



Legislation Text

File #: 2015-371, Version: 1

Report to Mayor and City Council

Tuesday, May 19, 2015

Unfinished Business

SUBJECT:

CONSIDER STATUS REPORT ON THE REGIONAL WATER QUALITY CONTROL BOARD ENVIRONMENTAL INVESTIGATION AND CARSON DECLARATION OF THE EXISTENCE OF A LOCAL EMERGENCY WITHIN THE CAROUSEL TRACT

I. SUMMARY

This item is on the agenda at the request of Mayor Pro Tem Santarina to provide updates at all regularly scheduled City Council meetings related to the environmental investigation of the Carousel Tract.

II. RECOMMENDATION

CONSIDER and DISCUSS.

III. ALTERNATIVES

TAKE such other action the City Council deems appropriate that is consistent with the requirements of law.

IV. BACKGROUND

On April 30, 2015, the Los Angeles Water Quality Control Board (Regional Board) Advisory Team issued a revised *Cleanup and Abatement Order No. R4-2011-0046* (CAO) to Dole Food Company, Inc. (Dole) and its wholly-owned subsidiary Barclay Hollander Corporation, now referred to as BHC, identifying them as responsible parties (Exhibit No. 1).

Any person aggrieved by this action of the Regional Board may petition the State Water Resources Control Board (State Water Board) to review the action. The State

Water Board must receive the petition by 5:00 p.m., 30 days after the date of the revised CAO (April 30, 2015). If the thirtieth day following the date of the revised CAO 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. The Regional Board is reviewing public comments and will issue responses in the foreseeable future.

As directed by City Council, staff is providing correspondences from the Regional Board, Barclay, Shell Oil (Shell), and Integrated Resource Management (IRM) from December 8, 2014 to April 30, 2015 (Exhibit No. 2).

Testing of property in the Carousel Tract is continuing and the latest reports are posted on the Regional Board's website at:

http://geotracker.waterboards.ca.gov/profile_report.asp?

As of March 10, 2015, the completed Residential Sampling Activity is as follows:

- 272 homes have been screened for Methane. (95%)
- 273 homes have had soils sampled and vapor probes installed. (96%)
- 273 homes have had vapor probes sampled. (95%)
- 261 homes have had indoor air sampled. (91%)
- 244 of 261 homes have had their 2nd round of indoor air sampling. (94%)

Timeline of Activities

A general timeline that tracks past and current activities of the Carousel Tract environmental investigation is included as (Exhibit No. 3).

V. FISCAL IMPACT

None.

VI. EXHIBITS

1. Correspondence from Regional Board dated April 30, 2015 (pgs. 4-69)
2. Correspondences from the Regional Board, Barclay, Shell, and IRM from
December 8, 2014 to April 30, 2015. (pgs. 70-241)

3. Carousel Tract Environmental Investigation Timeline. (pgs. 242-250)

Prepared by: Ky H. Truong, Public Safety and Community Services Manager



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

April 30, 2015

Michael Carter, President
Dole Food Company, Inc.
c/o Patrick W. Dennis, Esq.
Gibson, Dunn & Crutcher LLP
333 South Grand Avenue
Los Angeles, CA 90071-3197

Barclay Hollander Corporation
c/o Corporation Service Company
2710 Gateway Oaks Dr., Suite 150N
Sacramento, CA 95833

SUBJECT: REVISED CLEANUP AND ABATEMENT ORDER PURSUANT TO CALIFORNIA WATER CODE SECTION 13304, CLEANUP AND ABATEMENT ORDER NO. R4-2011-0046

SITE: FORMER KAST PROPERTY TANK FARM LOCATED SOUTHEAST OF THE INTERSECTION OF MARBELLA AVENUE AND EAST 244TH STREET, CARSON, CALIFORNIA (SCP NO. 1230, SITE ID NO. 2040330, CAO NO. R4-2011-0046) (Site)

Dear Mr. Carter:

The Regional Water Quality Control Board, Los Angeles Region (Regional Board), is the state regulatory agency responsible for overseeing the investigation and cleanup of sites in Los Angeles and Ventura Counties pursuant to the Porter-Cologne Water Quality Control Act and other applicable laws and regulations.

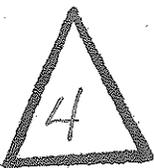
Procedural History:

The Regional Board issued Cleanup and Abatement Order R4-2011-0046 (2011 CAO) to Shell Oil Company (Shell) on March 11, 2011. The 2011 CAO required, among other tasks, that Shell continue its investigation of the Site, conduct pilot tests, conduct a human health risk assessment, and prepare and submit for Regional Board approval a proposed remedial action plan (RAP).

On October 31, 2013, Paula Rasmussen, Assistant Executive Officer of the Regional Board, who manages the Site Cleanup Program, issued a public notice providing the opportunity for interested persons to comment on proposed revisions to the 2011 CAO (Draft Revised CAO). The proposed revisions identified Barclay Hollander Corporation (BHC) as a responsible party. After receiving written comments in January 2014, Shell and BHC were provided an additional opportunity to respond to the comments received. BHC submitted extensive comments and evidence regarding the Draft Revised CAO to the Regional Board on both January 21, 2014 and June 30, 2014.

EXHIBIT NO. 1

ER



In response to comments received, the Regional Board Site Cleanup Program Staff modified the Draft Revised CAO. On December 8, 2014, the Regional Board Site Cleanup Program Staff sent a memorandum recommending that the Regional Board adopt the Draft Revised CAO which identifies BHC as a responsible party. Included with this memorandum, the Site Cleanup Program Staff provided a document responding to the comments received (Response to Comments), copies of comments received from BHC and Shell, and other documents in the administrative record for the proceeding.

Current Adjudicatory Proceeding:

I am the Chief Deputy Executive Officer of the Regional Board and am the decisionmaker in this proceeding, acting on behalf of the Regional Board through delegation by the Board of its authority to issue orders pursuant to Water Code sections 13304 and 13267. Dr. Eric Wu, Ph.D., P.E. (Senior Water Resources Control Engineer), Mr. Peter Raftery, P.G., C.Hg. (Engineering Geologist), and Ms. Nicole Kuenzi (Staff Counsel), are staff members of the advisory team assisting me. Neither I, nor any member of the advisory team, has participated in or received any *ex parte* communications regarding substantive or controversial procedural issues within the scope of this proceeding with or from the Site Cleanup Program Staff or other parties or interested persons, during the pendency of this proceeding.

After receipt of the December 8, 2014 memorandum from the Site Cleanup Program Staff, the Regional Board received several procedural requests related to the Board's consideration of the Draft Revised CAO. On January 9, 2015, the Regional Board provided an additional week for the parties and interested persons to respond to the various pending procedural requests. The Regional Board responded to the procedural requests on February 27, 2015. The Board requested additional information from the Site Cleanup Program Staff and allowed all parties and interested persons an additional comment period on new evidence accepted into the record. That comment period expired on April 2, 2015, after a one week extension requested by the Site Cleanup Program Staff.

On April 22, 2015, the Regional Board received a request from BHC urging the Board to defer any determination regarding the Tentative Revised CAO until after the depositions of certain members of the Site Cleanup Program Staff are completed in the case of *Adelino Acosta, et al. v. Shell Oil Company et al.*, Los Angeles County Superior Court, Case No. NC053643. In its letter of February 27, 2015, the Regional Board noted pending subpoenas for the depositions of Site Cleanup Program Staff members, and indicated that the Board would consider a request to accept those deposition transcripts into the evidentiary record for this proceeding should the depositions occur. The timing of the depositions, if they were to go forward, was not known at that time. As of its April 22 letter, BHC states that one deposition is currently scheduled for May 6-7, and another is to be scheduled sometime thereafter. Given that these depositions have not yet occurred, may be further postponed, and substantial additional time would be necessary to obtain certified transcripts and allow parties and interested persons a reasonable time to review and respond to the testimony, the Regional Board declines to postpone its decision regarding the Tentative Revised CAO.

Adoption of Revised Cleanup and Abatement Order No. R4-2011-0046:

The Regional Board has considered the evidence in the administrative record for this proceeding. Based on the weight of that evidence, the Regional Board concurs with the findings and rationale expressed in the Response to Comments issued by the Site Cleanup Program Staff on December 8, 2014, and adopts the Revised Cleanup and Abatement Order No. R4-



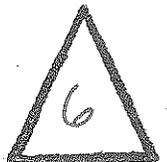
2011-0046, attached. Modifications to the December 8 Draft Revised CAO circulated by the Site Cleanup Program Staff are shown in wave underline and ~~double-strikethrough~~. These modifications are in response to comments on the Draft Revised CAO received by the Regional Board.

The modifications to the Draft Revised CAO include a finding by the Regional Board that BHC's activities at the Site not only violated Health and Safety Code section 5411, but also violated Fish and Game Code section 5650 and Los Angeles County Code section 20.36.010.¹ Fish and Game Code section 5650, as adopted in 1957, states, "It is unlawful to deposit in, permit to pass into, or place where it can pass into the waters of this State any of the following: (a) Any petroleum, acid, coal or oil tar, aniline, asphalt, bitumen, or residuary product of petroleum, or carbonaceous material or substance...." Los Angeles County Code section 20.36.010, as adopted in 1952, prohibits the "discharge or deposit or caus[ing] or suffer[ing] to be discharged or deposited at any time or allow[ing] the continued existence of a deposit of any material which may create a public nuisance, or menace to the public health or safety, or which may pollute underground or surface waters, or which may cause damage to any storm-drain channel or public or private property." BHC's activities in breaking up concrete reservoirs, ripping the reservoir floors, and moving soil at the Site permitted petroleum and related products to pass into, or placed where it could pass into, waters of the State. The activities also discharged and deposited, and allowed the continued existence of a deposit of, petroleum hydrocarbons that created a public nuisance, a menace to the public health and safety, pollution of underground waters, and damage to private property.

Revised Cleanup and Abatement Order No. R4-2011-0046 is issued pursuant to the authority of the Regional Board set forth in sections 13304 and 13267 of the California Water Code. Pursuant to California Water Code section 13350 and 13268, failure to comply with any of the requirements contained in this Order may result in the assessment of administrative civil liability of up to \$5,000 per day in which the violation occurs. These civil liabilities may be assessed by the Regional Board for failure to comply, beginning with the date that the violations first occurred, and without further warning. The Regional Board may also request that the Attorney General seek judicial civil liabilities, or injunctive relief and/or request the United States Attorney, appropriate county District Attorney, or City Attorney seek criminal prosecution.

Any person aggrieved by this action of the Regional Board may petition the State Water Resources Control Board (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.

¹ See footnote 15 of Revised Cleanup and Abatement Order No. R4-2011-0046.



If you have any questions regarding the information in this letter, please contact Ms. Nicole Kuenzi at (916) 322-4142 (nicole.kuenzi@waterboards.ca.gov).

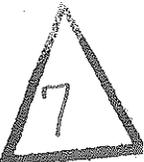
If you have any questions regarding Revised Cleanup and Abatement Order No. R4-2011-0046, please contact the project manager, Dr. Teklewold Ayalew, at (213) 576-6739 (tayalew@waterboards.ca.gov), or Ms. Thizar Tintut-Williams, Site Cleanup Unit III Chief, at (213) 576-6723 (twilliams@waterboards.ca.gov).

Sincerely,



Deborah J. Smith
Chief Deputy Executive Officer, Los Angeles Regional Water Board

Enclosures: Revised Cleanup and Abatement Order No. R4-2011-0046
Revised Cleanup and Abatement Order No. R4-2011-0046 (strike through
version showing modifications)



Cc:

Mr. Samuel Unger
Executive Officer
sunger@waterboards.ca.gov

Mr. Robert Bowcock
Integrated Resource Management, Inc.
bbowcock@irmwater.com

Patrick Dennis, Esq.
Gibson Dunn & Crutcher LLP
PDennis@gibsondunn.com

Frances McChesney, Esq.
Senior Staff Counsel
Fmcchesney@waterboards.ca.gov

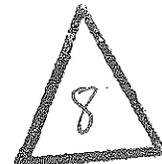
Krista Hernandez, Esq.
Gibson Dunn & Crutcher LLP
khernandez@gibsondunn.com

Michael Leslie, Esq.
Caldwell Leslie & Proctor, PC
leslie@caldwell-leslie.com

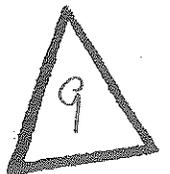
Deanne Miller, Esq.
Morgan, Lewis & Bockius LLP
dmliller@morganlewis.com

Interested parties e-mail list maintained by the Regional Board:

Bellomo, Angelo (LOS ANGELES COUNTY) <abellomo@ph.lacounty.gov>;
'Alan.Caldwell@shell.com';
'barb.post@sbcglobal.net';
'bbowcock@irmwater.com';
'BC7@fire.lacounty.gov';
'bjones@fire.lacounty.gov';
'caumais@girardikeese.com';
'chris.manzini@edelman.com';
'crangan@ph.lacounty.gov';
'derrick.mims@asm.ca.gov';
'ed.platt@shell.com';
'eramirez@ph.lacounty.gov';
'eric.boyd@mail.house.gov';
'jdear@carson.ca.us';
Carlisle, Jim@OEHHA <Jim.Carlisle@oehha.ca.gov>;
'kim.lesniak@shell.com';
'kkatona@bos.lacounty.gov';
'ktruong@carson.ca.us';
'leslie@caldwell-leslie.com';
'lisa@cerrell.com';
'markridley-thomas@bos.lacounty.gov';
'MarkGrivetti (mgravetti@geosyntec.com) (mgravetti@geosyntec.com)';
'rclark@fire.lacounty.gov';
'rcustance@geosyntec.com';
'Robbie Ettinger (rettinger@geosyntec.com) (rettinger@geosyntec.com)';
Romero, Robert@DTSC <Robert.Romero@dtsc.ca.gov>;
'rtahara@bos.lacounty.gov';
'rvasquez@ph.lacounty.gov';
'snourish@fire.lacounty.gov';
Arano, Wendy@DTSC <Wendy.Arano@dtsc.ca.gov>;
'wuroff@fire.lacounty.gov';



'zaff@caldwell-leslie.com';
'Christian Osterberg (christian.osterberg@urs.com)';
'heather.benfield@tetrattech.com';
'javier.weckmann@tetrattech.com';
'Nancy MeilahnFowler (nancy.meilahn.fowler@urs.com)';
'Rebecca Frend (rebecca.frend@urs.com)';
'Roy Patterson (roy.patterson@urs.com)';
Romero, Robert@DTSC <Robert.Romero@dtsc.ca.gov>;
Unger, Samuel@Waterboards <Samuel.Unger@waterboards.ca.gov>;
Rasmussen, Paula@Waterboards <Paula.Rasmussen@waterboards.ca.gov>;
Heath, Arthur@Waterboards <Arthur.Heath@waterboards.ca.gov>;
Williams, Thizar@Waterboards <Thizar.Williams@waterboards.ca.gov>;
Kapahi, Gita@Waterboards <Gita.Kapahi@waterboards.ca.gov>;
Fordyce, Jennifer@Waterboards <Jennifer.Fordyce@waterboards.ca.gov>;
McChesney, Frances@Waterboards <Frances.McChesney@waterboards.ca.gov>;
'eric.boyd@mail.house.gov';
'henry.connelly@mail.house.gov';
Lauffer, Michael@Waterboards <michael.lauffer@waterboards.ca.gov>;
'crangan@ph.lacounty.gov';
'Kim.Clark@fire.lacounty.gov';
'deBoer, Krista (KdeBoer@gibsondunn.com)';
Lagudis, Susana@Waterboards <Susana.Lagudis@Waterboards.ca.gov>;
'pdennis@gibsondunn.com';
'rhernand@carson.ca.us';
'nhernandez@gibsondunn.com';
Doug Weimer (douglas.weimer@shell.com) (douglas.weimer@shell.com);
Ayalew, Teklewold@Waterboards <Teklewold.Ayalew@waterboards.ca.gov>



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

CLEANUP AND ABATEMENT ORDER NO. R4-2011-0046
REQUIRING

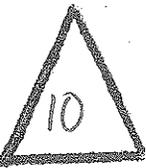
SHELL OIL COMPANY
AND
BARCLAY HOLLANDER CORPORATION

TO CLEANUP AND ABATE WASTE
DISCHARGED TO WATERS OF THE STATE
PURSUANT TO CALIFORNIA WATER CODE SECTION 13304¹
AT THE FORMER KAST PROPERTY TANK FARM,
CARSON, CALIFORNIA
REVISED
April 30, 2015
(FILE NO. 97-043)

Cleanup and Abatement Order No. R4-2011-0046 (Order) requires Shell Oil Company and Barclay Hollander Corporation (hereinafter "Discharger") to assess, monitor, and cleanup and abate the effects of petroleum hydrocarbon compounds and other contaminants of concern discharged to soil and groundwater at the former Kast Property Tank Farm facility (hereinafter, the "Site") located southeast of the intersection of Marbella Avenue and East 244th Street, in Carson, California.

On March 11, 2011, the Regional Water Quality Control Board, Los Angeles Region (Regional Board) issued the Order requiring Shell Oil Company (Shell) to investigate and cleanup the Site. On July 28, 2010, in comments on the draft Order, the law firm of Morgan Lewis on behalf of Shell, requested that the Regional Board name Dole Food Company, Inc. (Dole) and its wholly-owned subsidiary Barclay Hollander Corporation (BHC) as responsible parties in the Order ("Morgan Lewis 2010 Letter"). At that time, the Regional Board declined to add Dole and BHC to the draft Order and issued the Order to Shell only. Subsequently, on April 22, 2011, the Regional Board issued an order pursuant to California Water Code section 13267 (13267 Order) requiring Dole to provide technical information about the Site. On September 15, 2011, the law firm of Gibson Dunn on behalf of Dole provided a detailed letter and attachments in response to the 13267 Order disputing that it and/or BHC should be named as responsible parties in the Order ("Gibson Dunn 2011 Letter"). On October 31, 2013, the Regional Board's Assistant Executive Officer proposed adding BHC as a responsible party to the Order and provided opportunities to submit comments on October 31, 2013 and June 3, 2014. Gibson Dunn, on

¹ Water Code section 13304 (a) states, in part: Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts.



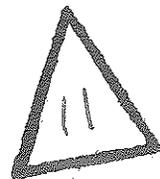
behalf of Dole and BHC, and Morgan Lewis, on behalf of Shell, submitted comments. For the reasons discussed below, the Order is hereby revised to add BHC, a wholly-owned subsidiary of Dole, as a responsible party in the Order based on information provided by Shell and Dole and other information in the files of the Regional Board.

As of the date of this revised Order, Shell has completed many of the tasks required by the Order since its issuance on March 11, 2011. This Order is not being revised to delete tasks already completed by Shell but is being revised to add BHC as a responsible party and to make appropriate findings based on the information provided by Dole and Shell since issuance of the Order and to clarify that the Discharger is responsible for preparing draft environmental documentation. The Regional Board's files include records documenting the activities associated with this Order.

The Regional Board herein finds:

BACKGROUND

- 1. Discharger:** Shell, previously Shell Company of California, is a Responsible Party due to its: (a) ownership of the former Kast Property Tank Farm, and (b) former operation of a petroleum hydrocarbon tank farm at the Site resulting in discharges of waste at the Site. Barclay Hollander Corporation (BHC) is a responsible party due to its (a) past ownership and/or as a successor to past owners of the Site, and (b) development of the property resulting in discharges of waste at the Site. Shell and BHC are hereafter referred to collectively as "Discharger." The actions of the Discharger have caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and have created a condition of pollution or nuisance.
- 2. Location:** The Site is located southeast of the intersection of Marbella Avenue and East 244th Street in the City of Carson, California. The Site occupies approximately 44 acres of land and is bordered by the Los Angeles County Metropolitan Transportation Authority railroad right-of-way on the north, Lomita Boulevard on the south, Marbella Avenue on the west, and Panama Avenue on the east (Figure 1). The Site was previously owned by Shell, who operated three oil storage reservoirs from the 1920s to the mid-1960s. The central and southern reservoirs each had a capacity of 750,000 barrels of oil and the northernmost reservoir had a capacity of 2,000,000 barrels of oil. The Site presently consists of the Carousel residential neighborhood and city streets.
- 3. Groundwater Basin:** The Site is located on the Torrance Plain of the West Coast Groundwater Basin (Basin), in the southwestern part of the Coastal Plain of Los Angeles County. Beneath the Site, the first encountered groundwater is estimated at 54 feet below ground surface (bgs). The Basin is underlain by a series of aquifers, the deeper of which are used for drinking water production. These aquifers are with increasing depth, the Gage aquifer, Lynwood aquifer, and Silverado aquifer. The nearest municipal water supply well is located approximately 400 feet west of the Site. As set forth in the *Water Quality Control Plan for the Los Angeles Region* (the Basin Plan), adopted on June 13, 1994, the Regional Board has designated beneficial uses for groundwater (among which include municipal and domestic drinking water supplies) in the West Coast Basin and has established water quality objectives for the protection of these beneficial uses.



4. As detailed in the findings below, the Discharger's activities at the Site have caused or permitted the discharge of waste resulting in soil, soil vapor, and groundwater pollution, including discharges of waste to the waters of the state, and nuisance.

