	31.0	24.0	15.0	12.0	150.0	< 0.29	45.1
PC3-4'	9/16/2014	4	< 50.0	< 50.0	< 50.0	61.0	730.0	1,900.0	2,600.0	1,900.0	1,500.0	< 50.0	140.0	61.0	62.0	< 50.0	< 50.0	< 50.0	9,100.0	45.0	8,786.0
PC3-6'	9/16/2014	6	< 49.0	< 49.0	< 49.0	100.0	400.0	790.0	1,000.0	840.0	670.0	< 49.0	< 49.0	< 49.0	< 49.0	< 49.0	< 49.0	< 49.0	3,900.0	420.0	3,380.0
PC4-2'	9/16/2014	2	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.28	< 5.0
PC4-4'	9/16/2014	4	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	110.0	51.0	49.0	29.0	45.0	45.0	38.0	< 25.0	< 25.0	390.0	< 0.23	239.0
PC4-5'	9/16/2014	5	< 50.0	< 50.0	< 50.0	120.0	480.0	950.0	1,200.0	970.0	530.0	290.0	< 50.0	98.0	52.0	< 50.0	< 50.0	< 50.0	4,700.0	320.0	4,220.0
PC5-4'	9/16/2014	4	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 5.0	< 0.2	< 4.9
PC5-5'	9/16/2014	5	< 50.0	< 50.0	< 50.0	110.0	450.0	1,200.0	1,500.0	1,400.0	960.0	240.0	120.0	51.0	67.0	< 50.0	< 50.0	< 50.0	6,200.0	250.0	5,730.0
PC6-4'	9/16/2014	4	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 5.0	< 0.21	< 4.9
PC6-5'	9/16/2014	5	120.0	< 120.0	< 120.0	220.0	1,200.0	2,200.0	2,600.0	2,100.0	2,100.0	< 120.0	190.0	180.0	230.0	180.0	< 120.0	< 120.0	11,000.0	360.0	10,250.0
PC7-4'	9/16/2014	4	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	25.0	14.0	10.0	15.0	18.0	17.0	< 5.0	< 5.0	110.0	< 0.3	49.0
PC7-5'	9/16/2014	5	< 49.0	< 49.0	< 49.0	340.0	1,200.0	2,000.0	2,100.0	1,400.0	980.0	270.0	99.0	78.0	87.0	65.0	< 49.0	< 49.0	8,700.0	750.0	7,639.0
PC8-4'	9/16/2014	4	< 49.0	< 49.0	< 49.0	< 49.0	87.0	220.0	250.0	150.0	87.0	55.0	< 49.0	< 49.0	< 49.0	< 49.0	< 49.0	< 49.0	840.0	48.0	801.0
PC8-5'	9/16/2014	5	< 49.0	< 49.0	< 49.0	230.0	1,300.0	2,200.0	2,100.0	1,800.0	330.0	240.0	100.0	160.0	190.0	140.0	< 49.0	< 49.0	8,800.0	430.0	7,870.0
PC9-4'	9/16/2014	4	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	24.0	< 5.0	230.0	130.0	83.0	80.0	140.0	310.0	< 5.0	< 5.0	24.0	1,000.0	< 0.23	547.0
PC9-5'	9/16/2014	5	< 50.0	< 50.0	< 50.0	280.0	1,600.0	2,700.0	2,100.0	1,400.0	610.0	490.0	< 50.0	220.0	160.0	99.0	< 50.0	< 50.0	9,700.0	310.0	8,870.0
PC10-4'	9/16/2014	4	< 49.0	< 49.0	< 49.0	150.0	1,500.0	2,700.0	2,400.0	1,600.0	860.0	360.0	320.0	240.0	300.0	140.0	63.0	< 49.0	11,000.0	350.0	9,540.0
PC10-5'	9/16/2014	5	120.0	< 120.0	< 120.0	510.0	2,800.0	4,300.0	4,100.0	2,400.0	1,600.0	410.0	250.0	230.0	370.0	230.0	< 120.0	< 120.0	17,000.0	1,100.0	15,270.0

- 1) Individual carbon chain components and Total TPH by EPA 8015B (M) C6-C44.
- 2) TPH as Gasoline by EPA 8015B (M)/5035 Prep.
- 3)TPH as Diesel is estimated by totaling concentrations for C9 through C24 and then subtracting the concentration of TPH as Gasoline. For example: for PC10-4' - 16,370 mg/kg (C9-C24) minus 1,100 mg/kg (TPH as Gasoline) equals 15,270 mg/kg (TPH as Diesel).
- 4) < indicates not detected at or above the noted detection limit.
- 5) Bold value indicates compound detected at or above laboratory detection limit.
- 6) Berth 100 Cleanup Levels based on LARWQCB January 19, 2010 Revised Responses to Stakeholder's comments, Former GATX Los Angeles Marine Terminal (LAMT), Port of Los Angeles, Berths 171 through 173, Cleanup and Abatement Order No. R4-2008-0006, SLIC No, 621A.
- 7) Underlined value indicates concentration exceeds the Berths 171-173 Final Cleanup Level.



Table 2 - PAHs in Soil Summary
Berth 78
(ug/kg)

Sample ID	Sample Date	Depth (ft)	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b) Fluoranthene	Benzo (g,h,i) Perylene	Benzo (k) Fluoranthene	Chrysene	Dibenz (a,h) Anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-c,d) Pyrene	Naphthalene	Phenanthrene	Pyrene
Berth 171-173 Final Cleanup Levels:			210,000	20,000	27,000,000	220	550	660	10,000,000	660	220	2,100	440,000	2,000,000	13,000	8,200	110,000	5,000,000
PC1-5'	9/16/2014	5	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	16.0	< 10.0	< 10.0	35.0	< 10.0	< 10.0
PC2-6'	9/16/2014	6	95.0	130.0	30.0	< 10.0	120.0	140.0	53.0	13.0	120.0	55.0	180.0	53.0	47.0	130.0	40.0	58.0
PC3-6'	9/16/2014	6	360.0	320.0	42.0	30.0	30.0	190.0	58.0	28.0	<u>280.0</u>	98.0	210.0	140.0	50.0	< 15.0	130.0	64.0
PC4-5'	9/16/2014	5	190.0	160.0	71.0	77.0	46.0	21.0	67.0	27.0	<u>280.0</u>	86.0	330.0	66.0	52.0	69.0	< 9.9	540.0
PC5-5'	9/16/2014	5	170.0	81.0	51.0	59.0	22.0	190.0	37.0	66.0	<u>420.0</u>	31.0	320.0	73.0	37.0	< 15.0	31.0	470.0
PC6-5'	9/16/2014	5	580.0	310.0	< 10.0	200.0	150.0	62.0	27.0	100.0	<u>400.0</u>	80.0	140.0	53.0	31.0	180.0	11.0	800.0
PC7-5'	9/16/2014	5	230.0	110.0	130.0	<u>1,300.0</u>	77.0	140.0	23.0	63.0	120.0	36.0	2,900.0	190.0	24.0	310.0	56.0	1,500.0
PC8-5'	9/16/2014	5	160.0	49.0	40.0	32.0	14.0	36.0	39.0	190.0	160.0	160.0	35.0	77.0	64.0	84.0	< 9.9	540.0
PC9-5'	9/16/2014	5	350.0	83.0	130.0	<u>420.0</u>	16.0	22.0	27.0	63.0	61.0	53.0	3,500.0	170.0	50.0	120.0	28.0	580.0
PC10-4'	9/16/2014	4	580.0	420.0	130.0	<u>910.0</u>	83.0	52.0	45.0	49.0	73.0	140.0	1,000.0	160.0	98.0	610.0	< 9.9	610.0

1) Analytical method: EPA 8310 Polynuclear Aromatic Hydrocarbons.

2) All values expressed as ug/kg.

3) < indicates compound not detected at or above laboratory detection limit.

4) Bold value indicates compound detected at or above laboratory detection limit.

5) Underlined values exceed Berth 100 Cleanup Levels based on LARWQCB January 19, 2010 Revised Responses to Stakeholder's comments, Former GATX Los Angeles Marine Terminal (LAMT), Port of Los Angeles, Berths 171 through 173, Cleanup and Abatement Order No. R4-2008-0006, SLIC No, 621A.



Table 3 - Detected VOCs in Soil Summary
Berth 78
(ug/kg)

Sample ID	Sample Date	Depth (ft)	Benzene	Toluene	Isopropylbenzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene
Berth 171-173 Final Cleanup Levels:			55	56,000	390,000	NA	110,000	87,000
PC1-2'	9/16/2014	2	< 1.0	2.7	< 1.0	< 1.0	< 1.0	< 1.0
PC1-5'	9/16/2014	5	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
PC2-3'	9/16/2014	3	1.8	1.2	< 1.1	< 1.1	< 1.1	< 1.1
PC2-4'	9/16/2014	4	< 100.0	< 100.0	< 100.0	< 100.0	< 100.0	< 100.0
PC2-6'	9/16/2014	6	< 100.0	< 100.0	< 100.0	< 100.0	< 100.0	< 100.0
PC3-2'	9/16/2014	2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
PC3-4'	9/16/2014	4	< 99.0	< 99.0	< 99.0	< 99.0	< 99.0	< 99.0
PC3-6'	9/16/2014	6	< 110.0	< 110.0	< 110.0	< 110.0	< 110.0	< 110.0
PC4-2'	9/16/2014	2	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
PC4-4'	9/16/2014	4	< 0.94	< 0.94	< 0.94	< 0.94	< 0.94	< 0.94
PC4-5'	9/16/2014	5	< 96.0	< 96.0	< 96.0	< 96.0	< 96.0	< 96.0
PC5-4'	9/16/2014	4	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81
PC5-5'	9/16/2014	5	< 95.0	< 95.0	< 95.0	< 95.0	< 95.0	< 95.0
PC6-4'	9/16/2014	4	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
PC6-5'	9/16/2014	5	< 99.0	< 99.0	< 99.0	< 99.0	< 99.0	< 99.0
PC7-4'	9/16/2014	4	< 0.96	< 0.96	< 0.96	< 0.96	< 0.96	< 0.96



Table 3 - Detected VOCs in Soil Summary
Berth 78
(ug/kg)

Sample ID	Sample Date	Depth (ft)	Benzene	Toluene	Isopropylbenzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene
Berth 171-173 Final Cleanup Levels:			55	56,000	390,000	NA	110,000	87,000
PC7-5'	9/16/2014	5	< 96.0	< 96.0	< 96.0	< 96.0	< 96.0	< 96.0
PC8-4'	9/16/2014	4	< 520.0	< 520.0	< 520.0	< 520.0	< 520.0	< 520.0
PC8-5'	9/16/2014	5	< 96.0	< 96.0	< 96.0	< 96.0	< 96.0	< 96.0
PC9-4'	9/16/2014	4	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93
PC9-5'	9/16/2014	5	< 93.0	< 93.0	220.0	200.0	430.0	110.0
PC10-4'	9/16/2014	4	< 98.0	< 98.0	< 98.0	< 98.0	< 98.0	< 98.0
PC10-5'	9/16/2014	5	< 95.0	< 95.0	< 95.0	< 95.0	< 95.0	< 95.0

1) Analytical Method: Volatile Organics + Oxygenates by EPA 8260B/5035.

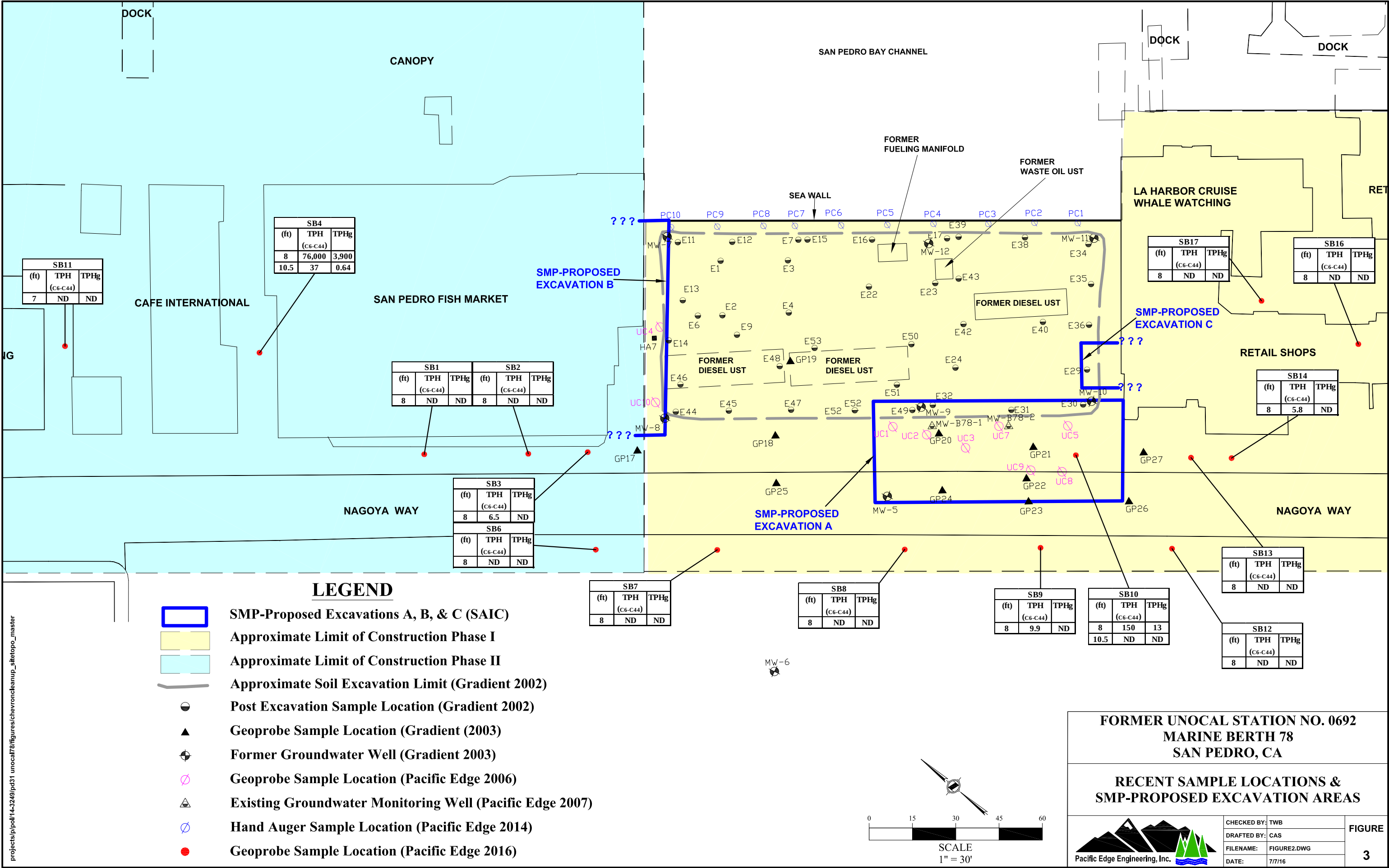
2) All values expressed as ug/kg.

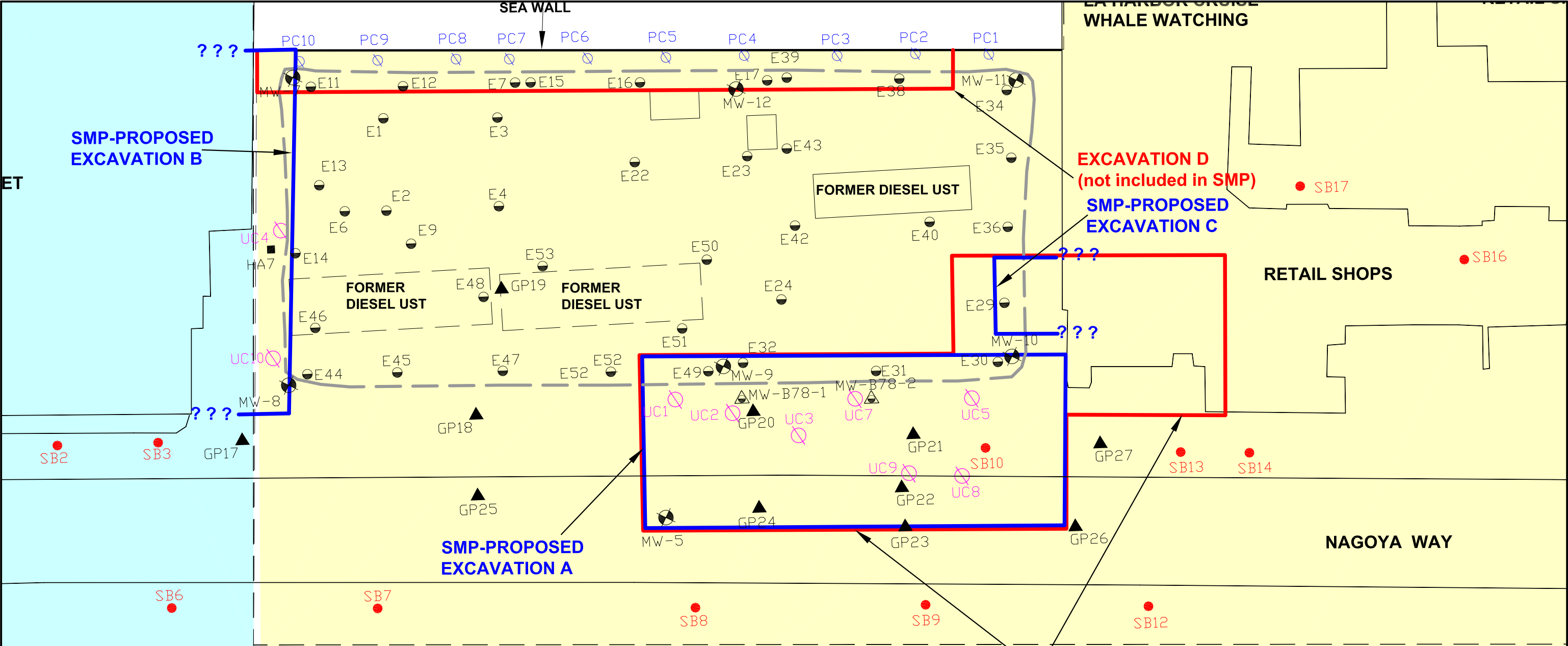
3) < indicates compound not detected at or above laboratory detection limit.

