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May 26, 2011

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State Water Resources Control Board
Office of Chief Counsel
Jeannette L. Bashaw, Legal Analyst
1001 "I" Street, 22nd Floor
Sacramento, CA 95814
VIA E-MAIL to jbashaw@waterboards.ca.gov

Re: Petition for Review of California Regional Water Quality Control Board,
Los Angeles Region California Water Code Section 13267 Order;
Our File No.: 6548-14

Dear Ms. Bashaw:

We respectfully file this Petition for Review on behalf of Tesoro Refining and Marketing Company (Tesoro) to appeal the California Regional Water Quality Control Board, Los Angeles Region's (LA RWB) Order issued April 26, 2011 pursuant to California Water Code (CWC) Section 13267 (SCP No. 1262). (Order attached as Exhibit "A".) We also seek review of the LA RWB's order that Tesoro reimburse the LA RWB for oversight costs and expenses under Section 13304 of the California Water Code. (Order attached as Exhibit "B".) A copy of the Petition has been served on the LA RWB.¹

Tesoro requests a hearing to address the issues raised in its Petition and reserves the right to modify and supplement this Petition. Tesoro also requests that the State Water Board issue an order staying the Regional Board's Orders and holding this Petition in abeyance pursuant to California Code of Regulations, Title 23 Sec. 2020.5(d) to permit the Regional Board to further consider Tesoro's evidence.

On April 26, the LA RWB issued the order to Tesoro, requiring Tesoro to develop and submit for review by June 8, 2011 a work plan to delineate the vertical and lateral extent of petroleum impact in the vicinity of a release in the Dominguez Channel, south of Carson Street. The LA RWB issued identical orders to seven other entities with current and former operations in the

¹ All communications regarding this Petition should be sent to Tesoro's counsel: Marc R. Greenberg, Keesal Young & Logan, 400 Oceangate, Long Beach Ca, 90801. For purposes of complying with the requirements for filing a Petition, Tesoro's mailing address is 19100 Ridgewood Parkway, San Antonio, TX 78259.

Re: Petition for Review of California Regional Water Quality Control Board,
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area, two of which have known gasoline releases. The Order is based on an assumption that everyone with petroleum-related equipment in the area is a potentially responsible party and treats them all accordingly.² However, Tesoro has established, based on multiple and independent lines of evidence, that the dedicated jet fuel pipeline owned by Tesoro could not possibly have been a source of contamination during Tesoro's ownership of the pipeline.

On May 13, 2011, the Regional Board held a meeting with the named responsible parties to present the Board's theory of the likely source of the droplets of oil that began percolating up from the center of the Dominguez Channel in January 2011. The Regional Water Board's working theory is that the petroleum is percolating up through the center of the Dominguez Channel as a result of LNAPL from an old release that is now floating on the top of the ground water and is only now making its appearance on the surface as a result of a raised groundwater level. There are at least two known releases in the area from underground storage tanks in the area, none of which were ever owned or operated by Tesoro. (*See* PowerPoint presented by Water Board Staff on May 13, 2011, attached as Exhibit "C".)

On May 25, 2011, we met with staff of the Regional Board, Greg Bishop and Jeffrey Hu, to discuss the lines of evidence which prove that Tesoro could not be a responsible party: (1) Tesoro has only owned the pipeline since May 2007 and has only transported jet fuel through the pipeline; (2) Tesoro has had the pipeline integrity tested on a regular basis; (3) the pipeline has a state-of-the-art leak real-time leak detection system; and, (4) the sample taken from the Dominguez Channel does not show the presence of any jet fuel. The Regional Board's staff members did not dispute these points, however they wanted an opportunity to review the information and our expert's analysis of the forensics before making a final decision. Because we are awaiting a response to our request to the LA RWB to rescind the Order with respect to Tesoro, we request that this petition be held in abeyance pending the outcome of that request.

If the Regional Board does not rescind its Orders, we will proceed with the Petition to challenge the LA RWB orders, each of which unfairly requires that Tesoro incur unnecessary expenses and costs. While the Orders were based solely on the basis of the proximity of the pipeline to the spill, the evidence provided by the Regional Board clearly establishes that there is no reasonable basis to suspect that Tesoro discharged the petroleum found in the Dominguez Channel. Because the evidence presented to the LA RWB demonstrates that Tesoro was not the source, the cost to compile and implement the plan specified in the LA RWB order is not justifiable. Moreover,

² "The evidence supporting this requirement is your operation of a petroleum facility near the release site." Order at page 2, attached as Exhibit A.

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it would be unfair to require Tesoro to reimburse the LA RWB's oversight costs given that it cannot reasonably be identified as a responsible party. We provide further detail below and in the referenced attachments. All of this information has been presented to the LA RWB.

History Of The Pipeline

Line 21, identified in the Order as Pipeline 0366, was constructed in 1966 and is 8.625 inches in diameter, has wall thickness between 0.277 and 0.307 inches, and is made of Grade B steel with 300# ANSI valves/flanges. Tesoro began operating Line 21 in May 2007 after it purchased the asset from Equilon Enterprises LLC (dba Shell). (See Exhibit "D".) A segment of Line 21 is located near where contamination has been found in the Channel and for this reason, and this reason only, Tesoro was named in the Order.

The pipeline is 3.1 miles long and transports jet fuel from Tesoro's Refinery to Shell's Carson Terminal. It has only carried jet fuel during Tesoro's ownership. It is believed that prior to Tesoro's ownership the line was a dedicated jet fuel line as far back as 2005³. The maximum operating pressure (MOP) of this pipeline is 720 psi, but normally operates at less than 300 psi. Since this pipeline has historically transported jet fuel, the pipeline is regulated by the California State Fire Marshal (CSFM), who has assigned it number CSFM#366.

The CSFM requires that the integrity of the exterior of the pipeline be actively protected. The pipeline is protected with a coating supplemented with cathodic protection. Cathodic protection is a technique used to control the corrosion of a metal surface by making it the cathode of an electrochemical cell. The pipeline is protected by sacrificing another more easily corroded metal, which acts as the anode of the electrochemical cell. Periodic inspections to insure proper performance of this system are required, and CSFM audits these records as well as the physical facilities on a periodic basis (usually every two to three years).

The conclusion that Tesoro's Line 21 is not a potential source of contamination is based on four independent lines of evidence. Each proof is summarized below, with documentary exhibits provided to support each finding. Additional supporting data can be provided upon requested.

³ It is worth noting that in searching through documentation available from the previous owner (Shell), Tesoro was able to surmise that this pipeline transported a non-hydrocarbon product, diethanolamine (DEA) until around 1990 (the exact date could not be verified). While transporting DEA, the pipeline would not have been regulated by the CSFM. As far as we are aware, DEA is not a chemical of concern in the forensic test results of the spill sample.

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The Pipeline Has Tested Tight As Far Back As 1983

The CSFM has been given regulatory jurisdiction by the Federal Pipeline and Hazardous Material Safety Administration (PHMSA). The CSFM requires that the pipeline be hydrotested (pressure tested while filled with water) initially before operation in hydrocarbon service. If any leaks were detected during the hydrotest, they would have been repaired before the pipeline was put into hydrocarbon service. Tesoro is in possession of hydrotest records from the previous facility owner; no indication of hydrotest leak is indicated in these records. A list of the hydrotests conducted during Shell's ownership of Line 21 is set forth below in summary, the full reports are attached as Exhibit "E".

HISTORIC HYDROTESTING EVENTS DURING SHELL OWNERSHIP

<i>Date of Hydrotest</i>	<i>Hydrotest Pressure (psi)</i>	<i>Hydrotest Duration (hours)</i>
02/08/1983	700	4
02/15/1983	780	4
12/11/1984	720	4
05/01/1987	720	8
08/08/1988	1120	4
05/18/1989	1000	4
10/12/1990	1080	4
02/24/1994	1099	4
11/07/2000	1098	4

Additionally, in 2002, PHMSA released new regulations which require every pipeline operator to develop and maintain a pipeline integrity inspection program. Under Tesoro's Pipeline Integrity Management Program, this pipeline is inspected every five years. This pipeline inspection is performed via an in-line-inspection (ILI) "smart" tool. An ILI "smart" tool consists of instrumentation that will detect and record corrosion, dents, manufacturing defects, ovality issues, etc., called anomalies in the pipe wall material. The ILI tool is launched into the pipeline and is propelled with product. After the tool has been received and removed from the pipeline, the recorded data is downloaded and analyzed by a trained data analyst. The data is verified for accuracy by physically excavating identified anomalies on the pipeline, removing the pipeline

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coating, measuring the anomalies, and comparing their actual dimensions to the dimensions measured by the ILI tool. The anomaly is then repaired; Tesoro’s Pipeline Integrity Management Program contains specific direction on the completion of this entire process. The Program, as well as ILI data and repair records, are audited by PHMSA about every three years. Tesoro has undergone three audits of this program so far since its 2002 inception.

IN-LINE INSPECTION EVENTS

<i>Inspection Information</i>	<i># of Conditions Repaired</i>	<i>Type of Condition Found/Repaired</i>
07/07/2010 <i>ILI Tool Vendor:</i> NDT (Tuboscope) <i>Type of Tool:</i> High-resolution, Geometry/IMU/MFL combination tool	1 Anomaly requiring repair (per CSFM)	<ul style="list-style-type: none"> ▪ Dent on bottom of pipe (normally considered to have occurred during the manufacturing/coating process). The pipeline was exposed and the anomaly repaired without issue. The dent had not impacted the integrity of the pipeline.
	5 Anomalies not requiring repair	<ul style="list-style-type: none"> ▪ 45% corrosion anomaly w/ other multiple metal loss anomalies within an 3-inch span ▪ 42% metal loss with 4 pits in close proximity ▪ 49% metal loss w/ 2 other pits in close proximity ▪ 47% metal loss with 3 other pits in close proximity ▪ 42% metal loss with 6 other pits in close proximity

To demonstrate the safety factor at issue with these ILI results, the average calculated burst pressure at the location of the anomaly was between 1,904 psi and 2,870 psi, on a pipeline

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that has a standard operating pressure of less than 300 psi and a maximum allowable operating pressure of 720 psi. (See Data results at Exhibit "F".)