SITE HISTORY

5. **Property Ownership and Leasehold Information:** Based on information submitted to the Regional Board by the Discharger, the Site has the following property ownership and leasehold history:
 - a. According to the Sanborn maps dated 1924 and 1925, the Site was owned and operated by "Shell Company of California (Kast Property)" beginning in approximately 1924 until the mid-1960s. The Site was used as a tank farm, which included three crude oil storage reservoirs, Reservoir Nos. 5, 6 and 7. Reservoir No. 5, the center reservoir, had a capacity of 750,000 barrels of oil and was under lease to General Petroleum Corporation. Reservoir No. 6, the southernmost reservoir, had a capacity of 750,000 barrels of oil; and Reservoir No. 7, the northernmost reservoir, had a capacity of 2,000,000 barrels of oil. According to Sanborn map notations, the reservoirs had concrete-lined earth-slopes with frame roofs on wood posts, surrounded by earth levees averaging 20 feet in height with 7 foot wide walks on top. One oil pump house was depicted on the 1925 Sanborn map within the southern portion of the Site. Since construction, the Site was used as a crude oil storage reservoir.
 - b. In 1965, Richard Barclay and Shell executed a Purchase Option Agreement, wherein Richard Barclay (or his nominee) agreed to purchase the Site, subject to a favorable engineering report and other restrictions. Richard Barclay was a principal in an entity known as Barclay-Hollander-Curci. In 1965, Lomita Development Company (Lomita), a California partnership, was designated as Mr. Barclay's "nominee" and in 1966, purchased the Site from Shell with the reservoirs in place. Lomita explicitly stated in writing that it would complete decommissioning of the reservoirs. In phases between 1967 and 1969, Lomita developed the Site into one- and two-story single family residential parcels and sold the developed lots to individual homeowners. In 1969, a group of companies, including the constituent partners of Lomita,² merged into a company known as Barclay Hollander Curci, Inc. In the agreement of merger, Barclay Hollander Curci, Inc. agreed to be subject to all debts and liabilities of the merging entities. Barclay Hollander Curci, Inc. was acquired by Castle & Cooke, Inc. and became a wholly-owned subsidiary of Castle & Cooke, Inc. Barclay Hollander Curci, Inc. continued to sell parcels to residential owners. Barclay Hollander Curci, Inc. was later renamed Barclay Hollander Corporation, Inc. (BHC). Castle & Cooke, Inc. merged with Flexi-Van Corporation in 1985, which in 1991, changed its name to Dole Food Company, Inc. BHC is currently a wholly-owned subsidiary of Dole and has been dormant since the sale of its assets in 1995, though Dole maintains liability insurance for BHC.³

² The constituent partners of Lomita were Del Cerro Sales Co., Burwood Land Co., Bygrove Land Co., and Eastwood Land Co.

³ See Letter from Robert W. Loewen, Gibson Dunn, January 21, 2014.



6. Site Description and Activities: According to information in the Regional Board's file on this Site, oil related operations at the Site began in 1923 and ended by the early 1960s. The Site was previously owned and operated by Shell Company of California, which was subsequently renamed Shell Oil Company, as a crude oil storage facility. The facility included equipment that pumped the oil to the nearby Shell refinery for processing from three concrete-lined oil storage reservoirs with a total capacity of 3.5 million barrels. As of June 25, 1959, at least one of the reservoirs was known to leak according to a Shell memorandum of that date.⁴ In 1966, Shell closed the Site and sold the Site to Lomita, an affiliate of Richard Barclay and Barclay-Hollander-Curci. Subsequently, Lomita developed the Site into the Carousel residential neighborhood, which contains 285 single-family homes.

In 1965, prior to the purchase of the property from Shell, Richard Barclay and/or Barclay Hollander Curci requested permission from Shell to remove the liquid waste and petroleum residue from the property and to begin to grade the property for development. Shell agreed to allow the activities with some conditions. Upon Lomita's designation to purchase of the property, Lomita actively participated in the decommissioning of the reservoirs and grading activities.⁵ Lomita conducted the waste removal and grading activities and obtained the required permits from the County. Available information indicates that by August 15, 1966, all three reservoirs had been emptied of liquid residue. The Pacific Soils Engineering Reports dated January 7, 1966; March 11, 1966; July 31, 1967; and June 11, 1968⁶ documented that: (1) Lomita emptied and demolished the reservoirs, and graded the Site prior to it developing the Site as residential housing; (2) part of the concrete floor of the central reservoir was removed by Lomita from the Site; and (3) where the reservoir bottoms were left in place, Lomita made 8-inch wide circular trenches in concentric circles approximately 15 feet apart to permit water drainage to allow the percolation of water and sludge present in the reservoirs into the subsurface. Various documents from the soil engineer describe the process of removing water and sludge in the reservoirs, burying concrete and compacting the concrete and soil, and drilling holes in the concrete to allow for percolation into the groundwater.⁷ The County's grading permit required that concrete fill must be at least seven feet below grade. Boring logs indicated that soils beneath the concrete slab in Reservoir 7 were "highly oil stained" and that "[m]ost of the soils in the borings had a petroleum odor, however the amount of actual oil contained in the soil is unknown."⁸ Soil used to fill in the reservoirs and return the Property to its natural grade came from the berms surrounding each reservoir and surrounding the perimeter of the Property.⁹ No petroleum hydrocarbon testing was performed on the berm soil. The soil was examined only for geotechnical purposes.¹⁰ In 1967, Lomita began transferring title of individual parcels. In 1969, title to remaining parcels was granted by grant deed from Lomita to BHC. Then BHC began transferring title to the rest of the parcels.

⁴ Exhibit 9 to Gibson Dunn 2011 Letter.

⁵ In a letter to Shell dated August 25, 1966, Richard Barclay acknowledged that "[t]his type of cleanup work is a little unusual for our operation..." (See Exhibit 77 to Gibson Dunn 2011 Letter.)

⁶ See Exhibits 31, 78, 36, and 42 to Gibson Dunn 2011 Letter.

⁷ See Exhibits 31 and 78 to Gibson Dunn 2011 Letter.

⁸ See Exhibit 78 to Gibson Dunn 2011 Letter, March 11, 1966, Report by Pacific Soils Engineering Inc.

⁹ See Exhibit 31 and Declaration of Lee Volmer, attached to Gibson Dunn 2011 Letter.

¹⁰ See January 21, 2014, Waterstone Environmental, Inc., Technical Response to the RWQCB Draft Cleanup and Abatement Order, pp. 48, 62, 70, 167.



6. **Chemical Usage:** Based on the Phase I Environmental Site Assessment (ESA) dated July 14, 2008 conducted by Shell Oil Products¹¹ (SOPUS) consultant, URS Corporation, the Site was used for the storage of crude oil in all three reservoirs on the property from at least 1924 to 1966. Subsequent records indicate that in the 1960s the reservoirs may also have been used for storage of bunker oil. Ongoing investigations indicate petroleum hydrocarbon compounds including volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) are impacted in the subsurface soil, soil vapor, and groundwater underlying the Site.

EVIDENCE OF DISCHARGES OF WASTE AND BASIS FOR ORDER

7. **Waste Discharges:** The following summarizes assessment activities associated with the Site:
- a. In 2007, under the regulatory oversight of the California Department of Toxic Substances Control (DTSC), an environmental investigation was initiated at the former Turco Products Facility (TPF). Soil vapor and groundwater were investigated in areas directly west of the Site and at locations in the northwestern portion of the Site. The DTSC-required investigation detected petroleum hydrocarbons, benzene, toluene, and chlorinated solvents in soil and soil vapor. A multi-depth soil vapor survey, which included soil vapor sampling on the Site at locations coincident with the former Kast Site footprints, detected benzene at concentrations up to 150 micrograms per liter ($\mu\text{g/l}$). Benzene was detected at TPF groundwater monitoring well MW-8, which has a northeast flow direction, at a concentration of 1,800 $\mu\text{g/l}$. Therefore, groundwater monitoring well MW-8 is located upgradient of the Kast Site. Chlorinated solvents were also detected at the Kast Site groundwater monitoring well MW-5.
 - b. The *Final Phase I Site Characterization Report* dated October 15, 2009, which was prepared by URS Corporation on behalf of SOPUS showed that soil impacts consisted primarily of petroleum hydrocarbons spanning a wide range of carbon chains and including Total Petroleum Hydrocarbons (TPH) as gasoline (g), TPH as diesel (TPHd), TPH as motor oil (TPHmo), benzene, and naphthalene (See Tables 1, 2A, 2B, and 3).
 - I. In June 2009, a subsurface investigation of public streets in the Carousel neighborhood consisting of ten cone penetrometer/rapid optical screening tools (CPT/ROST) was performed. The CPT/ROST logs indicated several locations within the Site with elevated hydrocarbon concentrations. The CPT/ROST logs also showed that the highest apparent soil impacts occurred at depths of 12 feet bgs, 36 feet bgs, and 40 feet bgs.
 - II. A total of 228 soil samples were collected during the Phase I Site Characterization. The analytical data for soil samples collected from soil borings advanced on public streets across the Site (Figure 2) were as follows:

¹¹ Shell Oil Products US is the d/b/a for Equilon Enterprises LLC, which is wholly owned by Shell Oil Company.



- i. The highest detected concentration of TPH was 22,000 milligrams per kilogram (mg/kg) and TPHg, TPHd, and TPHmo were 8,800, 22,000, and 21,000 mg/kg, respectively;
 - ii. Benzene, ethylbenzene, toluene, and xylenes were detected in concentrations as high as 21,000 micrograms per kilogram ($\mu\text{g}/\text{kg}$), 32,000 $\mu\text{g}/\text{kg}$, 12,000 $\mu\text{g}/\text{kg}$, and 140,000 $\mu\text{g}/\text{kg}$, respectively;
 - iii. SVOCs were detected in concentrations as high as 47 mg/kg of naphthalene, 38 mg/kg of 1-methylnaphthalene, 63 mg/kg of 2-methylnaphthalene, 12 mg/kg phenanthrene, and 9.0 mg/kg pyrene; and
 - iv. Arsenic and lead were detected in concentrations as high as 53.2 mg/kg and 52.5 mg/kg, respectively.
- III. Soil vapor samples collected from a 5-foot depth and greater below the public streets in the Carousel neighborhood indicated elevated benzene and methane (Figures 3 and 4). Benzene was detected at a maximum concentration of 3,800 $\mu\text{g}/\text{l}$, which exceeds the California Human Health Screening Level (CHHSL) value of 0.036 $\mu\text{g}/\text{l}$ for benzene set for shallow soil vapor in a residential area. Methane was also detected in concentrations as high as 59.7 % (by volume) that significantly exceed its lower explosive limit of 5% (by volume), posing a potential safety hazard.
- c. Between September 2009 and February 2010, residential soil and sub-slab soil vapor sampling was conducted at 41 parcels (Figure 5 a – f; Tables 1 and 2) and the results were as follows:
- I. Surface and subsurface soil (0 to 10 feet bgs) detected concentrations of chemicals of concern that significantly exceeded soil screening levels as follows:
 - i. VOCs - Benzene (14,000 $\mu\text{g}/\text{kg}$), tetrachloroethylene (PCE) (22,000 $\mu\text{g}/\text{kg}$), 1,2,4-trimethylbenzene (34,000 $\mu\text{g}/\text{kg}$), and 1,3,5-trimethylbenzene (14,000 $\mu\text{g}/\text{kg}$);
 - ii. SVOCs - Naphthalene (18 mg/kg), Benzo(a)pyrene (2.9 mg/kg), benzo(a)anthracene (0.1 mg/kg), chrysene (0.27 mg/kg), phenanthrene (0.28 mg/kg), and pyrene (0.19 mg/kg); and
 - iii. Lead was also detected at a maximum concentration of 307 mg/kg.
 - II. The highest detected concentration of TPHg was 5,000 mg/kg, TPHd was 33,000 mg/kg, and TPHmo was 41,000 mg/kg;
 - III. As of September 27, 2010, sub-slab soil vapor samples have been collected from 172 homes in the Carousel neighborhood. Additional



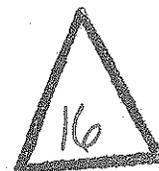
data continues to be collected as part of the Phase II Site Characterization. The validated data from the first 41 homes detected benzene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, ethylbenzene, p/m-xylenes, toluene, and acetone, at a maximum concentration of 4,500 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), 2,200 $\mu\text{g}/\text{m}^3$, 1,000 $\mu\text{g}/\text{m}^3$, 1,100 $\mu\text{g}/\text{m}^3$, 5,200 $\mu\text{g}/\text{m}^3$, 700 $\mu\text{g}/\text{m}^3$, 270 $\mu\text{g}/\text{m}^3$, respectively.

- d. Between November 19, 2009 and February 15, 2010, additional step-out soil and soil vapor sampling at the elevated soil vapor sampling locations were conducted in selected locations beneath the public streets at the Site. The measured concentrations for petroleum hydrocarbons in soil were as follows:
- I. The highest detected concentrations of TPHg was 9,800 mg/kg, TPHd was 22,000 mg/kg, and TPHmo was 21,100 mg/kg;
 - II. The highest detected concentrations of benzene was 33,000 $\mu\text{g}/\text{kg}$, Ethylbenzene was 42,000 $\mu\text{g}/\text{kg}$, toluene was 11,000 $\mu\text{g}/\text{kg}$, and xylenes were 140,000 $\mu\text{g}/\text{kg}$, respectively;
 - III. SVOCs were detected in concentrations as high as 47 mg/kg of naphthalene, 33 mg/kg of 1-methylnaphthalene, 53 mg/kg of 2-methylnaphthalene, 6.1 mg/kg phenanthrene, and 3.9 mg/kg pyrene; and
 - IV. Arsenic and lead were detected in concentrations as high as 28.2 mg/kg and 13.6 mg/kg, respectively.
- e. In July 2009, the installation of six on-site groundwater monitoring wells (Figure 6) were completed and quarterly groundwater monitoring was initiated. Groundwater was encountered at 53 feet bgs. Groundwater samples from five of the six wells contained concentrations of benzene at a maximum concentration of 140 $\mu\text{g}/\text{L}$ and trichloroethylene (TCE) at a maximum concentration of 290 $\mu\text{g}/\text{L}$. One of the monitoring wells (MW-3) contains a free product or a light non-aqueous phase liquid (LNAPL) with a maximum measured thickness of 9.01 foot as of May 27, 2010.

8. Source Elimination and Remediation Status at the Site

- a. The results of the initial soil and soil vapor investigation indicate the presence of elevated methane and benzene at concentrations exceeding the Lower Explosive Limit and the CHHSL for shallow soil vapor, at several locations beneath the public streets at the Site. On October 15, 2009, the Regional Board directed the Discharger to expeditiously design and implement an interim remedial action.
- b. On May 12, 2010 the Regional Board approved SOPUS's proposed Soil Vapor Extraction (SVE) pilot test in order to evaluate the use of this technology as a remedial option for VOCs at the Site.

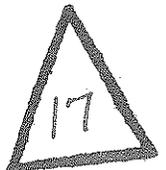
9. Summary of Findings from Subsurface Investigations



- a. Regional Board staff have reviewed and evaluated numerous technical reports and records pertaining to the release, detection, and distribution of wastes on the Site and its vicinity. The Discharger has stored, used, and/or discharged petroleum hydrocarbon compounds at the Site. Elevated levels of TPH and other wastes have been detected in soil, soil vapor and groundwater beneath the Site.
- b. The sources for the evidence summarized above include, but are not limited to:
 - I. Various technical reports and documents submitted by the Discharger or its representatives to Regional Board staff.
 - II. Site inspections conducted by Regional Board staff, as well as meetings, letters, electronic mails, and telephone communications between Regional Board staff and the Discharger and/or its representatives.
 - III. Subsurface drainage study for the Site reservoirs submitted by Girardi and Keese, the law firm retained by some of the residents of the Carousel neighborhood.

10. Summary of Current Conditions Requiring Cleanup and Abatement

- a. Based on the Phase I ESA for the Site dated July 14, 2008 (prepared by URS Corporation) and the most recent information provided to the Regional Board by SOPUS: 1) SOC sold the Kast Site to Lomita, an affiliate of Richard Barclay and Barclay-Hollander-Curci, in 1966 with the reservoirs in place; 2) the Pacific Soils Engineering Reports from 1966 to 1968 indicate that Lomita emptied and demolished the reservoirs, and constructed residential housing; 3) part of the concrete floor of the central reservoir was removed by Lomita from the Site; and 4) where the reservoir bottoms were left in place, Lomita made 8-inch wide circular trenches in concentric circles approximately 15 feet apart to permit water drainage to allow percolation of water and sludge present in the reservoirs into the subsurface.
- b. There is no consistent trend in the vertical distribution of detected concentrations of petroleum hydrocarbon compounds that can be discerned from soil boring data to date. Although, the majority of the aforementioned highest detected TPH concentrations were obtained from the 2.5-foot depth samples, there were multiple locations where the highest concentrations were in the 5-foot or 10-foot samples. This may be due to the nature of previous development activities by Lomita at the Site (i.e., the construction and demolition of the former reservoirs and site grading in preparation for development of the residential tract).
- c. On May 11, 2010, Environmental Engineering and Contracting, consultants hired by Girardi and Keese, conducted exploratory trenching in order to locate and identify the obstructions that have been frequently encountered during the advancement of shallow soil borings at many of the residential homes investigated to date. Regional Board staff observed the encountering of an approximately 8-inch thick concrete slab extending at the trench excavation termination depth of 9 feet, 2 inches. The Pacific Soils Engineering Report dated January 7, 1966 states that the reservoirs were lined with a "four inch



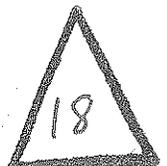
blanket of reinforced concrete". These obstructions are presumed to be remnants of the concrete liners of the former reservoir.

- d. Results from the 169 Interim Residential Sampling Reports submitted to the Regional Board through November 17, 2010 indicate that for surface and subsurface soil sampling (0 to 10 feet bgs), the cancer risk index estimate is between 0 and 10 for 107 residential parcels, between 10 and 100 for 60 parcels, and exceeded 100 for 2 parcels. In the area where the highest cancer index is documented, SVOCs (i.e. Benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene and chrysene), benzene, and ethylbenzene were the primary chemicals of potential concern (COPCs) contributing to the cancer risk index.

For the Carousel neighborhood investigation, the Regional Board is using the most protective cancer risk screening levels recommended by the State and federal governments, which is one in one million (1×10^{-6}) additional risks. For screening purposes, the Regional Board routinely uses the most conservative (health-protective assumptions) risk based screening levels of 1×10^{-6} for the target chemical. This screening level is based on a target risk level at the lower end of the US Environmental Protection Agency (USEPA) risk management range of one-in-a-million risk (1×10^{-6}) for cancer risk and a hazard quotient of 1.

The presence of a chemical at concentrations in excess of a CHHSL does not indicate that adverse impacts to human health are occurring or will occur, but suggests that further evaluation of potential human health concerns is warranted (Cal-EPA, 2005). It should also be noted that CHHSLs are not intended to "set ... final cleanup or action levels to be applied at contaminated sites" (Cal-EPA, 2005).

- e. Results from the 169 Interim Residential Sampling Reports submitted to the Regional Board through November 17, 2010 also indicate that for the sub-slab soil vapor data collected from the residential parcels, the cancer risk index estimate was between 0 and 10 for 147 parcels, between 10 and 100 for 20 parcels, and greater than 100 for 2 parcels. The two highest cancer risk index were estimated as 550 and 120. In most cases, benzene was the primary contributor to the cancer risk index estimate.
- f. The Office of Environmental Health Hazard Assessment (OEHHA) performed a quantitative risk evaluation of TPH using surface and subsurface (0 to 10 feet bgs) soil TPH fractionation data for the 41 residential parcels (Table 3). Based on the risk calculation, OEHHA estimated maximum exposures for a child and compared the resulting exposure estimates of reference dosages with that provided by DTSC interim guidance dated June 16, 2009. OEHHA concluded that aromatic hydrocarbons in the C-9 to C-32 range at five parcels exceeded their reference values for children (Exhibit 1).
- g. The San Francisco Bay Regional Water Quality Control Board developed the Environmental Screening Level (ESL) as guidance for determining when concentration of TPH may present a nuisance and detectable odor. The ESL, based



on calculated odor indexes, for residential land-use, is 100 mg/kg for TPHg and TPHd. The soil TPHg and TPHd data obtained from the Site were detected up to 9,800 mg/kg and 85,000 mg/kg, respectively, which exceed the ESL.

11. **Pollution of Waters of the State:** The Discharger has caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance. As described in this Order and the record of the Regional Board, the Discharger owned and/or operated the site in a manner that resulted in the discharges of waste. The constituents found at the site as described in Finding 8 constitute "waste" as defined in Water Code section 13050(d). The discharge of waste has resulted in pollution, as defined in Water Code section 13050(l). The concentration of waste constituents in soil and groundwater exceed water quality objectives contained in the Water Quality Control Plan for the Los Angeles Region (Basin Plan), including state-promulgated maximum contaminant levels. The presence of waste at the Site constitutes a "nuisance" as defined in Water Code section 13050(m). The waste is present at concentrations and locations that *"is injurious to health, or is indecent, or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property . . . and [a]ffects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal."*
12. **Need for Technical Reports:** This Order requires the submittal of technical or monitoring reports pursuant to Water Code section 13267¹². The Discharger is required to submit the reports because, as described in the Findings in this Order, the Discharger is responsible for the discharge of waste that has caused pollution and nuisance. The reports are necessary to evaluate the extent of the impacts on water quality and public health and to determine the scope of the remedy.
13. Substantial evidence indicates that the Discharger caused or permitted waste to be discharged into waters of state and is therefore appropriately named as a responsible party in this Order. Shell owned and operated the Site, then sold the property to the developers, leaving in place three reservoirs and residual petroleum hydrocarbons in at least one tank and in soil underneath and surrounding the reservoirs. The residual petroleum hydrocarbons are still present at the Site and continue to cause pollution and nuisance as documented in this Order and the Regional Board files. The Regional Board has investigated additional potentially responsible parties (including, but not limited to, Lomita Development Company, Richard Barclay, Barclay-Hollander-Curci, Dole Foods, Inc., Barclay Hollander Corporation and/or any of its successors) and has determined that Lomita, which merged into and was survived by Barclay-Hollander-Curci, renamed BHC, caused or permitted the discharge of waste at the Site. Lomita purchased the Site with explicit knowledge of the presence of the petroleum reservoirs and the presence of residual petroleum hydrocarbons, and conducted various activities, including partially dismantling the concrete in the reservoirs and grading the onsite materials. These activities spread the waste at the Site, and contributed to the migration of the waste through soil and

¹² Water Code section 13267 authorizes the Regional Board to require any person who has discharged, discharges, or is suspect of having discharged or discharging, waste to submit technical or monitoring program reports.



groundwater. The residual petroleum hydrocarbons are still present at the Site and continue to cause pollution and nuisance as documented in this Order and the Regional Board files. Including BHC as a responsible party in this Order is consistent with orders of the State Water Resources Control Board construing Water Code section 13304 naming former owners who had knowledge of the activities that resulted in the discharge and the legal ability to control the continuing discharge.¹³ Including BHC as a responsible party is consistent with Water Code section 13304(j) because Lomita or BHC's actions that resulted in creating pollution and nuisance were unlawful since at least 1949.¹⁴ If the Regional Board becomes aware of any other responsible parties it will consider naming such persons in this Order.