4) Bold value indicates compound detected at or above laboratory detection limit.

5) Underlined values exceed Berth 100 Cleanup Levels based on LARWQCB January 19, 2010 Revised Responses to Stakeholder's comments, Former GATX Los Angeles Marine Terminal (LAMT), Port of Los Angeles, Berths 171 through 173, Cleanup and Abatement Order No. R4-2008-0006, SLIC No, 621A.



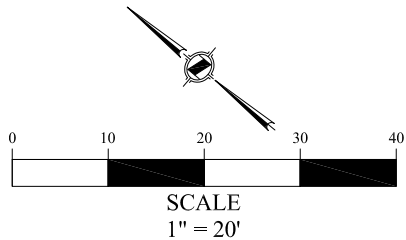




LEGEND

-  Revised Approximate Extent of SMP-Proposed Excavations (Pacific Edge)
-  SMP-Proposed Excavations A, B, & C (SAIC)
-  Approximate Limit of Construction Phase I
-  Approximate Limit of Construction Phase II
-  Approximate Soil Excavation Limit (Gradient 2002)
-  Post Excavation Sample Location (Gradient 2002)
-  Geoprobe Sample Location (Gradient (2003)
-  Former Groundwater Well (Gradient 2003)
-  Geoprobe Sample Location (Pacific Edge 2006)
-  Existing Groundwater Monitoring Well (Pacific Edge 2007)
-  Hand Auger Sample Location (Pacific Edge 2014)
-  Geoprobe Sample Location (Pacific Edge 2016)

**REVISED EXCAVATION A & C
(combined and extended)**



FORMER UNOCAL STATION NO. 0692 MARINE BERTH 78 SAN PEDRO, CA												
REVISED EXCAVATION REMEDIATION AREAS 5 to 9 FEET BELOW GROUND SURFACE												
	<table border="1"><tr><td>CHECKED BY:</td><td>TWB</td></tr><tr><td>DRAFTED BY:</td><td>CAS</td></tr><tr><td>FILENAME:</td><td>FIGURE2.DWG</td></tr><tr><td>DATE:</td><td>8/12/16</td></tr></table>	CHECKED BY:	TWB	DRAFTED BY:	CAS	FILENAME:	FIGURE2.DWG	DATE:	8/12/16	<table border="1"><tr><td>FIGURE</td></tr><tr><td>4</td></tr></table>	FIGURE	4
CHECKED BY:	TWB											
DRAFTED BY:	CAS											
FILENAME:	FIGURE2.DWG											
DATE:	8/12/16											
FIGURE												
4												

Table 1 - TPH and Gasoline in Soil Summary
Berth 78 - Former Unocal Station No. 0692
Nagoya Way, San Pedro, CA
(mg/kg)

Sample ID	Depth (ft)	C6	C7	C8	C9-C10	C11-C12	C13-C14	C15-C16	C17-C18	C19-C20	C21-C22	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C41-C44	Total TPH	TPH as Gas
SMP Proposed Cleanup Level: TPH as Gas and Diesel = 1,000 mg/kg																			
SB1-8'	8	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.23
SB2-8'	8	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.0	< 0.23
SB3-8'	8	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	6.5	< 0.22
SB4-8'	8	< 500.0	< 500.0	< 500.0	2,900.0	10,000.0	18,000.0	15,000.0	18,000.0	5,700.0	3,600.0	< 500.0	1,000.0	< 500.0	600.0	< 500.0	< 500.0	<u>76,000.0</u>	<u>3,900.0</u>
SB4-10.5'	10.5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	7.2	7.8	11.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	37.0	0.64
SB6-8'	8	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.21
SB7-8'	8	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.22
SB8-8'	8	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.24
SB9-8'	8	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	9.9	< 0.23
SB10-8'	8	< 5.0	< 5.0	< 5.0	< 5.0	12.0	31.0	31.0	42.0	15.0	11.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	150.0	13.0
SB10-10.5'	10.5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.22
SB11-7'	7	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 5.0	< 0.25
SB12-8'	8	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.0	< 0.23
SB13-8'	8	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 5.0	< 0.23
SB14-8'	8	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.8	< 0.22
SB16-8'	8	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.23
SB17-8'	8	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.31

1) All samples collected on June, 15 2016.

2) < indicates not detected at or above the noted detection limit.

3) Bold value indicates compound detected at or above laboratory detection limit.

4) Soil Management Plan (SMP), SAIC, February 14, 2012. Proposed Cleanup level for TPH as gasoline and diesel is 1,000 mg/kg. LARWQCB has not commented on proposed cleanup level.

5) Underlined value indicates concentration exceeds Proposed Cleanup Level.



Table 2 - PAHs in Soil Summary
Berth78 - Former Unocal Marine Station No. 0692
Nagoya Way, San Pedro, CA
(ug/kg)

Sample ID	Depth (ft)	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b) Fluoranthene	Benzo (g,h,i) Perylene	Benzo (k) Fluoranthene	Chrysene	Dibenz (a,h) Anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-c,d) Pyrene	Naphthalene	Phenanthrene	Pyrene
RWQCB Site Cleanup Level:		NA	NA	NA	NA	280	NA	NA	NA	NA	NA	NA	NA	NA	30,000	NA	NA
SB1-8'	8	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0
SB2-8'	8	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0
SB3-8'	8	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0
SB4-8'	8	1,500.0	840.0	1,200.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	520.0	< 10.0	13,000.0	4,800.0	< 10.0	3,400.0	7,000.0	1,700.0
SB4-10.5'	10.5	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0
SB6-8'	8	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0
SB7-8'	8	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0
SB8-8'	8	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0
SB9-8'	8	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0
SB10-8'	8	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0
SB10-10.5'	10.5	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0
SB11-7'	7	< 15.0	< 30.0	< 10.0	20.0	35.0	19.0	22.0	14.0	24.0	< 10.0	29.0	< 10.0	19.0	< 15.0	< 10.0	40.0
SB12-8'	8	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0
SB13-8'	8	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0
SB14-8'	8	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0
SB16-8'	8	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0
SB17-8'	8	< 15.0	< 30.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	12.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0

1) All samples collected on June 15, 2016.

2) < indicates compound not detected at or above laboratory detection limit.

3) Bold value indicates compound detected at or above laboratory detection limit.

4) LARWQCB Site Established Cleanup Levels for select VOCs of benzene, toluene, ethylbenzene, and naphthalene.

4) Underlined value exceeds Site Established Cleanup Level.



Table 3 - Detected VOCs in Soil Summary
Berth78 - Former Unocal Station No. 0692
Nagoya Way, San Pedro, CA
(ug/kg)

Sample ID	Depth (ft)	Benzene	n-Butylbenzene	sec-Butylbenzene	c-1,2-Dichloroethene	Isopropylbenzene	Naphthalene	n-Propylbenzene	Vinyl Chloride
RWQCB Site Cleanup Level (ug/kg):		24	NA	NA	NA	NA	30,000	NA	NA
SB1-8'	8	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 8.7	< 1.7	< 0.87
SB2-8'	8	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 9.0	< 1.8	< 0.9
SB3-8'	8	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 8.6	< 1.7	< 0.86
SB4-8'	8	< 110.0	1,800.0	1,300.0	< 110.0	270.0	12,000.0	610.0	< 110.0
SB4-10.5'	10.5	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 8.8	< 1.8	< 0.88
SB6-8'	8	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 11.0	< 2.1	< 1.1
SB7-8'	8	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95	< 9.5	< 1.9	< 0.95
SB8-8'	8	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 9.3	< 1.9	< 0.93
SB9-8'	8	< 0.94	< 0.94	< 0.94	6.5	< 0.94	< 9.4	< 1.9	19.0
SB10-8'	8	< 0.91	< 0.91	< 0.91	< 0.91	< 0.91	< 9.1	< 1.8	< 0.91
SB10-10.5'	10.5	< 0.96	< 0.96	< 0.96	< 0.96	< 0.96	< 9.6	< 1.9	< 0.96
SB11-7'	7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 9.8	< 2.0	< 0.98
SB12-8'	8	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 9.3	< 1.9	< 0.93
SB13-8'	8	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 9.0	< 1.8	< 0.9
SB14-8'	8	< 0.92	< 0.92	< 0.92	< 0.92	< 0.92	< 9.2	< 1.8	< 0.92
SB16-8'	8	0.93	< 0.91	< 0.91	< 0.91	< 0.91	< 9.1	< 1.8	< 0.91
SB17-8'	8	2.2	< 1.2	< 1.2	< 1.2	< 1.2	< 12.0	< 2.4	< 1.2

1) All samples collected on June 15, 2016.

2) < indicates compound not detected at or above laboratory detection limit.

3) Bold value indicates compound detected at or above laboratory detection limit.

4) LARWQCB Site Established Cleanup Levels for select VOCs of benzene, toluene, ethylbenzene, xylenes, naphthalene

5) Underlined value exceeds Site Established Cleanup Level.



Appendix C:
Historical Groundwater Analytical Results

TABLE KEY

ABBREVIATIONS / SYMBOLS

BTEX	=	benzene, toluene, ethylbenzene, and total xylenes
DHS	=	Department of Health Services
HVOC	=	halogenated volatile organic compounds
LPH	=	liquid-phase hydrocarbons
mg/l	=	milligrams per liter
µg/l	=	micrograms per liter
MTBE	=	methyl tertiary butyl ether
NGVD	=	National Geodetic Vertical Datum
N/A	=	not applicable
ND	=	not detected at or above laboratory detection limit
ppb	=	parts per billion
ppm	=	parts per million
TPH-G	=	total petroleum hydrocarbons with gasoline distinction
TPH-D	=	total petroleum hydrocarbons with diesel distinction
TRPH	=	total recoverable petroleum hydrocarbons
Trace	=	less than 0.01 foot of LPH in well
µg/kg	=	micrograms per kilogram
1,1-DCA	=	1,1-Dichloroethane
1,2-DCA	=	1,2-Dichloroethane
1,1-DCE	=	1,1-Dichloroethene
1,2-DCE	=	cis- and trans-1,2-Dichloroethene
PCE	=	tetrachloroethene
TCA	=	trichloroethane
TCE	=	trichloroethene
PCB	=	polychlorinated biphenyls
USTs	=	underground storage tanks
--	=	not analyzed, measured, or collected

NOTES

Elevations are in feet above mean sea level.

Groundwater elevation for wells with LPH is calculated as follows:

Surface elevation - depth to water + (0.75 x LPH thickness).

** TPH-G (8015-Modified) results starting with the 2nd Quarter 1997 were computed solely from the FID against a gasoline curve. Prior TPH-G results subtracted MTBE from the FID response and added MTBE from the 8020 analysis.

REFERENCE

Alton Geoscience began groundwater monitoring and sampling activities in December 1995. Historical data was provided by Unipure Environmental, Fullerton, California, in the *Third Quarter 1995 Groundwater Monitoring Report for Unocal Service Station No. 0692*, dated September 26, 1995.

Table 2
HISTORIC GROUNDWATER LEVELS AND CHEMICAL ANALYSIS RESULTS
May 1991 through June 2000

Unocal Station 0692

Sampling Date	Casing Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	Dissolved Oxygen	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	MTBE	MTBE 8260	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-1															
05/16/91	--	--	--	--	--	--	ND	0.9	ND	1.7	--	--	--	--	
05/09/92	--	--	--	--	--	--	ND	0.52	0.62	1.3	--	--	--	--	
06/30/92	--	--	--	--	--	--	0.44	ND	0.65	1.8	--	--	--	--	
12/03/92	--	--	--	--	--	--	0.36	0.63	ND	1.9	--	--	--	--	
03/29/93	--	--	--	--	--	--	0.40	--	ND	ND	ND	--	--	--	
10/14/93	--	--	--	--	--	--	0.3	1.2	0.8	2.6	ND	--	--	--	
03/02/94	--	--	--	--	--	--	1.0	1.9	ND	2.6	ND	--	--	--	
06/28/94	58.00	6.26	0.00	51.74	--	--	ND	ND	ND	ND	ND	--	--	--	
09/23/94	58.00	4.90	0.00	53.10	1.36	--	0.4	0.6	ND	ND	140	--	--	--	
12/27/94	58.00	6.09	0.00	51.91	-1.19	--	ND	ND	ND	ND	ND	--	--	--	
12/06/95	58.00	5.31	0.00	52.69	0.78	--	ND	ND	ND	1.1	ND	--	ND	--	
03/25/96	58.00	6.37	0.00	51.63	-1.06	--	ND	ND	ND	ND	ND	--	ND	--	
06/18/96	58.00	6.46	0.00	51.54	-0.09	--	ND	ND	ND	ND	130	--	ND	--	
09/04/96	58.00	5.66	0.00	52.34	0.80	--	ND	ND	ND	ND	ND	--	ND	--	
12/09/96	58.00	6.35	0.00	51.65	-0.69	--	ND	ND	ND	ND	ND	--	ND	--	
03/10/97	58.00	4.88	0.00	53.12	1.47	--	0.9	5.4	1.0	6.6	ND	--	ND	--	
06/26/97	58.00	6.01	0.00	51.99	-1.13	--	ND	ND	ND	ND	ND	--	19	--	**
09/29/97	58.00	4.29	0.00	53.71	1.72	--	ND	ND	ND	0.64	56	--	ND	--	
12/05/97	58.00	4.48	0.00	53.52	-0.19	--	ND	ND	ND	ND	ND	--	ND	--	
03/13/98	58.00	4.84	0.00	53.16	-0.36	0.00	ND	ND	ND	ND	160	--	ND	--	
06/02/98	58.00	5.48	0.00	52.52	-0.64	1.12	ND	0.42	ND	1.1	65	--	ND	--	
09/09/98	58.00	5.61	0.00	52.39	-0.13	0.96	ND	0.40	0.30	0.85	ND	--	ND	--	
12/07/98	58.00	5.94	0.00	52.06	-0.33	1.31	ND	ND	ND	ND	ND	--	ND	--	
03/02/99	58.00	5.70	0.00	52.30	0.24	--	ND	ND	ND	ND	ND	--	ND	--	
06/08/99	58.00	6.07	0.00	51.93	-0.37	--	ND	ND	ND	ND	ND	--	ND	--	
09/08/99	58.00	4.98	0.11	53.10	1.17	--	--	--	--	--	--	--	--	--	
12/07/99	58.00	6.62	0.20	51.53	-1.57	--	--	--	--	--	--	--	--	--	

Sampling Date	Casing Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	Dissolved Oxygen (mg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	TPH-G (µg/l)	TPH-D (µg/l)	MTBE (µg/l)	MTBE 8260 (µg/l)	Comments
MW-1 continued															
03/09/00	58.00	7.08	0.00	50.92	-0.61	--	8.6	3.2	18	83	740	--	13	15	Regauged on 3/19/00
06/01/00	58.00	6.69	0.00	51.31	0.39	2.05	30	13	32	180	1400	7200	76	62	
MW-2															
05/16/91	--	--	--	--	--	--	18	43	2.6	20	--	--	--	--	
05/09/92	--	--	--	--	--	--	34	ND	2.3	2.5	--	--	--	--	
06/30/92	--	--	--	--	--	--	33	0.5	1.1	1.3	--	--	--	--	
12/03/92	--	--	--	--	--	--	30	1.0	1.4	2.8	--	--	--	--	
03/29/93	--	--	--	--	--	--	0.8	ND	ND	1.0	ND	--	--	--	
10/14/93	--	--	--	--	--	--	0.3	1.7	0.8	3	ND	--	--	--	
03/02/94	--	--	--	--	--	--	0.6	66	25	170	800	--	--	--	
06/28/94	58.00	8.02	0.00	49.98	--	--	0.8	ND	ND	2.2	200	--	--	--	
09/23/94	58.00	5.47	0.00	52.53	2.55	--	ND	ND	ND	ND	170	--	--	--	
12/27/94	58.00	7.81	0.00	50.19	-2.34	--	ND	ND	ND	ND	ND	--	--	--	
12/06/95	58.00	6.23	0.00	51.77	1.58	--	ND	ND	ND	ND	ND	--	ND	--	
03/25/96	58.00	7.94	0.00	50.06	-1.71	--	ND	ND	ND	ND	ND	--	50	--	
06/18/96	58.00	8.26	0.00	49.74	-0.32	--	ND	ND	ND	ND	ND	--	ND	--	
09/04/96	58.00	6.78	0.00	51.22	1.48	--	ND	ND	ND	ND	ND	--	ND	--	
12/09/96	58.00	8.48	0.00	49.52	-1.70	--	ND	ND	ND	ND	ND	--	6.7	--	
03/10/97	58.00	4.97	0.00	53.03	3.51	--	ND	ND	ND	ND	ND	--	17	--	
06/26/97	58.00	7.79	0.00	50.21	-2.82	--	ND	ND	ND	ND	50	--	ND	--	**
09/29/97	58.00	4.97	0.00	53.03	2.82	--	ND	ND	ND	ND	ND	--	ND	--	
12/05/97	58.00	5.39	0.00	52.61	-0.42	--	ND	ND	ND	ND	ND	--	ND	--	
03/13/98	58.00	5.32	0.00	52.68	0.07	0.00	ND	ND	ND	0.74	95	--	ND	--	
06/02/98	58.00	6.14	0.00	51.86	-0.82	1.24	ND	ND	ND	0.68	ND	--	ND	--	
09/09/98	58.00	7.29	0.00	50.71	-1.15	0.82	ND	ND	ND	ND	ND	--	ND	--	
12/07/98	58.00	7.11	0.00	50.89	0.18	0.90	0.32	ND	ND	0.67	ND	--	ND	--	
03/02/99	58.00	6.75	0.00	51.25	0.36	--	ND	ND	ND	ND	ND	--	ND	--	
06/08/99	58.00	7.36	0.00	50.64	-0.61	--	ND	0.37	ND	ND	ND	--	ND	--	
09/08/99	58.00	6.84	0.00	51.16	0.52	--	ND	ND	ND	0.70	64	--	ND	--	
12/07/99	58.00	8.25	0.07	49.80	-1.36	--	--	--	--	--	--	--	--	--	
03/09/00	58.00	8.22	0.00	49.78	-0.02	--	ND<0.3	0.54	ND<0.3	1.4	71	--	ND<5	ND<0.5	Regauged on 3/19/00