A Pipeline Leak Would Have Been Detected By Tesoro

The CSFM requires each pipeline operator to inspect the surface conditions on or adjacent to each pipeline right-of-way at least 26 times each calendar year, at intervals not exceeding three weeks. CSFM audits these records as well as the physical facilities, on a periodic basis (usually every two to three years). If any product had leaked from the pipeline and had migrated to the surface, it would have been discovered during these inspections.

A Pipeline Leak Would Have Been Detected By The ATMOS System

In 2008 Tesoro installed real-time leak detection and location capability on this pipeline. The system, manufactured by ATMOS, is a statistical leak detection system used by many other pipeline companies. ATMOS is one of the most tested leak detection systems in the world. ATMOS has been successfully applied to oil, gas, multiphase, chemicals, water, and multi-product pipelines both on land and subsea. ATMOS has also been used for naval bases, commercial, and military airports for tightness monitoring.

ATMOS applies the Sequential Probability Ratio Test to the corrected flow balance system after a comprehensive data validation process. The system does not use complicated hydraulic models to simulate a pipeline. Instead, it continuously calculates the statistical probability of a leak based on fluid flow and pressure measured at the inlets and outlets of a pipeline. Depending on the control and operation of a pipeline, pattern recognition techniques are used to identify changes in the relationship between the Pipeline pressure and flow when a leak occurs.

The ATMOS system continuously monitors flows and pressures at the inlet and outlet of the Tesoro pipeline and alarms to indicate the possibility of a leak. It is able to detect leaks under transient conditions with minimal false alarms and provides the leak-rate and location estimates. The final judgment as to whether a leak actually exists is left to Tesoro's Control Center operators. When judging an alarm condition, operators respond according to Tesoro's written procedures.

If Line 21 had experienced a leak after the installation of the ATMOS system Tesoro would have known about it from the ATMOS system well before hydrocarbons would show up in the Dominguez Channel. Tesoro is willing to arrange a meeting between the Water Board staff, the ATMOS operators at Tesoro, and ATMOS representatives if you desire further information on the accuracy and reliability of the ATMOS leak detection system. (See Exhibit "G").

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Line 21 Carries Jet Fuel And The Forensic Results Do Not Reveal The Presence Of Any Jet Fuel In The Sample

The Water Board has shared with Tesoro the laboratory results from samples taken from three parts of the Dominguez Channel: (1) the center of the Channel, identified as the spill sample; (2) a sample from the west side of the Channel; and (3) a sample from the east side of the Channel. Analysis was performed by Sierra Analytical and, separately, by the U.S. Coast Guard lab.

The lab results from Sierra reveal that the sample showed to be nearly one hundred percent gasoline range hydrocarbons. (*See*: Sierra Report page 3 of 22.) The report from the Coast Guard lab confirms that the subject hydrocarbons are related to a gasoline release, not jet fuel. The Coast Guard concluded that the samples were representative of gasoline with a trace of lubricating oil. The Coast Guard did not find any of the samples were representative of jet fuel.

In order to confirm our interpretation of the forensic data, Tesoro retained Dr. Al Uhler from Newfields Environmental to review the forensic data. Dr. Uhler has more than 25 years' experience in environmental and analytical chemistry. His specialty is environmental forensics, the integration of advanced chemical analyses, chemical fate and behavior, source identification techniques, and operational practices to determine the nature, sources, and fate of industrial chemicals in the environment. Dr. Uhler has conducted hundreds of assessments involving fugitive petroleum in various settings and in sedimentary environments. His extensive studies have also included coal-derived wastes and man-made industrial chemicals, pesticides, and herbicides in diverse environments. Dr. Uhler holds a B.S. in chemistry and a Ph.D. in chemistry from the University of Maryland.

As noted in Dr. Uhler's report, there is no evidence of jet fuel in any of the three samples examined by the U.S. Coast Guard. As confirmed by Dr. Uhler, the spill sample is "composed almost entirely of automotive gasoline" and the sample identified as CAH-MW-1 is "composed principally of a mixture of higher boiling, lubricating range petroleum and gasoline." Finally, the sample identified as CP-MW-2 is "composed almost entirely of automotive gasoline, with traces of higher boiling hydrocarbons." The product carried in Tesoro's Line 21 is not present in any of the samples. Dr. Uhler's Report is provided as Exhibit "H" and his resume is provided as Exhibit "I". Beyond the fact that Line 21 is and has always been tight during the time of Tesoro's ownership – the fact that Tesoro has only transported jet fuel through the pipeline and there is absolutely no evidence of jet fuel in the spill samples establishes, unequivocally, that Tesoro could not be responsible for this spill.

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Conclusion

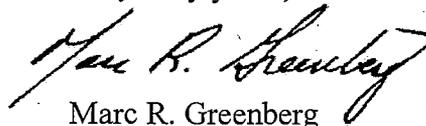
Tesoro has incorporated the state-of-the-art leak prevention system with the use of ILI technology and the state-of-the-art leak detection system with its purchase of the ATMOS system for this pipeline. Presumably, one of the benefits of investing in the state-of-the-art leak prevention and leak detection technology is that when a regulatory agency is investigating a mystery spill the company can confidently establish that it is not a potential source. The State Board should reward companies that invest in state-of-the-art systems by respecting the evidence provided by those systems.

Tesoro's leak prevention and leak detection systems alone prove that Tesoro could not have been a source of the mystery spill in the Dominguez Channel. However, even if the State Board were to disregard Tesoro's leak prevention efforts and leak detection efforts, Dr. Uhler's report unequivocally establishes that Tesoro's jet fuel pipeline could not have possibly been a source because the state-of-the-art forensic analysis by the U.S. Coast Guard reveals that there is no jet fuel present in the spill sample. The Regional Board has not presented any evidence to the contrary to justify the continued inclusion of Tesoro in this investigation.⁴

Based on the above, Tesoro respectfully requests that the State Water Resources Control Board overturn the Regional Water Quality Control Board's Orders to Tesoro with respect to the Dominguez Channel spill near Carson Street, Carson California.

We thank you for your time and attention to this matter. Please feel free to contact me should you have any questions or require additional information.

Very truly yours,



Marc R. Greenberg
marc.greenberg@kyl.com

MRG (KYL_LB1407955)

⁴ The only reason that has been given for the inclusion of Tesoro in the Order is the proximity of the Pipeline 21 to the spill site. Pursuant to Cal. Water Code Sec. 13267, the Regional Board was required to provide a written explanation with regard to the need for the reports and identify all of the evidence that supports requiring that Tesoro provide such reports.

EXHIBIT A



California Regional Water Quality Control Board Los Angeles Region



Linda S. Adams
Acting Secretary for
Environmental Protection

320 West Fourth Street, Suite 200, Los Angeles, California 90013
(213) 576-6600 • FAX (213) 576-6640
<http://www.waterboards.ca.gov/losangeles>

Edmund G. Brown Jr.
Governor

April 26, 2011

Mr. Daniel Gabel
Tesoro Corporation
1930 E. Pacific Coast Highway
Wilmington, CA 90744-2911

**SUBJECT: REQUIREMENT FOR TECHNICAL REPORT – PURSUANT TO CALIFORNIA
WATER CODE SECTION 13267 ORDER**

**SITE/CASE: DOMINGUEZ CHANNEL, SOUTH OF CARSON STREET
CARSON, CALIFORNIA**

Dear Mr. Gabel:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the public agency with primary responsibility for the protection of groundwater and surface water quality for all beneficial uses within major portions of Los Angeles and Ventura counties, including the referenced Site. To accomplish this, the Regional Board oversees the investigation and cleanup of unregulated discharges adversely affecting the State's water, authorized by the Porter-Cologne Water Quality Control Act (California Water Code [CWC], Division 7).

Since January 2011, light non-aqueous phase liquids (LNAPL) have been appearing within the Dominguez Channel in Carson, California, approximately 400 feet south of Carson Street. The petroleum product has been observed (1) entering into channel waters from sediments within the bottom of the channel and (2) within horizontal, perforated sub-drain pipe systems installed within both the west and east channel levees.

This Regional Board has been working in collaboration with other agencies, under United States Environmental Protection Agency (USEPA) lead, to facilitate the assessment and remedy of the release. As the channel owner and operator, the Los Angeles County Department of Public Works (LADPW) has been performing containment operations using booms and absorbent pads in the channel. In addition to the recovery of released product to channel waters, this Regional Board has requested that LADPW extract LNAPL from the sub-drain piping systems on both sides of the channel.

Samples of product entering channel waters from sediments in the bottom of the channel have been determined to contain primarily gasoline-range hydrocarbons, with smaller fractions of heavier-end (diesel- and oil-range) hydrocarbons. Product examined from the western sub-drain system was observed to be approximately 0.25 inch thick on one occasion with a clear and colorless appearance. Product examined from the eastern sub-drain system was observed to be dark brown to black and translucent. Based upon the variation in the visual appearance of the product, this Regional Board suspects that multiple releases of petroleum may be involved. The sources of the release have not been identified.

California Environmental Protection Agency

Mr. Daniel Gabel
Tesoro Corporation

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April 26, 2011

We have determined that, to protect the beneficial uses of the waters beneath the Site, an assessment of the full extent of impacts to the subsurface from the identified contaminants of concern is required.