14. Shell, in a letter to the Regional Board dated May 5, 2010 (Exhibit 2), stated that it is considering a variety of potential alternatives that can be applied at specific parcels and in the public streets in order to avoid environmental impacts and avoid any significant risks to human health at this Site. Shell also indicated that if it becomes necessary for residents to relocate temporarily to perform this work, Shell will take appropriate steps to minimize any inconvenience and compensate them for any resulting expenses.
15. Issuance of this Order is being taken for the protection of the environment and as such is exempt from provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, sections 15061(b)(3), 15306, 15307, 15308, and 15321. This Order generally requires the Discharger to submit plans for approval prior to implementation of cleanup activities at the Site. Mere submittal of plans is exempt from CEQA as submittal will not cause a direct or indirect physical change in the environment and/or is an activity that cannot possibly have a significant effect on the environment. CEQA review at this time would be premature and speculative, as there is simply not enough information concerning the Discharger's proposed remedial activities and possible associated environmental impacts. If the Regional Board determines that implementation of any plan required by this Order will have a significant effect on the environment, the Regional Board will conduct the necessary and appropriate environmental review prior to Executive Officer approval of the applicable plan.

¹³ See, e.g., State Water Board Order No. WQ 92-13 (Wenwest, Inc.); State Water Board Order WQ 89-8 (Arthur Spitzer); State Water Board Order WQ 86-16 (Stinnes-Western Chemical Corporation); and State Water Board Order WQ 86-2 (Zoecon Corporation). See also State Water Board Order No. WQ 89-13 (The BOC Group, Inc.) (holding prior owner responsible for discharges associated with an abandoned underground storage tank). Also see State Water Board Order No. WQ 96-2 (County of San Diego, City of National City, and City of National City Community Development Commission) (holding County of San Diego responsible for pollution caused by landfill it operated, holding City of National City responsible for actions that contributed to the pollution, and holding City of National City Community Development Commission responsible even though it owned the property for a relatively short period of time).

¹⁴ See Health and Saf. Code § 5411. In *Newhall Land & Farming Co. v. Superior Court*, 19 Cal.App.4th 334 (1993), the court interpreted the term "nuisance" quoting *Mangini v. Aerojet-General Corp.*, 230 Cal.App.3d 1125 (1991) (the court rejected the argument that one cannot be guilty of a nuisance unless one is in the position to abate it. The court held "Nor is it material that defendant allegedly created the nuisance at some time in the past but does not currently have a possessory interest in the property. '[N]ot only is the party who maintains the nuisance liable but also the party or parties who create or assist in its creation are responsible for the ensuing damage.'" 230 Cal.App.3d at 1137. In addition to Health and Safety Code section 5411, BHC's actions violated Fish and Game Code section 5650 and Los Angeles County Code section 20.36.010.

16. Shell submitted a proposed Remedial Action Plan (RAP) on June 30, 2014. After review of the proposed RAP, the Regional Board determined that implementation of the RAP could have a significant impact on the environment and that preparation of an environmental impact report is necessary.
17. Pursuant to section 13304 of the California Water Code, the Regional Board may seek reimbursement for all reasonable costs to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action.

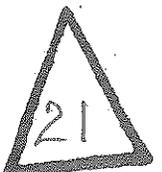
THEREFORE, IT IS HEREBY ORDERED, pursuant to California Water Code section 13304 and 13267, that the Discharger shall cleanup the waste and abate the effects of the discharge, including, but not limited to, total petroleum hydrocarbons (TPH) and other TPH-related wastes discharged to soil and groundwater at the Site in accordance with the following requirements:

1. **Complete Delineation of On- and Off-Site Waste Discharges:** Completely delineate the extent of waste in soil, soil vapor, and groundwater caused by the discharge of wastes including, but not limited to, TPH and other TPH-related waste constituents at the Site into the saturated and unsaturated zones. Assessment has been ongoing under Regional Board oversight, but assessment is not yet complete. If ongoing reinterpretation of new data derived from the tasks performed suggests that modification or expansion of the tasks approved by the Regional Board is necessary for complete assessment, the Discharger is required to submit a work plan addendum(a).
2. **Continue to Conduct Groundwater Monitoring and Reporting:**
 - a. Continue the existing quarterly groundwater monitoring and reporting program previously required by the Regional Board, and
 - b. As new wells are installed, they are to be incorporated into the existing groundwater monitoring and reporting program
3. **Conduct Remedial Action:** Initiate a phased cleanup and abatement program for the cleanup of waste in soil, soil vapor, and groundwater and abatement of the effects of the discharges, but not limited to, petroleum and petroleum-related contaminated shallow soils and pollution sources as highest priority.

Shallow soils in this Order are defined as soils found to a nominal depth of 10 feet, where potential exposure for residents and/or construction and utility maintenance workers is considered likely (Ref. Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities – CalEPA 1996).

Specifically, the Discharger shall:

- a. Develop a pilot testing work plan, which includes 1) evaluation of the feasibility of removing impacted soils to 10 feet and removal of contaminated shallow soils and reservoir concrete slabs encountered within the uppermost 10 feet, including areas beneath residential houses; and 2) remedial options that can be carried out where site characterization (including indoor air testing) is completed; 3) plans for relocation of residents during soil removal activities,



plans for management of excavated soil on-site, and plans to minimize odors and noise during soil removal. The Discharger is required to submit this Pilot Test Work Plan to the Regional Board for review and approval by the Executive Officer no later than 60 days after the date of issuance of this Order. Upon approval of the Pilot Test Work Plan by the Executive Officer, the Discharger shall implement the Pilot Test Work Plan submit the Pilot Test Report that includes the findings, conclusions, and recommendations within 120 days of the issuance of the approval of the Pilot Test Work Plan.

- b. Conduct an assessment of any potential environmental impacts of the residual concrete slabs of the former reservoir that includes: (1) the impact of the remaining concrete floors on waste migration where the concrete floors might still be present; (2) whether there is a need for the removal of the concrete; and (3) the feasibility of removing the concrete floors beneath (i) unpaved areas at the Site, (ii) paved areas at the Site, and (iii) homes at the Site. The Discharger is required to submit this environmental impact assessment of the residual concrete slabs to the Regional Board no later than 30 days after the completion of the Pilot Test.
- c. Prepare a full-scale impacted soil Remedial Action Plan (RAP) for the Site. The Discharger is required to submit the RAP to the Regional Board for review and approval by the Executive Officer no later than 60 days after the date of the Executive Officer's approval of the Pilot Test Report.
 - I. The RAP shall include, at a minimum, but is not limited to:
 - i. A detailed plan for remediation of wastes in shallow soil that will incorporate the results from the Soil Vapor Extraction Pilot Test currently being performed.
 - ii. A plan to address any impacted area beneath any existing paved areas and concrete foundations of the homes, if warranted;
 - iii. A detailed surface containment and soil management plan;
 - iv. An evaluation of all available options including proposed selected methods for remediation of shallow soil and soil vapor; and
 - v. Continuation of interim measures for mitigation according to the Regional Board approved Interim Remediation Action Plan (IRAP).
 - vi. A schedule of actions to implement the RAP.
 - II. The RAP, at a minimum, shall apply the following guidelines and Policies to cleanup wastes in soil and groundwater. The cleanup goals shall include:

- i. Soil cleanup goals set forth in the Regional Board's *Interim Site Assessment and Cleanup Guidebook, May 1996*, waste concentrations, depth to the water table, the nature of the chemicals, soil conditions and texture, and attenuation trends, human health protection levels set forth in *USEPA Regional Screening Levels (Formerly Preliminary Remediation Goals)*, for evaluation of the potential intrusion of subsurface vapors (soil vapor) into buildings and subsequent impact to indoor air quality, California Environmental Protection Agency's *Use of Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties*, dated January 2005, or its latest version, and Total Petroleum Hydrocarbon Criteria Working Group, Volumes 1 through 5, 1997, 1998, 1999; Commonwealth of Massachusetts, Department of Environmental Protection, *Characterizing Risks Posed by Petroleum Contaminated Sites: Implementation of MADEP VPH/EPH approach*; MADEP 2002; Commonwealth of Massachusetts, Department of Environmental Protection, *Updated Petroleum Hydrocarbon Fraction Toxicity Values for the VPH/EPH/APH Methodology*; MADEP 2003; Commonwealth of Massachusetts, Department of Environmental Protection, Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH) Final, MADEP 2008, Soil vapor sampling requirements are stated in the DTSC *Interim Guidance* and the Regional Board's *Advisory - Active Soil Gas Investigations*, dated January 28, 2003, or its latest version, DTSC's *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air*, revised February 7, 2005, or its latest version, USEPA Risk Assessment Guidance for Superfund, Parts A through E; USEPA User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings, 2003; USEPA Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites, 2002; USEPA Supplemental Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites, 2002; CalEPA Selecting Inorganic Constituents as Chemicals of Potential Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities, CalEPA DTSC, February 1997; CalEPA Use of the Northern and Southern California Polynuclear Aromatic Hydrocarbons (PAH) Studies in the Manufactured Gas Plant Site Cleanup Process, CalEPA DTSC, July 2009. Cleanup goals for all contaminant of concerns shall be based on residential (i.e., unrestricted) land use.
- ii. Groundwater cleanup goals shall at a minimum achieve applicable Basin Plan water quality objectives, including California's Maximum Contaminant Levels or Action Levels for drinking water as established by the California

Department of Public Health, and the State Water Resources Control Board's "Antidegradation Policy" (State Board Resolution No. 68-16), at a point of compliance approved by the Regional Board, and comply with other applicable implementation programs in the Basin Plan.

- iii. The State Water Resources Control Board's "Antidegradation Policy", which requires attainment of background levels of water quality, or the highest level of water quality that is reasonable in the event that background levels cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of water, and not result in exceedence of water quality objectives in the Regional Board's *Basin Plan*.
 - iv. The State Water Resources Control Board's "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304" (State Board Resolution No. 92-49), requires cleanup to background or the best water quality which is reasonable if background levels cannot be achieved and sets forth criteria to consider where cleanup to background water quality may not be reasonable.
- III. The Discharger shall submit site-specific cleanup goals for residential (i.e., unrestricted) land use for the Executive Officer's approval concurrent with the submittal date of the Pilot Test Report. The proposed site-specific cleanup goals shall include detailed technical rationale and assumptions underlying each goal.
- IV. Upon approval of the RAP by the Executive Officer, the Discharger shall implement the RAP within 60 days of the issuance of the approval of the RAP.
- d. Continue to conduct residential surface and subsurface soil and sub-slab soil vapor sampling under the current Regional Board approved work plan dated September 24, 2009. If the ongoing reinterpretation of new assessment data derived from the tasks described in the work plan suggests that modification or expansion of the tasks proposed in the RAP is necessary for complete cleanup, then the Discharger shall submit addenda to the September 24, 2009 work plan to the Regional Board for review and approval by the Executive Officer no later than 60 days of the date of issuance of this Order.
 - e. If the ongoing groundwater monitoring and investigation warrants, the Discharger shall:



- I. Install new wells in order to complete the groundwater monitoring well network and to fully delineate the impacted groundwater plume, and
- II. Prepare a detailed impacted groundwater RAP. The Regional Board will set forth the due date of the groundwater RAP at a later date.

4. Public Review and Involvement:

- a. Cleanup proposals and RAP submitted to the Regional Board for approval in compliance with the terms of this Order shall be made available to the public for a minimum 30-day period to allow for public review and comment. The Regional Board will consider any comments received before taking final action on a cleanup proposal and RAP.
 - b. The Discharger shall encourage public participation. The Discharger is required to prepare and submit a Public Participation Plan for review and approval by the Executive Officer, with the goal of having the Regional Board provide the stakeholders and other interested persons with:
 - I. Information, appropriately targeted to the literacy and translational needs of the community, about the investigation and remedial activities concerning the discharges of waste at the Site; and
 - II. Periodic, meaningful opportunities to review, comment upon, and to influence investigation and cleanup activities at the Site.
 - c. Public participation activities shall coincide with key decision making points throughout the process as specified or as directed by the Executive Officer of the Regional Board.
 - d. The Discharger shall prepare draft environmental documentation evaluating the potential environmental impacts associated with the implementation of the RAP and submit to the Regional Board as directed by the Executive Officer.
- 5. Time Schedule:** The Discharger shall submit all required technical work plans and reports by the deadlines stated in this Order, which are summarized in Table 4. As field activities at this Site are in progress, additional technical documents may be required and/or new or revised deadlines for the technical documents may be issued. Therefore, Table 4 may be updated as necessary. The Discharger shall continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished to fully comply with this Order.
- 6. The Regional Board's authorized representative(s) shall be allowed:**
- a. Entry upon premises where a regulated facility or activity is located, conducted, or where records are stored, under the conditions of this Order;



- b. Access to copy any records that are stored under the conditions of this Order;
 - c. Access to inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. The right to photograph, sample, and monitor the Site for the purpose of ensuring compliance with this Order, or as otherwise authorized by the California Water Code.
7. **Contractor/Consultant Qualification:** A California licensed professional civil engineer or geologist, or a certified engineering geologist or hydrogeologist shall conduct or direct the subsurface investigation and cleanup program. All technical documents required by this Order shall be signed by and stamped with the seal of the above-mentioned qualified professionals.
8. This Order is not intended to permit or allow the Discharger to cease any work required by any other Order issued by this Regional Board, nor shall it be used as a reason to stop or redirect any investigation or cleanup or remediation programs ordered by this Regional Board or any other agency. Furthermore, this Order does not exempt the Discharger from compliance with any other laws, regulations, or ordinances which may be applicable, nor does it legalize these waste treatment and disposal facilities, and it leaves unaffected any further restrictions on those facilities which may be contained in other statutes or required by other agencies.
9. The Discharger shall submit 30-day advance notice to the Regional Board of any planned changes in name, ownership, or control of the facility; and shall provide 30-day advance notice of any planned physical changes to the Site that may affect compliance with this Order. In the event of a change in ownership or operator, the Discharger also shall provide 30-day advance notice, by letter, to the succeeding owner/operator of the existence of this Order, and shall submit a copy of this advance notice to the Regional Board.
10. Abandonment of any groundwater well(s) at the Site must be approved by and reported to the Executive Officer of the Regional Board at least 14 days in advance. Any groundwater wells removed must be replaced within a reasonable time, at a location approved by the Executive Officer. With written justification, the Executive Officer may approve of the abandonment of groundwater wells without replacement. When a well is removed, all work shall be completed in accordance with California Department of Water Resources Bulletin 74-90, "California Well Standards," Monitoring Well Standards Chapter, Part III, Sections 16-19.
11. The Regional Board, through its Executive Officer or other delegate, may revise this Order as additional information becomes available. Upon request by the Discharger, and for good cause shown, the Executive Officer may defer, delete or extend the date of compliance for any action required of the Discharger under this Order. The authority of the Regional Board, as contained in the California Water Code, to order investigation and cleanup, in addition to that described herein, is in no way limited by this Order.

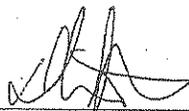


12. Any person aggrieved by this action of the Regional Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must 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.

13. Failure to comply with the terms or conditions of this Order may result in imposition of civil liabilities, imposed either administratively by the Regional Board or judicially by the Superior Court in accordance with Sections 13268, 13308, and/or 13350, of the California Water Code, and/or referral to the Attorney General of the State of California.
14. None of the obligations imposed by this Order on the Discharger are intended to constitute a debt, damage claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations are imposed pursuant to the police powers of the State of California intended to protect the public health, safety, welfare, and environment.

Ordered by: _____



Deborah J. Smith
Chief Deputy Executive Officer

Date: _____

4-30-15



ATTACHMENTS

FIGURES

- Figure 1: Site Vicinity Map
- Figure 2: Previous Exploration Location
- Figure 3: Proposed Soil Vapor Sampling Locations
- Figure 4: Benzene and Methane Concentrations in Soil Vapor
- Figure 5a: Carousel Houses Tested as of March 15, 2010
- Figure 5b: Residential Methane Screening Results as of March 15, 2010
- Figure 5c: Summary of Results of Testing for Benzene Concentrations in Soil Vapor as of March 15, 2010
- Figure 5d: Summary of Results of Testing for Non-Benzene Concentrations in Soil Vapor as of March 15, 2010
- Figure 5e: Summary of Soil Sampling Results (0-10' Below Surface) as of March 15, 2010
- Figure 5f: Methane Concentrations in Soil Vapor at 5 Feet Below Surface as of March 15, 2010
- Figure 6: Proposed Groundwater Monitoring Well Locations

TABLES

- Table 1: Data Summary from Phase I and Phase II Site Characterization for Soil and Soil Vapor
- Table 2A: Summary of Soil Samples Analytical Results -VOCs, SVOCs, and TPH
- Table 2B: Summary of Soil Vapor Analytical Results -VOCS and Fixed Gases
- Table 3: Maximum Concentration of Aliphatic and Aromatic Hydrocarbons by Hydrocarbon Fractionations at Individual Properties
- Table 4: Deadlines for Technical Work Plans and Reports

EXHIBITS

- Exhibit 1: OEHHA's Memorandum dated May 19, 2010
- Exhibit 2: Shell Oil Company Letter to the Regional Board dated May 5, 2010

Note: All Figures and Tables, except Table 4, were taken from technical reports prepared by SOPUS's consultant, URS Corporation

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

CLEANUP AND ABATEMENT ORDER NO. R4-2011-0046
REQUIRING

SHELL OIL COMPANY
AND
BARCLAY HOLLANDER CORPORATION

TO CLEANUP AND ABATE WASTE
DISCHARGED TO WATERS OF THE STATE
PURSUANT TO CALIFORNIA WATER CODE SECTION 13304¹
AT THE FORMER KAST PROPERTY TANK FARM,
CARSON, CALIFORNIA

REVISED
April 30, 2015
(FILE NO. 97-043)

Cleanup and Abatement Order No. R4-2011-0046 (Order) requires Shell Oil Company and Barclay Hollander Corporation, (hereinafter "Discharger") to assess, monitor, and cleanup and abate the effects of petroleum hydrocarbon compounds and other contaminants of concern discharged to soil and groundwater at the former Kast Property Tank Farm facility (hereinafter, the "Site") located southeast of the intersection of Marbella Avenue and East 244th Street, in Carson, California. On March 11, 2011, the Regional Water Quality Control Board, Los Angeles Region (Regional Board) issued the Order requiring Shell Oil Company (Shell) to investigate and cleanup the Site. On July 28, 2010, in comments on the draft Order, the law firm of Morgan Lewis on behalf of Shell, requested that the Regional Board name Dole Food Company, Inc. (Dole) and its wholly-owned subsidiary Barclay Hollander Corporation (BHC) as responsible parties in the Order ("Morgan Lewis 2010 Letter"). At that time, the Regional Board declined to add Dole and BHC to the draft Order and issued the Order to Shell only. Subsequently, on April 22, 2011, the Regional Board issued an order pursuant to California Water Code section 13267 (13267 Order) requiring Dole to provide technical information about the Site. On September 15, 2011, the law firm of Gibson Dunn on behalf of Dole provided a detailed letter and attachments in response to the 13267 Order disputing that it and/or BHC should be named as responsible parties in the Order ("Gibson Dunn 2011 Letter"). On October 31, 2013, the Regional Board's Assistant Executive Officer proposed adding BHC as a responsible party to the Order and provided opportunities to submit comments on October 31, 2013 and June 3, 2014. Gibson Dunn, on behalf of Dole and BHC, and Morgan Lewis, on behalf of Shell, submitted comments. For the reasons discussed below, the Order is hereby revised to add BHC, a wholly-owned subsidiary of Dole, as a

¹ Water Code section 13304 (a) states, in part: Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts.



responsible party in the Order based on information provided by Shell and Dole and other information in the files of the Regional Board.

As of the date of this revised Order, Shell has completed many of the tasks required by the Order since its issuance on March 11, 2011. This Order is not being revised to delete tasks already completed by Shell but is being revised to add BHC as a responsible party and to make appropriate findings based on the information provided by Dole and Shell since issuance of the Order and to clarify that the Discharger is responsible for preparing draft environmental documentation. The Regional Board's files include records documenting the activities associated with this Order.