Sampling Date	Casing Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	Dissolved Oxygen (mg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	TPH-G (µg/l)	TPH-D (µg/l)	MTBE (µg/l)	MTBE 8260 (µg/l)	Comments
MW-2 continued															
06/01/00	58.00	7.04	0.00	50.96	1.18	3.26	0.37	ND<0.3	0.54	2.1	150	3000	ND<5	ND<0.5	
MW-3															
05/16/91	--	--	--	--	--	--	ND	ND	ND	4.0	--	--	--	--	
05/09/92	--	--	--	--	--	--	ND	ND	ND	0.7	--	--	--	--	
06/30/92	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	
12/03/92	--	--	--	--	--	--	0.56	1.8	0.75	3.6	--	--	--	--	
03/29/93	--	--	--	--	--	--	ND	ND	ND	1.2	ND	--	--	--	
10/14/93	--	--	--	--	--	--	0.3	1.3	ND	2.4	ND	--	--	--	
03/02/94	--	--	--	--	--	--	1.7	4.3	0.6	3.4	ND	--	--	--	
06/28/94	58.00	7.27	0.00	50.73	--	--	ND	ND	ND	ND	ND	--	--	--	
09/23/94	58.00	5.98	0.00	52.02	1.29	--	ND	ND	ND	ND	ND	--	--	--	
12/27/94	58.00	7.10	0.00	50.90	-1.12	--	ND	ND	ND	ND	250	--	--	--	
12/06/95	58.00	6.37	0.00	51.63	0.73	--	ND	ND	ND	ND	ND	--	ND	--	
03/25/96	58.00	7.32	0.00	50.68	-0.95	--	ND	ND	ND	ND	ND	--	5.9	--	
06/18/96	58.00	7.42	0.00	50.58	-0.10	--	ND	ND	ND	ND	170	--	ND	--	
09/04/96	58.00	6.68	0.00	51.32	0.74	--	ND	ND	ND	ND	ND	--	ND	--	
12/09/96	58.00	7.75	0.00	50.25	-1.07	--	ND	ND	ND	ND	ND	--	17	--	
03/10/97	58.00	6.18	0.00	51.82	1.57	--	ND	ND	ND	ND	ND	--	10	--	
06/26/97	58.00	7.02	0.00	50.98	-0.84	--	ND	ND	ND	ND	ND	--	7.4	--	**
09/29/97	58.00	5.58	0.00	52.42	1.44	--	ND	ND	ND	ND	ND	--	11	--	
12/05/97	58.00	5.62	0.00	52.38	-0.04	--	ND	ND	ND	ND	ND	--	14	--	
03/13/98	58.00	5.99	0.00	52.01	-0.37	0.00	ND	ND	ND	ND	51	--	9.7	--	
06/02/98	58.00	6.55	0.00	51.45	-0.56	0.64	ND	ND	ND	ND	ND	--	8.9	11	
09/09/98	58.00	6.66	0.00	51.34	-0.11	0.85	ND	ND	ND	ND	ND	--	5.5	10	
12/07/98	58.00	6.90	0.00	51.10	-0.24	0.91	ND	0.35	ND	0.80	ND	--	8.6	12	
03/02/99	58.00	6.78	0.00	51.22	0.12	--	ND	ND	ND	ND	ND	--	6.1	8.1	
06/08/99	58.00	7.09	0.00	50.91	-0.31	--	ND	ND	ND	ND	ND	--	6.8	8.9	
09/08/99	58.00	6.27	0.00	51.73	0.82	--	ND	0.40	ND	0.92	58	--	7.7	5.7	
12/07/99	58.00	7.41	0.00	50.59	-1.14	--	ND	ND	ND	ND	ND	--	5.7	5.0	
03/09/00	58.00	6.91	0.00	51.09	0.50	--	0.42	0.55	ND<0.3	1.1	70	--	8.0	9.5	Regauged on 3/19/00
06/01/00	58.00	6.76	0.00	51.24	0.15	1.96	0.95	0.68	0.35	1.5	90	7600	20	20	

Sampling Date	Casing Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	Dissolved Oxygen	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	MTBE	MTBE 8260	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-4															
05/09/92	--	--	--	--	--	--	ND	ND	ND	1.0	--	--	--	--	
06/30/92	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	
12/03/92	--	--	--	--	--	--	0.35	1.0	ND	2.2	--	--	--	--	
03/29/93	--	--	--	--	--	--	ND	ND	ND	1.4	ND	--	--	--	
10/14/93	--	--	--	--	--	--	0.4	1.8	0.7	3.1	ND	--	--	--	
03/02/94	--	--	--	--	--	--	ND	0.6	ND	ND	ND	--	--	--	
06/28/94	58.00	7.45	0.00	50.55	--	--	ND	ND	ND	ND	140	--	--	--	
09/23/94	58.00	5.62	0.00	52.38	1.83	--	ND	ND	ND	ND	ND	--	--	--	
12/27/94	58.00	7.27	0.00	50.73	-1.65	--	ND	ND	ND	ND	ND	--	--	--	
12/06/95	58.00	6.18	0.00	51.82	1.09	--	ND	ND	ND	ND	170	--	ND	--	
03/25/96	58.00	7.31	<0.01	50.69	-1.13	--	--	--	--	--	--	--	--	--	
06/18/96	58.00	7.68	<0.01	50.32	-0.37	--	--	--	--	--	--	--	--	--	
09/04/96	58.00	6.48	0.00	51.52	1.20	--	ND	ND	ND	14	ND	--	ND	--	
12/09/96	58.00	7.83	0.00	50.17	-1.35	--	ND	ND	ND	2.7	1000	--	5.8	--	
03/10/97	58.00	5.39	0.00	52.61	2.44	--	ND	ND	ND	3.7	110	--	ND	--	
06/26/97	58.00	7.18	0.00	50.82	-1.79	--	ND	ND	ND	ND	ND	--	ND	--	**
09/29/97	58.00	4.97	0.00	53.03	2.21	--	ND	ND	ND	ND	55	--	ND	--	
12/05/97	58.00	5.03	0.00	52.97	-0.06	--	ND	ND	ND	ND	ND	--	ND	--	
03/13/98	58.00	5.41	0.00	52.59	-0.38	0.81	ND	ND	ND	0.69	75	--	ND	--	
06/02/98	58.00	5.92	0.00	52.08	-0.51	0.96	ND	ND	ND	0.94	ND	--	ND	--	
09/09/98	58.00	6.67	0.00	51.33	-0.75	0.90	ND	ND	ND	ND	910	--	ND	--	
12/07/98	58.00	6.77	0.00	51.23	-0.10	0.92	ND	ND	ND	ND	ND	--	ND	--	
03/02/99	58.00	6.59	0.01	51.42	0.19	--	--	--	--	--	--	--	--	--	
06/08/99	58.00	7.05	0.00	50.95	-0.47	--	ND	ND	ND	ND	93	--	ND	--	
09/08/99	58.00	5.96	0.00	52.04	1.09	--	ND	ND	ND	0.72	61	--	ND	--	
12/07/99	58.00	7.81	0.11	50.27	-1.77	--	--	--	--	--	--	--	--	--	
03/09/00	58.00	8.55	0.01	49.46	-0.81	--	--	--	--	--	--	--	--	--	Regauged on 3/19/00
06/01/00	58.00	7.89	0.01	50.12	0.66	--	--	--	--	--	--	--	--	--	
MW-5															
05/09/92	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	
06/30/92	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	

Sampling Date	Casing Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	Dissolved Oxygen	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	MTBE	MTBE 8260	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-5 continued															
12/03/92	--	--	--	--	--	--	ND	0.83	ND	1.9	--	--	--	--	
03/29/93	--	--	--	--	--	--	ND	0.4	ND	ND	ND	--	--	--	
10/14/93	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	
03/02/94	--	--	--	--	--	--	2.6	6.9	0.9	4.3	ND	--	--	--	
06/28/94	58.00	7.20	0.00	50.80	--	--	ND	ND	ND	ND	ND	--	--	--	
09/23/94	58.00	6.37	0.00	51.63	0.83	--	ND	ND	ND	ND	ND	--	--	--	
12/27/94	58.00	7.10	0.00	50.90	-0.73	--	ND	ND	ND	ND	ND	--	--	--	
12/06/95	58.00	6.62	0.00	51.38	0.48	--	ND	ND	ND	ND	ND	--	ND	--	
03/25/96	58.00	7.28	0.00	50.72	-0.66	--	ND	ND	ND	ND	ND	--	ND	--	
06/18/96	58.00	7.36	0.00	50.64	-0.08	--	ND	ND	ND	ND	ND	--	ND	--	
09/04/96	58.00	6.78	0.00	51.22	0.58	--	ND	ND	ND	ND	ND	--	ND	--	
12/09/96	58.00	7.37	0.00	50.63	-0.59	--	ND	ND	ND	ND	ND	--	8.0	--	
03/10/97	58.00	6.67	0.00	51.33	0.70	--	ND	ND	ND	ND	ND	--	ND	--	
06/26/97	58.00	7.02	0.00	50.98	-0.35	--	ND	ND	ND	ND	ND	--	ND	--	***
09/29/97	58.00	6.02	0.00	51.98	1.00	--	ND	ND	ND	ND	ND	--	11	--	
12/05/97	58.00	4.96	0.00	53.04	1.06	--	ND	ND	ND	ND	ND	--	9.8	--	
03/13/98	58.00	6.32	0.00	51.68	-1.36	0.70	ND	ND	ND	ND	ND	--	ND	--	
06/02/98	58.00	6.76	0.00	51.24	-0.44	0.94	ND	ND	ND	ND	ND	--	ND	--	
09/09/98	58.00	6.74	0.00	51.26	0.02	0.73	ND	ND	ND	ND	ND	--	ND	--	
12/07/98	58.00	6.54	0.00	51.46	0.20	0.82	ND	ND	ND	ND	ND	--	8.1	1.3	
03/02/99	58.00	6.91	0.00	51.09	-0.37	--	ND	ND	ND	ND	ND	--	ND	--	
06/08/99	58.00	7.18	0.00	50.82	-0.27	--	ND	ND	ND	ND	53	--	ND	--	
09/08/99	58.00	6.61	0.00	51.39	0.57	--	ND	ND	ND	ND	ND	--	8.2	ND	
12/07/99	58.00	7.46	0.00	50.54	-0.85	--	ND	ND	ND	ND	ND	--	11	0.77	
03/09/00	58.00	7.09	0.00	50.91	0.37	--	ND<0.3	ND<0.3	ND<0.3	ND<0.6	ND<50	--	13	ND<0.5	Regauged on 3/19/00
06/01/00	58.00	6.74	0.00	51.26	0.35	--	ND<0.3	ND<0.3	ND<0.3	ND<0.6	ND<50	600	14	0.63	
MW-6															
05/09/92	--	--	--	--	--	--	ND	ND	ND	2.5	--	--	--	--	
06/30/92	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	
12/03/92	--	--	--	--	--	--	0.35	1.7	ND	3.2	--	--	--	--	
03/29/93	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	

Sampling Date	Casing Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	Dissolved Oxygen	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	MTBE	MTBE 8260	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-6 continued															
10/14/93	--	--	--	--	--	--	0.5	2.4	0.9	4.1	ND	--	--	--	
03/02/94	--	--	--	--	--	--	30	220	43	300	1500	--	--	--	
06/28/94	58.00	6.56	0.00	51.44	--	--	ND	ND	ND	ND	ND	--	--	--	
09/23/94	58.00	6.11	0.00	51.89	0.45	--	ND	ND	ND	ND	ND	--	--	--	
12/27/94	58.00	6.47	0.00	51.53	-0.36	--	ND	ND	ND	ND	ND	--	--	--	
12/06/95	58.00	6.22	0.00	51.78	0.25	--	ND	ND	ND	ND	ND	--	ND	--	
03/25/96	58.00	6.76	0.00	51.24	-0.54	--	0.6	2.2	1.2	6.4	ND	--	12	--	
06/18/96	58.00	6.76	0.00	51.24	0.00	--	ND	ND	ND	ND	ND	--	ND	--	
09/04/96	58.00	6.36	0.00	51.64	0.40	--	ND	ND	ND	ND	ND	--	23	--	
12/09/96	58.00	6.68	0.00	51.32	-0.32	--	ND	ND	ND	ND	ND	--	28	--	
03/10/97	58.00	6.48	0.00	51.52	0.20	--	ND	ND	ND	ND	ND	--	ND	--	
06/26/97	58.00	6.42	0.00	51.58	0.06	--	ND	ND	ND	ND	ND	--	ND	--	**
09/29/97	58.00	5.77	0.00	52.23	0.65	--	ND	ND	ND	ND	57	--	ND	--	
12/05/97	58.00	5.77	0.00	52.23	0.00	--	ND	ND	ND	ND	85	--	52	--	
03/13/98	58.00	6.15	0.00	51.85	-0.38	0.69	ND	ND	ND	ND	ND	--	ND	--	
06/02/98	58.00	6.45	0.00	51.55	-0.30	1.12	ND	ND	ND	ND	ND	--	ND	ND	
09/09/98	58.00	6.12	0.00	51.88	0.33	1.05	ND	ND	ND	ND	ND	--	ND	--	
12/07/98	58.00	6.62	0.00	51.38	-0.50	0.95	ND	0.35	ND	0.74	ND	--	ND	--	
03/02/99	58.00	6.58	0.00	51.42	0.04	--	ND	ND	ND	ND	ND	--	ND	--	
06/08/99	58.00	6.70	0.00	51.30	-0.12	--	ND	ND	ND	ND	ND	--	ND	--	
09/08/99	58.00	6.38	0.00	51.62	0.32	--	ND	ND	ND	ND	ND	--	ND	--	
12/07/99	58.00	6.73	0.00	51.27	-0.35	--	ND	ND	ND	ND	ND	--	8.9	ND	
03/09/00	58.00	6.56	0.00	51.44	0.17	--	ND<0.3	ND<0.3	ND<0.3	0.64	ND<50	--	9.8	ND<0.5	Regauged on 3/19/00
06/01/00	58.00	6.51	0.00	51.49	0.05	3.10	ND<0.3	ND<0.3	ND<0.3	0.67	ND<50	ND<200	10	ND<0.5	

Table 3
SUMMARY OF ADDITIONAL CHEMICAL ANALYSIS RESULTS
Unocal Station 0692

Date Sampled	TRPH 418_1	NO3	SO4	TAME	TBA	DIPE	ETBE	Fe+2
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
MW-1								
3/9/00	8.9	--	--	ND<1.0	ND<50	ND<1.0	ND<1.0	710
6/1/00	23000	ND<4.4	53	ND<2	ND<100	ND<2	ND<2	504
MW-2								
3/9/00	1.2	--	--	ND<1.0	ND<50	ND<1.0	ND<1.0	3100
6/1/00	3900	ND<8.8	1900	ND<1	ND<50	ND<1	ND<1	915
MW-3								
3/9/00	4.4	--	--	ND<1.0	ND<50	ND<1.0	ND<1.0	896
6/1/00	2000	ND<4.4	300	ND<5	ND<300	ND<5	ND<5	3470
MW-5								
3/9/00	ND<1.0	--	--	ND<1.0	ND<50	ND<1.0	ND<1.0	431
6/1/00	ND<1000	ND<4.4	280	ND<1	ND<50	ND<1	ND<1	674
MW-6								
3/9/00	ND<1.0	--	--	ND<1.0	ND<50	ND<1.0	ND<1.0	211
6/1/00	ND<1000	ND<8.8	2000	ND<1	ND<50	ND<1	ND<1	149

Table 4

LIQUID PHASE HYDROCARBON RECOVERY DATA
Unocal Station 0692

Well Number	Date	LPH* Removed (gallons)	Cumulative LPH Removed (gallons)
MW-1	10/7/99	0.48	
	12/2/99	0.00	
	12/7/99	0.13	
	1/13/00	0.03	
	2/9/00	0.00	
	3/9/00	0.00	
	4/6/00	0.00	
	5/11/00	0.00	
	6/19/00	0.00	0.64
MW-2	12/7/99	0.05	0.05
MW-4	12/7/99	0.07	
	3/9/00	0.01	
	6/1/00	0.01	0.09
Total LPH recovered:			0.78

* Estimated volume calculated using the following formulas:

LPH removed for 2" casing well = (feet of product)(0.17 gallon/foot)

4" casing well = (feet of product)(0.67 gallon/foot)

6" casing well = (feet of product)(1.5 gallon/foot)

Table 1
Groundwater Elevations and Laboratory Results
May 28, 2002
Former Unocal Station #0692

302260-002

Well ID	Date	Depth to Water (feet)	Groundwater Elevation	TPH-d (EFH) (µg/L)	TPH-g (VFH) (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (8260B) (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-1	05/28/02	6.40	2.36	3,300	310	2.8	2.1	11	25	7.1	<5.0	<5.0	<5.0	<25
MW-2	05/28/02	6.70	4.08	1,800	60	<0.5	<0.5	<0.5	<1.0	<5.0	<5.0	<5.0	<5.0	<25
MW-3	05/28/02	6.60	2.57	3,300	<50	<0.5	<0.5	<0.5	<1.0	<5.0	<5.0	<5.0	<5.0	<25
MW-4	05/28/02	9.05	2.12	14,000	160	<0.5	<0.5	<0.5	<1.0	<5.0	<5.0	<5.0	<5.0	<25
MW-5	05/28/02	7.40	2.52	<500	100	<0.5	<0.5	<0.5	<1.0	<5.0	<5.0	<5.0	<5.0	<25
MW-6	05/28/02	6.95	2.67	<500	<50	<0.5	<0.5	<0.5	<1.0	<5.0	<5.0	<5.0	<5.0	<25