Enclosed is a Regional Board Order requiring, pursuant to section 13267 of the CWC, that you complete assessments of the contaminants of concern impacting soil, soil vapor, and groundwater at the Dominguez Channel and determine the extent to which your facility may have contributed to the release.

Similar Orders are being sent to multiple suspected Responsible Parties in the vicinity of the release, including you. The attached Order includes a table that lists these parties. At your discretion, you may collaborate with some or all of the other parties to satisfy the requirements of the Order.

If you have any questions, please contact Mr. Greg Bishop at (213) 576-6727 or gbishop@waterboards.ca.gov.

Sincerely,

Samuel Unger, P.E.
Executive Officer

Enclosure



Linda S. Adams
Acting Secretary for
Environmental Protection

California Regional Water Quality Control Board Los Angeles Region

320 West Fourth Street, Suite 200, Los Angeles, California 90013
(213) 576-6600 • FAX (213) 576-6640
<http://www.waterboards.ca.gov/losangeles>



Edmund G. Brown Jr.
Governor

REQUIREMENT TO PROVIDE A TECHNICAL REPORT ON SOIL AND GROUNDWATER INVESTIGATION (CALIFORNIA WATER CODE SECTION 13267¹)

DIRECTED TO "TESORO CORPORATION"

PIPELINE 0366
ADJACENT TO WEST SIDE OF THE DOMINGUEZ CHANNEL
NEAR CARSON STREET
CARSON, CALIFORNIA

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

Since January 2011, light non-aqueous phase liquids (LNAPL) have been appearing within the Dominguez Channel in Carson, California, approximately 400 feet south of Carson Street. The petroleum product has been observed (1) entering into channel waters from sediments within the bottom of the channel and (2) within horizontal, perforated sub-drain pipe systems installed within both the west and east channel levees.

Pursuant to section 13267(b) of the California Water Code (CWC), you are hereby directed to submit the following:

1. By **June 8, 2011**, a work plan to delineate the vertical and lateral extent of petroleum impact in the vicinity of the release. The work plan shall be prepared with the intent of determining (1) the extent of petroleum impact from the Site and (2) if your facility has contributed to the release in the Dominguez Channel. The work plan shall place an emphasis on expedient groundwater delineation but shall also include plans to delineate soil and soil gas impacts. The work plan shall propose initial sampling locations, describe proposed sampling and analytical techniques, provide a proposed timeline for activities, and include provisions for follow-up work in the event the proposed work does not sufficiently define the extent of impact.
2. After approval by the Regional Board Executive Officer, implement the work plan and report results in accordance with the approved work plan schedule.

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

The work plan shall be submitted via e-mail (in portable document format [pdf]) with one paper hard-copy to:

Mr. Greg Bishop, P.G.
Engineering Geologist
Regional Water Quality Control Board – Los Angeles Region
320 W. 4th Street, Los Angeles, CA 90013
(213) 576-6727
gbishop@waterboards.ca.gov

Pursuant to section 13268(b)(1) of the CWC, failure to submit the required technical or monitoring report described in paragraph 1 above may result in the imposition of civil liability penalties by the Regional Board, without further warning, of up to \$1,000 per day for each day the report is not received after the due dates.

The Regional Board needs the required information to determine (1) the extent of petroleum impact beneath and near the ongoing release within the Dominguez Channel, approximately 400 feet south of Carson Street in Carson, California and (2) whether your facility has contributed to the petroleum release.

The evidence supporting this requirement is your operation of a petroleum facility near the release site (see the attached table).

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

Please note that effective immediately, the Regional Board, under the authority given by California Water Code (CWC) section 13267, subdivision (b)(1), requires you to include a perjury statement in all reports submitted under the 13267 Order. The perjury statement shall be signed by a senior authorized Chevron Company representative (not by a consultant). The perjury statement shall be in the following format:

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

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

Mr. Daniel Gabel
Tesoro Corporation

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April 26, 2011

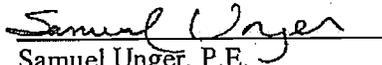
http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal.

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

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

SO ORDERED.


Samuel Unger, P.E.
Executive Officer

Enclosure: Recipients of CWC Section 13267 Orders Associated with a Petroleum Release near Carson Street in Dominguez Channel, Carson, California, April 26, 2011

EXHIBIT B



California Regional Water Quality Control Board Los Angeles Region



Linda S. Adams
Acting Secretary for
Environmental Protection

320 West Fourth Street, Suite 200, Los Angeles, California 90013
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Edmund G. Brown Jr.
Governor

May 10, 2011

Mr. Daniel Gabel
Tesoro Corporation
1930 E. Pacific Coast Highway
Wilmington, CA 90744-2911

**SUBJECT: SITE CLEANUP PROGRAM OVERSIGHT COST REIMBURSEMENT
ACCOUNT**

SITE/CASE: DOMINGUEZ CHANNEL RELEASE, CARSON, CALIFORNIA (SCP NO. 1262)

Dear Mr. Gabel:

The California Regional Water Quality Control Board (Regional Board), Los Angeles Region, is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial uses within major portions of the Los Angeles and Ventura Counties, including the referenced site.

Since January 2011, light non-aqueous phase liquids (LNAPL) have been appearing within the Dominguez Channel in Carson, California, approximately 400 feet south of Carson Street in the vicinity of your petroleum infrastructure. The petroleum product has been observed (1) entering into channel waters from sediments within the bottom of the channel and (2) within horizontal, perforated sub-drain pipe systems installed within both the west and east channel levees. On April 26, 2011, this Regional Board issued a California Water Code (CWC) Section 13267 Order to you to provide a work plan to investigate the extent to which your facility may have impacted the subsurface in the vicinity of the release.

Section 13304 of the CWC (Porter Cologne Act) allows the Regional Board to recover reasonable expenses from a responsible party or parties for overseeing the investigation and cleanup of unregulated discharges adversely affecting the State's waters. In compliance with Section 13365 of the California Water Code, this letter is being sent to provide you the following information regarding costs for regulatory oversight work.

I. Estimate of Work To be Performed

The Regional Board staff estimates that during the Regional Board's 2010/2011 fiscal year (July 1, 2010 to June 30, 2011), regulatory oversight work may include but not limited to the following tasks to be performed at the site:

1. Review technical reports and determine if the contamination sources and plumes are fully delineated vertically and laterally;
2. Request and review of additional assessment workplans and reports, detailed remediation design and installation plan, progress and monitoring reports, risk assessment workplans and reports, and other technical reports as necessary;
3. Prepare comment letters on various reports and communicate findings to responsible parties;

California Environmental Protection Agency

4. Conduct site inspections, collect split samples, and attend meetings with environmental consultants and responsible parties; and
5. Conduct internal and external communications (i.e. meetings, memos) about or related to the site.

II. Statement of Expected Outcome

The expected outcome of work that will be performed includes providing written comments on the submitted reports and workplans, verifying the adequacy of reports, and determining the need to further investigate the impact to soil and groundwater as well as risk to human health and environment, and responding to public inquires about site investigations and cleanups as needed.

III. Billing Rate

Attached are the Site Cleanup Program, Monthly Salary Scales by Job Classification (Attachment 1) for employees expected to perform the work and the Reimbursement Process for Regulatory Oversight (Attachment 2). The names and classifications of employees that charge time to this site will be listed on the invoices. The average billing rate is about \$150.00 per hour.

IV. Estimation of Expected Charges

- A. Regional Board staff expects to charge about 40 hours for work related to this site during fiscal year 2010/2011. Based on the average billing rate of \$150.00 per hour, the estimated billing charge by the Regional Board staff for this site during this fiscal year is about \$6,000, which does not include possible contract charges stated in B (below). **Please note that this is neither a commitment nor a contract for regulatory oversight. It is only an estimate of the work, which may be performed.**
- B. To better evaluate the potential health risk from the detected or residual contaminants posed to the current/future occupants of the site and the immediate site vicinity, the Regional Board has established a contract with the State Office of Environmental Health Hazard Assessment (OEHHA), to have their toxicologists review the submitted health risk assessment reports. OEHHA will review, evaluate if appropriate, and provide comments on risk assessment reports. When requested, OEHHA toxicologists will provide the Regional Board consultation services on issues concerning human health and/or environmental risks.

Under the Cost Recovery Program, the responsible party (parties) is (are) required to reimburse the Regional Board for the cost incurred by OEHHA review. Occurred charges by OEHHA staff will be included in our invoices under the contract charges category. All quarterly invoices generated for this project will be sent to your provided billing contact by the Site Cleanup Program (SCP), State Water Resources Control Board.

V. Landowner Notification and Participation Requirements

Pursuant to Division 7 of the Porter Cologne Water Quality Control Act under section 13307.1, the Regional Board is required to notify all current fee title holders for the subject site prior to considering corrective action or granting case closure. Therefore, you are required to provide the name, mailing address and telephone numbers for all record fee title holders for the site together with a copy of county record of current ownership, available from the County Recorder's Office, or complete the attached Certification Declaration Form (Attachment 3) and submit it to our office.

Please sign and return the enclosed landowner's information (Attachment 3) and "Acknowledgment of Receipt of Cost Reimbursement Account Letter" (Attachment 4) to Mr. Greg Bishop (case manager) of the Regional Board by **May 31, 2011**.