The Regional Board herein finds:

BACKGROUND

- 1. Discharger:** ~~Shell Oil Company~~ Shell, previously Shell Company of California, is a Responsible Party due to its: (a) ownership of the former Kast Property Tank Farm, and (b) former operation of a petroleum hydrocarbon tank farm at the Site resulting in discharges of waste at the Site. Barclay Hollander Corporation (BHC) is a responsible party due to its (a) past ownership and/or as a successor to past owners of the Site, and (b) development of the property resulting in discharges of waste at the Site. Shell and BHC are hereafter referred to collectively as "Discharger." The actions of the Discharger have caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and have created a condition of pollution or nuisance.
- 2. Location:** The Site is located southeast of the intersection of Marbella Avenue and East 244th Street in the City of Carson, California. The Site occupies approximately 44 acres of land and is bordered by the Los Angeles County Metropolitan Transportation Authority railroad right-of-way on the north, Lomita Boulevard on the south, Marbella Avenue on the west, and Panama Avenue on the east (Figure 1). The Site was previously owned by the ~~Discharger~~ Shell, who operated three oil storage reservoirs from the 1920s to the mid-1960s. The central and southern reservoirs each had a capacity of 750,000 barrels of oil and the northernmost reservoir had a capacity of 2,000,000 barrels of oil. The Site presently consists of the Carousel residential neighborhood and city streets.
- 3. Groundwater Basin:** The Site is located on the Torrance Plain of the West Coast Groundwater Basin (Basin), in the southwestern part of the Coastal Plain of Los Angeles County. Beneath the Site, the first encountered groundwater is estimated at 54 feet below ground surface (bgs). The Basin is underlain by a series of aquifers, the deeper of which are used for drinking water production. These aquifers are with increasing depth, the Gage aquifer, Lynwood aquifer, and Silverado aquifer. The nearest municipal water supply well is located approximately 400 feet west of the Site. As set forth in the *Water Quality Control Plan for the Los Angeles Region* (the Basin Plan), adopted on June 13, 1994, the Regional Board has designated beneficial uses for groundwater (among which include municipal and domestic drinking water supplies) in the West Coast Basin and has established water quality objectives for the protection of these beneficial uses.
- 4.** As detailed in the findings below, the Discharger's activities at the Site have caused or permitted the discharge of waste resulting in soil, soil vapor, and groundwater pollution, including discharges of waste to the waters of the state, and nuisance.



SITE HISTORY

5. **Property Ownership and Leasehold Information:** Based on information submitted to the Regional Board by the Discharger, the Site has the following property ownership and leasehold history:
- a. According to the Sanborn maps dated 1924 and 1925, the Site was owned and operated by "Shell Company of California (Kast Property)" beginning in approximately 1924 until the mid-1960s. The Site was used as a tank farm, which included three crude oil storage reservoirs, Reservoir Nos. 5, 6 and 7. Reservoir No.5, the center reservoir, had a capacity of 750,000 barrels of oil and was under lease to General Petroleum Corporation. Reservoir No. 6, the southernmost reservoir, had a capacity of 750,000 barrels of oil; and Reservoir No. 7, the northernmost reservoir, had a capacity of 2,000,000 barrels of oil. According to Sanborn map notations, the reservoirs had concrete-lined earth-slopes with frame roofs on wood posts, surrounded by earth levees averaging 20 feet in height with 7 foot wide walks on top. One oil pump house was depicted on the 1925 Sanborn map within the southern portion of the Site. Since construction, the Site was used as a crude oil storage reservoir.
 - ~~b. In 1966, SOC sold the Site to Lomita Development Company, an affiliate of Richard Barclay and Barclay-Hollander-Curcei (BHC), with the reservoirs in place. The Pacific Soils Engineering Reports dated January 7, 1966; March 11, 1966; July 31, 1967; and June 11, 1968 documented that: 1) Lomita Development Company emptied and demolished the reservoirs, and graded the Site prior to it developing the Site as residential housing; 2) part of the concrete floor of the central reservoir was removed by Lomita Development Company from the Site; and 3) where the reservoir bottoms were left in place, Lomita Development Company made 8 inch wide circular trenches in concentric circles approximately 15 feet apart to permit water drainage to allow the percolation of water and sludge present in the reservoirs into the subsurface.~~
 - ~~c. In phases between 1967 and 1969, Lomita Development Company developed the Site into one- and two-story single family residential parcels and sold the developed lots to individual homeowners.~~
 - d. In 1965, Richard Barclay and Shell executed a Purchase Option Agreement, wherein Richard Barclay (or his nominee) agreed to purchase the Site/Property, subject to a favorable engineering report and other restrictions. Richard Barclay was a principal in an entity known as Barclay-Hollander-Curcei. In 1965, Lomita Development Company (Lomita), a California partnership, was designated as Mr. Barclay's "nominee" and in 1966, purchased the Property/Site from Shell with the reservoirs in place. Lomita explicitly agreed/stated in writing to that it would complete decommissioning of the reservoirs. In phases between 1967 and 1969, Lomita developed the Site into one- and two-story single family residential parcels and sold the developed lots to individual homeowners. In 1969, a group of companies,



including the constituent partners of Lomita² merged into a company known as Barclay Hollander Curci, Inc. In the agreement of merger, Barclay Hollander Curci, Inc. agreed to be subject to all debts and liabilities of the merging entities. Barclay Hollander Curci, Inc. ~~which was then~~ acquired by Castle & Cooke, Inc. and ~~it~~ became a wholly-owned subsidiary of Castle & Cooke, Inc. Barclay Hollander Curci, Inc. continued to sell parcels to residential owners. Barclay Hollander Curci, Inc. was later renamed Barclay Hollander Corporation, Inc. (BHC). Castle & Cooke, Inc. merged with Flexi-Van Corporation in 1985, which in 1991, changed its name to Dole Food Company, Inc. BHC agreed to be responsible for the liabilities of Lomita and the other entities. BHC is currently a wholly-owned subsidiary of Dole and has been dormant since the sale of its assets in 1995, though Dole maintains liability insurance for BHC,³ but has no assets.⁴

6. Site Description and Activities: According to information in the Regional Board's file on this Site, oil related operations at the Site began in 1923 and ended by the early 1960s. The Site was previously owned and operated by Shell Company of California, which was subsequently renamed Shell Oil Company, as a crude oil storage facility. The facility included equipment that pumped the oil to the nearby SOG's Shell refinery for processing from three concrete-lined oil storage reservoirs with a total capacity of 3.5 million barrels. A Shell memorandum dated June 25, 1959, indicates that at least one of the reservoirs was known to leak.⁵ In 1966, SOG Shell closed the Site and SOG sold the Site to Lomita Development Company, an affiliate of Richard Barclay and Barclay-Hollander-Curci. Subsequently, Lomita Development Company developed the Site into the Carousel residential neighborhood, which contains 285 single-family homes.

In 1965, prior to the purchase of the property from Shell, Richard Barclay and/or Barclay Hollander Curci requested permission from Shell to remove the liquid waste and petroleum residue from the property and to begin to grade the property for development. Shell agreed to allow the activities with some conditions, including that "all work done by or for [Barclay Hollander Curci] be done in a good, lawful and workmanlike manner." Upon Lomita's designation to purchase of the property, Lomita, as the owner of the property, actively participated in the decommissioning of the reservoirs and grading activities.⁶ Lomita conducted the waste removal and grading activities and obtained the required permits from the County. Available information indicates that by August 15, 1966, all three reservoirs had been fully cleaned outemptied of liquid residue. The Pacific Soils Engineering Reports dated January 7, 1966; March 11, 1966; July 31, 1967; and June 11, 1968⁷ documented that: (1) Lomita emptied and demolished the reservoirs, and graded the Site prior to it developing the Site as residential housing; (2) part of the concrete floor of the central reservoir was removed by Lomita from the Site; and (3) where the reservoir bottoms were left in place, Lomita made 8-inch wide circular trenches in concentric circles approximately 15 feet apart to permit water drainage to allow the percolation of

² The constituent partners of Lomita were Del Cerro Sales Co., Burwood Land Co., Bygrove Land Co., and Eastwood Land Co.

³ See Letter from Robert W. Loewen, Gibson Dunn, January 21, 2014.

⁴ See Exhibit 76 to Gibson Dunn 2011 Letter.

⁵ Exhibit 9 to Gibson Dunn 2011 Letter.

⁶ In a letter to Shell dated August 25, 1966, Richard Barclay acknowledged that "[t]his type of cleanup work is a little unusual for our operation...." (See Exhibit 77 to Gibson Dunn 2011 Letter.)

⁷ See Exhibits 31, 78, 36, and 42 to Gibson Dunn 2011 Letter.



water and sludge present in the reservoirs into the subsurface. Various documents from the soil engineer describe the process of removing water and sludge in the reservoirs, burying concrete and compacting the concrete and soil, and drilling holes in the concrete to allow for percolation into the groundwater.⁸ The County's grading permit required that concrete fill must be at least seven feet below grade. Boring logs indicated that soils beneath the concrete slab in Reservoir 7 were "highly oil stained" and that "[m]ost of the soils in the borings had a petroleum odor, however the amount of actual oil contained in the soil is unknown."⁹ ~~One of the soil engineering reports also indicated that~~ Soil used to fill in the reservoirs and return the Property to its natural grade came from the berms surrounding each reservoir and surrounding the perimeter of the Property.¹⁰ No petroleum hydrocarbon testing was performed on the berm soil. The soil was examined only for geotechnical purposes.¹¹ In 1967, Lomita began transferring title of individual parcels. In 1969, title to remaining parcels was granted by grant deed from Lomita to BHC. Then BHC began transferring title to the rest of the parcels.

6. **Chemical Usage:** Based on the Phase I Environmental Site Assessment (ESA) dated July 14, 2008 conducted by Shell Oil Products¹² (SOPUS) consultant, URS Corporation, the Site was used for the storage of crude oil in all three reservoirs on the property from at least 1924 to 1966. Subsequent records indicate that in the 1960s the reservoirs may also have been used for storage of bunker oil. Ongoing investigations indicate petroleum hydrocarbon compounds including volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) are impacted in the subsurface soil, soil vapor, and groundwater underlying the Site.

EVIDENCE OF DISCHARGES OF WASTE AND BASIS FOR ORDER

7. **Waste Discharges:** The following summarizes assessment activities associated with the Site:
 - a. In 2007, under the regulatory oversight of the California Department of Toxic Substances Control (DTSC), an environmental investigation was initiated at the former Turco Products Facility (TPF). Soil vapor and groundwater were investigated in areas directly west of the Site and at locations in the northwestern portion of the Site. The DTSC-required investigation detected petroleum hydrocarbons, benzene, toluene, and chlorinated solvents in soil and soil vapor. A multi-depth soil vapor survey, which included soil vapor sampling on the Site at locations coincident with the former Kast Site footprints, detected benzene at concentrations up to 150 micrograms per liter ($\mu\text{g}/\text{l}$). Benzene was detected at TPF groundwater monitoring well MW-8, which has a northeast flow direction, at a concentration of 1,800 $\mu\text{g}/\text{l}$. Therefore, groundwater monitoring well MW-8 is located upgradient of the Kast Site. Chlorinated solvents were also detected at the Kast Site groundwater monitoring well MW-5.

⁸ See Exhibits 31 and 78 to Gibson Dunn 2011 Letter.

⁹ See Exhibit 78 to Gibson Dunn 2011 Letter, March 11, 1966, Report by Pacific Soils Engineering Inc.

¹⁰ See Exhibit 31 and Declaration of Lee Volmer, attached to Gibson Dunn 2011 Letter.

¹¹ See January 21, 2014, Waterstone Environmental, Inc., Technical Response to the RWQCB Draft Cleanup and Abatement Order, pp. 48, 62, 70, 167.

¹² Shell Oil Products US is the d/b/a for Equilon Enterprises LLC, which is wholly owned by Shell Oil Company.



- b. The *Final Phase I Site Characterization Report* dated October 15, 2009, which was prepared by URS Corporation on behalf of SOPUS showed that soil impacts consisted primarily of petroleum hydrocarbons spanning a wide range of carbon chains and including Total Petroleum Hydrocarbons (TPH) as gasoline (g), TPH as diesel (TPHd), TPH as motor oil (TPHmo), benzene, and naphthalene (See Tables 1, 2A, 2B, and 3).
- I. In June 2009, a subsurface investigation of public streets in the Carousel neighborhood consisting of ten cone penetrometer/rapid optical screening tools (CPT/ROST) was performed. The CPT/ROST logs indicated several locations within the Site with elevated hydrocarbon concentrations. The CPT/ROST logs also showed that the highest apparent soil impacts occurred at depths of 12 feet bgs, 36 feet bgs, and 40 feet bgs.
 - II. A total of 228 soil samples were collected during the Phase I Site Characterization. The analytical data for soil samples collected from soil borings advanced on public streets across the Site (Figure 2) were as follows:
 - i. The highest detected concentration of TPH was 22,000 milligrams per kilogram (mg/kg) and TPHg, TPHd, and TPHmo were 8,800, 22,000, and 21,000 mg/kg, respectively;
 - ii. Benzene, ethylbenzene, toluene, and xylenes were detected in concentrations as high as 21,000 micrograms per kilogram ($\mu\text{g}/\text{kg}$), 32,000 $\mu\text{g}/\text{kg}$, 12,000 $\mu\text{g}/\text{kg}$, and 140,000 $\mu\text{g}/\text{kg}$, respectively;
 - iii. SVOCs were detected in concentrations as high as 47 mg/kg of naphthalene, 38 mg/kg of 1-methylnaphthalene, 63 mg/kg of 2-methylnaphthalene, 12 mg/kg phenanthrene, and 9.0 mg/kg pyrene; and
 - iv. Arsenic and lead were detected in concentrations as high as 53.2 mg/kg and 52.5 mg/kg, respectively.
 - III. Soil vapor samples collected from a 5-foot depth and greater below the public streets in the Carousel neighborhood indicated elevated benzene and methane (Figures 3 and 4). Benzene was detected at a maximum concentration of 3,800 $\mu\text{g}/\text{l}$, which exceeds the California Human Health Screening Level (CHHSL) value of 0.036 $\mu\text{g}/\text{l}$ for benzene set for shallow soil vapor in a residential area. Methane was also detected in concentrations as high as 59.7 % (by volume) that significantly exceed its lower explosive limit of 5% (by volume), posing a potential safety hazard.
- c. Between September 2009 and February 2010, residential soil and sub-slab soil vapor sampling was conducted at 41 parcels (Figure 5 a – f; Tables 1 and 2) and the results were as follows:



- I. Surface and subsurface soil (0 to 10 feet bgs) detected concentrations of chemicals of concern that significantly exceeded soil screening levels as follows:
 - i. VOCs - Benzene (14,000 $\mu\text{g}/\text{kg}$), tetrachloroethylene (PCE) (22,000 $\mu\text{g}/\text{kg}$), 1,2,4-trimethylbenzene (34,000 $\mu\text{g}/\text{kg}$), and 1,3,5-trimethylbenzene (14,000 $\mu\text{g}/\text{kg}$);
 - ii. SVOCs - Naphthalene (18 mg/kg), Benzo(a)pyrene (2.9 mg/kg), benzo(a)anthracene (0.1 mg/kg), chrysene (0.27 mg/kg), phenanthrene (0.28 mg/kg), and pyrene (0.19 mg/kg); and
 - iii. Lead was also detected at a maximum concentration of 307 mg/kg .
 - II. The highest detected concentration of TPHg was 5,000 mg/kg , TPHd was 33,000 mg/kg , and TPHmo was 41,000 mg/kg ;
 - III. As of September 27, 2010, sub-slab soil vapor samples have been collected from 172 homes in the Carousel neighborhood. Additional data continues to be collected as part of the Phase II Site Characterization. The validated data from the first 41 homes detected benzene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, ethylbenzene, p/m-xylenes, toluene, and acetone, at a maximum concentration of 4,500 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), 2,200 $\mu\text{g}/\text{m}^3$, 1,000 $\mu\text{g}/\text{m}^3$, 1,100 $\mu\text{g}/\text{m}^3$, 5,200 $\mu\text{g}/\text{m}^3$, 700 $\mu\text{g}/\text{m}^3$, 270 $\mu\text{g}/\text{m}^3$, respectively.
- d. Between November 19, 2009 and February 15, 2010, additional step-out soil and soil vapor sampling at the elevated soil vapor sampling locations were conducted in selected locations beneath the public streets at the Site. The measured concentrations for petroleum hydrocarbons in soil were as follows:
- I. The highest detected concentrations of TPHg was 9,800 mg/kg , TPHd was 22,000 mg/kg , and TPHmo was 21,100 mg/kg ;
 - II. The highest detected concentrations of benzene was 33,000 $\mu\text{g}/\text{kg}$, Ethylbenzene was 42,000 $\mu\text{g}/\text{kg}$, toluene was 11,000 $\mu\text{g}/\text{kg}$, and xylenes were 140,000 $\mu\text{g}/\text{kg}$, respectively;
 - III. SVOCs were detected in concentrations as high as 47 mg/kg of naphthalene, 33 mg/kg of 1-methylnaphthalene, 53 mg/kg of 2-methylnaphthalene, 6.1 mg/kg phenanthrene, and 3.9 mg/kg pyrene; and
 - IV. Arsenic and lead were detected in concentrations as high as 28.2 mg/kg and 13.6 mg/kg , respectively.
- e. In July 2009, the installation of six on-site groundwater monitoring wells (Figure 6) were completed and quarterly groundwater monitoring was initiated. Groundwater was encountered at 53 feet bgs. Groundwater samples from five of the six wells contained concentrations of benzene at a maximum concentration of 140 $\mu\text{g}/\text{L}$ and trichloroethylene (TCE) at a maximum concentration of 290 $\mu\text{g}/\text{L}$. One of



the monitoring wells (MW-3) contains a free product or a light non-aqueous phase liquid (LNAPL) with a maximum measured thickness of 9.01 foot as of May 27, 2010.

8. Source Elimination and Remediation Status at the Site

- a. The results of the initial soil and soil vapor investigation indicate the presence of elevated methane and benzene at concentrations exceeding the Lower Explosive Limit and the CHHSL for shallow soil vapor, at several locations beneath the public streets at the Site. On October 15, 2009, the Regional Board directed the Discharger to expeditiously design and implement an interim remedial action.
- b. On May 12, 2010 the Regional Board approved SOPUS's proposed Soil Vapor Extraction (SVE) pilot test in order to evaluate the use of this technology as a remedial option for VOCs at the Site.

9. Summary of Findings from Subsurface Investigations

- a. Regional Board staff have reviewed and evaluated numerous technical reports and records pertaining to the release, detection, and distribution of wastes on the Site and its vicinity. The Discharger has stored, used, and/or discharged petroleum hydrocarbon compounds at the Site. Elevated levels of TPH and other wastes have been detected in soil, soil vapor and groundwater beneath the Site.
- b. The sources for the evidence summarized above include, but are not limited to:
 - I. Various technical reports and documents submitted by the Discharger or its representatives to Regional Board staff.
 - II. Site inspections conducted by Regional Board staff, as well as meetings, letters, electronic mails, and telephone communications between Regional Board staff and the Discharger and/or its representatives.
 - III. Subsurface drainage study for the Site reservoirs submitted by Girardi and Keese, the law firm retained by some of the residents of the Carousel neighborhood.

10. Summary of Current Conditions Requiring Cleanup and Abatement

- a. Based on the Phase I ESA for the Site dated July 14, 2008 (prepared by URS Corporation) and the most recent information provided to the Regional Board by SOPUS: 1) SOC sold the Kast Site to Lomita Development Company, an affiliate of Richard Barclay and Barclay-Hollander-Curci, in 1966 with the reservoirs in place; 2) the Pacific Soils Engineering Reports from 1966 to 1968 indicate that Lomita Development Company emptied and demolished the reservoirs, and constructed residential housing; 3) part of the concrete floor of the central reservoir was removed by Lomita Development Company from the Site; and 4) where the reservoir bottoms were left in place, Lomita Development Company made 8-inch wide circular trenches in concentric circles approximately 15 feet apart to permit water drainage to allow percolation of water and sludge present in the reservoirs into the subsurface.



- b. There is no consistent trend in the vertical distribution of detected concentrations of petroleum hydrocarbon compounds that can be discerned from soil boring data to date. Although, the majority of the aforementioned highest detected TPH concentrations were obtained from the 2.5-foot depth samples, there were multiple locations where the highest concentrations were in the 5-foot or 10-foot samples. This may be due to the nature of previous development activities by Lomita Development Company at the Site (i.e., the construction and demolition of the former reservoirs and site grading in preparation for development of the residential tract).
- c. On May 11, 2010, Environmental Engineering and Contracting, consultants hired by Girardi and Keese, conducted exploratory trenching in order to locate and identify the obstructions that have been frequently encountered during the advancement of shallow soil borings at many of the residential homes investigated to date. Regional Board staff observed the encountering of an approximately 8-inch thick concrete slab extending at the trench excavation termination depth of 9 feet, 2 inches. The Pacific Soils Engineering Report dated January 7, 1966 states that the reservoirs were lined with a "four inch blanket of reinforced concrete". These obstructions are presumed to be remnants of the concrete liners of the former reservoir.
- d. Results from the 169 Interim Residential Sampling Reports submitted to the Regional Board through November 17, 2010 indicate that for surface and subsurface soil sampling (0 to 10 feet bgs), the cancer risk index estimate is between 0 and 10 for 107 residential parcels, between 10 and 100 for 60 parcels, and exceeded 100 for 2 parcels. In the area where the highest cancer index is documented, SVOCs (i.e. Benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene and chrysene), benzene, and ethylbenzene were the primary chemicals of potential concern (COPCs) contributing to the cancer risk index.

For the Carousel neighborhood investigation, the Regional Board is using the most protective cancer risk screening levels recommended by the State and federal governments, which is one in one million (1×10^{-6}) additional risks. For screening purposes, the Regional Board routinely uses the most conservative (health-protective assumptions) risk based screening levels of 1×10^{-6} for the target chemical. This screening level is based on a target risk level at the lower end of the US Environmental Protection Agency (USEPA) risk management range of one-in-a-million risk (1×10^{-6}) for cancer risk and a hazard quotient of 1.

The presence of a chemical at concentrations in excess of a CHHSL does not indicate that adverse impacts to human health are occurring or will occur, but suggests that further evaluation of potential human health concerns is warranted (Cal-EPA, 2005). It should also be noted that CHHSLs are not intended to "set ... final cleanup or action levels to be applied at contaminated sites" (Cal-EPA, 2005).