LEGEND

TPH-d Total petroleum hydrocarbons as diesel
 EFH Laboratory refers to TPH-d as extractable fuel hydrocarbons (EFH)
 TPH-g Total petroleum hydrocarbons as gasoline
 VFH Laboratory refers to TPH-g as volatile fuel hydrocarbons (VFH)
 BTEX Benzene, Toluene, Ethylbenzene and total Xylenes
 MTBE Methyl Tertiary Butyl Ether
 DIPE Di-Isopropyl
 ETBE Ethyl Tertiary Butyl Ether
 TAME Tertiary Amyl Methyl Ether
 TBA Tertiary Butanol

<50 Not detected above laboratory reporting limits

Table 2
Historical Groundwater Elevations and Laboratory Results
Former Unocal Site #0692

Well No.	Monitoring Date	Top of Casing Elevation (ft- msl)	Depth of Well (ft-bmp)	Depth to Water (ft-bmp)	Ground- water Elevation (ft-msl)	TPH-D (mg/L)	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	DIPE 8260B (µg/L)	ETBE 8260B (µg/L)	TAME 8260B (µg/L)	TBA 8260B (µg/L)
MW-5	8/18/2003	9.92	---	6.65	3.27	<0.50	<100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25
MW-5	11/18/2003	9.92	---	6.71	3.21	<0.50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	<5.0	<5.0	<10
MW-5	1/16/2004	9.92	29.70	6.67	3.25	ND<0.50	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-5	4/8/2004	9.92	29.70	7.16	2.76	ND<0.50	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-6	8/18/2003	9.62	---	6.19	3.43	<0.50	<100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25
MW-6	11/18/2003	9.62	---	6.40	3.22	<0.50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	<5.0	<5.0	<10
MW-6	1/16/2004	9.62	31.90	6.27	3.35	ND<0.50	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-6	4/8/2004	9.62	31.90	6.66	2.96	ND<0.50	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-7	8/18/2003	8.32	---	5.30	3.02	1.5	<100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25
MW-7	11/18/2003	8.32	---	5.10	3.22	1.5	<50	0.53	<0.50	<0.50	<1.0	<5.0	<5.0	<5.0	<5.0	<10
MW-7	1/16/2004	8.32	19.39	4.15	4.17	1.2	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-7	4/8/2004	8.32	19.39	6.29	2.03	0.95	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-8	8/18/2003	9.50	---	6.18	3.32	0.82	<100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25
MW-8	11/18/2003	9.50	---	6.32	3.18	0.7	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	<5.0	<5.0	<10
MW-8	1/16/2004	9.50	19.49	6.14	3.36	1.4	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-8	4/8/2004	9.50	19.49	6.77	2.73	ND<0.50	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-9	8/18/2003	9.50	---	6.13	3.37	3.8	110	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25
MW-9	11/18/2003	9.50	---	6.43	3.07	3.8	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	<5.0	<5.0	<10
MW-9	1/16/2004	9.50	19.51	6.28	3.22	3.3	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	5.6	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-9	4/8/2004	9.50	19.51	6.73	2.77	3.1	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-10	8/18/2003	9.63	---	6.25	3.38	8.8	350	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25
MW-10	11/18/2003	9.63	---	6.53	3.10	13	120	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	<5.0	<5.0	<10
MW-10	1/16/2004	9.63	19.42	6.37	3.26	8.6	92	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-10	4/8/2004	9.63	19.42	6.91	2.72	7.9	96	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-11	8/18/2003	7.69	---	4.33	3.36	2.1	<100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25
MW-11	11/18/2003	7.69	---	4.64	3.05	1.1	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	<5.0	<5.0	<10
MW-11	1/16/2004	7.69	19.59	4.44	3.25	1.9	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-11	4/8/2004	7.69	19.59	5.08	2.61	ND<0.50	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-12	8/18/2003	7.35	---	4.15	3.20	2.5	<100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25
MW-12	11/18/2003	7.35	---	4.30	3.05	1.8	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	<5.0	<5.0	<10
MW-12	1/16/2004	7.35	19.49	4.18	3.17	1.3	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-12	4/8/2004	7.35	19.49	4.80	2.55	1.1	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50

Notes:

ft-bmp = Feet below measuring point (notch in top of casing)

ft-msl = Feet above mean sea level

mg/L = milligrams per Liter

µg/l = micrograms per Liter

ND = non detect at or below laboratory detection limit

TPH-D = Tot; ETBE = Ethyl Tertiary Butyl Ether

TPH-G = Tot; TAME = Tertiary Amyly Methyl Ether

MTBE = Mett TBA = Tertiary Butanol

DIPE = Di-Isc -- = not measured / not analyzed

Table 1
Groundwater Elevations and Laboratory Results
Former Unocal Site #0692

Monitoring Well	Sample Collection Date	Top of Casing Elevation (ft-msl)	Total Depth (ft-bmp)	Depth to Groundwater (ft-bmp)	Groundwater Elevation (ft-msl)	TPH-D (mg/L)	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-5	7/19/2004	9.92	29.99	6.77	3.15	ND<0.50	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-6	7/19/2004	9.62	30.49	6.41	3.21	ND<0.50	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-7	7/19/2004	8.32	19.43	7.04	1.28	0.95	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-8	7/19/2004	9.50	19.69	6.27	3.23	ND<0.50	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-9	7/19/2004	9.50	19.79	6.33	3.17	2.90	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-10	7/19/2004	9.63	19.49	6.48	3.15	7.80	56	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-11	7/19/2004	7.69	19.62	4.52	3.17	0.89	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50
MW-12	7/19/2004	7.35	19.54	4.15	3.20	0.9	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50

Notes:

ft-bmp = Feet below measuring point (notch in top of casing)

ft-msl = Feet above mean sea level

mg/L = milligrams per Liter

µg/l = micrograms per Liter

ND = non detect at or below laboratory detection limit

TPH-D = Total petroleum hydrocarbons as Diesel

TPH-G = Total petroleum hydrocarbons as Gasoline

MTBE = Methyl Tertiary Butyl Ether

DIPE = Di-Isopropyl Ether

ETBE = Ethyl Tertiary Butyl Ether

TAME = Tertiary Amyly Methyl Ether

TBA = Tertiary Butanol

-- = not measured / not analyzed

Table 3
Water Quality Summary - TPH*
Berth 78 - Former UNOCAL Site
San Pedro, California
(ug/L)

Sample	Date	C7	C8	C9- C10	C11- C12	C13- C14	C15- C16	C17- C18	C19- C20	C21- C22	C23- C24	C25- C28	C29- C32	C33- C36	C37- C40	C41- C44	C7-C44 Total
UC3	11/27/2006	<	93.0	7,600.0	24,000.0	60,000.0	79,000.0	73,000.0	47,000.0	20,000.0	8,100.0	8,000.0	5,200.0	2,000.0	2,500.0	<	340,000.0
UC4	11/27/2006	<	44.0	4,300.0	22,000.0	61,000.0	61,000.0	44,000.0	29,000.0	15,000.0	13,000.0	11,000.0	8,600.0	7,700.0	6,300.0	1,700.0	280,000.0
UC9	11/27/2006	3.8	8.9	530.0	2,600.0	7,500.0	11,000.0	10,000.0	7,800.0	4,000.0	2,300.0	2,100.0	1,300.0	500.0	300.0	650.0	51,000.0

***LEGEND** **TPH = Total Petroleum Hydrocarbon - EPA Method 8015B (M) C7-C44**

C = Carbon Chain Range

"<" in C7 through C41-C44 columns indicates compound not detected. Laboratory detection limits for individual carbon chain ranges was not supplied by laboratory.



Table 4
Water Quality Summary - VOCs*
Berth 78 - Former UNOCAL Site
San Pedro, California
(ug/L)

Boring ID	Date Sampled	Parameter	Value	Units	Notes
UC3	11-27-06	Benzene	< 0.5	ug/L	
	11-27-06	Diisopropyl Ether (DIPE)	< 2.0	ug/L	
	11-27-06	Ethanol	< 100.0	ug/L	
	11-27-06	Ethylbenzene	< 1.0	ug/L	
	11-27-06	Ethyl-t-Butyl Ether (ETBE)	< 2.0	ug/L	
	11-27-06	Methyl-t-Butyl Ether (MTBE)	< 1.0	ug/L	
	11-27-06	o-Xylene	< 1.0	ug/L	
	11-27-06	p/m-Xylene	< 1.0	ug/L	
	11-27-06	Tert-Amyl-Methyl Ether (TAME)	< 2.0	ug/L	
	11-27-06	Tert-Butyl Alcohol (TBA)	< 10.0	ug/L	
	11-27-06	Toluene	< 1.0	ug/L	
UC4	11-27-06	Benzene	< 0.5	ug/L	
	11-27-06	Diisopropyl Ether (DIPE)	< 2.0	ug/L	
	11-27-06	Ethanol	< 100.0	ug/L	
	11-27-06	Ethylbenzene	< 1.0	ug/L	
	11-27-06	Ethyl-t-Butyl Ether (ETBE)	< 2.0	ug/L	
	11-27-06	Methyl-t-Butyl Ether (MTBE)	< 1.0	ug/L	
	11-27-06	o-Xylene	< 1.0	ug/L	
	11-27-06	p/m-Xylene	< 1.0	ug/L	
	11-27-06	Tert-Amyl-Methyl Ether (TAME)	< 2.0	ug/L	
	11-27-06	Tert-Butyl Alcohol (TBA)	< 10.0	ug/L	
	11-27-06	Toluene	< 1.0	ug/L	
UC9	11-27-06	Benzene	< 0.5	ug/L	
	11-27-06	Diisopropyl Ether (DIPE)	< 2.0	ug/L	
	11-27-06	Ethanol	< 100.0	ug/L	
	11-27-06	Ethylbenzene	< 1.0	ug/L	
	11-27-06	Ethyl-t-Butyl Ether (ETBE)	< 2.0	ug/L	
	11-27-06	Methyl-t-Butyl Ether (MTBE)	< 1.0	ug/L	
	11-27-06	o-Xylene	< 1.0	ug/L	
	11-27-06	p/m-Xylene	< 1.0	ug/L	
	11-27-06	Tert-Amyl-Methyl Ether (TAME)	< 2.0	ug/L	
	11-27-06	Tert-Butyl Alcohol (TBA)	11.0	ug/L	
	11-27-06	Toluene	< 1.0	ug/L	

* VOCs = Volatile Organic Compounds - EPA Method 8260B (5035 Preparation)



Appendix D:
Soil-Gas Assessment Results

TABLE 1
ANALYTES DETECTED IN SOIL GAS
Ports O' Call Village
Berths 75-79, San Pedro, California 90731
ADP #121002-538H

Sample ID	Date Deployed	Date Retrieved	TPH (C5-C9) (ng)	TPH (C10-C15) (ng)	Benzene (ng)	Toluene (ng)	Ethylbenzene (ng)	Total Xylenes (ng)	Chloroform (ng)	1,1-Dichloroethene (ng)	cis-1,2-Dichloroethene (ng)	trans-1,2-Dichloroethene (ng)	1,4-Dioxane (ng)	Isopropylbenzene (ng)	2-Methylnaphthalene (ng)	Naphthalene (ng)	Tetrachloroethene (ng)	1,1,1-Trichloroethene (ng)	Trichloroethene (ng)	Trichlorofluoromethane (ng)	1,2,4-Trimethylbenzene (ng)	1,3,5-Trimethylbenzene (ng)	Vinyl Chloride (ng)
SG-001	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-002	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-003	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-004	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-005	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-006	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-007	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-008	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-009	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-010	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-011	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-012	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-013	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-014	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-015	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-016	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-017	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-018	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-019	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-020	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-021	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-022	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-023	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-024	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	402	4,082	521	<25	<25	<25	<25	<25	<25	<25	21,640	<25	<25	42
SG-025	03-Dec-12	18-Dec-12	<5,000	<5,000	31	<25	<25	<25	<25	<25	38	82	<25	<25	<25	<25	<25	<25	<25	232	<25	<25	<25
SG-026	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	457	<25	<25	<25
SG-027	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	44	50	42	<25	<25	<25	<25	<25	<25	39	<25	<25	<25
SG-028	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	37	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-029	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	45	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-030	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
030 DUP	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-031	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-032	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-033	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-034	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-035	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	358	<25	<25	<25
SG-036	03-Dec-12	18-Dec-12	<5,000	<5,000	35	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-037	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	134	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-038	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-039	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-040	03-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-041	03-Dec-12	18-Dec-12	<5,000	<5,000	37	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	62	<25	<25	<25
SG-042	06-Dec-12	20-Dec-12	5,550	10,100	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	45	<25	<25
SG-043	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-044	06-Dec-12	20-Dec-12	50,584	30,314	30	<25	<25	103	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	233	168	<25

TABLE 1
ANALYTES DETECTED IN SOIL GAS
Ports O' Call Village
Berths 75-79, San Pedro, California 90731
ADP #121002-538H

Sample ID	Date Deployed	Date Retrieved	TPH (C5-C9) (ng)	TPH (C10-C15) (ng)	Benzene (ng)	Toluene (ng)	Ethylbenzene (ng)	Total Xylenes (ng)	Chloroform (ng)	1,1-Dichloroethene (ng)	cis-1,2-Dichloroethene (ng)	trans-1,2-Dichloroethene (ng)	1,4-Dioxane (ng)	Isopropylbenzene (ng)	2-Methylnaphthalene (ng)	Naphthalene (ng)	Tetrachloroethene (ng)	1,1,1-Trichloroethene (ng)	Trichloroethene (ng)	Trichlorofluoromethane (ng)	1,2,4-Trimethylbenzene (ng)	1,3,5-Trimethylbenzene (ng)	Vinyl Chloride (ng)
SG-045	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-046	06-Dec-12	20-Dec-12	<5,000	5,025	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	29	<25	<25
SG-047	06-Dec-12	20-Dec-12	9,396	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	182	<25	41	<25	52	<25	<25
SG-048	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-049	06-Dec-12	20-Dec-12	<5,000	8,199	39	26	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	121	<25	43	<25	<25	<25	<25
SG-050	05-Dec-12	20-Dec-12	8,758	5,074	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	29	<25	<25
050 DUP	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-051	05-Dec-12	20-Dec-12	5,417	<5,000	68	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	1,049	<25	335	<25	<25	<25	<25
SG-052	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	54	<25	<25	<25	<25	<25	1,083	<25	737	<25	<25	<25	<25
SG-053	06-Dec-12	20-Dec-12	5,298	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	26	<25	<25
SG-054	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	106	<25	<25	184	<25	<25	<25	<25	<25	<25	<25	423	<25	557	<25	<25	<25	<25
SG-055	05-Dec-12	20-Dec-12	8,488	<5,000	45	30	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-056	13-Dec-12	27-Dec-12	<5,000	<5,000	44	27	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	236	<25	<25	<25	<25
SG-057	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	262	<25	523	<25	<25	<25	<25
SG-058	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-059	05-Dec-12	20-Dec-12	15,715	23,358	<25	<25	<25	<25	<25	96	577	<25	<25	<25	<25	<25	916	<25	5,853	<25	<25	28	<25
SG-060	13-Dec-12	27-Dec-12	<5,000	<5,000	40	32	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-061	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	36	<25	<25
SG-062	05-Dec-12	20-Dec-12	202,799	47,195	353	166	95	453	<25	<25	<25	<25	<25	102	95	51	<25	<25	30	<25	824	575	<25
SG-063	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-064	05-Dec-12	20-Dec-12	6,297	<5,000	49	26	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-065	05-Dec-12	20-Dec-12	35,793	<5,000	82	49	<25	75	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	74	41	<25
SG-066	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-067	06-Dec-12	20-Dec-12	6,924	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	257	<25	64	<25	<25	<25	<25
SG-068	05-Dec-12	20-Dec-12	14,081	<5,000	34	<25	<25	26	<25	<25	<25	<25	<25	<25	29	44	33	<25	<25	<25	58	32	<25
SG-069	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	47	<25	<25
SG-070	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-071	05-Dec-12	20-Dec-12	<5,000	<5,000	48	45	<25	<25	<25	<25	<25	<25	<25	<25	224	247	<25	<25	<25	<25	31	<25	<25
SG-072	05-Dec-12	20-Dec-12	6,161	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	111	<25	45	<25	<25	<25	<25
SG-073	05-Dec-12	20-Dec-12	<5,000	5,545	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	107	54	<25
SG-074	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	125	<25	64	<25	<25	<25	<25
SG-075	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	65	<25	27	<25	<25	<25	<25
075 DUP	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-076	13-Dec-12	27-Dec-12	<5,000	<5,000	43	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	117	<25	65	<25	<25	<25	<25
SG-077	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-078	05-Dec-12	20-Dec-12	117, 758	16,453	4,381	28	156	527	<25	<25	<25	<25	<25	170	<25	<25	<25	<25	<25	<25	223	79	<25
SG-079	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-080	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	114	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-081	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-082	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-083	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-084	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-085	13-Dec-12	27-Dec-12	<5,000	<5,000	<25	260	<25	<25	<25	<25	36	26	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-086	13-Dec-12	27-Dec-12	<5,000	<5,000	<25	<25	<25	25	<25	<25	75	28	<25	<25	<25	<25	2,621	<25	1,168	<25	<25	<25	<25
SG-087	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	168	<25	38	<25	<25	<25	<25

TABLE 1
ANALYTES DETECTED IN SOIL GAS
Ports O' Call Village
Berths 75-79, San Pedro, California 90731
ADP #121002-538H