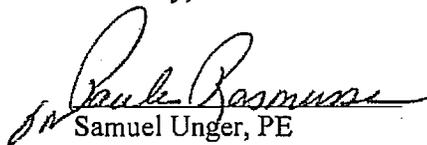
VI. Other Requirements

1. **Change of Ownership:** You must notify the Executive Officer, in writing at least 30 days in advance of any proposed transfer of this cost reimbursement account's responsibility to a new owner containing a specific date for the transfer. In addition, you shall notify the succeeding owner of the existence of this cost reimbursement account by letter, copy of which shall be forwarded to the Board.
2. **Public Participation:** With increased public interest in our programs and the public knowledge of threat to human health and the environment, the Regional Boards are increasing our effort in getting the public more involved in our decision making process. The Regional Boards are also required to involve the public in site cleanup decisions under State law (including Health & Safety Code section 25356.1). You may be required to prepare and implement a public participation plan. Regional Board staff will provide you with additional guidance as appropriate.
3. **Electronic Submittals:** In September 2004, the State Water Resources Control Board adopted regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, California Code of Regulation) requiring the electronic submittal of information (ESI) for all site cleanup programs, starting January 1, 2005. Currently, all of the information on electronic submittals and Geotracker contacts can be found at http://www.waterboards.ca.gov/ust/electronic_submittal.

Due to resource constraints at this time, we request that you continue to submit hard copies of all documents and data in addition to ESI to GeoTracker, until further notice.

If you have any questions, please contact Mr. Greg Bishop at (213) 576-6727 (gbishop@waterboards.ca.gov).

Sincerely,


Samuel Unger, PE
Executive Officer

Attachments:

1. Monthly Salary Scales by Job Classification
2. Reimbursement Process for Regulatory Oversight
3. Certification Declaration Form
4. Acknowledgment of Receipt of Cost Reimbursement Account Letter

Attachment 1

**SITE CLEANUP PROGRAM (SCP)
BILLING COST EXPLANATION**

Employee Salary and Benefits by Classification	¹ ABR	SALARY SCALE
Associate Governmental Program Analyst	AGPA	5,852 – 7,113
Engineering Geologist	EG	9,213 – 11,201
Environmental Scientist	ES	4,092 - 7,596
Office Assistant (G)	OA	2,758 - 3,684
Office Assistant (T)	OA	2,850 - 3,759
Office Technician (G)	OT	3,509 - 4,268
Office Technician (T)	OT	3,572 - 4,341
Principal Water Resources Control Engineer	PWRCE	13,090 - 14,434
Sanitary Engineering Associate	SEA	6,597 - 8,016
Sanitary Engineering Technician	SET	4,543 - 6,339
Senior Engineering, Water Resources	SWRCE	9,811 – 13,090
Senior Engineering Geologist	SEG	10,802 – 13,127
Senior Environmental Scientist	SRES	7,248 - 8,749
Senior Water Resources Control Engineer	SRWRCE	10,802 - 13,127
Staff Counsel	STCOUN	6,216 – 10,411
Staff Counsel III	STCOUNIII	10,217 – 12,606
Staff Counsel IV	STCOUNIV	11,286 – 13,934
Staff Environmental Scientist	SES	7,242 - 8,745
Student Assistant	SA	2,663 - 2,938
Student Assistant Engineer	SAE	2,663 - 3,985
Supervising Engineering Geologist	SUEG	10,769 - 13,090
Supervising Water Resources Control Engineer	SUWRCE	10,769 – 13,090
Water Resources Control Engineer	WRCE	7,883 - 11,144

Operating Expenses and Equipment ² (both Headquarters and Regional Board offices)

Indirect Costs (Overhead – cost of doing business) 135%

Billing Example

Water Resources Control Engineer		
Salary:	\$	11,144
Overhead (indirect costs):	\$	<u>15,044</u>
Total Cost per month	\$	26,188.

Divided by 176 hours per month equals per hour: \$ 148.80

(Due to the various classifications that expend SCP resources. An average of \$ 150.00 per hour can be used for projection purposes.)

¹ The name and classification of employees performing oversight work will be listed on the invoice you receive.

² The examples are estimates based on recent billings. Actual charges may be slightly higher or lower.

REIMBURSEMENT PROCESS FOR REGULATORY OVERSIGHT

We have identified your facility or property as requiring regulatory cleanup oversight. Pursuant to the Porter-Cologne Water Quality Control Act, reasonable costs for such oversight can be recovered by the Regional Water Quality Control Board (RWQCB) from the responsible party. The purpose of the enclosure is to explain the oversight billing process structure.

INTRODUCTION

The Porter-Cologne Water Quality Control Act authorizes the State Water Resources Control Board (SWRCB) to set up Cost Recovery Programs. The Budget Act of 1993 authorized the SWRCB to establish a Cost Recovery Program for Site Cleanup Program (SCP). The program is set up so that reasonable expenses incurred by the SWRCB and RWQCBs in overseeing cleanup of illegal discharges, contaminated properties, and other unregulated releases adversely impacting the State's waters can be reimbursed by the responsible party. Reasonable expenses will be billed to responsible parties and collected by the Fee Coordinator at the SWRCB in the Division of Financial Assistance (DFA).

THE BILLING SYSTEM

Each cost recovery account has a unique Site ID number assigned to it. Whenever any oversight work is done, the hours are entered into the SCP Cost Recovery/daily logs database. The cost of the staff hours is calculated by the State Accounting System based on the employee's salary and benefit rate and the SWRCB overhead rate.

SWRCB and RWQCB Administrative charges for work such as accounting, billing preparation, general program meetings and program specific training cannot be charged directly to an account. This work will be charged to Administrative accounting codes one per Region. The Accounting Office totals these administrative charges for the billing period and distributes them back to all of the accounts based on the number of hours charged to each account during that billing period. These charges show as State Board Program Administrative Charges and Regional Board Program Administrative Charges on the Invoice.

The current billing period charges will include associated labor costs, risk assessment contract charges, overhead charges, SWRCB/DFA Administrative charges, and RWQCB Administrative charges. The overhead charges are based on the number of labor hours charged to the account. The overhead charges consist of rent, utilities, travel, supplies, training, and accounting services. Most of these charges are paid in arrears. The Accounting Office keeps track of these charges and distributes them back monthly to only those accounts having Labor hours charged to them for the period being billed. No site will be billed for overhead during a billing period unless Labor hours have been posted to the RWQCB employee's daily logs residing in the SCP Cost Recovery database.

Invoices are issued quarterly, one quarter in arrears. If a balance is owed, a check is to be remitted to the SWRCB with the invoice remittance stub within 30 days after receipt of the invoice. The Fee Coordinator inputs a record of all checks received directly or by the Accounting Office on a daily basis.

Copies of the invoices are sent to the appropriate RWQCBs so that they are aware of the oversight work invoiced. Questions regarding the work performed should be directed toward your RWQCB case worker.

DISPUTE RESOLUTION

If a dispute regarding oversight charges cannot be resolved with the RWQCB, Section 13320 of the California Water Code provides a process whereby persons may petition the SWRCB for review of RWQCB decisions. Regulations implementing Water Code Section 13320 are found in the Title 23 of the California Code of Regulations, Section 2050.

DAILY LOGS

A detailed description (daily log) of the actual work being done at each specific site is kept by each employee in the Regional Water Board who works on the cleanup oversight at the property. This information is provided on the quarterly invoice using standardized work activity codes to describe the work performed. *Upon request, a more detailed description of the work performed is available from the RWQCB staff.*

REMOVAL FROM THE BILLING SYSTEM

After the cleanup is complete, the RWQCB will submit a closure form to the SWRCB to close the account. If a balance is due, the Fee Coordinator will send a final billing for the balance owed. The responsible party should then submit a check to the SWRCB to close the account.

AGREEMENT

No cleanup oversight will be performed unless the responsible party of the property has agreed in writing to reimburse the State for appropriate cleanup oversight costs and submitted to the RP. You may wish to consult an attorney in this matter. As soon as the letter is received, the account will be added to the active Site Cleanup program Cost Recovery billing list and oversight work will begin.



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
*Acting Secretary for
 Environmental Protection*

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

Edmund G. Brown Jr.
Governor

ATTACHMENT 3

CERTIFICATION DECLARATION FOR COMPLIANCE WITH FEE TITLE HOLDER NOTIFICATION REQUIREMENTS (California Water Code Section 13307.1)

Please Print or Type

Fee Title Holder(s): _____

Mailing Address: _____

Contact Person: _____

Telephone Number / Fax Number: _____

Site Name: _____

Address: _____

County Assessor Parcel Number (APN): _____

Contact Person: _____

Telephone Number / Fax Number: _____

File Number: _____ **SCP No. 1262**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (See attached page for who shall sign the Certification Declaration).

 Printed Name of Person Signing

 Official Title

 Signature

 Date Signed

California Environmental Protection Agency



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

The certification declaration form must be signed as follows:

1. For a corporation - by a responsible corporate officer, which means; (i) by a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy of decision making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
2. For a partnership or sole proprietorship - by a general partner or the proprietor respectively.
3. For a municipality, state, federal, or public agency - by either a principal executive officer or ranking elected official. A principal executive officer of a federal agency includes (i) the chief executive officer of the agency or (ii) a senior executive officer having responsibility for the overall operations or a principal geographic unit.



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Acting Secretary for
Environmental Protection

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Edmund G. Brown Jr.
Governor

ATTACHMENT 4

ACKNOWLEDGEMENT OF RECEIPT OF OVERSIGHT COST REIMBURSEMENT ACCOUNT LETTER

I, _____, acting within the authority vested in me as an authorized representative of _____, a corporation, acknowledge that I have received and read a copy of the attached *REIMBURSEMENT PROCESS FOR REGULATORY OVERSIGHT* and the cover letter dated **May 10, 2011**, concerning cost reimbursement for Regional Board staff costs involved with oversight of cleanup and abatement associated with the **Dominguez Channel release in Carson, California in Los Angeles County**. The release is occurring within the Dominguez Channel, approximately 400 feet south of Carson Street in Carson, California.