- e. Results from the 169 Interim Residential Sampling Reports submitted to the Regional Board through November 17, 2010 also indicate that for the sub-slab



soil vapor data collected from the residential parcels, the cancer risk index estimate was between 0 and 10 for 147 parcels, between 10 and 100 for 20 parcels, and greater than 100 for 2 parcels. The two highest cancer risk index were estimated as 550 and 120. In most cases, benzene was the primary contributor to the cancer risk index estimate.

- f. The Office of Environmental Health Hazard Assessment (OEHHA) performed a quantitative risk evaluation of TPH using surface and subsurface (0 to 10 feet bgs) soil TPH fractionation data for the 41 residential parcels (Table 3). Based on the risk calculation, OEHHA estimated maximum exposures for a child and compared the resulting exposure estimates of reference dosages with that provided by DTSC interim guidance dated June 16, 2009. OEHHA concluded that aromatic hydrocarbons in the C-9 to C-32 range at five parcels exceeded their reference values for children (Exhibit 1).
- g. The San Francisco Bay Regional Water Quality Control Board developed the Environmental Screening Level (ESL) as guidance for determining when concentration of TPH may present a nuisance and detectable odor. The ESL, based on calculated odor indexes, for residential land-use, is 100 mg/kg for TPHg and TPHd. The soil TPHg and TPHd data obtained from the Site were detected up to 9,800 mg/kg and 85,000 mg/kg, respectively, which exceed the ESL.

11. Pollution of Waters of the State: The Discharger has caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance. As described in this Order and the record of the Regional Board, the Discharger owned and/or operated the site in a manner that resulted in the discharges of waste. The constituents found at the site as described in Finding 8 constitute "waste" as defined in Water Code section 13050(d). The discharge of waste has resulted in pollution, as defined in Water Code section 13050(l). The concentration of waste constituents in soil and groundwater exceed water quality objectives contained in the Water Quality Control Plan for the Los Angeles Region (Basin Plan), including state-promulgated maximum contaminant levels. The presence of waste at the Site constitutes a "nuisance" as defined in Water Code section 13050(m). The waste is present at concentrations and locations that *"is injurious to health, or is indecent, or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property . . . and [a]ffects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal."*

12. Need for Technical Reports: This Order requires the submittal of technical or monitoring reports pursuant to Water Code section 13267¹³. The Discharger is required to submit the reports because, as described in the Findings in this Order, the Discharger is responsible for the discharge of waste that has caused pollution and nuisance. The reports are necessary to evaluate the extent of the impacts on water quality and public health and to determine the scope of the remedy.

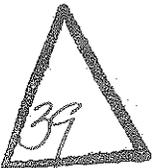
¹³ Water Code section 13267 authorizes the Regional Board to require any person who has discharged, discharges, or is suspect of having discharged or discharging, waste to submit technical or monitoring program reports.



13. ~~Although requested by the Discharger, the Regional Board is declining to name additional potentially responsible parties (PRPs) to this Order at this time. Substantial evidence indicates that the Discharger caused or permitted waste to be discharged into waters of state and is therefore appropriately named as a responsible party in this Order. Shell owned and operated the Site, then sold the property to the developers, leaving in place three reservoirs and residual petroleum hydrocarbons in at least one tank and in soil underneath and surrounding the reservoirs. The residual petroleum hydrocarbons are still present at the Site and continue to cause pollution and nuisance as documented in this Order and the Regional Board files. However, ~~the~~ The Regional Board will ~~continue to~~ has investigated whether additional potentially responsible parties (including, but not limited to, Lomita Development Company, Richard Barclay, Barclay-Hollander-Curci, Dole Foods, Inc., Barclay Hollander Corporation and/or any of its successors) and has determined that Lomita, which merged into and was survived by Barclay-Hollander-Curci, renamed BHC, caused or permitted the discharge of waste at the Site, and whether these or other parties should be named as additional responsible parties to this Order or a separate Order. The Regional Board may amend this Order or issue a separate Order in the future as a result of this investigation. Although investigation concerning additional PRPs is ongoing, the Regional Board desires to issue this Order as waiting will only delay remediation of the Site. BHC and/or its predecessor Lomita purchased the Site with explicit knowledge of the presence of the petroleum reservoirs and the presence of residual petroleum hydrocarbons, and conducted various activities, including partially dismantling the concrete in the reservoirs and grading the onsite materials. These activities ~~thereby spreading~~ the waste at the Site, and contributed to the migration of the waste through soil and groundwater. The residual petroleum hydrocarbons are still present at the Site and continue to cause pollution and nuisance as documented in this Order and the Regional Board files. ~~BHC is a wholly owned subsidiary of Dole.~~ Including BHC as a responsible party in this Order is consistent with orders of the State Water Resources Control Board construing Water Code section 13304 naming former owners who had knowledge of the activities that resulted in the discharge and the legal ability to control the continuing discharge.¹⁴ Including BHC as a responsible party is consistent with Water Code section 13304(j) because Lomita or BHC's actions that resulted in creating pollution and nuisance were unlawful since at least 1949.¹⁵ If the Regional Board becomes aware of any other responsible parties it will consider naming such persons in this Order.~~

¹⁴ See, e.g., State Water Board Order No. WQ 92-13 (Wenwest, Inc.); State Water Board Order WQ 89-8 (Arthur Spitzer); State Water Board Order WQ 86-16 (Stinnes-Western Chemical Corporation); and State Water Board Order WQ 86-2 (Zoecon Corporation). See also State Water Board Order No. WQ 89-13 (The BOC Group, Inc.) (holding prior owner responsible for discharges associated with an abandoned underground storage tank). Also see State Water Board Order No. WQ 96-2 (County of San Diego, City of National City, and City of National City Community Development Commission) (holding County of San Diego responsible for pollution caused by landfill it operated, holding City of National City responsible for actions that contributed to the pollution, and holding City of National City Community Development Commission responsible even though it owned the property for a relatively short period of time).

¹⁵ See Health and Saf. Code § 5411. In *Newhall Land & Farming Co. v. Superior Court*, 19 Cal.App.4th 334 (1993), the court interpreted the term "nuisance" quoting *Mangini v. Aerojet-General Corp.*, 230 Cal.App.3d 1125 (1991) (the court rejected the argument that one cannot be guilty of a nuisance unless one is in the position to abate it. The court held "Nor is it material that defendant allegedly created the nuisance at some time in the past but does not currently have a possessory interest in the property." [N]ot only is the party who maintains the nuisance liable but also the party or parties who create or assist in its creation are responsible for the ensuing damage." 230 Cal.App.3d at p.1137. In addition to Health and Safety Code section 5411, BHC's actions violated Fish and Game Code section 5650 and Los Angeles County Code section 20.36.010.



14. ~~The Discharger Shell~~, in a letter to the Regional Board dated May 5, 2010 (Exhibit 2), stated that it is considering a variety of potential alternatives that can be applied at specific parcels and in the public streets in order to avoid environmental impacts and avoid any significant risks to human health at this Site. ~~The Discharger Shell~~ also indicated that if it becomes necessary for residents to relocate temporarily to perform this work, ~~the Discharger Shell~~ will take appropriate steps to minimize any inconvenience and compensate them for any resulting expenses.
15. Issuance of this Order is being taken for the protection of the environment and as such is exempt from provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, sections 15061(b)(3), 15306, 15307, 15308, and 15321. This Order generally requires the Discharger to submit plans for approval prior to implementation of cleanup activities at the Site. Mere submittal of plans is exempt from CEQA as submittal will not cause a direct or indirect physical change in the environment and/or is an activity that cannot possibly have a significant effect on the environment. CEQA review at this time would be premature and speculative, as there is simply not enough information concerning the Discharger's proposed remedial activities and possible associated environmental impacts. If the Regional Board determines that implementation of any plan required by this Order will have a significant effect on the environment, the Regional Board will conduct the necessary and appropriate environmental review prior to Executive Officer approval of the applicable plan.
16. Shell submitted a proposed Remedial Action Plan (RAP) on June 30, 2014. After review of the proposed RAP, the Regional Board determined that implementation of the RAP could have a significant impact on the environment and that preparation of an environmental impact report is necessary.
17. Pursuant to section 13304 of the California Water Code, the Regional Board may seek reimbursement for all reasonable costs to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action.

THEREFORE, IT IS HEREBY ORDERED, pursuant to California Water Code section 13304 and 13267, that the Discharger shall cleanup the waste and abate the effects of the discharge, including, but not limited to, total petroleum hydrocarbons (TPH) and other TPH-related wastes discharged to soil and groundwater at the Site in accordance with the following requirements:

1. **Complete Delineation of On- and Off-Site Waste Discharges:** Completely delineate the extent of waste in soil, soil vapor, and groundwater caused by the discharge of wastes including, but not limited to, TPH and other TPH-related waste constituents at the Site into the saturated and unsaturated zones. Assessment has been ongoing under Regional Board oversight, but assessment is not yet complete. If ongoing reinterpretation of new data derived from the tasks performed suggests that modification or expansion of the tasks approved by the Regional Board is necessary for complete assessment, the Discharger is required to submit a work plan addendum(a).
2. **Continue to Conduct Groundwater Monitoring and Reporting:**
 - a. Continue the existing quarterly groundwater monitoring and reporting program previously required by the Regional Board, and

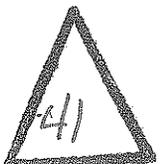


- b. As new wells are installed, they are to be incorporated into the existing groundwater monitoring and reporting program
3. **Conduct Remedial Action:** Initiate a phased cleanup and abatement program for the cleanup of waste in soil, soil vapor, and groundwater and abatement of the effects of the discharges, but not limited to, petroleum and petroleum-related contaminated shallow soils and pollution sources as highest priority.

Shallow soils in this Order are defined as soils found to a nominal depth of 10 feet, where potential exposure for residents and/or construction and utility maintenance workers is considered likely (Ref. Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities – CalEPA 1996).

Specifically, the Discharger shall:

- a. Develop a pilot testing work plan, which includes 1) evaluation of the feasibility of removing impacted soils to 10 feet and removal of contaminated shallow soils and reservoir concrete slabs encountered within the uppermost 10 feet, including areas beneath residential houses; and 2) remedial options that can be carried out where site characterization (including indoor air testing) is completed; 3) plans for relocation of residents during soil removal activities, plans for management of excavated soil on-site, and plans to minimize odors and noise during soil removal. The Discharger is required to submit this Pilot Test Work Plan to the Regional Board for review and approval by the Executive Officer no later than 60 days after the date of issuance of this Order. Upon approval of the Pilot Test Work Plan by the Executive Officer, the Discharger shall implement the Pilot Test Work Plan submit the Pilot Test Report that includes the findings, conclusions, and recommendations within 120 days of the issuance of the approval of the Pilot Test Work Plan.
- b. Conduct an assessment of any potential environmental impacts of the residual concrete slabs of the former reservoir that includes: (1) the impact of the remaining concrete floors on waste migration where the concrete floors might still be present; (2) whether there is a need for the removal of the concrete; and (3) the feasibility of removing the concrete floors beneath (i) unpaved areas at the Site, (ii) paved areas at the Site, and (iii) homes at the Site. The Discharger is required to submit this environmental impact assessment of the residual concrete slabs to the Regional Board no later than 30 days after the completion of the Pilot Test.
- c. Prepare a full-scale impacted soil Remedial Action Plan (RAP) for the Site. The Discharger is required to submit the RAP to the Regional Board for review and approval by the Executive Officer no later than 60 days after the date of the Executive Officer's approval of the Pilot Test Report.
 - I. The RAP shall include, at a minimum, but is not limited to:
 - i. A detailed plan for remediation of wastes in shallow soil that will incorporate the results from the Soil Vapor Extraction Pilot Test currently being performed.



- ii. A plan to address any impacted area beneath any existing paved areas and concrete foundations of the homes, if warranted;
 - iii. A detailed surface containment and soil management plan;
 - iv. An evaluation of all available options including proposed selected methods for remediation of shallow soil and soil vapor; and
 - v. Continuation of interim measures for mitigation according to the Regional Board approved Interim Remediation Action Plan (IRAP).
 - vi. A schedule of actions to implement the RAP.
- II. The RAP, at a minimum, shall apply the following guidelines and Policies to cleanup wastes in soil and groundwater. The cleanup goals shall include:
- i. Soil cleanup goals set forth in the Regional Board's *Interim Site Assessment and Cleanup Guidebook, May 1996*, waste concentrations, depth to the water table, the nature of the chemicals, soil conditions and texture, and attenuation trends, human health protection levels set forth in *USEPA Regional Screening Levels (Formerly Preliminary Remediation Goals)*, for evaluation of the potential intrusion of subsurface vapors (soil vapor) into buildings and subsequent impact to indoor air quality, California Environmental Protection Agency's *Use of Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties*, dated January 2005, or its latest version, and Total Petroleum Hydrocarbon Criteria Working Group, Volumes 1 through 5, 1997, 1998, 1999; Commonwealth of Massachusetts, Department of Environmental Protection, *Characterizing Risks Posed by Petroleum Contaminated Sites: Implementation of MADEP VPH/EPH approach*; MADEP 2002; Commonwealth of Massachusetts, Department of Environmental Protection, *Updated Petroleum Hydrocarbon Fraction Toxicity Values for the VPH/EPH/APH Methodology*; MADEP 2003; Commonwealth of Massachusetts, Department of Environmental Protection, *Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH) Final*, MADEP 2008, Soil vapor sampling requirements are stated in the *DTSC Interim Guidance* and the Regional Board's *Advisory – Active Soil Gas Investigations*, dated January 28, 2003, or its latest version, *DTSC's Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air*, revised February 7, 2005, or its latest version, USEPA Risk

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Assessment Guidance for Superfund, Parts A through E; USEPA User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings, 2003; USEPA Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites, 2002; USEPA Supplemental Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites, 2002; CalEPA Selecting Inorganic Constituents as Chemicals of Potential Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities, CalEPA DTSC, February 1997; CalEPA Use of the Northern and Southern California Polynuclear Aromatic Hydrocarbons (PAH) Studies in the Manufactured Gas Plant Site Cleanup Process, CalEPA DTSC, July 2009. Cleanup goals for all contaminant of concerns shall be based on residential (i.e., unrestricted) land use.

- ii. Groundwater cleanup goals shall at a minimum achieve applicable Basin Plan water quality objectives, including California's Maximum Contaminant Levels or Action Levels for drinking water as established by the California Department of Public Health, and the State Water Resources Control Board's "Antidegradation Policy" (State Board Resolution No. 68-16), at a point of compliance approved by the Regional Board, and comply with other applicable implementation programs in the Basin Plan.
 - iii. The State Water Resources Control Board's "Antidegradation Policy", which requires attainment of background levels of water quality, or the highest level of water quality that is reasonable in the event that background levels cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of water, and not result in exceedence of water quality objectives in the Regional Board's *Basin Plan*.
 - iv. The State Water Resources Control Board's "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304" (State Board Resolution No. 92-49), requires cleanup to background or the best water quality which is reasonable if background levels cannot be achieved and sets forth criteria to consider where cleanup to background water quality may not be reasonable.
- III. The Discharger shall submit site-specific cleanup goals for residential (i.e., unrestricted) land use for the Executive Officer's approval concurrent with the submittal date of the Pilot Test Report. The proposed site-specific



cleanup goals shall include detailed technical rationale and assumptions underlying each goal.

- IV. Upon approval of the RAP by the Executive Officer, the Discharger shall implement the RAP within 60 days of the issuance of the approval of the RAP.
- d. Continue to conduct residential surface and subsurface soil and sub-slab soil vapor sampling under the current Regional Board approved work plan dated September 24, 2009. If the ongoing reinterpretation of new assessment data derived from the tasks described in the work plan suggests that modification or expansion of the tasks proposed in the RAP is necessary for complete cleanup, then the Discharger shall submit addenda to the September 24, 2009 work plan to the Regional Board for review and approval by the Executive Officer no later than 60 days of the date of issuance of this Order.
- e. If the ongoing groundwater monitoring and investigation warrants, the Discharger shall:
- I. Install new wells in order to complete the groundwater monitoring well network and to fully delineate the impacted groundwater plume, and
 - II. Prepare a detailed impacted groundwater RAP. The Regional Board will set forth the due date of the groundwater RAP at a later date.

4. Public Review and Involvement:

- a. Cleanup proposals and RAP submitted to the Regional Board for approval in compliance with the terms of this Order shall be made available to the public for a minimum 30-day period to allow for public review and comment. The Regional Board will consider any comments received before taking final action on a cleanup proposal and RAP.
- b. The Discharger shall encourage public participation. The Discharger is required to prepare and submit a Public Participation Plan for review and approval by the Executive Officer, with the goal of having the Regional Board provide the stakeholders and other interested persons with:
 - I. Information, appropriately targeted to the literacy and translational needs of the community, about the investigation and remedial activities concerning the discharges of waste at the Site; and
 - II. Periodic, meaningful opportunities to review, comment upon, and to influence investigation and cleanup activities at the Site.
- c. Public participation activities shall coincide with key decision making points throughout the process as specified or as directed by the Executive Officer of the Regional Board.



- d. The Discharger shall prepare draft environmental documentation evaluating the potential environmental impacts associated with the implementation of the RAP and submit to the Regional Board as directed by the Executive Officer.
5. **Time Schedule:** The Discharger shall submit all required technical work plans and reports by the deadlines stated in this Order, which are summarized in Table 4. As field activities at this Site are in progress, additional technical documents may be required and/or new or revised deadlines for the technical documents may be issued. Therefore, Table 4 may be updated as necessary. The Discharger shall continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished to fully comply with this Order..
6. The Regional Board's authorized representative(s) shall be allowed:
 - a. Entry upon premises where a regulated facility or activity is located, conducted, or where records are stored, under the conditions of this Order;
 - b. Access to copy any records that are stored under the conditions of this Order;
 - c. Access to inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. The right to photograph, sample, and monitor the Site for the purpose of ensuring compliance with this Order, or as otherwise authorized by the California Water Code.
7. **Contractor/Consultant Qualification:** A California licensed professional civil engineer or geologist, or a certified engineering geologist or hydrogeologist shall conduct or direct the subsurface investigation and cleanup program. All technical documents required by this Order shall be signed by and stamped with the seal of the above-mentioned qualified professionals.
8. This Order is not intended to permit or allow the Discharger to cease any work required by any other Order issued by this Regional Board, nor shall it be used as a reason to stop or redirect any investigation or cleanup or remediation programs ordered by this Regional Board or any other agency. Furthermore, this Order does not exempt the Discharger from compliance with any other laws, regulations, or ordinances which may be applicable, nor does it legalize these waste treatment and disposal facilities, and it leaves unaffected any further restrictions on those facilities which may be contained in other statutes or required by other agencies.
9. The Discharger shall submit 30-day advance notice to the Regional Board of any planned changes in name, ownership, or control of the facility; and shall provide 30-day advance notice of any planned physical changes to the Site that may affect compliance with this Order. In the event of a change in ownership or operator, the Discharger also shall provide 30-day advance notice, by letter, to the succeeding owner/operator of the existence of this Order, and shall submit a copy of this advance notice to the Regional Board.
10. Abandonment of any groundwater well(s) at the Site must be approved by and reported to the Executive Officer of the Regional Board at least 14 days in advance.



Any groundwater wells removed must be replaced within a reasonable time, at a location approved by the Executive Officer. With written justification, the Executive Officer may approve of the abandonment of groundwater wells without replacement. When a well is removed, all work shall be completed in accordance with California Department of Water Resources Bulletin 74-90, "California Well Standards," Monitoring Well Standards Chapter, Part III, Sections 16-19.

11. The Regional Board, through its Executive Officer or other delegate, may revise this Order as additional information becomes available. Upon request by the Discharger, and for good cause shown, the Executive Officer may defer, delete or extend the date of compliance for any action required of the Discharger under this Order. The authority of the Regional Board, as contained in the California Water Code, to order investigation and cleanup, in addition to that described herein, is in no way limited by this Order.
12. Any person aggrieved by this action of the Regional Board may petition the State Water Resources Control Board (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.
13. Failure to comply with the terms or conditions of this Order may result in imposition of civil liabilities, imposed either administratively by the Regional Board or judicially by the Superior Court in accordance with Sections 13268, 13308, and/or 13350, of the California Water Code, and/or referral to the Attorney General of the State of California.
14. None of the obligations imposed by this Order on the Discharger are intended to constitute a debt, damage claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations are imposed pursuant to the police powers of the State of California intended to protect the public health, safety, welfare, and environment.