Sample ID	Date Deployed	Date Retrieved	TPH (C5-C9) (ng)	TPH (C10-C15) (ng)	Benzene (ng)	Toluene (ng)	Ethylbenzene (ng)	Total Xylenes (ng)	Chloroform (ng)	1,1-Dichloroethene (ng)	cis-1,2-Dichloroethene (ng)	trans-1,2-Dichloroethene (ng)	1,4-Dioxane (ng)	Isopropylbenzene (ng)	2-Methylnaphthalene (ng)	Naphthalene (ng)	Tetrachloroethene (ng)	1,1,1-Trichloroethene (ng)	Trichloroethene (ng)	Trichlorofluoromethane (ng)	1,2,4-Trimethylbenzene (ng)	1,3,5-Trimethylbenzene (ng)	Vinyl Chloride (ng)
SG-088	13-Dec-12	27-Dec-12	<5,000	<5,000	40	31	<25	40	<25	38	141	65	<25	<25	<25	<25	9,254	<25	3,328	<25	<25	<25	<25
SG-089	13-Dec-12	27-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	95	<25	31	<25	<25	<25	<25
SG-090	13-Dec-12	27-Dec-12	5,064	<5,000	<25	<25	<25	86	<25	<25	<25	<25	<25	<25	93	135	<25	<25	<25	<25	108	36	<25
SG-091	05-Dec-12	20-Dec-12	<5,000	<5,000	86	47	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-092	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-093	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-094	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	62	<25	<25	<25	<25	<25	<25	<25	<25
SG-095	05-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-096	13-Dec-12	27-Dec-12	<5,000	<5,000	68	31	<25	93	<25	<25	<25	<25	<25	<25	43	30	32	<25	<25	<25	58	<25	<25
SG-097	13-Dec-12	27-Dec-12	<5,000	<5,000	69	44	<25	90	<25	304	1,295	394	<25	<25	<25	<25	409	<25	3,555	<25	68	<25	64
SG-098	06-Dec-12	20-Dec-12	5,185	12,673	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	64	109	<25	<25	63	<25	32	32	<25
SG-099	06-Dec-12	20-Dec-12	10,747	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	67	39	<25
SG-100	13-Dec-12	27-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-101	05-Dec-12	20-Dec-12	<5,000	<5,000	38	28	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-102	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-103	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-104	04-Dec-12	18-Dec-12	<5,000	<5,000	176	110	<25	28	<25	<25	<25	<25	<25	<25	<25	43	<25	<25	<25	<25	<25	<25	<25
SG-105	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-106	13-Dec-12	27-Dec-12	<5,000	<5,000	52	45	<25	77	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	104	43	<25
SG-107	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-108	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-109	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	363	808	<25	<25	<25	<25	<25	<25	<25
SG-110	13-Dec-12	27-Dec-12	5,899	9,573	64	88	<25	189	<25	<25	<25	<25	<25	26	<25	28	<25	<25	<25	<25	390	186	<25
SG-111	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	30	<25	<25	<25	<25	<25	<25	<25
SG-112	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-113	04-Dec-12	18-Dec-12	8,658	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	35	<25	<25
SG-114	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-115	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-116	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-117	04-Dec-12	18-Dec-12	14,263	5,177	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	53	<25	<25
SG-118	06-Dec-12	20-Dec-12	<5,000	<5,000	165	56	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-119	04-Dec-12	18-Dec-12	12,289	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	67	40	<25
SG-120	04-Dec-12	18-Dec-12	24,258	6,790	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	101	62	<25
120 DUP	04-Dec-12	18-Dec-12	14,499	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	31	<25	<25
SG-121	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-122	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-123	04-Dec-12	18-Dec-12	5,786	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	32	<25	<25
SG-124	04-Dec-12	18-Dec-12	5,569	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-125	04-Dec-12	18-Dec-12	10,002	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	52	49	<25	<25	<25	<25	40	<25	<25
SG-126	04-Dec-12	18-Dec-12	14,831	8,409	<25	<25	<25	<25	57	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-127	04-Dec-12	18-Dec-12	5,113	6,830	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-128	04-Dec-12	18-Dec-12	122,446	21,297	<25	106	64	356	<25	<25	<25	<25	<25	<25	72	99	<25	<25	<25	<25	290	172	<25
SG-129	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-130	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-131	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25

TABLE 1
ANALYTES DETECTED IN SOIL GAS
Ports O' Call Village
Berths 75-79, San Pedro, California 90731
ADP #121002-538H

Sample ID	Date Deployed	Date Retrieved	TPH (C5-C9) (ng)	TPH (C10-C15) (ng)	Benzene (ng)	Toluene (ng)	Ethylbenzene (ng)	Total Xylenes (ng)	Chloroform (ng)	1,1-Dichloroethene (ng)	cis-1,2-Dichloroethene (ng)	trans-1,2-Dichloroethene (ng)	1,4-Dioxane (ng)	Isopropylbenzene (ng)	2-Methylnaphthalene (ng)	Naphthalene (ng)	Tetrachloroethene (ng)	1,1,1-Trichloroethene (ng)	Trichloroethene (ng)	Trichlorofluoromethane (ng)	1,2,4-Trimethylbenzene (ng)	1,3,5-Trimethylbenzene (ng)	Vinyl Chloride (ng)
SG-132	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-133	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-134	05-Dec-12	20-Dec-12	10,693	8,789	43	38	107	359	<25	<25	<25	<25	<25	30	<25	<25	<25	<25	<25	<25	717	205	<25
SG-135	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	26	<25	<25
SG-136	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	58	<25	<25
SG-137	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-138	06-Dec-12	20-Dec-12	<5,000	11,498	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	80	40	<25
SG-139	06-Dec-12	20-Dec-12	<5,000	5,613	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	117	63	<25
SG-140	04-Dec-12	18-Dec-12	5,767	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	42	<25	<25
140 DUP	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	33	<25	<25
SG-141	04-Dec-12	18-Dec-12	6,098	6,243	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-142	04-Dec-12	18-Dec-12	11,149	7,370	48	29	<25	<25	<25	<25	<25	<25	<25	<25	32	<25	<25	<25	<25	<25	66	<25	<25
SG-143	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-144	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-145	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	29	51	30	<25
SG-146	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	46	<25	<25
SG-147	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	184	162	<25	<25	<25	<25	<25	<25	<25
SG-148	04-Dec-12	18-Dec-12	<5,000	6,048	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	27	<25	<25	<25	<25	<25	<25	<25	<25
SG-149	04-Dec-12	18-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
SG-150	06-Dec-12	20-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Trip-1	-----	-----	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Trip-2	-----	-----	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Trip-3	-----	-----	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Trip-4	-----	-----	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Mortar Blank	07-Dec-12	27-Dec-12	<5,000	<5,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Stucco Blank	07-Dec-12	27-Dec-12	70,420	16,964	<25	<25	<25	<25	262	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25

Notes: Detected values are shown in **bold**.
TPH = total petroleum hydrocarbons
C5-C9 = carbon range C5 to C9
ng = nanograms
<5,000 = not detected at or above the indicated laboratory reporting limit
Trip-1 through Trip-4 are trip blanks.

TABLE 2
ESTIMATED CONCENTRATIONS OF SELECTED ANALYTES IN SOIL GAS

Ports O' Call Village
 Berths 75-79, San Pedro, California 90731
 ADP #121002-538H

Sample ID	Date Deployed	Date Retrieved	TPH (C5-C9)		Benzene		Tetrachloroethene	
			(ng)	(µg/m ³)*	(ng)	(µg/m ³)*	(ng)	(µg/m ³)*
SG-001	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-002	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-003	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-004	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-005	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-006	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-007	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-008	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-009	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-010	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-011	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-012	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	69	116
SG-013	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-014	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	173	248
SG-015	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-016	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	81	133
SG-017	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-018	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-019	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-020	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-021	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	90	145
SG-022	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	32	62
SG-023	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-024	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	21,640	13,137
SG-025	03-Dec-12	18-Dec-12	<5,000	<304 - <554	31	11 - 37	<25	<50
SG-026	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	581	671
SG-027	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-028	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-029	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-030	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
030 DUP	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-031	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-032	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-033	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-034	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-035	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-036	03-Dec-12	18-Dec-12	<5,000	<304 - <554	35	13 - 42	<25	<50

TABLE 2
ESTIMATED CONCENTRATIONS OF SELECTED ANALYTES IN SOIL GAS

Ports O' Call Village
 Berths 75-79, San Pedro, California 90731
 ADP #121002-538H

Sample ID	Date Deployed	Date Retrieved	TPH (C5-C9)		Benzene		Tetrachloroethene	
			(ng)	(µg/m ³)*	(ng)	(µg/m ³)*	(ng)	(µg/m ³)*
SG-037	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	39	73
SG-038	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-039	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-040	03-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-041	03-Dec-12	18-Dec-12	<5,000	<304 - <554	37	14 - 44	<25	<50
SG-042	06-Dec-12	20-Dec-12	5,550	354 - 654	<25	<8 - <29	<25	<50
SG-043	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-044	06-Dec-12	20-Dec-12	50,584	9,372 - 22,188	30	10 - 35	<25	<50
SG-045	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-046	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-047	06-Dec-12	20-Dec-12	9,396	773 - 1,515	<25	<8 - <29	182	258
SG-048	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-049	06-Dec-12	20-Dec-12	<5,000	<304 - <554	39	15 - 47	121	185
SG-050	05-Dec-12	20-Dec-12	8,758	697 - 1,354	<25	<8 - <29	<25	<50
050 DUP	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-051	05-Dec-12	20-Dec-12	5,417	342 - 629	68	32 - 86	1,049	1,090
SG-052	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	1,083	1,119
SG-053	06-Dec-12	20-Dec-12	5,298	331 - 608	<25	<8 - <29	<25	<50
SG-054	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	423	517
SG-055	05-Dec-12	20-Dec-12	8,488	665 - 1,288	45	18 - 55	<25	<50
SG-056	13-Dec-12	27-Dec-12	<5,000	<304 - <554	44	18 - 53	<25	<50
SG-057	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	262	348
SG-058	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-059	05-Dec-12	20-Dec-12	15,715	1,657 - 3,440	<25	<8 - <29	916	975
SG-060	13-Dec-12	27-Dec-12	<5,000	<304 - <554	40	15 - 48	<25	<50
SG-061	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-062	05-Dec-12	20-Dec-12	202,799	73,384 - 203,116	353	318 - 516	<25	<50
SG-063	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-064	05-Dec-12	20-Dec-12	6,297	427 - 800	49	20 - 60	<25	<50
SG-065	05-Dec-12	20-Dec-12	35,793	5,613 - 12,782	82	42 - 105	<25	<50
SG-066	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-067	06-Dec-12	20-Dec-12	6,924	492 - 931	<25	<8 - <29	257	343
SG-068	05-Dec-12	20-Dec-12	14,081	1,408 - 2,887	34	12 - 40	33	63
SG-069	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-070	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-071	05-Dec-12	20-Dec-12	<5,000	<304 - <554	48	20 - 59	<25	<50
SG-072	05-Dec-12	20-Dec-12	6,161	414 - 773	<25	<8 - <29	111	172

TABLE 2
ESTIMATED CONCENTRATIONS OF SELECTED ANALYTES IN SOIL GAS

Ports O' Call Village
 Berths 75-79, San Pedro, California 90731
 ADP #121002-538H

Sample ID	Date Deployed	Date Retrieved	TPH (C5-C9)		Benzene		Tetrachloroethene	
			(ng)	(µg/m ³)*	(ng)	(µg/m ³)*	(ng)	(µg/m ³)*
SG-073	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-074	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	125	190
SG-075	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	65	111
075 DUP	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-076	13-Dec-12	27-Dec-12	<5,000	<304 - <554	43	17 - 52	117	180
SG-077	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-078	05-Dec-12	20-Dec-12	117,758	32,788 - 85,369	4,381	10,589 - 8,015	<25	<50
SG-079	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-080	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-081	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-082	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-083	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-084	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-085	13-Dec-12	27-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-086	13-Dec-12	27-Dec-12	<5,000	<304 - <554	<25	<8 - <29	2,621	2,315
SG-087	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	168	242
SG-088	13-Dec-12	27-Dec-12	<5,000	<304 - <554	40	15 - 48	9,254	6,533
SG-089	13-Dec-12	27-Dec-12	<5,000	<304 - <554	<25	<8 - <29	95	151
SG-090	13-Dec-12	27-Dec-12	5,064	309 - 565	<25	<8 - <29	<25	<50
SG-091	05-Dec-12	20-Dec-12	<5,000	<304 - <554	86	45 - 111	<25	<50
SG-092	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-093	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-094	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-095	05-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-096	13-Dec-12	27-Dec-12	<5,000	<304 - <554	68	32 - 86	32	62
SG-097	13-Dec-12	27-Dec-12	<5,000	<304 - <554	69	33 - 87	409	503
SG-098	06-Dec-12	20-Dec-12	5,185	320 - 587	<25	<8 - <29	<25	<50
SG-099	06-Dec-12	20-Dec-12	10,747	944 - 1,877	<25	<8 - <29	<25	<50
SG-100	13-Dec-12	27-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-101	05-Dec-12	20-Dec-12	<5,000	<304 - <554	38	14 - 46	<25	<50
SG-102	04-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-103	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-104	04-Dec-12	18-Dec-12	<5,000	<304 - <554	176	121 - 242	<25	<50
SG-105	04-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-106	13-Dec-12	27-Dec-12	<5,000	<304 - <554	52	22 - 64	<25	<50
SG-107	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-108	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50

TABLE 2
ESTIMATED CONCENTRATIONS OF SELECTED ANALYTES IN SOIL GAS

Ports O' Call Village
 Berths 75-79, San Pedro, California 90731
 ADP #121002-538H

Sample ID	Date Deployed	Date Retrieved	TPH (C5-C9)		Benzene		Tetrachloroethene	
			(ng)	(µg/m ³)*	(ng)	(µg/m ³)*	(ng)	(µg/m ³)*
SG-109	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-110	13-Dec-12	27-Dec-12	5,899	388 - 721	64	30 - 80	<25	<50
SG-111	04-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-112	04-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-113	04-Dec-12	18-Dec-12	8,658	685 - 1,330	<25	<8 - <29	<25	<50
SG-114	04-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-115	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-116	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-117	04-Dec-12	18-Dec-12	14,263	1,435 - 2,947	<25	<8 - <29	<25	<50
SG-118	06-Dec-12	20-Dec-12	<5,000	<304 - <554	165	110 - 226	<25	<50
SG-119	04-Dec-12	18-Dec-12	12,289	1,151 - 2,324	<25	<8 - <29	<25	<50
SG-120	04-Dec-12	18-Dec-12	24,258	3,154 - 6,874	<25	<8 - <29	<25	<50
120 DUP	04-Dec-12	18-Dec-12	14,499	1,471 - 3,025	<25	<8 - <29	<25	<50
SG-121	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-122	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-123	04-Dec-12	18-Dec-12	5,786	377 - 699	<25	<8 - <29	<25	<50
SG-124	04-Dec-12	18-Dec-12	5,569	356 - 658	<25	<8 - <29	<25	<50
SG-125	04-Dec-12	18-Dec-12	10,002	848 - 1,674	<25	<8 - <29	<25	<50
SG-126	04-Dec-12	18-Dec-12	14,831	1,521 - 3,137	<25	<8 - <29	<25	<50
SG-127	04-Dec-12	18-Dec-12	5,113	314 - 574	<25	<8 - <29	<25	<50
SG-128	04-Dec-12	18-Dec-12	122,446	34,741 - 90,852	<25	<8 - <29	<25	<50
SG-129	04-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-130	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-131	04-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-132	04-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-133	04-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-134	05-Dec-12	20-Dec-12	10,693	937 - 1,862	43	17 - 52	<25	<50
SG-135	04-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-136	04-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-137	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-138	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-139	06-Dec-12	20-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-140	04-Dec-12	18-Dec-12	5,767	375 - 696	<25	<8 - <29	<25	<50
140 DUP	04-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50
SG-141	04-Dec-12	18-Dec-12	6,098	407 - 760	<25	<8 - <29	<25	<50
SG-142	04-Dec-12	18-Dec-12	11,149	996 - 1,990	48	20 - 59	<25	<50
SG-143	04-Dec-12	18-Dec-12	<5,000	<304 - <554	<25	<8 - <29	<25	<50

TABLE 2
ESTIMATED CONCENTRATIONS OF SELECTED ANALYTES IN SOIL GAS

Ports O' Call Village
 Berths 75-79, San Pedro, California 90731
 ADP #121002-538H

Sample ID	Date Deployed	Date Retrieved	TPH (C5-C9)			Benzene			Tetrachloroethene	
			(ng)	(µg/m ³)*		(ng)	(µg/m ³)*		(ng)	(µg/m ³)*
SG-144	06-Dec-12	20-Dec-12	<5,000	<304	- <554	<25	<8	- <29	<25	<50
SG-145	06-Dec-12	20-Dec-12	<5,000	<304	- <554	<25	<8	- <29	<25	<50
SG-146	04-Dec-12	18-Dec-12	<5,000	<304	- <554	<25	<8	- <29	<25	<50
SG-147	04-Dec-12	18-Dec-12	<5,000	<304	- <554	<25	<8	- <29	<25	<50
SG-148	04-Dec-12	18-Dec-12	<5,000	<304	- <554	<25	<8	- <29	<25	<50
SG-149	04-Dec-12	18-Dec-12	<5,000	<304	- <554	<25	<8	- <29	<25	<50
SG-150	06-Dec-12	20-Dec-12	<5,000	<304	- <554	<25	<8	- <29	<25	<50
Trip-1	-----	-----	<5,000	<304	- <554	<25	<8	- <29	<25	<50
Trip-2	-----	-----	<5,000	<304	- <554	<25	<8	- <29	<25	<50
Trip-3	-----	-----	<5,000	<304	- <554	<25	<8	- <29	<25	<50
Trip-4	-----	-----	<5,000	<304	- <554	<25	<8	- <29	<25	<50
Mortar Blank	07-Dec-12	27-Dec-12	<5,000	<304	- <554	<25	<8	- <29	<25	<50
Stucco Blank	07-Dec-12	27-Dec-12	70,420	15,303	- 37,604	<25	<8	- <29	<25	<50

Notes: Detected concentrations are shown in **bold**.