I understand the reimbursement process and billing procedures as explained in the letter. Our company is willing to participate in the cost recovery program and pay all subsequent billings in accordance with the terms in your letter and its attachments, *and to the extent required by law*. I also understand that signing this form does not constitute any admission of liability, but rather only an intent to pay for costs associated with oversight, *as set forth above, and to the extent required by law*. Billings for payment of oversight costs should be mailed to the following individual and address:

BILLING COMPANY _____

BILLING CONTACT _____

BILLING ADDRESS _____

TELEPHONE NO. _____ **E-Mail** _____

RESPONSIBLE PARTY'S SIGNATURE _____ (Signature)

_____ (Title)

DATE: _____

SCP NO. 1262	SITE ID NO.
---------------------	--------------------

California Environmental Protection Agency



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

EXHIBIT C



California Regional Water Quality Control Board

Los Angeles Region



320 West Fourth Street, Suite 200, Los Angeles, California 90013
(213) 576-6600 • FAX (213) 576-6640
<http://www.waterboards.ca.gov/losangeles>

Linda S. Adams
Acting Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

MEETING ATTENDANCE SHEET

Date: May 13, 2011

SCP Case No.: Dominguez Channel @ Carson St.

SUBJECT: Release Briefing / Investigation Kick-Off Meeting

Page 1

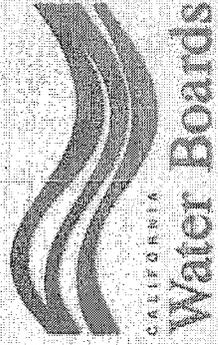
Name	Organization	Telephone	E-Mail
Greg Bishop	LARWQCB	(213) 576-6727	gbishop@waterboards.ca.gov
Ecd T	LACDPW	562 800-0310	eteran@cdpw.lacounty.gov
Mike Romley	CRIMSON Pipeline	562-595-9463	mjromley@crimsonpl.com
Paula Rasmussen	LA RWQCB	213-576-6741	prasmussen@waterboards.ca.gov
Art Heath	LA RWQCB	213-576-6725	aheath@waterboards.ca.gov
Matt Himmelstein	URS	714-648-2888	matt.himmelstein@urscorp.com
Rebecca Friend	URS	(949) 294-7099	rebecca_friend@urscorp.com
Marc Greenberg	Tesoro Counsel	562 436-2006	marc.greenberg@KYL.com
Jo-Anne Alvarez	TESORO	(310) 522-6195	Jo-Anne.J.Alvarez@tsocorp.com
Dan Gabel	Tesoro	(310) 522-8002	daniel.g.gabel@tsocorp.com
Kim Fowler	Tesoro	310 522 8663	Kim.W.Fowler@TsoCorp.com
Amy Gayland	Pillsbury for Chevron	415-983-7262	amy.gayland@pillsburyllaw.com
Pete Bergeron	Chevron EMC	925-790-6519	pete.bergeron@chevron.com
Jennifer Nobvi	URS	213-946-2451	jennifer_nobvi@urscorp.com
Holly Quasen	COP	949-637-1543	Holly.Quasen@contractor.conocophillips.com
Louis Moscoso	COP	562 990-1721	MOSCOSO@COP.AE
MARK REESE	CRIMSON PIPELINE	714 624-5301	MREESE@BEACONESI.COM
CAROL ACOX ANDERSON	CRIMSON PIC	562 595 9216	LWAACOXANDERSON@CRIMSONPL.COM
Sam Unger	RWQCB	213 576-6605	sunger@waterboards.ca.gov

California Environmental Protection Agency

Dominguez Channel Release

Overview of Conditions and
Subsurface Investigation Requirements

May 13, 2011



Dominguez Channel Release Location Carson, California



**DOMINGUEZ CHANNEL
SURFACE RELEASE
LOCATION**



Release Overview

- **Petroleum Daylighting**
 - Petroleum sheen on water surface
 - Primarily lighter-end hydrocarbons (not exclusively)
 - Discovered in January 2011
 - Release still occurring
 - Occurs at low tides



Release Overview

- Agencies
 - U.S. Environmental Protection Agency
 - California Department of Fish and Game
 - Regional Water Quality Control Board
 - California Department of Forestry and Fire Protection (CalFire)
 - South Coast Air Quality Management District
 - Los Angeles County Fire Department
 - City of Carson



Release Overview

- Los Angeles County Department of Public Works (LADPW)
 - Responsible for product containment/removal from channel
 - Channel owner
- Neighbor Complaints
 - Strong odors
 - Residential

Press Coverage

Daily Breeze - Saturday, April 30, 2011

Oil firms told to create plan to fix leak

CARSON: Source of petroleum products bubbling in Dominguez Channel...

PRESSTELEGRAM.COM SATURDAY, APRIL 30, 2011

Oil products are polluting channel to sea

CARSON: Experts haven't determined which of seven companies is at fault.

By Sandy Mazza Staff Writer

The Carson Street bridge stretches over troubled waters. An oily sheen was reported floating along the surface of the Dominguez Channel just below Carson's main thoroughfare a few months ago.

Investigators haven't been able to pin down the source of the problem, but they've determined the substance is petroleum products — mostly gasoline — bubbling up from beneath the sediment in the riverbed. Since January, they have been containing it with floating booms and absorbing the oil with pads.

This week, the Los Angeles Regional Water Quality Control Board ordered seven oil companies that operate pipelines and storage tanks in the

developing a plan to clean the soil below the 44-acre Carousel housing tract, which is highly contaminated from a former oil storage tank farm at the site. That area, near Lomita and Avalon boulevards, is not far from the Dominguez Channel site.

Across town, at the Harbor (110) Freeway and Torrance Boulevard the Carson Town Center office and industrial plaza was built on top of the former Golden Eagle Refinery. Near that site, on a 157-acre lot between the San Diego Freeway and Main Street, the city is treating and transforming a former landfill into a major retail center called Boulevards at South Bay. That lot is one of 15 known inactive landfills across the city.

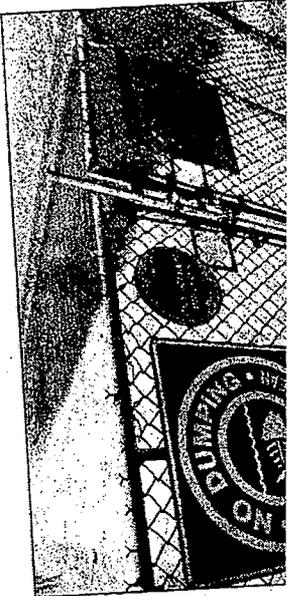
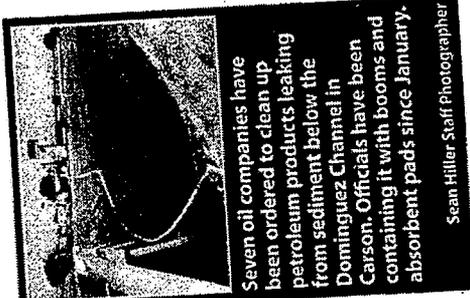
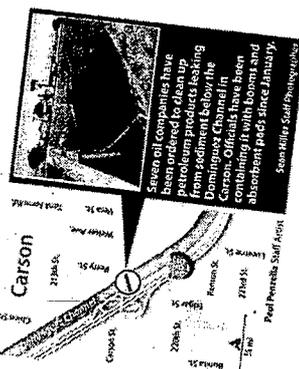
Contamination of the Dominguez Channel, which flows to the ocean — and the groundwater beneath, which can be used for drinking water — can endanger ocean life and the availability of potable water in a state with limited supplies. A 2001 study of the state's groundwater resources by Natural Resources Defense Council found that there is "an appar-

... and said the smell of oil sometimes wafts through the home. "Whenever there's the slightest breeze, an odor is carried to the boat. Whenever I'm out on the water, I get a breeze from the ocean."

... about workers have been cleaning up on a daily basis, but the oil still is up and smelly during low tides. Los Angeles County Flood Control District Supervisor Hector Borjas said, "Bubbling leaks are coming from the sediment at an estimated rate of several gallons per hour, Borjas said. Petroleum products somehow made its way into the water, he said. "There is gasoline coming from somewhere."

What is not mysterious is the theory of contamination in Carson. Problems date back more than 40 years prior to its incorporation, when it was used as a dumping ground for undesirable materials, dumps, auto dismantling plants, oil storage tanks and other industrial operations. The area has been the site of these industries since the effects of decades of environmental abuse.