Ordered by: _____
Deborah Smith
Chief Deputy Executive Officer

Date: _____



ATTACHMENTS

FIGURES

- Figure 1: Site Vicinity Map
Figure 2: Previous Exploration Location
Figure 3: Proposed Soil Vapor Sampling Locations
Figure 4: Benzene and Methane Concentrations in Soil Vapor
Figure 5a: Carousel Houses Tested as of March 15, 2010
Figure 5b: Residential Methane Screening Results as of March 15, 2010
Figure 5c: Summary of Results of Testing for Benzene Concentrations in Soil Vapor as of March 15, 2010
Figure 5d: Summary of Results of Testing for Non-Benzene Concentrations in Soil Vapor as of March 15, 2010
Figure 5e: Summary of Soil Sampling Results (0-10' Below Surface) as of March 15, 2010
Figure 5f: Methane Concentrations in Soil Vapor at 5 Feet Below Surface as of March 15, 2010
Figure 6: Proposed Groundwater Monitoring Well Locations

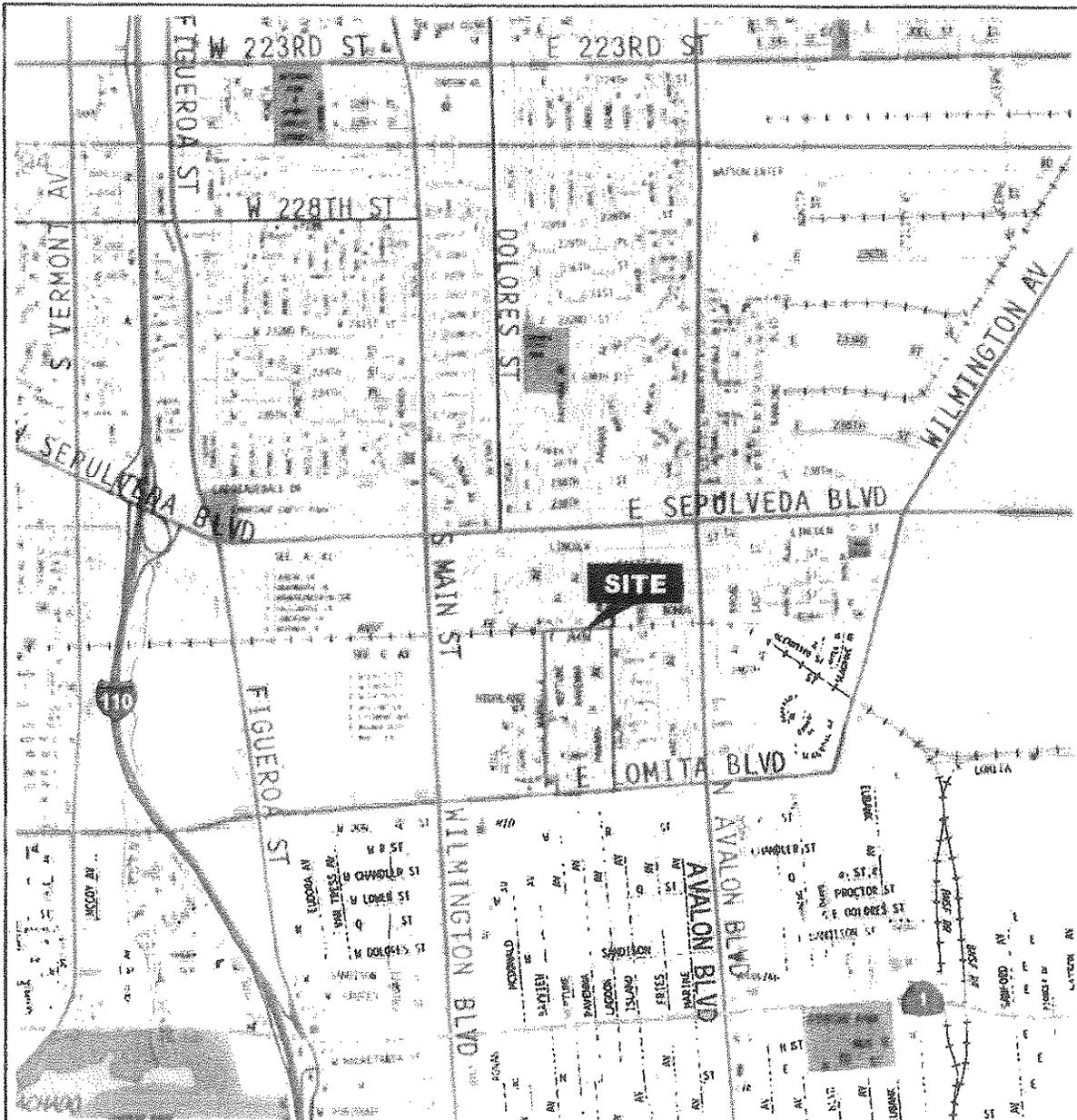
TABLES

- Table 1: Data Summary from Phase I and Phase II Site Characterization for Soil and Soil Vapor
Table 2A: Summary of Soil Samples Analytical Results -VOCs, SVOCs, and TPH
Table 2B: Summary of Soil Vapor Analytical Results -VOCS and Fixed Gases
Table 3: Maximum Concentration of Aliphatic and Aromatic Hydrocarbons by Hydrocarbon Fractionations at Individual Properties
Table 4: Deadlines for Technical Work Plans and Reports

EXHIBITS

- Exhibit 1: OEHHA's Memorandum dated May 19, 2010
Exhibit 2: Shell Oil Company Letter to the Regional Board dated May 5, 2010

Note: All Figures and Tables, except Table 4, were taken from technical reports prepared by SOPUS's consultant, URS Corporation



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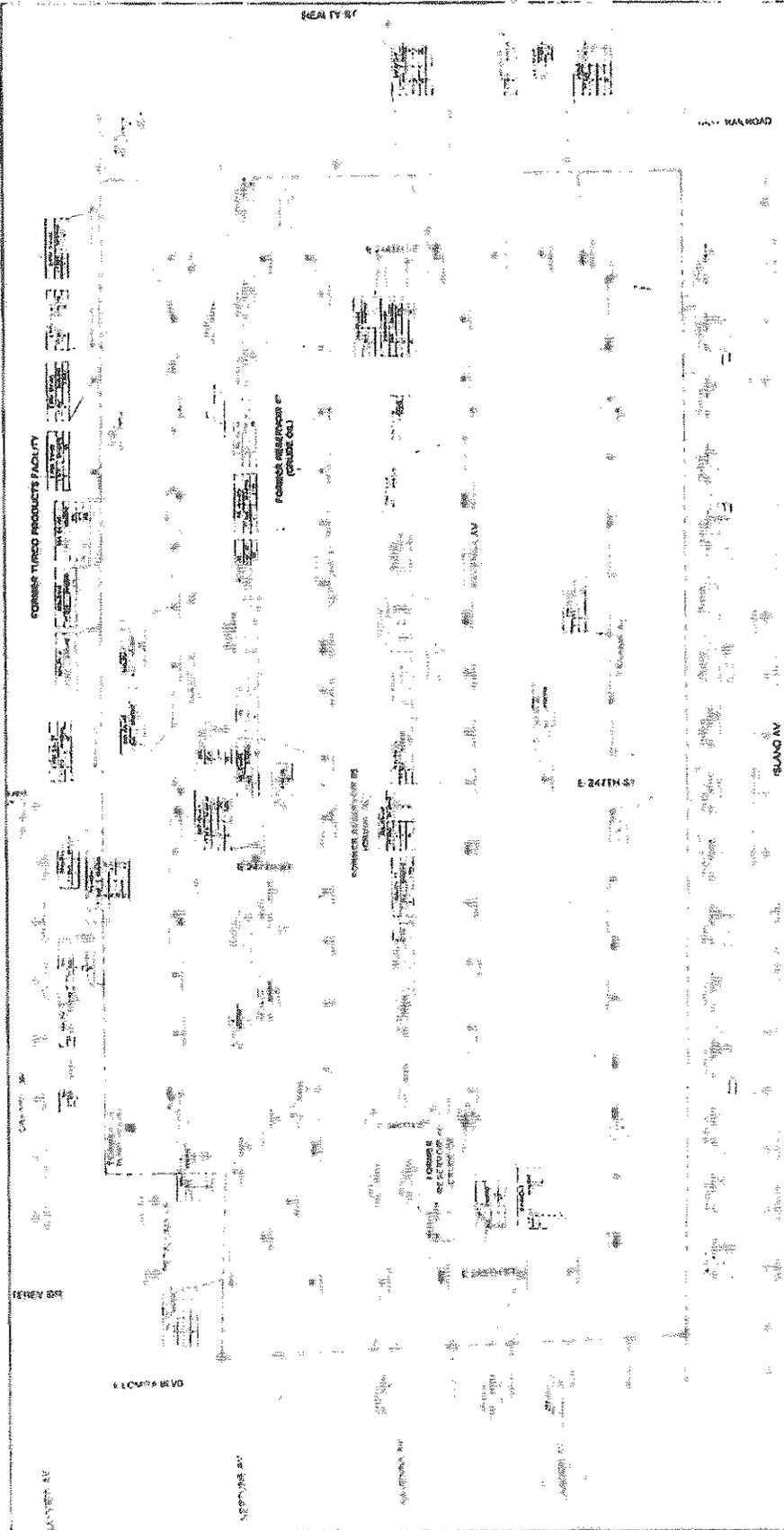
SITE VICINITY MAP

Project No. 49194314	Date: JUNE 2006	Project: Former KAST Property	Figure 1
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K:\2006\KAST\figure 1 Vic Map.dwg



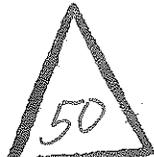
URS

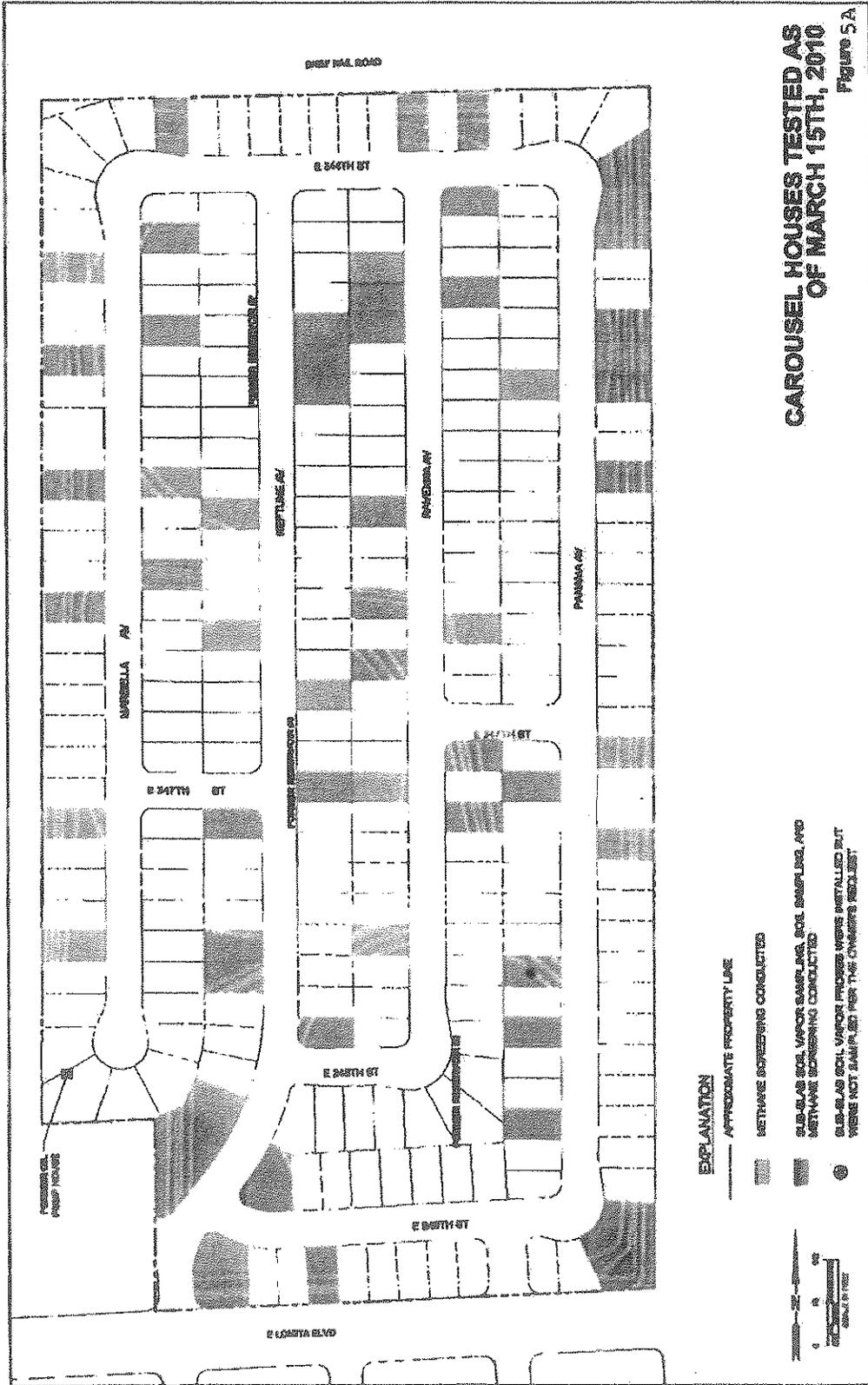


URS Corporation	
PROPOSED SOIL VAPOR SAMPLING LOCATIONS	
DATE: 08/14/01	SCALE: AS SHOWN
PROJECT: FORMER SAGE PROPERTY	SHEET: 3

0 25 50
 FEET
 NORTH
 URS CORPORATION
 1000 CALIFORNIA STREET, SUITE 100
 SAN FRANCISCO, CALIFORNIA 94108
 TEL: 415.774.4000
 FAX: 415.774.4001
 WWW.URS.COM

REVISIONS:
 1. 08/14/01 - LOCATION OF SAMPLING LOCATIONS
 2. 08/14/01 - LOCATION OF SAMPLING LOCATIONS
 3. 08/14/01 - LOCATION OF SAMPLING LOCATIONS
 4. 08/14/01 - LOCATION OF SAMPLING LOCATIONS
 5. 08/14/01 - LOCATION OF SAMPLING LOCATIONS
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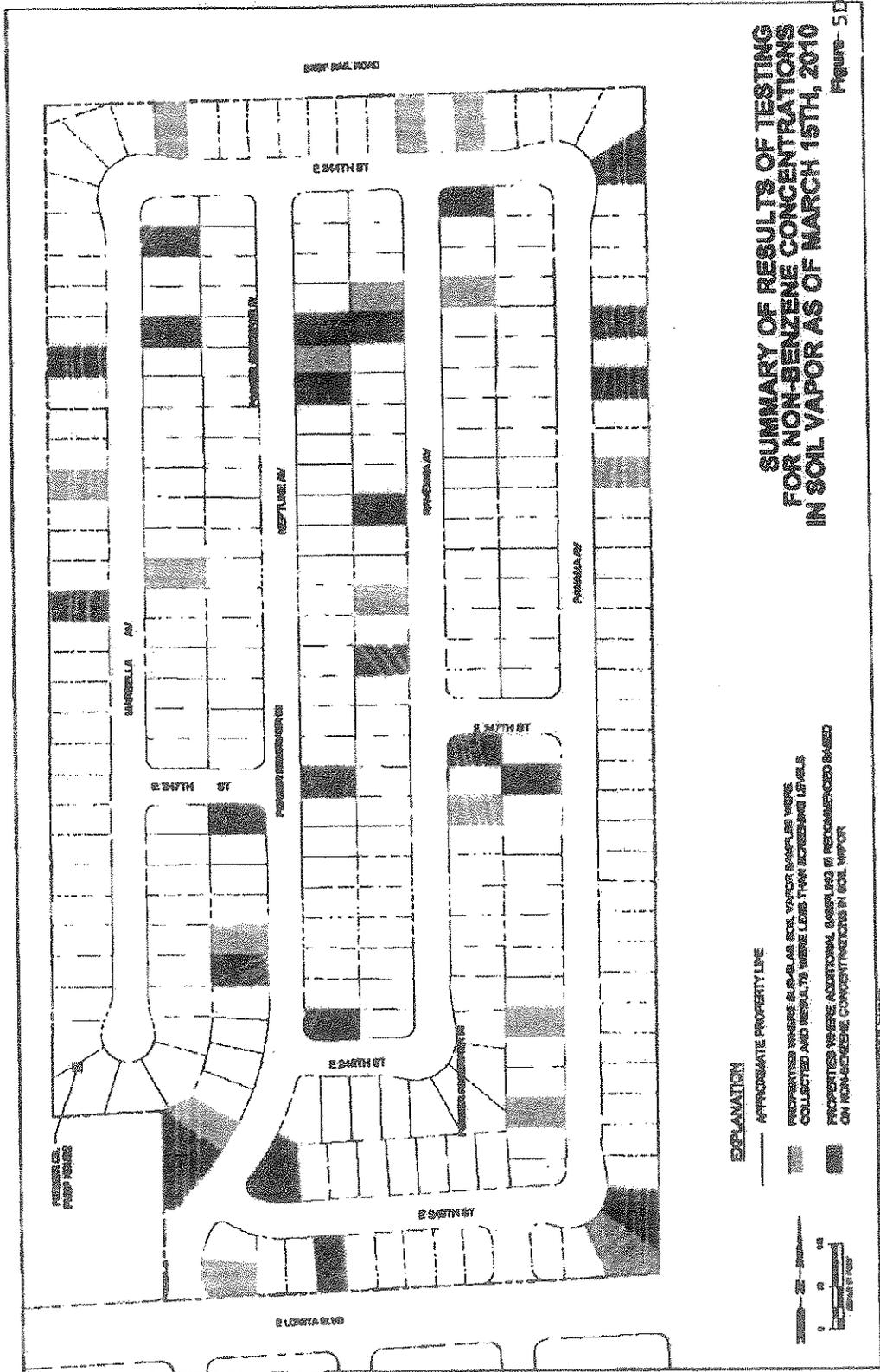


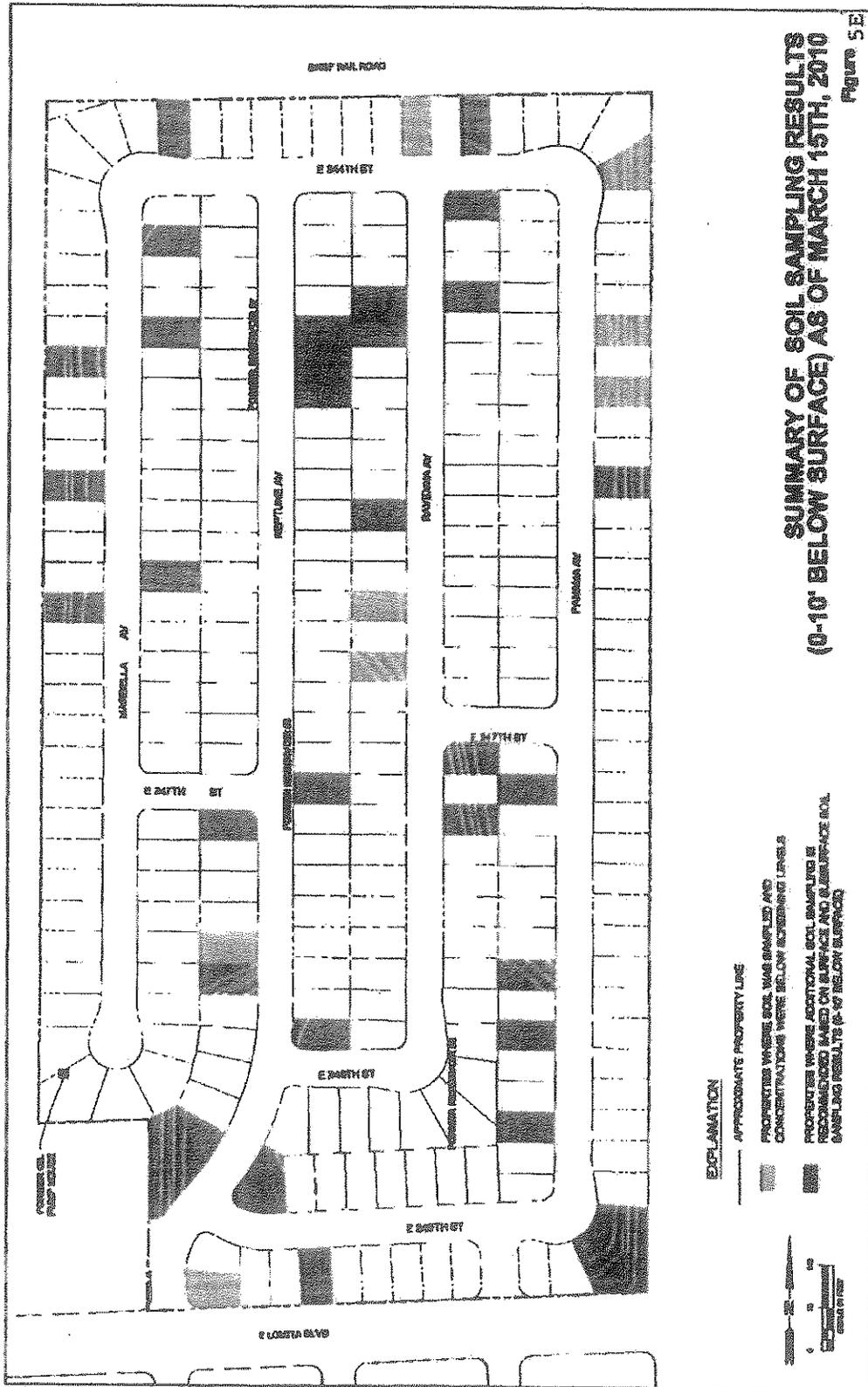
CAROUSEL HOUSES TESTED AS OF MARCH 15TH, 2010