* Concentrations were determined in accordance with *Mass to Concentration Tie-In for Passive Soil Gas Surveys: Improved Technique for Source Area, Spatial Variability, and Vapor Intrusion Assessment* (Odenchant et.al., 2009)

TPH = total petroleum hydrocarbons

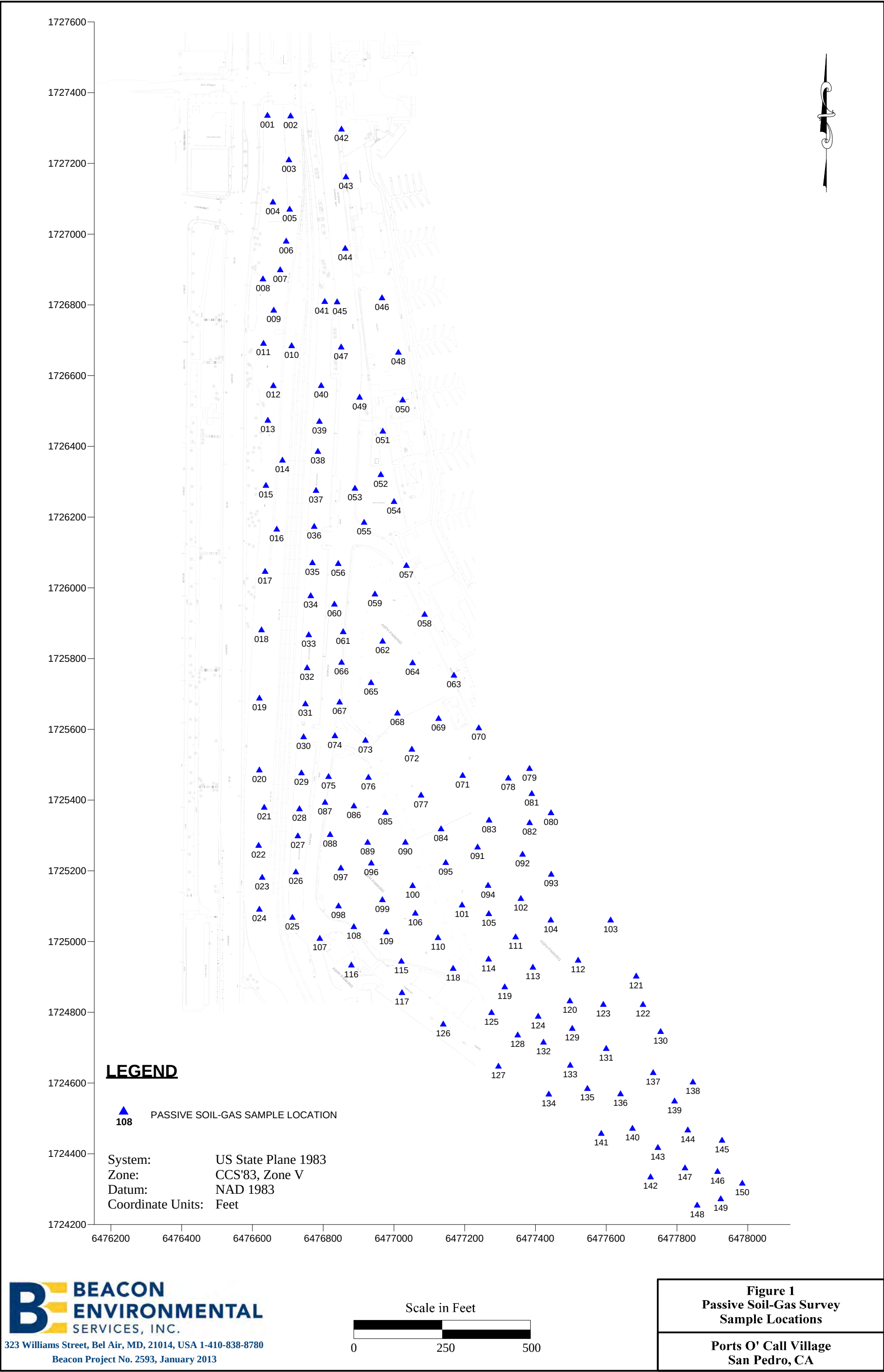
C5-C9 = carbon range C5 to C9

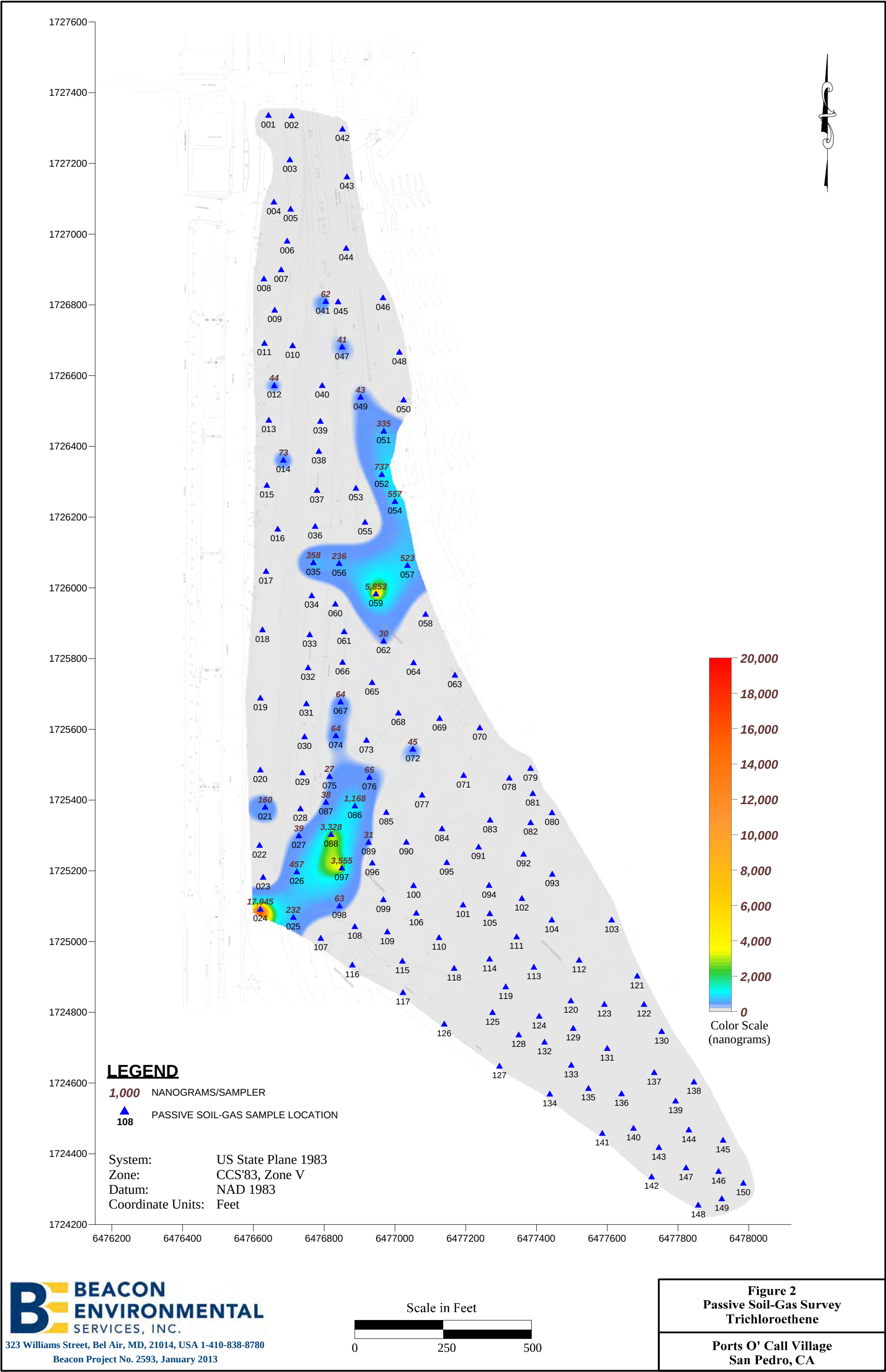
ng = nanograms

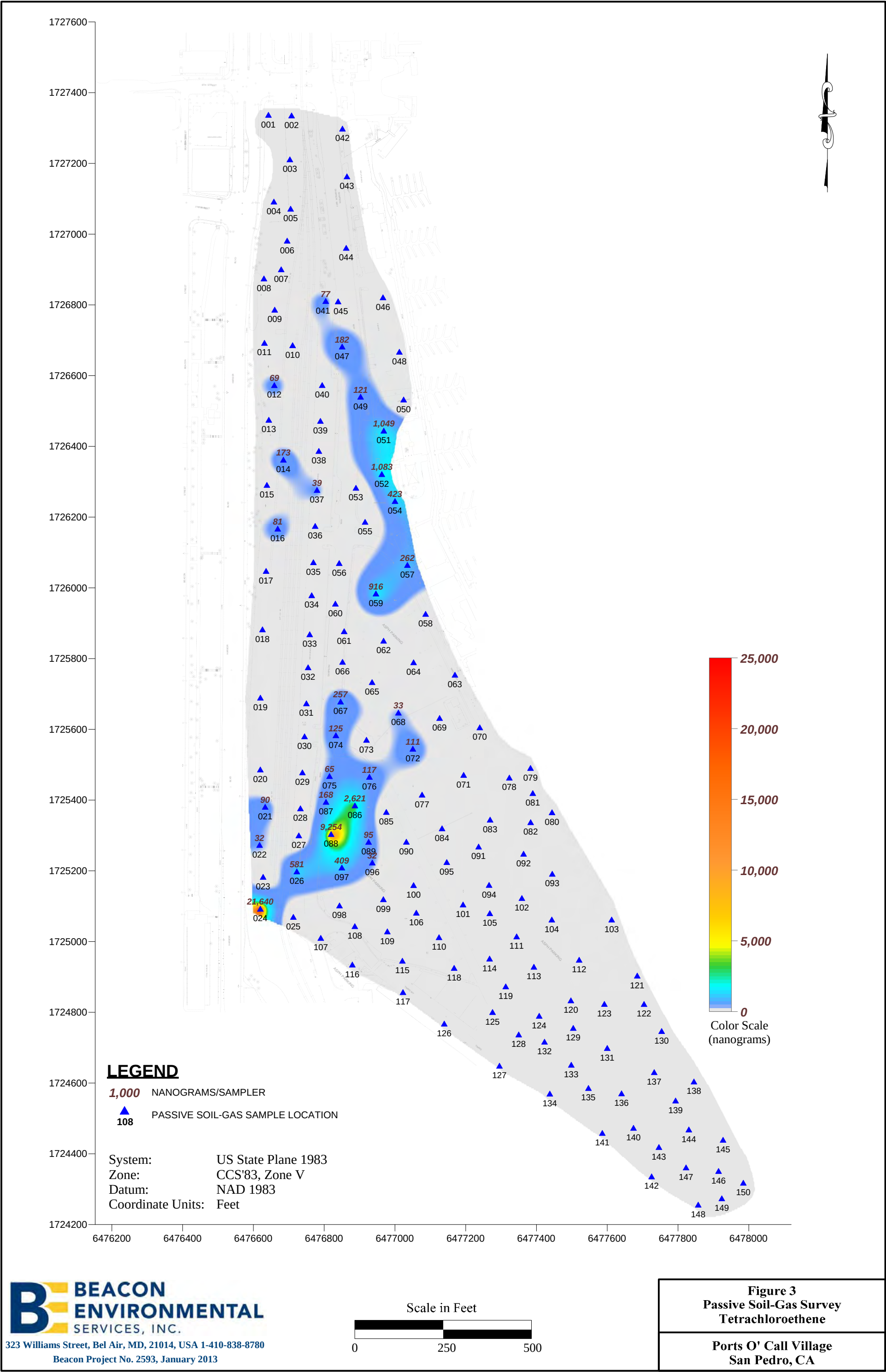
µg/m³ = micrograms per cubic meter

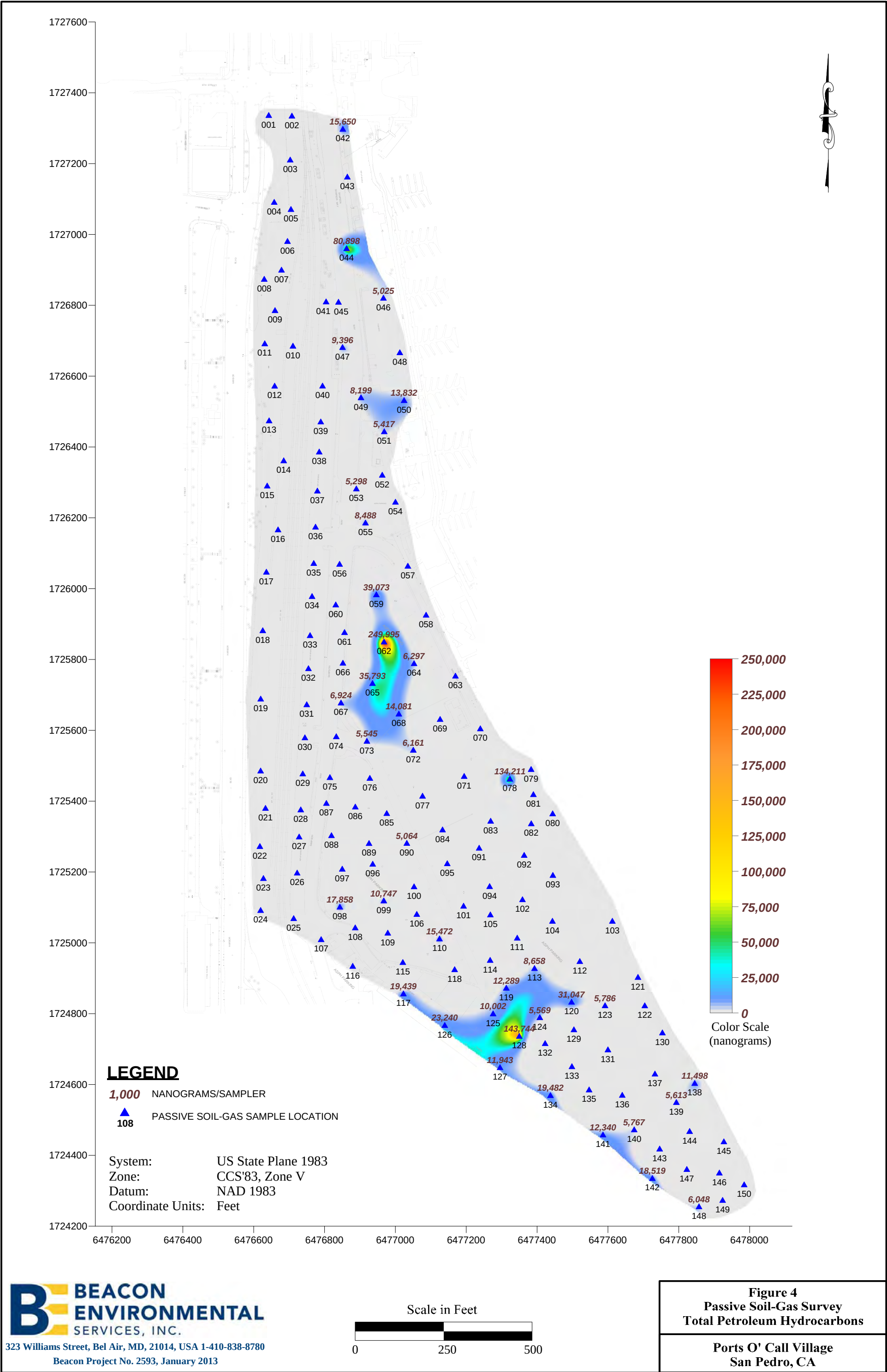
<5,000 = not detected at or above the indicated laboratory reporting limit

Trip-1 through Trip-4 are trip blanks.