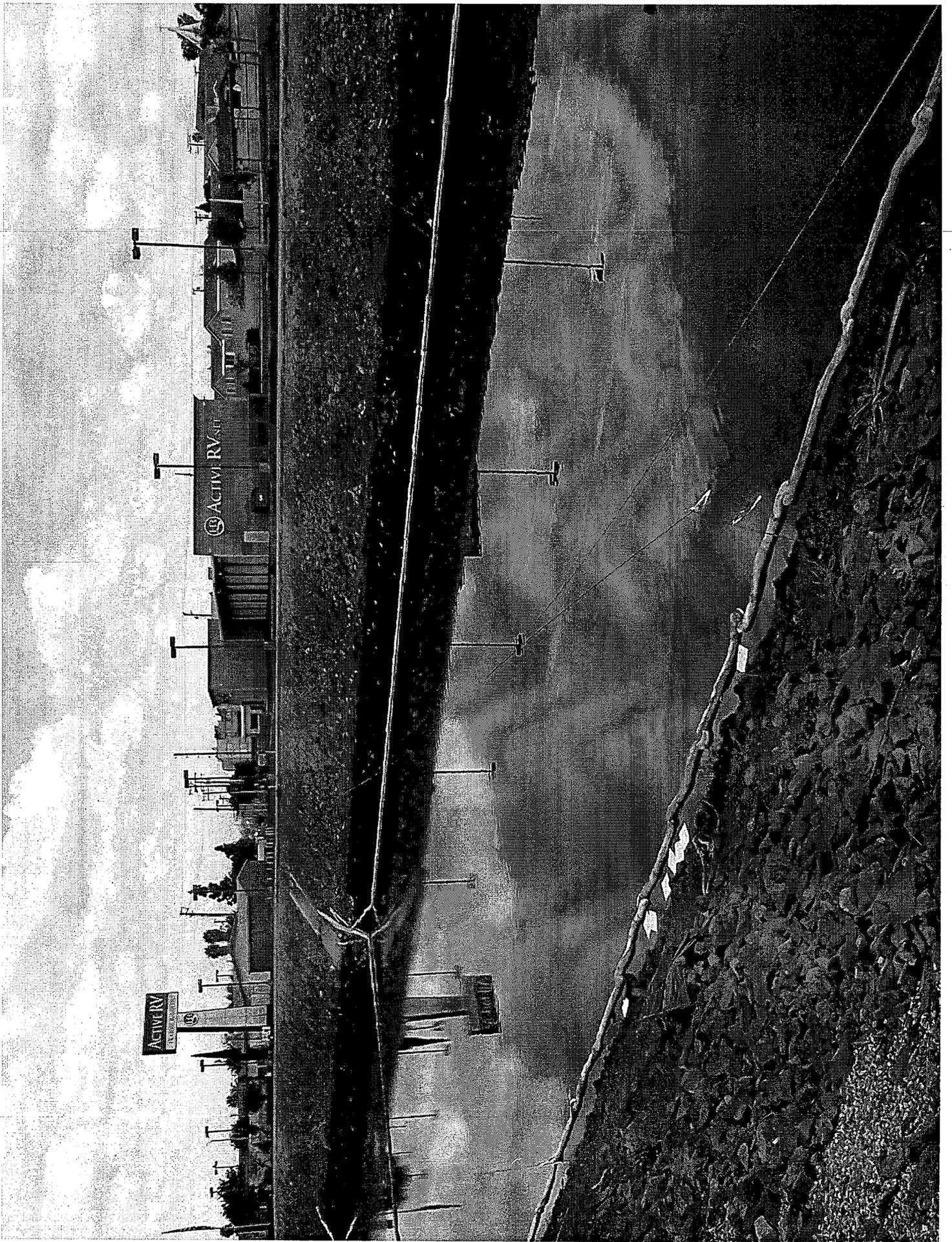
Oil Co. is currently planning a plan to clean the 44-acre Carousel tract, which is highly contaminated and from a former