Figure 5.A

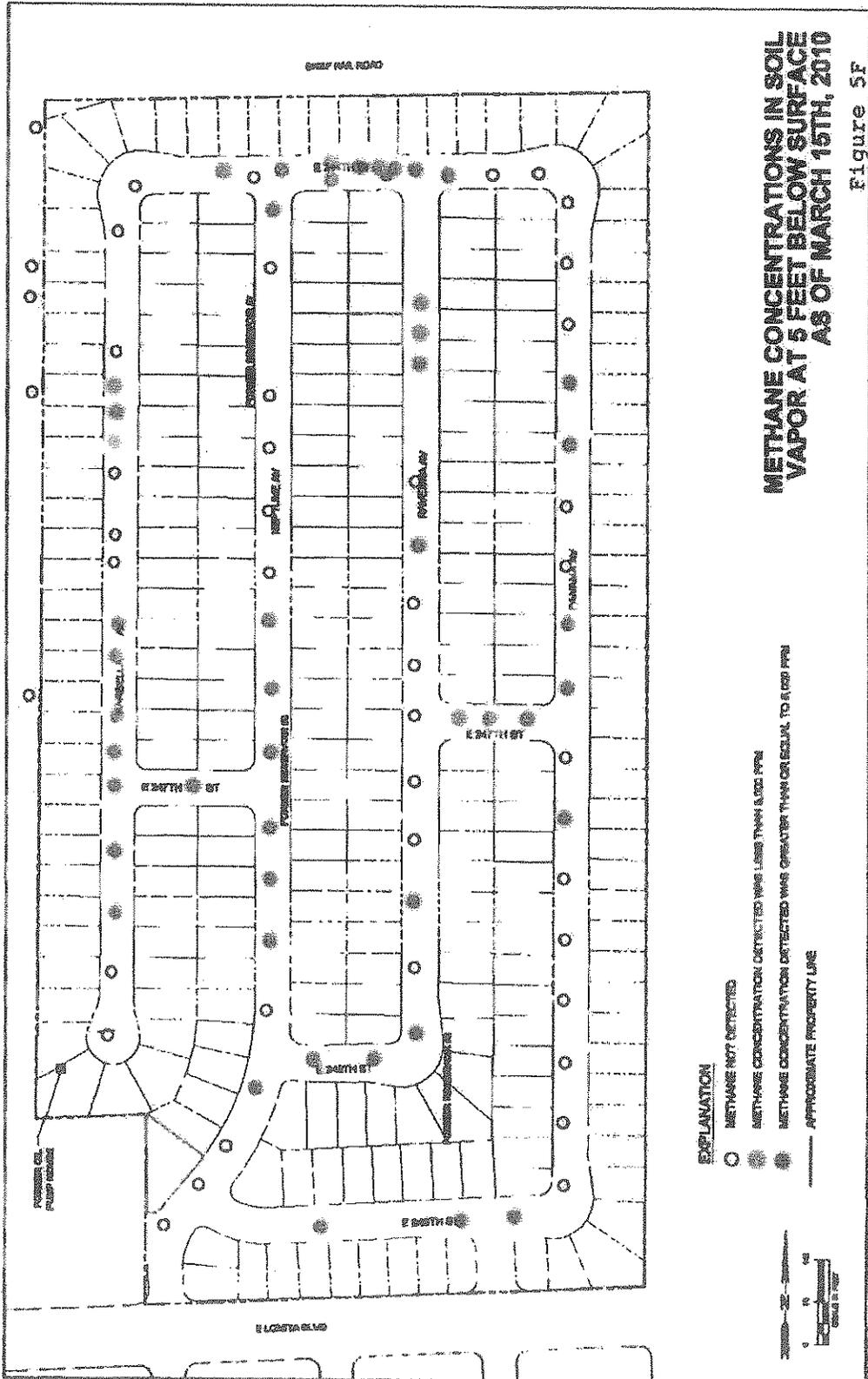
- EXPLANATION**
- APPROXIMATE PROPERTY LINE
 - METHANE SCREENING CONDUCTED
 - SUB-SLAB SOIL VAPOR SAMPLING SOLE SAMPLED, AND METHANE SCREENING CONDUCTED
 - SUB-SLAB SOIL VAPOR PROBES WERE INSTALLED BUT WERE NOT SAMPLED PER THE CHAIRMAN'S REQUEST







**SUMMARY OF SOIL SAMPLING RESULTS
(0-10' BELOW SURFACE) AS OF MARCH 15TH, 2010**



METHANE CONCENTRATIONS IN SOIL VAPOR AT 5 FEET BELOW SURFACE AS OF MARCH 15TH, 2010

Figure 5F

Table 1. Data Summary - Phase I & II Site Characterization

Medium	Constituents	Phase	Units	% of Sample Detection	5%ile	25%ile	Median	75%ile	95%ile	Maximum Detected Concentration	
Soil	Benzene	I	UG/KG	24.0%	ND 0.445	ND 0.5	ND 0.6	ND 1.10	4600	34000	
		II	UG/KG	55.2%	ND 0.13	ND 0.24	0.405	0.48	180	14000	
	Benzo (a) Pyrene	I	MG/KG	0%	ND 0.25	ND 0.25	ND 0.25	ND 1.25	ND 2.5	ND	ND
		II	MG/KG	67.2%	ND 0.0025	ND 0.011	0.25	0.25	2.5	2.5	3.6
	Naphthalene	I	MG/KG	22.3%	ND 0.00455	ND 0.0055	ND 0.25	ND 0.25	ND	14	29
		II	MG/KG	43.5%	0.0015	0.0041	0.013	ND 0.25	ND 0.25	4.7	61
	TPH as Diesel	I	MG/KG	39.4%	ND 2.5	ND 2.5	ND 2.5	ND 2.5	2700	13000	22000
		II	MG/KG	71.8%	ND 2.5	ND 2.5	70	470	7300	7300	33000
	TPH as Gasoline	I	MG/KG	40.6%	ND 0.11	ND 0.125	ND 0.14	190	4300	4300	8800
		II	MG/KG	43.7%	ND 0.063	ND 0.10	ND 0.10	0.18	560	560	5500
	TPH as Motor Oil	I	MG/KG	36.0%	ND 12.5	ND 12.5	ND 12.5	3500	11000	11000	21000
		II	MG/KG	74.7%	ND 12.5	ND 12.5	205	930	8900	8900	41000
Methane	I	%	55.1%	ND 0.39	ND 0.42	1.35	12.6	50.3	50.3	62.6	
	II	%	4.1%	ND 0.00011	ND 0.00012	ND 0.00012	ND 0.00012	ND 0.00012	ND 0.00024	78	
Soil Vapor	Benzene	I	UG/L	85.1%	ND 0.0016	0.028	0.10	3.3	150	3800	
		II	UG/L	27.6%	ND 0.0018	ND 0.0018	ND 0.0019	0.0038	0.013	6.5	
Naphthalene	I	UG/L	3.4%	ND 0.016	ND 0.12	ND 1.1	ND 8.5	ND 46	ND 46	1.2	
	II	UG/L	26.7%	ND 0.0031	ND 0.0115	ND 0.012	0.0125	0.017	0.017	0.18	

Shaded cells indicate not-detected result. 1/2 Detection limit reported Phase II investigation reports submitted to Regional Board as of July 19, 2010.

Table 1. Data Summary - Phase I & II Site Characterization

Medium	Constituents	Phase	Units	% of Sample Detection	5%ile	25%ile	Median	75%ile	95%ile	Maximum Detected Concentration	
Soil	Benzene	I	UG/KG	24.0%	ND 0.445	ND 0.5	ND 0.6	ND 1.10	4600	34000	
		II	UG/KG	55.2%	ND 0.13	ND 0.24	0.405	0.48	180	14000	
	Benzo (a) Pyrene	I	MG/KG	0%	ND 0.25	ND 0.25	ND 0.25	ND 1.25	ND 2.5	ND	ND
		II	MG/KG	67.2%	ND 0.0025	ND 0.011	0.25	0.25	2.5	2.5	3.6
	Naphthalene	I	MG/KG	22.3%	ND 0.00455	ND 0.0055	ND 0.25	ND	ND	14	29
		II	MG/KG	43.5%	0.0015	0.0041	0.013	ND 0.25	ND 0.25	4.7	61
	TPH as Diesel	I	MG/KG	39.4%	ND 2.5	ND 2.5	ND 2.5	ND 2.5	2700	13000	22000
		II	MG/KG	71.8%	ND 2.5	ND 2.5	70	470	7300	7300	33000
	TPH as Gasoline	I	MG/KG	40.6%	ND 0.11	ND 0.125	ND 0.14	190	4300	4300	8800
		II	MG/KG	43.7%	ND 0.063	ND 0.10	ND 0.10	0.18	0.18	660	5500
	TPH as Motor Oil	I	MG/KG	36.0%	ND 12.5	ND 12.5	ND 12.5	3500	3500	11000	21000
		II	MG/KG	74.7%	ND 12.5	ND 12.5	205	930	930	8900	41000
	Methane	I	%	55.1%	ND 0.39	ND 0.42	1.35	12.6	12.6	50.3	62.6
		II	%	4.1%	ND 0.00011	ND 0.00012	ND 0.00012	ND 0.00012	ND 0.00012	ND 0.00024	78
Soil Vapor	Benzene	I	UG/L	85.1%	ND 0.0016	0.028	0.10	3.3	150	3800	
		II	UG/L	27.6%	ND 0.0018	ND 0.0018	ND 0.0019	0.0038	0.013	0.013	6.5
Naphthalene	I	UG/L	3.4%	ND 0.016	ND 0.12	ND 1.1	ND 8.5	ND 8.5	ND 46	1.2	
	II	UG/L	26.7%	ND 0.0031	ND 0.0115	ND 0.012	0.0125	0.0125	0.017	0.18	

Shaded cells indicate not-detected result. 1/2 Detection limit reported Phase II investigation reports submitted to Regional Board as of July 19, 2010.



TABLE 1A
 Summary of Soil Sample Analytical Results- VOCs, SVOCs, and TPH
 Addendum to the IRAP- Further Site Characterization Report
 Former Kast Property

LOCATION NAME			244SV06A7	244SV05A7	244SV06A7
SAMPLE DATE			2/2/2010	2/2/2010	2/2/2010
SAMPLE DEPTH, ft bgs			2.5	5	10
SAMPLE NAME			244SV05A7-2.5	244SV06A7-5	244SV05A7-10
SAMPLE DELIVERY GROUP (SDG)	Method	Unit	10-02-0133	10-02-0133	10-02-0133
1,2,4-Trimethylbenzene			14,000	9,700	33,000
1,3,5-Trimethylbenzene			3,300	300	12,000
Acetone			< 4000	< 4200	< 11000
Benzene			11,000	9,600	3,900
Chlorobenzene			< 80	< 85	< 220
cis-1,2-Dichloroethene			< 80	< 85	< 220
Cumene (Isopropylbenzene)			4,800	4,500	6,300
Ethylbenzene			12,000	12,600	18,000
Methyl-tert-Butyl Ether			< 160	< 170	< 440
Naphthalene	SW8260B	µg/kg	7,300	7,200	9,800
n-Butylbenzene			2,800	2,400	5,100
p-Isopropyltoluene			2,500	1,800	6,000
Propylbenzene			6,200	6,800	9,600
sec-Butylbenzene			2,100	2,500	3,500
tert-Butylbenzene			94	120	< 220
Toluene			< 80	< 85	< 220
Vinyl Acetate			< 800	< 850	< 2200
Xylenes, Total			7,300	2,500	56,000
1-Methylnaphthalene			19	9.9	13
2-Methylnaphthalene			28	16	21
Fluorene			< 5.0	< 5.0	< 5.0
Naphthalene	SW8270C	mg/kg	11	7.8	10
Phenanthrene			7.4	< 5.0	< 5.0
Pyrene			< 5.0	< 5.0	< 5.0
TPH as Gasoline	M8015	mg/kg	2,500	2,500	5,000
TPH as Motor Oil	M8015	mg/kg	8,100	5,200	5,700
TPH as Diesel	SW8015B	mg/kg	85,000	5,500	5,600

Notes:

Bold text indicates results above laboratory reporting limit.

µg/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

ft bgs = feet below ground surface



TABLE 2(D)
Summary of Soil Vapor Analytical Results - VOCs and Fixed Gases
IRAP Further Site Characterization
Former Kast Property

LOCATION NAME			244-SV-05A5	244-SV-05A6	244-SV-05A7
SAMPLE DATE			2/4/2010	2/4/2010	2/4/2010
SAMPLE DEPTH, FT BGS			2.5	5	10
SAMPLE NAME			244-SV05A5-2.5	244-SV05A6-5	244-SV05A7-10
SAMPLE DELIVERY GROUP (SDG)	Method	Unit	1002128A/B	1002129A/B	1002129A/B
1,2,4-Trimethylbenzene			18000	< 2800	31000
1,3,5-Trimethylbenzene			< 6200	< 2800	8800
4-Ethyltoluene			17000	< 2800	20000
Benzene			390000 j	430000 j	630000
Cumene (Isopropylbenzene)			7800	8200	14000
Cyclohexane			1800000 j	470000 j	2700000 E
Ethylbenzene			50000	44000	85000
Heptane	TO15	UG/M3	1000000 j	< 2400	120000
Hexane			1900000 j	3300 j	260000
Naphthalene			590 J b	760 J b	1300 J b
o-Xylene			20000	< 2500	< 4900
p/m-Xylene			110000	< 2500	120000
Propylbenzene			8400	9300	16000
Toluene			33000	< 2200	< 4200
Carbon Dioxide			5.2	0.89	11
Methane	D1546	%	23	0.086	26
Oxygen			4.5	20	7.3

Notes:

Bold text indicates results above laboratory reporting limit.

µg/m³ = micrograms per cubic meter

% = percent

B = Compound detected in associated laboratory method blank (laboratory qualified)

J = Estimated value (laboratory qualified)

b = Compound detected in associated laboratory method blank (qualified during validation)

j = Estimated value (qualified during validation as the result is possibly biased high)

E = Estimated value. Result exceeded instrument calibration range during analysis

FT BGS = Feet below ground surface



Table 3

Maximum Concentrations of Aliphatic and Aromatic Hydrocarbons by Hydrocarbon Fractionation at Individual Properties

Street Name	House No	Units	Aliphatics (C5 - C8)	Aromatics (C6 - C8)	Aliphatics (C9 - C18)	Aromatics (C9 - C16)	Aliphatics (C19 - C32)	Aromatics (C17 - C32)
244TH ST	351	MG/KG	ND	ND	ND	ND	46	26
244TH ST	361	MG/KG	ND	ND	ND	ND	30	29
249TH ST	345	MG/KG	0.84	ND	140	300	220	240
249TH ST	352	MG/KG	ND	ND	ND	17	48	59
249TH ST	412	MG/KG	ND	0.014	ND	39	80	71
MARBELLA AVE	24412	MG/KG	2300	2	4100	2400	3100	4400
MARBELLA AVE	24426	MG/KG	2.2	0.1	220	240	340	210
MARBELLA AVE	24433	MG/KG	ND	ND	1300	6800	7200	6000
MARBELLA AVE	24517	MG/KG	ND	ND	ND	15	17	27
MARBELLA AVE	24532	MG/KG	350	54	1000	1200	1900	1600
MARBELLA AVE	24603	MG/KG	2	0.056	980	2400	1300	2000
NEPTUNE AVE	24422	MG/KG	1.4	ND	79	170	190	180
NEPTUNE AVE	24426	MG/KG	ND	ND	37	63	99	92
NEPTUNE AVE	24502	MG/KG	0.64	ND	32	72	94	110
NEPTUNE AVE	24632	MG/KG	ND	ND	51	226	300	420
NEPTUNE AVE	24703	MG/KG	68	2.5	1100	2560	2000	2300
NEPTUNE AVE	24725	MG/KG	ND	ND	ND	ND	ND	ND
NEPTUNE AVE	24729	MG/KG	ND	ND	ND	ND	37	35
NEPTUNE AVE	24738	MG/KG	710	130	2100	2000	1900	1300
NEPTUNE AVE	24815	MG/KG	ND	ND	ND	ND	100	54
NEPTUNE AVE	24825	MG/KG	ND	ND	ND	22	84	160
NEPTUNE AVE	24912	MG/KG	ND	ND	ND	ND	12	10
PANAMA AVE	24406	MG/KG	ND	ND	ND	56	260	250
PANAMA AVE	24430	MG/KG	ND	ND	ND	ND	ND	ND
PANAMA AVE	24502	MG/KG	ND	ND	ND	ND	ND	ND
PANAMA AVE	24518	MG/KG	ND	ND	17	46	110	130
PANAMA AVE	24709	MG/KG	2.8	1.1	1100	6100	5100	7200
PANAMA AVE	24739	MG/KG	5.8	0.25	14	240	96	250
PANAMA AVE	24809	MG/KG	53	3.8	220	520	440	570
PANAMA AVE	24823	MG/KG	210	ND	610	540	560	1000
PANAMA AVE	24838	MG/KG	ND	ND	ND	22	96	130
RAVENNA AVE	24402	MG/KG	680	60	680	630	920	730
RAVENNA AVE	24416	MG/KG	3.8	0.32	540	1500	2000	1900
RAVENNA AVE	24419	MG/KG	1.2	0.07	280	610	790	890
RAVENNA AVE	24423	MG/KG	780	23	820	830	700	600
RAVENNA AVE	24523	MG/KG	2.4	0.16	100	250	210	290
RAVENNA AVE	24603	MG/KG	ND	ND	ND	ND	15	ND
RAVENNA AVE	24613	MG/KG	76	ND	500	340	590	760
RAVENNA AVE	24700	MG/KG	ND	ND	15	67	340	410
RAVENNA AVE	24712	MG/KG	1.1	0.013	140	130	240	360

Note: The concentrations shown are the maximum concentration detected at each property.

The maximum concentration of aliphatic or aromatic hydrocarbons in a particular carbon-chain range may not occur in the same sample as the maximum concentrations in a different carbon-chain range.



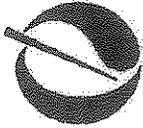
Table 4: Target Schedule

Task	Estimated Start Date	Target Completion Date	Schedule (on, ahead or behind)	Comments
Pilot Testing Work Plan	03/11/11	05/10/11		Within 60 days of the issuance of the CAO
Regional Board review of Pilot Testing Work Plan	05/11/11	07/11/11		Regional Board reviews Report and issues Response and approval
Pilot Test Report	07/12/11	11/07/11		Final Report due within 120 days with a bi monthly progress reporting
Environmental Impact Assessment (EIA) Report	NA	12/07/11		Within 30 days of the completion of the Pilot Testing Report
Regional Board Review of Pilot Test and EIA Reports	11/08/11	01/09/12		Review of Pilot Test & EIA Reports and Response
Site- Specific Cleanup Goals (SSCG)	NA	11/07/11		Due date is concurrent with the Pilot Test Report due date.
30 day Public Review of SSCG	11/08/11	12/08/11		
Remedial Action Plan (RAP)	01/11/12	03/11/12		Within 30 days of the completion of the Pilot Testing Report
30 day Public Review of RAP	03/12/12	04/12/12		
Regional Board Review of Remedial Action Plan	04/13/12	06/13/12		
Implementation of RAP	06/20/12			
Groundwater Monitoring and Reporting	On going			Quarterly Monitoring Program

Notes: (1) Dates are considered estimates and subject to revision in response to evolving field conditions and potential weather-related delays.
 (2) Project schedule reconciled/updated at the end of each calendar month.



Office of Environmental Health Hazard Assessment



Linda S. Adams
Secretary for Environmental Protection

Joan E. Denton, Ph.D., Director
Headquarters • 1001 I Street • Sacramento, California 95814
Mailing Address: P.O. Box 4010 • Sacramento, California 95812-4010
Oakland Office • Mailing Address: 1515 Clay Street, 16th Floor • Oakland, California 94612



Arnold Schwarzenegger
Governor

MEMORANDUM

TO: Dr. Teklewold Ayalew
Engineering Geologist
Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

FROM: James C. Carlisle, D.V.M., M.Sc.,
Lead Staff Toxicologist
Integrated Risk Assessment Branch

DATE: May 19, 2010

SUBJECT: TPH DATA FOR 41 HOMES AT THE FORMER KAST SITE IN CARSON,
CA (R4-09-17) OEHA # 880212-01

Document reviewed

- Memo: "Kast TPH Data for 41 homes" dated April 6, 2010.

Site characterization

- Analytical data for TPH in soils data are supplied for 41 homes. Sample depths are not always stated but those that are provided are either 0.5 or 5 feet.

Hazard Assessment

Based on the data in the memo, I estimated maximum exposures for a child and compared the resulting exposure estimates to DTSC reference dosages (RfDs).

- In the table below, columns 3-8 show the maximum TPH concentrations detected at each property.
- Columns 9-14 show the corresponding TPH ingestion by a 15 kg child ingesting 200 mg soil per day.
- Columns 15-20 show the corresponding hazard quotients for a 15 kg child, obtained by dividing the daily ingestion by the reference dose. Hazard quotients exceeding unity are in bold font.

California Environmental Protection Agency

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption.