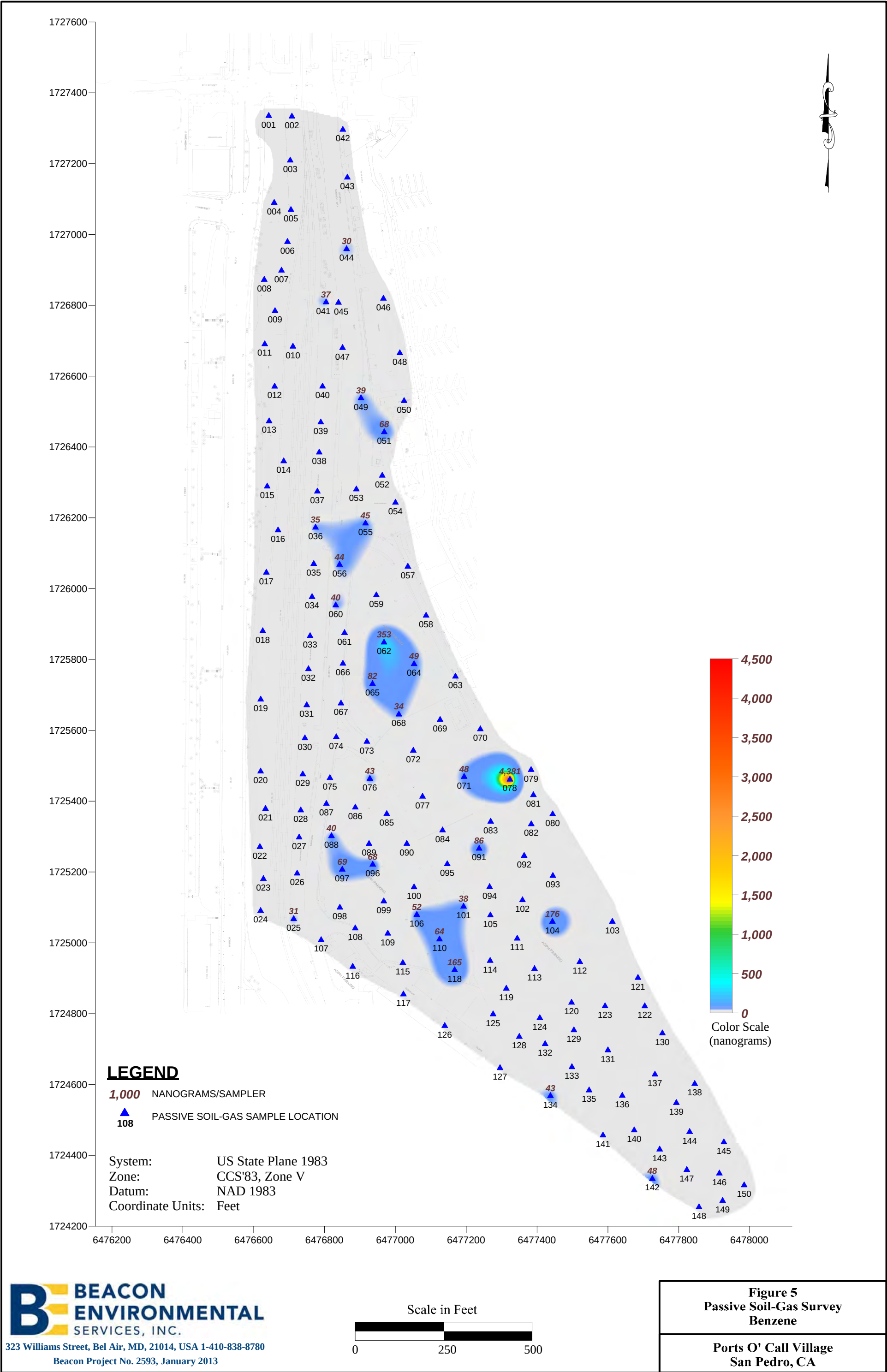


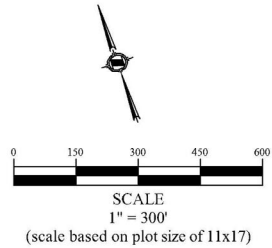
EXHIBIT D

Area of Excavation



 **PORT 'O' CALL VILLAGE
REDEVELOPMENT AREA**

 **SITE LOCATION**



**FORMER UNOCAL STATION 0692
SAN PEDRO, CALIFORNIA**

SITE LOCATION



CHECKED BY:	CAS
DRAFTED BY:	CAS
FILENAME:	8630/PD7/autocad/master
DATE:	2/05/24

FIGURE

1

AREA D
(FORMER FISH
MARKET)

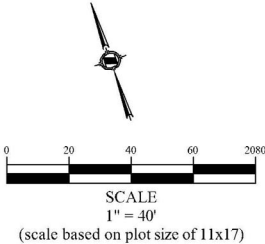
EXISTING TIMBER
BULKHEAD/SEAWALL

AREA B

AREA C

REMAINING AREA A

- PRE-EXCAVATION BORING
- SHORING
- 7' EXCAVATION DEPTH
- 8' EXCAVATION DEPTH
- 11' EXCAVATION DEPTH
- 12' EXCAVATION DEPTH
- 13' EXCAVATION DEPTH
- 15' EXCAVATION DEPTH
- SOIL LEFT IN-PLACE TO PROTECT SEAWALL

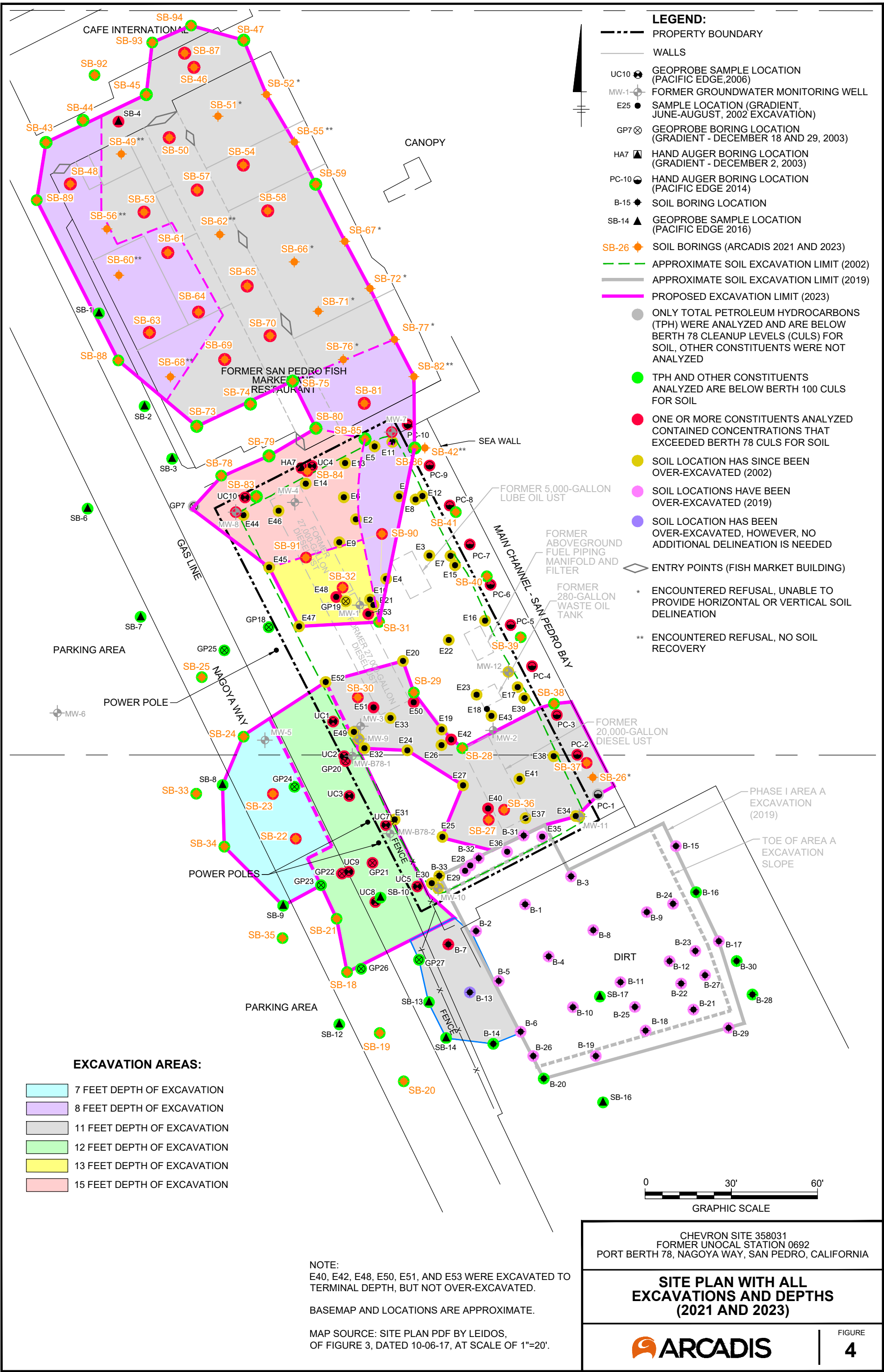


FORMER UNOCAL STATION 0692
SAN PEDRO, CALIFORNIA

PHASE II EXCAVATION LIMITS



CHECKED BY:	CAS
DRAFTED BY:	CAS
FILENAME:	9830/PD7/autocad/master
DATE:	2/05/24



March 23, 2018



Mr. Jimmie Woo
California Regional Water Quality Control Board
Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, California 90013

Subject: Soil Management Plan Addendum
Chevron Site No. 35-8031
Former Unocal Marine Station No. 0692
Berth 78, Nagoya Way, San Pedro, California
Case No. 907310198A

Dear Mr. Woo:

On behalf of Chevron Environmental Management Company (CEMC), Leidos, Inc. (Leidos) presents this *Soil Management Plan Addendum* to the California Regional Water Quality Control Board – Los Angeles Region (Regional Board) for Chevron Site No. 35-8031, which is the Former Unocal Marine Station No. 0692 located at Berth 78, Nagoya Way, San Pedro, California (the Site). This correspondence amends Leidos' *Revised Soil Management Plan*, dated October 30, 2017 (SMP), which was approved with conditions by the Regional Board in its letter dated January 11, 2018 (Attachment 1).

BACKGROUND

The Site is a former marine bulk diesel fueling station with impacted soils that were excavated to the extent practicable in 2002, but some impacted soils were left in place due to physical obstructions to excavation (see Figure 1 for the location of the 2002 excavation). The Regional Board closed the Site in 2004, but subsequently re-opened the case in 2010 based on data collected by the Port of Los Angeles (Port) and on the possibility that additional excavation of impacted soil could be performed during the removal of physical obstructions during redevelopment work planned by the Port.

In a letter dated June 29, 2010, the Port indicated that the Site is within the San Pedro Waterfront and Promenade area and in October 2015 indicated that plans for redevelopment were moving forward. In correspondence dated March 8, 2017, the Port indicated redevelopment could begin as early as November 2017 and subsequently

indicated that redevelopment work that would remove some of the obstacles to excavation could start as early as April 2018.

In order to better define the scope of the additional excavation, Leidos submitted a SMP, dated October 30, 2017, which proposed numerical soil cleanup goals and a plan for excavation to the extent practicable of soils with hydrocarbon concentrations in excess of the cleanup goals. The Regional Board's letter dated January 11, 2018, approved the SMP with conditions (Attachment 1). In a communication from the Port received on February 23, 2018, the Port indicated demolition of the structures in Area A is expected to be completed by mid-April 2018, at which time excavation of that area can begin (see Figure 1 for the location of Area A).

SMP ADDENDUM

IMPLEMENTATION OF REGIONAL BOARD CONDITIONS

The Regional Board approved the SMP with seven conditions (Attachment 1). CEMC concurs with the conditions (except #7 regarding schedule, as discussed below) and notes that the Port will be conducting the actual excavation work and will implement the Regional Board's conditions.

SMP MEETS REGIONAL BOARD'S DIRECTIVE FOR REMEDIATION

We note that the Regional Board's approval letter refers to the SMP as a Remedial Action Plan (RAP). CEMC concurs with that reference and notes that it was our oversight to not mention in the SMP that the SMP is intended to meet the Regional Board's directives dated April 23, 2010 and May 6, 2010, to submit a RAP (per California Code of Regulations [CCR], Title 23, Chapter 16, §2726). Therefore, the SMP is herein amended to state that the remedial excavation proposed in the SMP is intended to satisfy the Regional Board's 2010 directives requiring CEMC to submit a RAP, with the expectation that the Regional Board concurs that the remedial excavation proposed in the SMP is the most cost-effective corrective action alternative for remediation of the Site and satisfies the Regional Board's requirements for site remediation.

SCHEDULE

The SMP indicated that the SMP will be implemented during the Port's redevelopment activities in the San Pedro Waterfront and Promenade area and that the schedule for redevelopment had not been finalized. The SMP also indicated that the redevelopment will be conducted in two phases: Phase 1 excavation of Area A beginning in April 2018 and Phase 2 excavation of Areas B, C, and D expected to begin in 2020 (see Figure 1 for the locations of these areas and expected excavation schedules).

The Port's February 23, 2018 communication indicates that the Phase 1 excavation should be able to begin in late April (after demolition work) and that the Port would like to complete the work before the busy summer season, or May 31, 2018, and must complete the work before construction work scheduled for January 2019.

EXTENSION REQUEST (EXCEPTION TO CONDITION #7)

The Regional Board's approval letter set a due date of April 15, 2018, for a technical report detailing the results of the soil excavation (condition #7 in Attachment 1).

Because implementation of the SMP is dependent upon the Port's redevelopment schedule, this due date is not feasible. Instead, CEMC proposes to prepare and submit two technical reports within 60 days of completion of each of the two phases of excavation activities: (1) a report documenting the Phase 1 excavation and (2) a report documenting the Phase 2 excavation. CEMC's reports will include documentation of the Port's excavation and CEMC's soil sampling results that demonstrate that soils with hydrocarbon concentrations in excess of the cleanup goals were removed to the extent practicable. Based on current information, the Phase 1 report will likely be submitted by January 2019 and the Phase 2 report will likely be submitted in 2020 or later. Therefore, CEMC requests an extension that replaces the April 15, 2018 due date with two due dates, each 60 days following completion of each of the two phases of excavation.

PRE-EXCAVATION ASSESSMENT

The Port's communication of February 23, 2018, included a proposal to conduct the Phase 1/Area A excavation. Upon review of the Port's excavation and shoring plan, and given the currently unknown extent of soil impacts in excess of the cleanup goals, it became clear that a step-wise process of excavation, soil sampling, waiting for laboratory results, and "chasing" soils in excess of the cleanup goals would be very inefficient.

Instead, CEMC proposes to conduct a pre-excavation assessment based on the sidewall and bottom sampling plan proposed in Leidos' SMP and approved by the Regional Board and the Port. The SMP specifies confirmation soil samples every 20 feet laterally in the sidewalls of each excavation and every 200 square feet in the bottom of the excavation. CEMC proposes to conduct the confirmation soil sampling prior to excavation as follows:

- A grid will be marked out on 20-foot centers beginning on the south edge of the 2002 excavation at Area A at the location of sampling location E29 and extending outward from there, commencing with the initial four locations forming a 20-foot square (Figure 1).
- A minimum of four locations will be sampled using a hand auger, air knife with hand auger, and/or direct-push rig. At least two soil samples will be collected at each location, one from the interval 5 to 9 feet below ground surface (bgs), which will serve as the sidewall sample at each location, and one from a minimum depth of 9 feet bgs (minimum eight samples analyzed).
- A polyvinyl chloride pipe or other material will be placed in the soil boring to mark the location on the ground to guide the excavation, and the hole around the pipe will be temporarily backfilled with native soil (to be excavated out later). Each location will be surveyed by a licensed land surveyor and the data uploaded to GeoTracker.
- If any of the sidewall soil samples contain hydrocarbon concentrations in excess of the cleanup goals, then step-out grid locations will be located based on maximum 20-foot spacings. If any of the bottom soil samples contain hydrocarbon concentrations in excess of the cleanup goals, then deeper samples will be collected at the same location. (Note: the assessment will be extended vertically to define the vertical extent of soil concentrations in excess of the cleanup goals, but the excavation will be continued vertically to the extent

- practicable based on the groundwater conditions at the time of excavation, which in the past has limited excavation to a depth of 9 feet bgs.)
- Additional intervening grid points may be sampled based on data evaluation. For example, if a sidewall sample has a small concentration exceedance of one or two compounds, the next step-out location may be placed 10 feet rather than 20 feet from the “sidewall” sample location because of the likelihood that the remaining exceedances will drop below the cleanup goals in that distance (and if not, the next step-out location would be sampled).
 - This step-out assessment will continue outward from the starting point at sampling location E29 (see Figure 1) until all analyte concentrations are below the cleanup goals or the step-out is blocked by a physical obstruction to excavation such as below-ground utilities.
 - If the assessment identifies a part of the soil plume that is not cost-effective to excavate, for example a thin, deep soil horizon with minor exceedances beneath a large volume of “clean” overburden, CEMC may present this data along with a proposed limit to cost-effective, practicable excavation to the Regional Board for approval prior to excavation.

This assessment will fully delineate the volume of soil in excess of the cleanup goals that can be practicably excavated according to the confirmation soil sampling plan in the SMP. With the final dimensions of the excavation in hand prior to excavation, the Port will be able to efficiently excavate and shore up to the “clean” soil sample locations without “chasing” and without additional sampling (except as may be needed for waste characterization of stockpiled soil).

Additionally, the assessment soil samples will be preserved and analyzed according to the procedures in items #5 and #6 in the Regional Board’s letter (Attachment 1) and will likely provide more accurate results than disturbed sidewall and bottom samples from a backhoe bucket. Furthermore, the pre-excavation soil sampling will avoid the problems encountered with collecting soil samples from shored sidewalls and will avoid the safety risks that can arise when sampling an open excavation.

SUMMARY OF SMP ADDENDUM

In summary, CEMC and Leidos amend the SMP as follows:

- CEMC concurs with the Regional Board’s seven conditions (except #7 in Attachment 1 regarding the schedule) and notes that the Port will be conducting the actual excavation work and will implement the Regional Board’s conditions.
- The excavation proposed in the SMP is intended to meet the Regional Board’s directives dated April 23, 2010 and May 6, 2010, to submit a RAP (Per CCR, Title 23, Chapter 16, §2726).
- CEMC requests an extension that replaces the April 15, 2018 due date for a report with two due dates, each 60 days following completion of each of the two phases of excavation. The actual submission dates will depend on the Port’s

redevelopment schedule and the Phase 2 report will likely be submitted in 2020 or later.

- CEMC proposes a pre-excavation assessment that will fully delineate the volume of soil in excess of the cleanup goals that can be practicably excavated according to the confirmation soil sampling plan in the SMP. This will result in efficient excavation and shoring without additional sampling.

Your timely response to CEMC's proposal and extension request would be greatly appreciated. If you have any questions, please contact the Leidos Project Manager, Dr. Stephen Edelman, at (951) 381-1280, or the CEMC Project Manager, Mr. Daniel L. Carrier, at (714) 671-3371.

Respectfully submitted,

Leidos, Inc.



Dr. Stephen Edelman
Professional Geologist No. 5117
Certified Hydrogeologist No. 128



Enclosures:

Figure 1 – Excavation Areas and Schedules
Attachment 1 – Agency Correspondence

cc: Mr. Daniel L. Carrier, CEMC
Ms. Rita Brenner, Port of Los Angeles
Leidos Project File

REPORT LIMITATIONS

This technical document was prepared on behalf of CEMC and is intended for its sole use and for use by the local, state, or federal regulatory agency that the technical document was sent to by Leidos. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges that they do so at their own risk, and Leidos shall have no responsibility or liability for the consequences thereof.