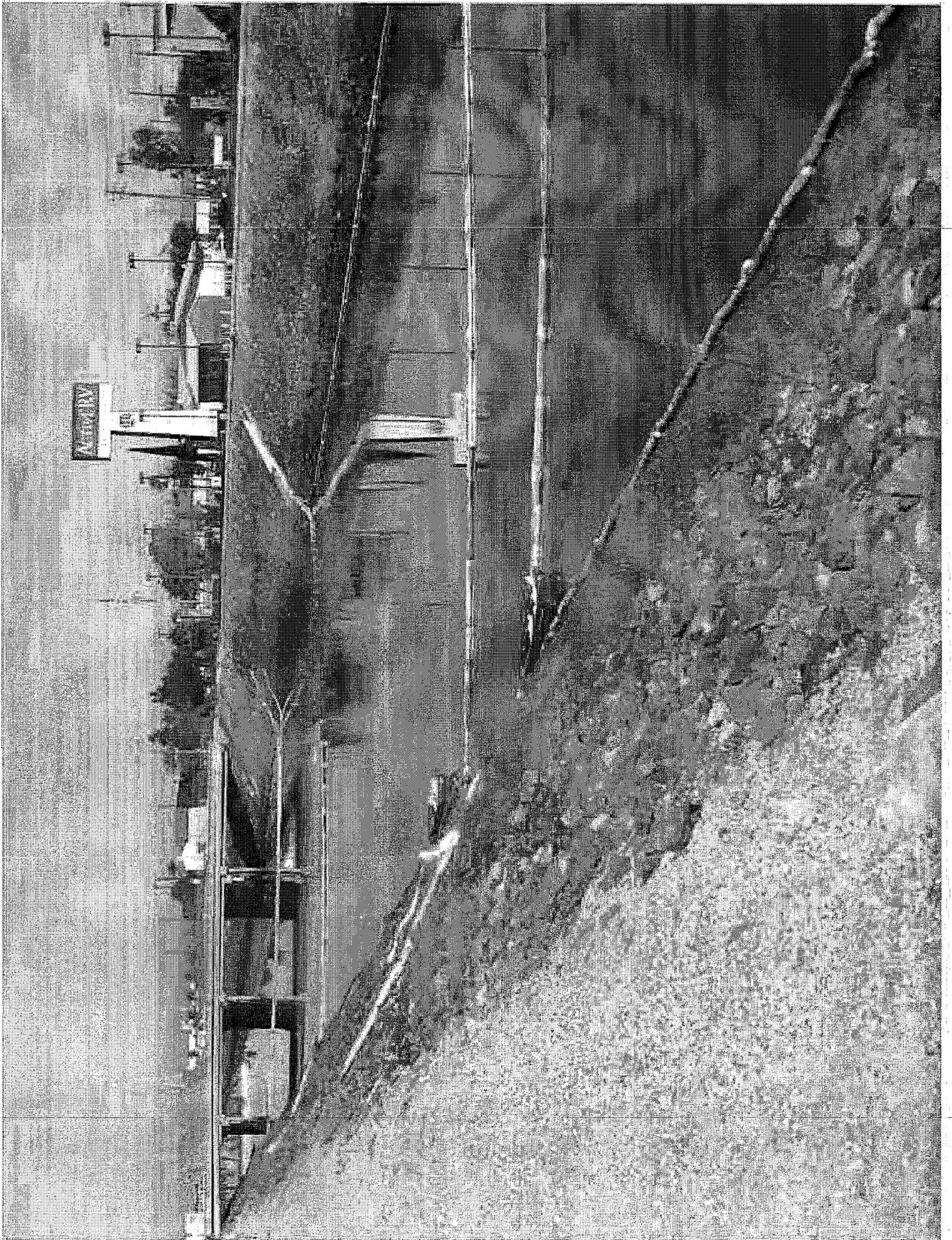


- Daily Breeze — 4/30/2011
- Press-Telegram — 4/30/2011

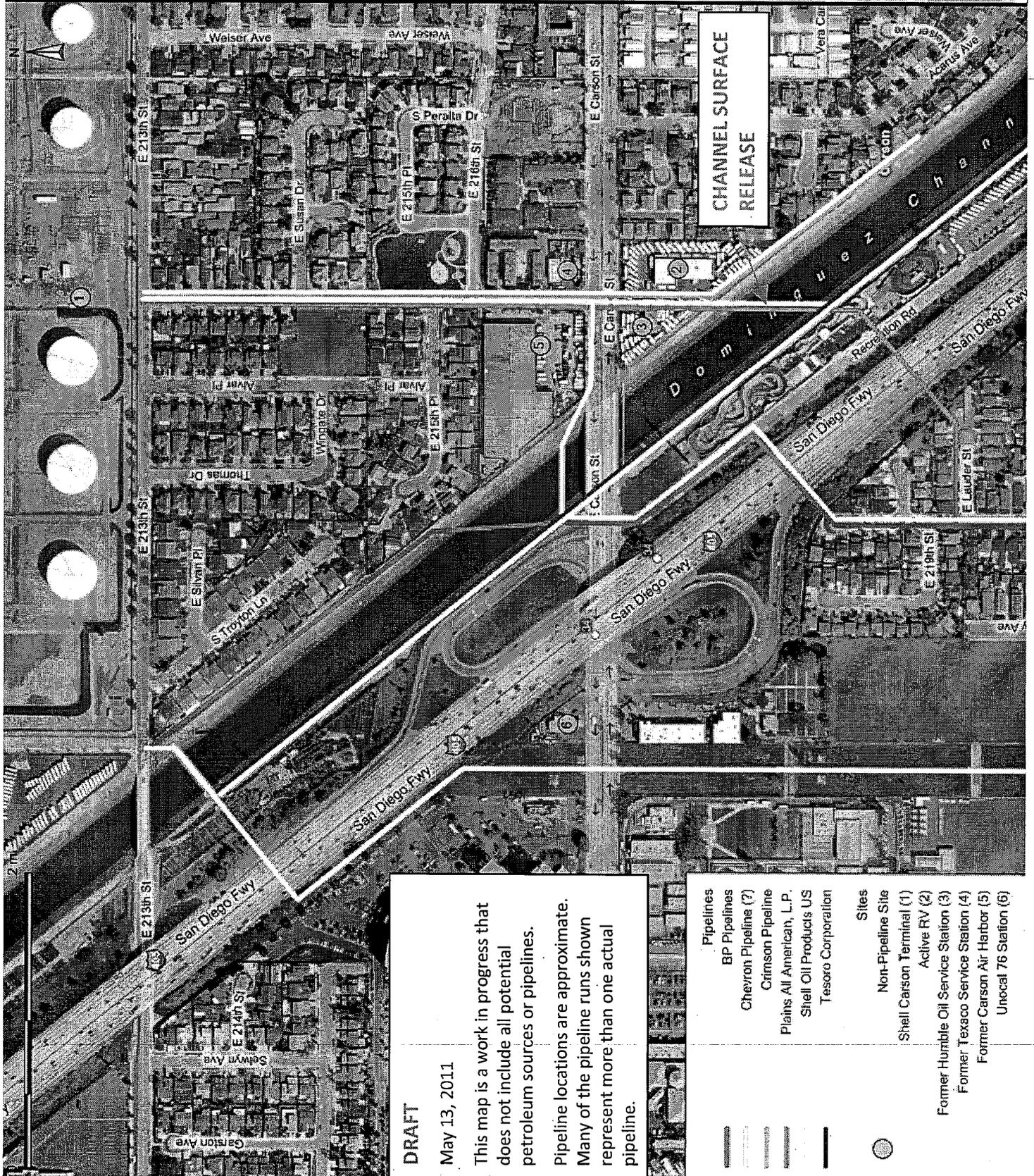


Water Boards





Dominguez Channel Release Vicinity Facilities



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May 13, 2011

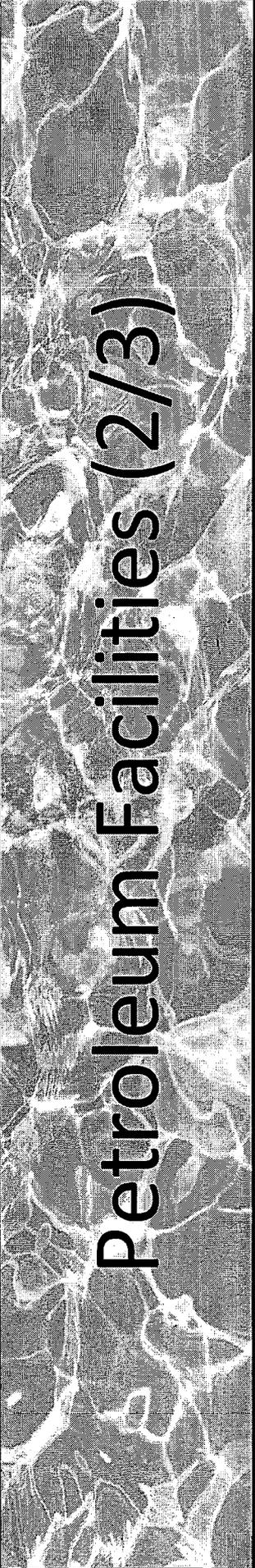
This map is a work in progress that does not include all potential petroleum sources or pipelines.

Pipeline locations are approximate. Many of the pipeline runs shown represent more than one actual pipeline.

- | | |
|---|---------------------------------------|
|  | Pipelines |
|  | BP Pipelines |
|  | Chevron Pipeline (2) |
|  | Crimson Pipeline |
|  | Plains All American, L.P. |
|  | Shell Oil Products US |
|  | Tesoro Corporation |
|  | Sites |
|  | Non-Pipeline Site |
|  | Shell Carson Terminal (1) |
|  | Active RV (2) |
|  | Former Humble Oil Service Station (3) |
|  | Former Texaco Service Station (4) |
|  | Former Carson Air Harbor (5) |
|  | Unocal 76 Station (6) |

Petroleum Facilities (1/3)

- Pipelines
 - Chevron EMC (former Union Oil)
 - Crimson Pipeline (former Union Oil)
 - Shell Oil Products US
 - Tesoro Corporation
 - BP Pipelines
 - Plains All American Pipeline, L.P.

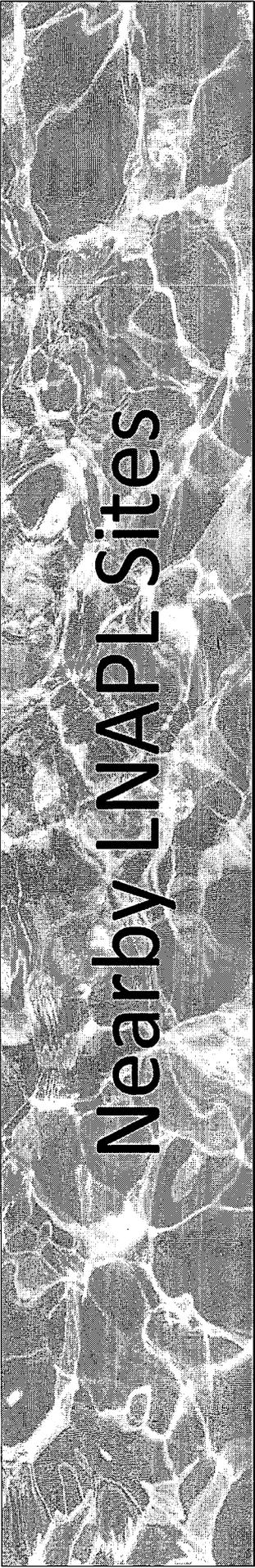


Petroleum Facilities (2/3)

- **Underground Storage Tanks (USTs)**
 - ConocoPhillips Company (Union 76 Station)
 - Prowell Family Trust (former Humble Oil Gas Station)
 - Chevron EMC (former Texaco service station)

Petroleum Facilities (3/3)

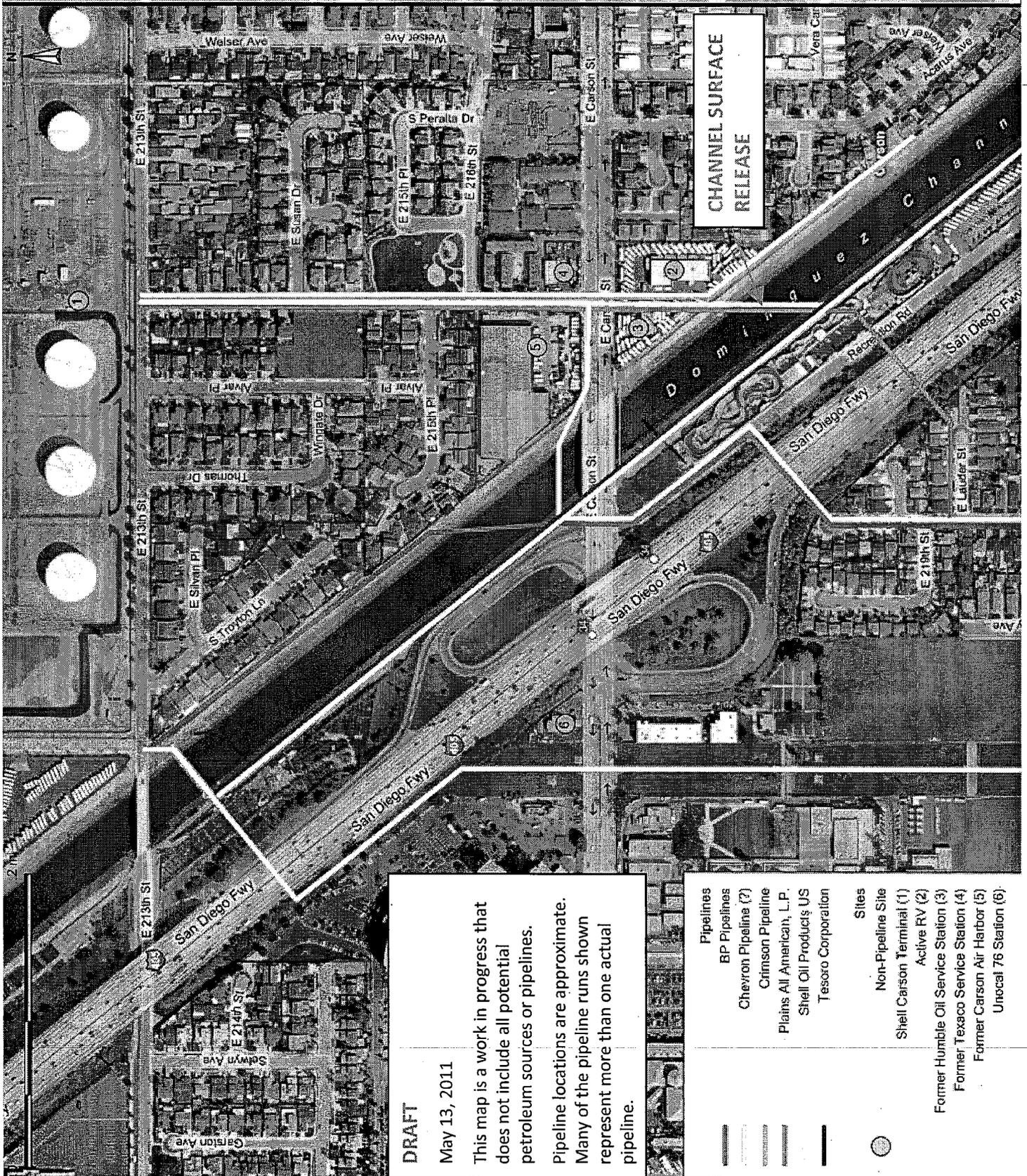
- Other
 - Shell Oil Products US (Carson Air Harbor)
 - Waste Oil Tank / Former Septic System
 - Shell Carson Terminal
 - Tank Farm (with pipeline connections)



Nearby LNAPL Sites

- **Perry Street (Shell Oil)**
 - Root casts
- **Carson Air Harbor (Shell Oil)**
 - In one well
 - ROST responses across southern half of site
- **Unocal 76 Station**
 - In GWM wells
- **Active RV**
 - Septic leach pit (1954)
- **Former Texaco (Chevron EMC)**

Dominguez Channel Release Vicinity Facilities



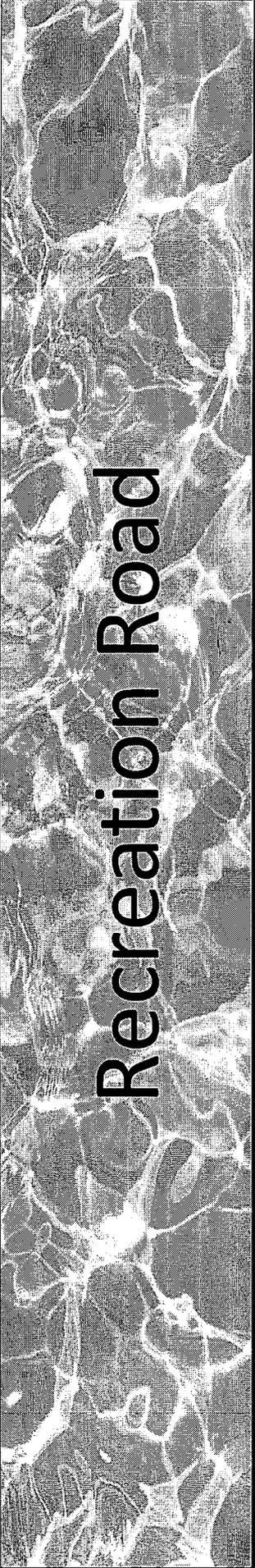
CHANNEL SURFACE
RELEASE

DRAFT

May 13, 2011

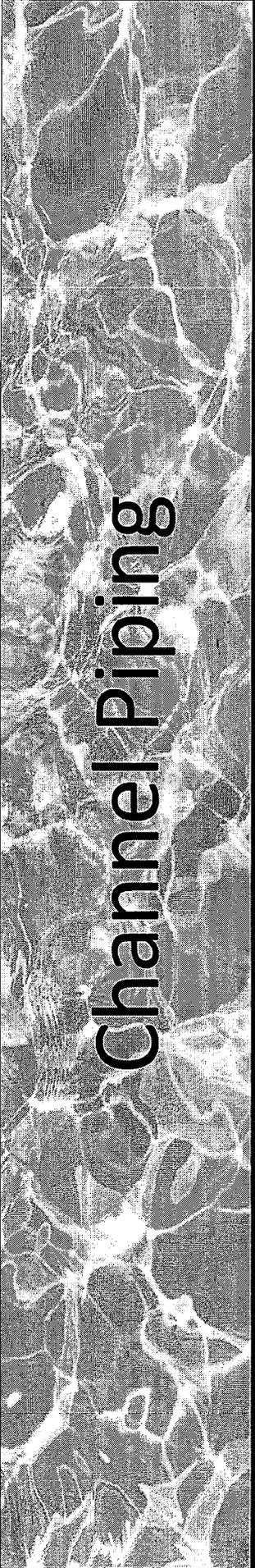
This map is a work in progress that does not include all potential petroleum sources or pipelines. Pipeline locations are approximate. Many of the pipeline runs shown represent more than one actual pipeline.

-  Pipelines
-  BP Pipelines
-  Chevron Pipeline (?)
-  Crimson Pipeline
-  Plains All American, L.P.
-  Shell Oil Products US
-  Tesoro Corporation
-  Sites
-  Non-Pipeline Site
-  Shell Carson Terminal (1)
-  Active RV (2)
-  Former Humble Oil Service Station (3)
-  Former Texaco Service Station (4)
-  Former Carson Air Harbor (5)
-  Unocal 76 Station (6)



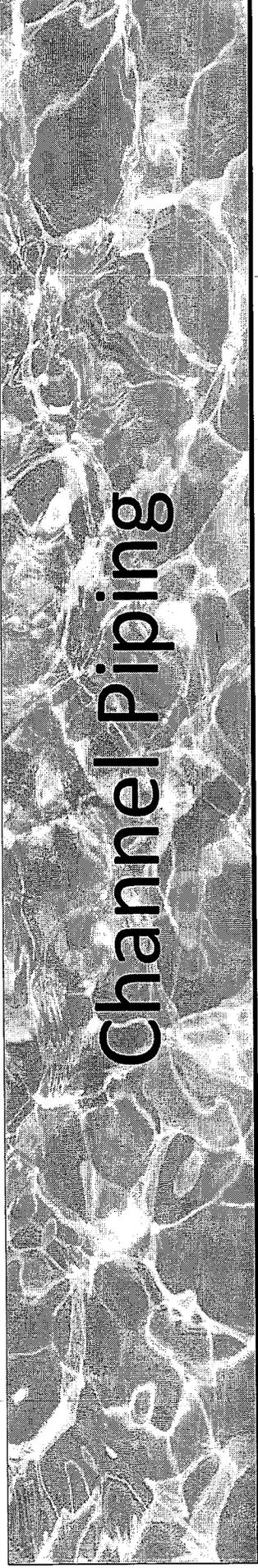
Recreation Road

- Recreation Road
 - City of Carson reported “substantial” petroleum impact during soil excavation in past.



Channel Piping

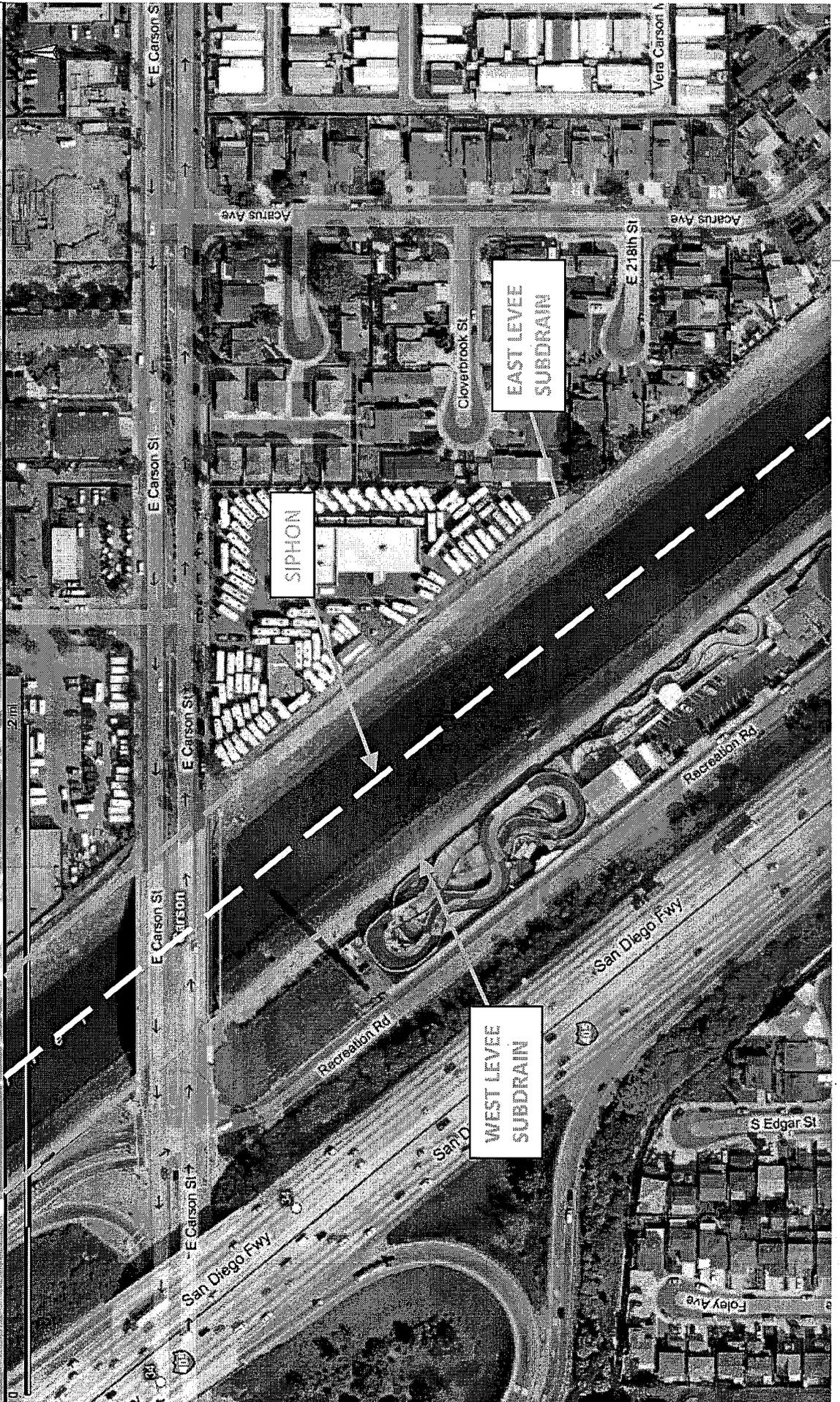
- Subdrain System
 - Horizontal piping on both sides of channel
 - Perforated
 - Approximately 20 feet down from levee tops
 - Horizontal drain to channel every 400' with manhole access
- Fuel in subdrain piping
 - Discharges to Channel at low tide
 - Different colors on east/west sides



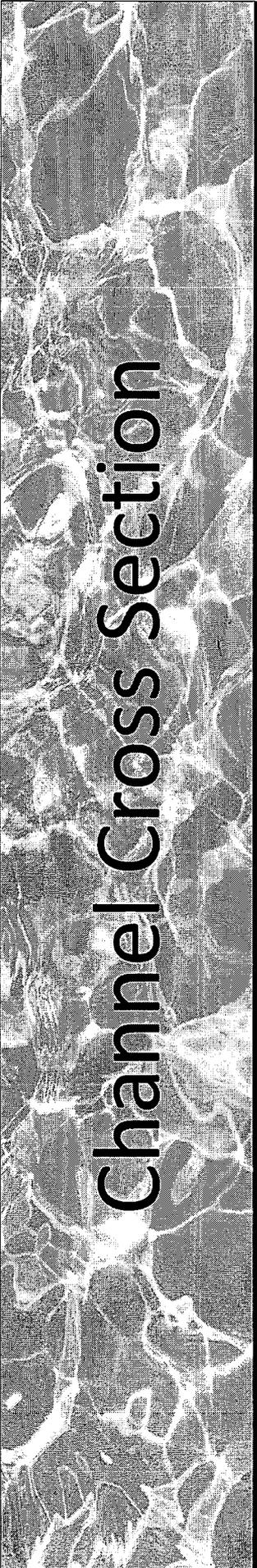
Channel Piping

- Siphon System
 - Below center of channel
 - Used for dewatering during channel construction

Dominguez Channel Subdrains and Siphon



Channel Cross Section



WEST

EAST