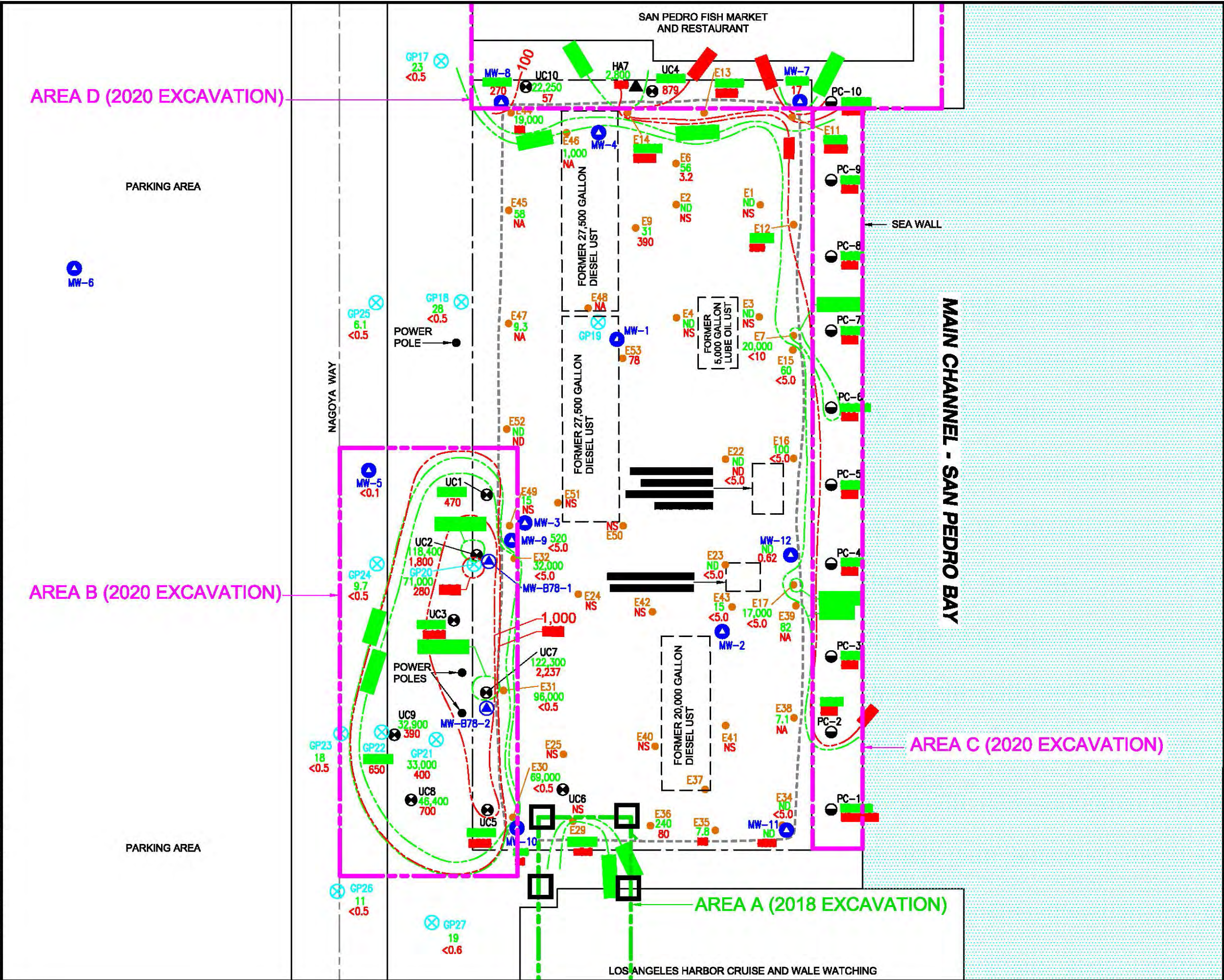
Site history and background information provided in this technical document are based on sources that may include interviews with environmental regulatory agencies and property management personnel and a review of acquired environmental regulatory agency documents and property information obtained from CEMC and others. Leidos has not made, nor has it been asked to make, any independent investigation concerning the accuracy, reliability, or completeness of such information beyond that described in this technical document.

Recognizing reasonable limits of time and cost, this technical document cannot wholly eliminate uncertainty regarding the vertical and lateral extent of impacted environmental media.

Opinions and recommendations presented in this technical document apply only to site conditions and features as they existed at the time of Leidos site visits or site work and cannot be applied to conditions and features of which Leidos is unaware and has not had the opportunity to evaluate.

All sources of information on which Leidos has relied in making its conclusions (including direct field observations) are identified by reference in this technical document or in appendices attached to this technical document. Any information not listed by reference or in appendices has not been evaluated or relied on by Leidos in the context of this technical document. The conclusions, therefore, represent our professional opinion based on the identified sources of information.

FILE: C:\Users\fisherda\Dan\Temp Work Files\Brea Port of Los Angeles\1 Background Info\B8031-002C.dwg [Layout1]



EXPLANATION

- GROUNDWATER MONITORING WELL
- GEOPROBE SAMPLE LOCATION (PACIFIC EDGE, 2006)
- FORMER GROUNDWATER MONITORING WELL
- SAMPLE LOCATION (GRADIENT, JUNE-AUGUST, 2002 EXCAVATION)
- GEOPROBE BORING LOCATION (GRADIENT - DECEMBER 18 AND 29, 2003)
- HAND AUGER BORING LOCATION (GRADIENT - DECEMBER 12, 2003)
- HAND AUGER BORING LOCATION (PACIFIC EDGE 2014)

APPROXIMATE SOIL EXCAVATION LIMIT (2002)

CONCENTRATION IN MILLIGRAMS PER KILOGRAM (mg/kg) FOR:

- 23,000 TOTAL PETROLEUM HYDROCARBONS AS DIESEL (TPHd)
- 2,400 TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (TPHg)
- ND (<0.5) NOT DETECTED ABOVE THE METHOD DETECTION LIMIT INDICATED
- NS NO SAMPLE COLLECTED
- NA SAMPLE NOT ANALYZED

APPROXIMATE LOCATION OF ISOCONCENTRATION LINE; QUERIED WHERE LOCATION IS CONJECTURAL FOR:

- TPHd (mg/kg)
- TPHg (mg/kg)

REFERENCE:

- MAP FROM GADIENT ENGINEERS, INC., FIGURE NO. 3 DATED MARCH 2004.
- TPHd VALUES FROM THE PORT OF LOS ANGELES DATA HAS BEEN RECALCULATED TO SHOW ONLY THE C11 TO C28 RANGE.

INITIAL SAMPLING LOCATIONS

Scale 0 10 20 feet

Chevron Environmental Management Company
CHEVRON SITE NO. 35-8031
FORMER UNOCAL MARINE STATION NO. 0692
BERTH 78, NAGOYA WAY
SAN PEDRO, CALIFORNIA

EXCAVATION AREAS AND SCHEDULES

DRAWN	HDS	REVISED	DSF	APPROVED	FIGURE NO.
DATE	05/17	DATE	03/09/18	DATE	1
JOB NO.	320215.00.17.C.150A.0201.0100	FILE NO.	B8031-002C		

Attachment 1:
Agency Correspondence



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

January 11, 2018

Mr. Daniel Carrier
Chevron Environmental Management Company
145 S. State College Blvd.
Brea, CA 92822-2922

**UNDERGROUND STORAGE TANK PROGRAM – REQUIREMENT TO TAKE CORRECTIVE ACTION IN RESPONSE TO UNAUTHORIZED UNDERGROUND STORAGE TANK RELEASE PURSUANT TO HEALTH AND SAFETY CODE SECTION 25296.10 AND TITLE 23, CALIFORNIA CODE OF REGULATIONS, SECTION 2720-2727
FORMER UNOCAL MARINE STATION NO. 0692 (D-1 SITE)
BERTH 78, NAGOYA WAY, SAN PEDRO, CA (FILE NO. 907310198)**

Dear Mr. Carrier:

Pursuant to Health and Safety Code section 25296.10, you are required to take corrective action (e.g., Preliminary Site Assessment, Soil and Water Investigation, Corrective Action Plan Implementation, and Verification Monitoring) to ensure protection of human health, safety and the environment. Corrective action requirements are set forth in California Code of Regulations (CCR), title 23, sections 2720 through 2727.

We are in receipt of the "Revised Soil Management Plan" (the RAP) dated October 30, 2017. This letter provides Regional Water Quality Control Board (Regional Board) staff comments upon reviewing this report.

Site Assessment and/or Corrective Action Update

Unocal Management Company previously operated two 27,500 gallon diesel, one 20,000 gallon diesel, one 5,000 gallon lube oil, and one 280 gallon waste oil underground storage tanks at the site. Between June 2002 and August 2002, approximately 2,710 tons of petroleum hydrocarbon impacted soils were excavated and disposed off-site. On December 9, 2004, the Regional Board issued a case closure letter for the underground storage tank petroleum releases. At the time of closure, no free product was observed at the site.

In November 2006, the Port of Los Angeles advanced ten direct push borings to 7 feet below ground surface (bgs) at the north and southwest of the property boundary to further assess petroleum impacts from historical releases. Soil and groundwater samples were collected. Soil results detected total petroleum hydrocarbons up to 130,000 mg/kg, benzene p to 0.43 mg/kg, toluene up to 0.69 mg/kg, ethyl benzene up to 2.3 mg/kg, and xylenes up to 3.5 mg/kg. Groundwater results detected total petroleum hydrocarbons up to 280,000 µg/L, and TBA up to 11 µg/L. Groundwater was measured at approximately 7 feet bgs. Subsequently, two groundwater wells (MW-78-1 and MW-78-2) were installed on the southwest boundary of the site along Nagoya

IRMA MUÑOZ, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

Mr. Daniel Carrier
Former Unocal Marine Station No. 0692

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January 11, 2018

Way. Groundwater samples collected in October 4, 2007 identified approximately 0.8 inches of petroleum free product.

Since our case closure letter in December 2004, diesel concentrations in soils have shown high concentrations 100,000 mg/kg. Also, fuel constituent concentrations in groundwater increased from relatively low concentrations or non-detect to measureable free product, therefore, the case was re-opened in May 6, 2010.

Remedial Action Plan (RAP) Approval (Per CCR, Title 23, §2726)

The RAP proposed to excavate the petroleum hydrocarbon impacted soil. Staff has reviewed the RAP and concurs with its implementation, provided the following conditions are met:

1. Prior to proceeding with the excavation, the Health and Safety Plan contained in the RAP must be reviewed and approved by an Industrial Hygienist.
2. Since the excavation or trench is five feet deep or more, it must be shored or sloped. If there is a possibility of soil movement, even shallower excavations have to be shored. Excavations in disturbed soil may require additional sheeting and bracing.
3. Prior to commencing the fieldwork, advanced notice must be given to all adjacent commercial and residential occupants.
4. Ambient air monitoring must be conducted at the property boundary to ensure protection of human health, safety, and nuisance in the neighboring area during any trenching, excavation, borings, and/or soil disturbance.
5. Soil confirmation samples must be prepared and preserved per EPA Method 5035.
6. Soil samples must be analyzed by Cal-LUFT GC/FID or Cal-LUFT GC/MS Method for total petroleum hydrocarbons (full suite), EPA Method 8260B for (full suite), fuel oxygenate compounds including methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), and tertiary butyl alcohol (TBA), EPA Method 8270C for benzo(a)pyrene, chrysene, and benzo(a)anthracene. Ethanol is also required and shall be analyzed by either method above. The analytical detection limits must conform to the Regional Board General Laboratory Testing Requirements (9/06) (http://www.waterboards.ca.gov/losangeles/html/lab_report.html). If the site has a waste oil tank, all aromatic and chlorinated volatile organic compounds must also be analyzed and reported per EPA Method 8260B. All respective analytical methods must be certified by the California Environmental Laboratory Accreditation Program (ELAP). All analytical data must be reported by a California-certified laboratory.
7. A technical report detailing the results of the soil excavation must be submitted to this Regional Board by **April 15, 2018**.

Mr. Daniel Carrier
Former Unocal Marine Station No. 0692

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January 11, 2018

Regulatory Requirement for Electronic Submission of Laboratory Data to the Geotracker Database

On September 30, 2004, the State Water Resources Control Board (SWRCB) adopted the resolution to revise regulations in Chapter 30, Division 3 of Title 23 of California Code of Regulations (CCR), which requires persons to ensure electronic submission of laboratory analytical data (i.e., soil or water chemical analysis) and locational data (i.e., location and elevation of groundwater monitoring wells), to the SWRCB's GeoTracker database. The regulations and other background information are available at <http://geotracker.waterboards.ca.gov>.

In accordance with the above regulations, you are required to submit all laboratory data in the Electronic Deliverable Format to the SWRCB's GeoTracker database for any soil and/or groundwater samples obtained after September 1, 2001. This would include any sampling completed for underground storage tank system removal, site assessment activities, periodic groundwater monitoring, and post cleanup verification sampling. Per the same regulations, you are also required to submit locational data for all groundwater monitoring wells (i.e., latitude, longitude, and elevation survey data) together with groundwater information (i.e., elevation, depth to free product, monitoring well status, etc.) and a site map commencing January 1, 2002. Hard copy paper reports, which must also be electronically uploaded onto GeoTracker, are no longer required to be submitted to Regional Board.

General Requirements

1. The contractor who conducts the environmental work as required in this Order shall, at all times, comply with all applicable State laws, rules, regulations, and local ordinances specifically, including but not limited to, environmental, procurement and safety laws, rules, regulations, and ordinances. The contractor shall obtain the services of a Professional Geologist or Engineer, Civil (PG/PE-Civil) to comply with the applicable requirements of the Business and Professions Code, sections 7800 et seq. implementing regulations for geological or engineering analysis and interpretation for this case. All documents prepared for others by the contractor that reflect or rely upon geological or engineering interpretations by the contractor shall be signed or stamped by the PG/PE-Civil indicating her/his responsibility for them as required by the Business and Professions Code.
2. All necessary permits must be obtained from the appropriate agencies prior to the start of work.
3. Prior to commencing any fieldwork, Regional Board staff must be given a minimum of 15 days advance notice in writing, so that one of our staff may be present.

If you have any questions on this matter, please contact Mr. Jimmie Woo at (213) 576-6698 or jwoo@waterboards.ca.gov.

Sincerely,



Yi Lu, Ph.D., P.G.
Chief of Los Angeles River Watershed Unit
Underground Storage Tank Section

Mr. Daniel Carrier
Former Unocal Marine Station No. 0692

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January 11, 2018

cc: Micah Reich, State Water Resources Control Board, Underground Storage Tank
Cleanup Fund
Jeff O'Keefe, State Water Resources Control Board, Division of Drinking Water
Brian Partington, Water Replenishment District of Southern California
Rita Brenner, Port of Los Angeles
Steve Edleman, Leidos

EXHIBIT E

Contractors' Estimates -

Chevron Total Costs

CONTRACTOR'S ESTIMATE

Bid Item	Description		Quantity	Unit Cost	TOTAL
2	Lump Sum Construction (Drawing No. 1-3413): For furnishing transportation, labor, materials, equipment, mobilization, demobilization, and incidentals necessary to complete Work in accordance with Drawing No. 1-3413, exclusive of Work covered by items 3 through the last item of Bid Proposal Line Items	Lump Sum	1	\$ 374,000	\$ 374,000
3	Excavate, Stockpile, and Dispose of Non-Hazardous Waste Soil Material: For furnishing transportation, labor, materials, and equipment to excavate, stockpile, characterize, haul away, and dispose of off Department property non-hazardous waste soil material, including additions to or deductions from the approximate quantity stipulated	Tons	1356.67	\$ 116	\$ 157,374
6	Excavate, Stockpile, and Dispose of California Hazardous Waste Soil (Non-RCRA): For furnishing transportation, labor, materials, and equipment to excavate, transport to CIS stockpile site, stockpile, characterize, haul away, and dispose of California hazardous waste soil (non-RCRA) at a licensed and Class I lined landfill acceptable to Department, including additions to or deductions from the approximate stipulated quantity	Tons	2645.76	\$ 166	\$ 439,196
7	Excavate, Stockpile, and Dispose Contaminated/Non-Hazardous Waste Soil [Including but not Limited to Hydrocarbon Impacted Soil and Volatile Organic Compound (VOC) Contaminated Soil]: For furnishing transportation, labor, materials, and equipment to excavate, transport to CIS stockpile site, stockpile, characterize, haul away, and dispose contaminated/non-hazardous waste soil (including but not limited to hydrocarbon impacted soil and VOC contaminated soil) at a licensed landfill or thermal desorption recycling facility acceptable to Department, including additions to or deductions from the approximate stipulated quantity	Tons	9068.93	\$ 138	\$ 1,251,512
8	Light Non-Aqueous Phase Liquids (LNAPL)/Water Mix Skimming, Removal, and Disposal: For furnishing transportation, labor, materials, and equipment to skim, remove, and dispose of light non-aqueous phase liquid (LNAPL)/water mix floating on the groundwater in excavation areas and convey the recovered LNAPL/water mixture to LNAPL holding tank located on Project Site, including additions to or deductions from the approximate quantity stipulated	Gallons	110	\$ 80	\$ 8,800
10	Import Fill Soil (Drawing Nos. 1-3413): For furnishing transportation, labor, materials, and equipment to test, characterize, furnish, place, grade, and compact in place Contractor-furnished fill soil in accordance with Drawing No. 1-3413, including additions to or deductions from the approximate quantity stipulated	Cubic Yards	3396.67	\$ 31	\$ 105,297
11	Excavate, Stockpile, and Re-Use Soil: For furnishing transportation, labor, materials, and equipment to excavate, transport to CIS stockpile site, stockpile, characterize, and re-use soil material, including additions to or deductions from the approximate stipulated quantity	Cubic Yards	1341.18	\$ 42	\$ 56,330
14	Geotextile (Drawing No. 1-3413): For furnishing transportation, labor, materials, and equipment to furnish and install geotextile in accordance with Drawing No. 1-3413	Lump Sum	1	\$ 15,000	\$ 15,000
15	3/4 Inch Rock (Drawing No. 1-3413): For furnishing transportation, labor, materials, and equipment to furnish and install 3/4 inch rock in accordance with Drawing No. 1-3413	Lump Sum	1	\$ 462,000	\$ 462,000
N/A	Characterization Technical Support, Remediation Oversight, and Reporting	Lump Sum	1	\$ 96,321	\$ 96,321
N/A	Additional shoring; removal of known conflicting asbestos water line within CIS remediation area; removals, air monitoring and testing; and additional geotextile	Lump Sum	1	\$ 305,294	\$ 305,294
	TOTAL				\$ 3,271,123

Notes

1. ROM (Rough Order of Magnitude) was based on Port of Los Angeles (POLA) Delta 1 Quantities