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Street Name	House No	Detected concentrations (mg/kg)								Estimated child dose (mg/kg/day)								Hazard ratio (child)			
		Alpha tics (C5-C8)	Aroma tics (C6-C8)	Alpha tics (C9-C18)	Aroma tics (C9-C16)	Alpha tics (C17-C32)	Aroma tics (C6-C8)	Alpha tics (C5-C8)	Aroma tics (C17-C32)	Alpha tics (C19-C32)	Aroma tics (C6-C8)	Alpha tics (C9-C18)	Aroma tics (C9-C16)	Alpha tics (C5-C8)	Aroma tics (C17-C32)	Alpha tics (C19-C32)	Aroma tics (C9-C16)	Alpha tics (C5-C8)	Aroma tics (C17-C32)		
244TH ST	351	ND	ND	ND	ND	26	46	26	26	6.1E-4	3.5E-4	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	3.1E-4	1.2E-2	
244TH ST	361	ND	ND	ND	ND	29	30	29	29	4.0E-4	3.9E-4	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	2.0E-4	1.3E-2	
249TH ST	345	0.84	ND	140	300	240	220	240	240	1.1E-5	1.9E-3	4.0E-3	2.8E-4	2.9E-3	3.2E-3	2.8E-4	1.9E-2	1.3E-1	1.5E-3	1.1E-1	
249TH ST	352	ND	ND	ND	17	48	48	59	59	6.4E-4	7.9E-4	0.0E+0	0.0E+0	6.4E-4	7.9E-4	0.0E+0	0.0E+0	7.6E-3	3.2E-4	2.6E-2	
249TH ST	412	ND	0.014	ND	39	80	80	71	71	1.1E-3	9.5E-4	0.0E+0	0.0E+0	1.1E-3	9.5E-4	0.0E+0	0.0E+0	1.7E-2	5.3E-4	3.2E-2	
MARBELLA AVE	24412	2300	2	4100	2400	3100	4400	4400	4400	3.1E-2	2.7E-5	5.5E-2	7.7E-1	4.1E-2	5.9E-2	7.7E-1	5.5E-1	1.1	2.1E-2	2.0	
MARBELLA AVE	24426	2.2	0.1	220	240	340	210	210	210	2.9E-5	1.3E-6	2.9E-3	7.3E-4	4.5E-3	2.8E-3	7.3E-4	2.9E-2	1.1E-1	2.3E-3	9.3E-2	
MARBELLA AVE	24433	ND	ND	1300	6800	7200	6000	6000	6000	1.7E-2	9.1E-2	0.0E+0	0.0E+0	9.6E-2	8.0E-2	0.0E+0	1.7E-1	3.0	4.8E-2	2.7	
MARBELLA AVE	24517	ND	ND	ND	15	12	27	27	27	1.6E-4	2.0E-4	0.0E+0	0.0E+0	1.6E-4	3.6E-4	0.0E+0	0.0E+0	6.7E-3	8.0E-5	1.2E-2	
MARBELLA AVE	24532	350	54	1000	1200	1900	1600	1600	1600	4.7E-3	7.2E-4	1.3E-2	1.2E-1	2.5E-2	2.1E-2	1.2E-1	1.3E-1	5.3E-1	1.3E-2	7.1E-1	
MARBELLA AVE	24603	2	0.058	980	2400	1300	2000	2000	2000	2.7E-5	7.7E-7	1.3E-2	6.7E-4	1.7E-2	2.7E-2	6.7E-4	1.3E-1	1.1	8.7E-3	8.9E-1	
NEPTUNE AVE	24422	1.4	ND	79	170	190	180	180	180	1.1E-3	2.3E-3	2.4E-3	4.7E-4	2.5E-3	2.4E-3	4.7E-4	1.1E-2	7.6E-2	1.3E-3	8.0E-2	
NEPTUNE AVE	24426	ND	ND	37	63	99	92	92	92	4.9E-4	8.4E-4	1.3E-3	0.0E+0	1.3E-3	1.2E-3	0.0E+0	4.9E-3	2.8E-2	6.6E-4	4.1E-2	
NEPTUNE AVE	24502	0.64	ND	32	72	94	110	110	110	4.3E-4	9.6E-4	1.3E-3	2.1E-4	1.3E-3	1.5E-3	2.1E-4	4.3E-3	3.2E-2	6.3E-4	4.9E-2	
NEPTUNE AVE	24632	ND	ND	51	220	300	420	420	420	6.8E-4	2.9E-3	4.0E-3	0.0E+0	4.0E-3	5.6E-3	0.0E+0	6.8E-3	9.8E-2	2.0E-3	1.9E-1	
NEPTUNE AVE	24703	68	2.5	1100	2500	2000	2300	2300	2300	9.1E-4	3.3E-5	1.5E-2	2.3E-2	2.7E-2	3.1E-2	2.3E-2	1.5E-1	1.1	1.3E-2	1.02	
NEPTUNE AVE	24725	ND	ND	ND	ND	ND	ND	ND	ND	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	
NEPTUNE AVE	24729	ND	ND	ND	ND	37	35	35	35	4.9E-4	4.7E-4	0.0E+0	0.0E+0	4.9E-4	4.7E-4	0.0E+0	0.0E+0	0.0E+0	2.5E-4	1.6E-2	
NEPTUNE AVE	24738	710	130	2100	2000	1900	1300	1300	1300	9.5E-3	1.7E-3	2.8E-2	2.4E-1	2.5E-2	1.7E-2	2.4E-1	2.8E-1	8.9E-1	1.3E-2	5.8E-1	
NEPTUNE AVE	24815	ND	ND	ND	ND	100	54	54	54	1.3E-3	7.2E-4	0.0E+0	0.0E+0	1.3E-3	7.2E-4	0.0E+0	0.0E+0	0.0E+0	6.7E-4	2.4E-2	
NEPTUNE AVE	24825	ND	ND	ND	22	84	160	160	160	1.1E-3	2.1E-3	0.0E+0	0.0E+0	1.1E-3	2.1E-3	0.0E+0	0.0E+0	9.8E-3	5.6E-4	7.1E-2	
NEPTUNE AVE	24912	ND	ND	ND	ND	12	10	10	10	1.6E-4	1.3E-4	0.0E+0	0.0E+0	1.6E-4	1.3E-4	0.0E+0	0.0E+0	0.0E+0	8.0E-5	4.4E-3	
PANAMA AVE	24406	ND	ND	ND	56	260	250	250	250	3.5E-3	3.3E-3	0.0E+0	0.0E+0	3.5E-3	3.3E-3	0.0E+0	0.0E+0	2.5E-2	1.7E-3	1.1E-1	
PANAMA AVE	24430	ND	ND	ND	ND	ND	ND	ND	ND	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	
PANAMA AVE	24502	ND	ND	ND	ND	ND	ND	ND	ND	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	0.0E+0	
PANAMA AVE	24518	ND	ND	17	48	110	130	130	130	1.5E-3	1.7E-3	0.0E+0	0.0E+0	1.5E-3	1.7E-3	0.0E+0	2.3E-3	2.1E-2	7.3E-4	5.8E-2	
PANAMA AVE	24709	2.8	1.1	1100	6100	5100	7200	7200	7200	3.7E-5	1.5E-5	1.5E-2	9.3E-4	6.8E-2	9.6E-2	9.3E-4	1.5E-1	2.7	3.4E-2	3.2	
PANAMA AVE	24739	5.9	0.25	14	240	96	250	250	250	7.9E-5	3.3E-6	1.9E-4	2.0E-3	1.3E-3	3.3E-3	2.0E-3	1.9E-3	1.1E-1	6.4E-4	1.1E-1	
PANAMA AVE	24809	53	3.8	220	520	440	570	570	570	7.1E-4	5.1E-5	2.9E-3	1.8E-2	5.9E-3	7.6E-3	1.8E-2	2.9E-2	2.3E-1	2.9E-3	2.5E-1	



PANAMA AVE	24823	210	ND	610	540	560	1000	2.8E-3		8.1E-3	7.2E-3	7.5E-3	1.3E-2	7.0E-2	*	8.1E-2	7.4E-1	3.7E-3	4.4E-1
PANAMA AVE	24838	ND	ND	ND	22	96	130				2.9E-4	1.3E-3	1.7E-3	0.0E+0	*	0.0E+0	9.8E-3	6.4E-4	5.8E-2
RAVENNA AVE	24402	680	60	680	630	920	730	9.1E-3	8.0E-4	9.1E-3	8.4E-3	1.2E-2	9.7E-3	2.3E-1	*	9.1E-2	2.8E-1	6.3E-3	3.2E-1
RAVENNA AVE	24416	3.8	0.32	640	1500	2000	1900	5.1E-5	4.3E-6	8.5E-3	2.0E-2	2.7E-2	2.5E-2	1.3E-3	*	8.5E-2	6.7E-1	1.3E-2	8.4E-1
RAVENNA AVE	24419	1.2	0.07	280	510	790	890	1.6E-5	9.3E-7	3.7E-3	6.8E-3	1.1E-2	1.2E-2	4.0E-4	*	3.7E-2	2.3E-1	5.3E-3	4.0E-1
RAVENNA AVE	24423	780	23	820	830	700	600	1.0E-2	3.1E-4	1.1E-2	1.1E-2	9.3E-3	8.0E-3	2.6E-1	*	1.1E-1	3.7E-1	4.7E-3	2.7E-1
RAVENNA AVE	24523	2.4	0.16	100	250	210	290	3.2E-5	2.1E-6	1.3E-3	3.3E-3	2.8E-3	3.9E-3	8.0E-4	*	1.3E-2	1.1E-1	1.4E-3	1.3E-1
RAVENNA AVE	24603	ND	ND	ND	ND	15	ND					2.0E-4		0.0E+0	*	0.0E+0	0.0E+0	1.0E-4	0.0E+0
RAVENNA AVE	24613	76	ND	500	340	590	760	1.0E-3		6.7E-3	4.5E-3	7.9E-3	1.0E-2	2.5E-2	*	6.7E-2	1.5E-1	3.9E-3	3.4E-1
RAVENNA AVE	24700	ND	ND	15	67	340	410			2.0E-4	8.9E-4	4.5E-3	5.5E-3	0.0E+0	*	2.0E-3	3.0E-2	2.3E-3	1.8E-1
RAVENNA AVE	24712	1.1	0.013	140	130	240	360	1.5E-5	1.7E-7	1.9E-3	1.7E-3	3.2E-3	4.8E-3	3.7E-4	*	1.9E-2	5.8E-2	1.6E-3	1.6E-1
RfD								0.04		0.1	0.03	2	0.03		* * No RfD				

- Aromatic hydrocarbons in the C-9 to C-32 range at 24412, 24433, and 24603 Marbella Avenue, 24709 Panama Avenue, and 24703 Panama Neptune exceed their reference values for children (i.e. the hazard quotient is ≥ 1).
- While a hazard quotient ≥ 1 does not indicate that there will be definite toxic effects, it does indicate that the concentration exceeds the level that we can say is definitely safe.

Conclusions

- Aromatic hydrocarbons in the C-9 to C-32 range at five properties exceed their reference values for children (i.e. the hazard quotient is ≥ 1).

If you have any questions, do not hesitate to call or e-mail me at 916-323-2635 or jCarlsle@OEHHA.CA.gov, respectively.

Memo reviewed by:

Ned Butler, PhD
Staff Toxicologist
Integrated Risk Assessment Branch





May 5, 2010

Ms. Tracy Egoscue
Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

Shell Oil Company
One Shell Plaza
910 Louisiana Street
Houston, TX 77002
Tel (713) 241 5126
Email: ed.platt@shell.com
Internet <http://www.shell.com>

Reference: Former Kast Property, Carson, California
Site Cleanup No. 1230; Site ID 2040330

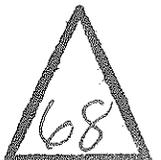
Dear Ms Egoscue:

As you know, during the past several months, Shell Oil Company employees and contractors have worked tirelessly to investigate and address the environmental issues at the former Kast Property. To date, we have sampled at approximately one-third of the homes in the Carousel neighborhood, and we will continue our work in conjunction with the RWQCB, based upon applicable and appropriate scientific and regulatory standards that are protective of human health and the environment. Like the RWQCB, our goal is to protect the residents of the Carousel neighborhood and address the environmental issues, while minimizing disruption to residents and preserving the integrity of the community.

Although elevated levels of compounds of concern (COCs) have been found beneath the streets and at certain residential properties, based on the data collected so far, there is no imminent risk to residents or the public in the Carousel neighborhood. Also, while Shell's investigation is not yet complete, it does not appear at this time that there is any significant off-site migration of soil impacts or soil vapor impacts from the former Kast Property.

Our approach, which is to develop a coherent conceptual framework for the mitigation and remediation of the Carousel neighborhood, is consistent with the RWQCB's guidelines providing for a principled, phased approach to investigating and remediating environmental impacts. Specifically, this approach follows the guidance set out in the State Water Resources Control Board's Resolution 92-49. In accordance with these guidelines, it includes "an evaluation of cleanup alternatives that are feasible at the site" and consistent with the maximum benefit to the people of the State. Because the soil and groundwater assessment is ongoing, a full evaluation of cleanup alternatives is premature at this time.

Nevertheless, we are considering a variety of potential alternatives that can be applied at specific properties and in the public streets in order to address environmental impacts and avoid any significant risk to human health in the Carousel neighborhood. For example, Shell has submitted a work plan for the soil vapor extraction pilot test. While evaluating alternatives, we place a priority on keeping the community intact and minimizing any disruption to residents of the Carousel community. If it becomes necessary for residents to relocate temporarily to perform this work, Shell will take appropriate steps to minimize any inconvenience and compensate them for any resulting expenses. We are also sensitive to the residents' concerns about their property values and are open to a dialogue with the RWQCB regarding these issues.



In addition, Shell is continuing to monitor the groundwater to ensure that there are no significant impacts emanating from the former Kast Property. In this regard, it is essential that groundwater conditions both up-gradient and down-gradient be evaluated. To date, our investigation suggests that groundwater up-gradient of the former Kast property is significantly contaminated. One potential source of this contamination appears to be the former Fletcher Oil Refinery, which we understand the County Sanitation District is remediating.

We look forward to further dialogue with the RWQCB regarding the draft Feasibility Study outline, recently submitted, as well as the Site Conceptual Model, to be submitted later this month. The Site Conceptual Model will provide: (1) an overview of our investigation efforts to date; (2) additional information regarding potential on and off-site sources for the COCs; and (3) a review of the available options for remediation of the former Kast property.

We appreciate your leadership on this project.

Sincerely,



William E. Platt
Manager, Environmental Claims
Shell Oil Company





Los Angeles Regional Water Quality Control Board

December 8, 2014

Michael Carter, President
Dole Food Company, Inc.
c/o Patrick W. Dennis
Gibson, Dunn & Crutcher LLP
333 South Grand Avenue
Los Angeles, CA 90071-3197

Douglas J. Weimer, Project Manager
Shell Oil Products US
20945 S. Wilmington Avenue
Carson, CA 90810

SUBJECT: TENTATIVE REVISED CLEANUP AND ABATEMENT ORDER PURSUANT TO CALIFORNIA WATER CODE SECTION 13304 CLEANUP AND ABATEMENT ORDER NO. R4-2011-0046

SITE: FORMER KAST PROPERTY TANK FARM LOCATED SOUTHEAST OF THE INTERSECTION OF MARBELLA AVENUE AND EAST 244TH STREET, CARSON, CALIFORNIA (SCP NO. 1230, SITE ID NO. 2040330, CAO NO. R4-2011-0046)

Dear Mr. Carter and Mr. Weimer:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the state regulatory agency responsible for overseeing the investigation and cleanup of sites in Los Angeles and Ventura Counties pursuant to the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) and other applicable laws and regulations.

Pursuant to its authority, Deborah Smith, Chief Deputy Executive Officer of the Regional Board, issued Cleanup and Abatement Order R4-2011-0046 (2011 CAO) to Shell Oil Company (Shell). The 2011 CAO required, among other tasks, that Shell continue its investigation of the Site, conduct pilot tests, conduct a human health risk assessment, and prepare and submit for Regional Board approval a proposed remedial action plan (RAP), including a feasibility study regarding methods of remediation. Prior to issuance of the 2011 CAO, Shell requested that the Regional Board add the developers of the Site as responsible parties to the CAO, including Barclay Hollander Corporation (Barclay) and Dole Food Company, Inc. (Dole). The Regional Board declined to add the developers to the draft CAO at that time and issued the CAO to Shell only on March 11, 2011, but the CAO included a finding that the Regional Board would continue to investigate the need to name additional responsible parties.

On October 31, 2013, Paula Rasmussen, Assistant Executive Officer of the Regional Board, who supervises the Site Cleanup Program, issued a public notice providing the opportunity for interested persons to comment on proposed revisions to the 2011 CAO (Proposed Draft Revised CAO). The proposed revisions would add Barclay as a responsible party to the 2011 CAO. Ms. Rasmussen issued a subsequent public notice providing the opportunity for additional comments on the proposed revisions. Written comments outside the scope of the revisions were not accepted nor responded to. The law firm of Gibson Dunn on behalf of Barclay and Dole and the law firm of Morgan Lewis on behalf of Shell submitted timely comments.

CHIEF DEPUTY EXECUTIVE OFFICER, SAMUEL UNDER, EXECUTIVE OFFICER

1201 West 40th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/laarwd

EXHIBIT NO. 2



Michael Carter, President
Dole Food Company, Inc.

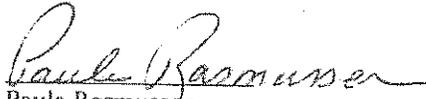
December 8, 2014

The Regional Board Site Cleanup Program staff has considered the comments received regarding the Proposed Draft Revised CAO. In response to those comments, the Regional Board Site Cleanup Program staff continues to propose to add Barclay as a responsible party to the 2011 CAO and has modified the Proposed Draft Revised CAO. The modified document is referred to as the Tentative Revised CAO. See Attachment.

The Regional Board Site Cleanup Program staff has prepared a Memorandum to Deborah Smith, Chief Deputy Executive Officer of the Regional Board, with numerous attachments, recommending that she issue the Tentative Revised CAO naming Barclay Hollander Corporation. A copy of the Memorandum is enclosed for your information. These documents and other data and reports for the Site are also available for your review at the Regional Board office and are also posted on the GeoTracker database: https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000000228.

If you have any questions, please contact the project manager, Dr. Teklewold Ayalew at (213) 576-6739 (tayalew@waterboards.ca.gov), or Ms. Thizar Tintut-Williams, Site Cleanup Unit III Chief, at (213) 576-6723 (twilliams@waterboards.ca.gov).

Sincerely,



Paula Rasmussen
Assistant Executive Officer

Attachment: Draft Tentative Revised Order

Enclosure: Memorandum to Deborah Smith from Samuel Unger dated December 8, 2014

cc: [With Attachment and Enclosure]

Patrick W. Dennis
Gibson, Dunn & Crutcher LLP
333 South Grand Avenue
Los Angeles, CA 90074-3197
pdennis@gibsondunn.com

Krista Hernandez
Gibson, Dunn & Crutcher LLP
333 South Grand Avenue
Los Angeles, CA 90074-3197
khernandez@gibsondunn.com

Barclay Hollander Corporation
5840 Uplander Way, Suite 202
Culver City, CA 90230

Deanne Miller
Morgan, Lewis & Bockius LLP
300 South Grand Avenue
Twenty-Second Floor



Michael Carter, President
Dole Food Company, Inc.

December 8, 2014

Los Angeles, CA 90071-3132
dmliller@morganlewis.com

Michael Leslie
Coldwell Leslie & Proctor, PC
1000 Wilshire Blvd, Suite 600
Los Angeles, CA 90017-2463
leslie@caldwell-leslie.com

Frances L. McChesney
Attorney IV
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, CA 95814
frances.mcchesney@waterboards.ca.gov

Jennifer Fordyce
Attorney III
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, CA 95814
jennifer.fordyce@waterboards.ca.gov

cc: [Without Enclosure]

Janice Hahn, Honorable Congresswoman, US House of Representatives,
California's 44th District
Mark Ridley-Thomas, Supervisor, Second District County of Los Angeles
Isadore Hall, III, Assembly member, 64th Assembly District
Jim Dear, Mayor of Carson
Nelson Hernandez, Carson City Manager
Ky Truong, City of Carson
James Carlisle, Office of Environmental Health Hazard Assessment
Bill Jones, Los Angeles County Fire Department
Barry Nugent, Los Angeles County Fire Department
Shahin Nourishad, Los Angeles County Fire Department
Miguel Garcia, Los Angeles County Fire Department
Kim Clark, Los Angeles County Fire Department
Hoang Ly, Los Angeles County Fire Department
Cyrus Rangan, Los Angeles County Department of Health
Angelo Bellomo, Los Angeles County Department of Health
Karen A. Lyons, Shell Oil Products US
Thomas V. Girardi, Girardi and Keese Lawyers
Robert W. Bowcock, Integrated Resources Management, LLC

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STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

CLEANUP AND ABATEMENT ORDER NO. R4-2011-0046
REQUIRING

SHELL OIL COMPANY
AND
BARCLAY HOLLANDER CORPORATION

TO CLEANUP AND ABATE WASTE
DISCHARGED TO WATERS OF THE STATE
PURSUANT TO CALIFORNIA WATER CODE SECTION 13304¹
AT THE FORMER KAST PROPERTY TANK FARM,
CARSON, CALIFORNIA

REVISED
DATE:
(FILE NO. 97-043)

Cleanup and Abatement Order No. R4-2011-0046 (Order) requires Shell Oil Company and Barclay Hollander Corporation, (hereinafter "Discharger") to assess, monitor, and cleanup and abate the effects of petroleum hydrocarbon compounds and other contaminants of concern discharged to soil and groundwater at the former Kast Property Tank Farm facility (hereinafter, the "Site") located southeast of the intersection of Marbella Avenue and East 244th Street, in Carson, California.

On March 11, 2011, the Regional Water Quality Control Board, Los Angeles Region (Regional Board) issued the Order requiring Shell Oil Company (Shell) to investigate and cleanup the Site. On July 28, 2010 in comments on the draft Order, the law firm of Morgan Lewis on behalf of Shell, requested that the Regional Board name Dole Food Company, Inc. (Dole) and its wholly-owned subsidiary Barclay Hollander Corporation (BHC) as responsible parties in the Order ("Morgan Lewis 2010 Letter"). At that time, the Regional Board declined to add Dole and BHC to the draft Order and issued the Order to Shell only. Subsequently, on April 22, 2011 the Regional Board issued an order pursuant to California Water Code section 13267 (13267 Order) requiring Dole to provide technical information about the Site. On September 15, 2011, the law firm of Gibson Dunn on behalf of Dole provided a detailed letter and attachments in response to the 13267 Order disputing that it and/or BHC should be named as responsible parties in the Order ("Gibson Dunn 2011 Letter"). On October 31, 2013, the Regional Board's Assistant Executive Officer proposed adding BHC as a responsible party to the Order and provided

¹ Water Code section 13304 (a) states, in part: Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts.

opportunities to submit comments on October 31, 2013 and June 3, 2014. Gibson Dunn and Morgan Lewis submitted comments. For the reasons discussed below, the Order is hereby revised to add BHC, a wholly-owned subsidiary of Dole, as a responsible party in the Order based on information provided by Shell and Dole and in the files of the Regional Board.

As of the date of this revised Order, Shell has completed many of the tasks required by the Order since its issuance on March 11, 2011. This Order is not being revised to delete tasks already completed by Shell but is being revised to add BHC as a responsible party and to make appropriate findings based on the information provided by Dole and Shell since issuance of the Order and to clarify that the Discharger is responsible for preparing draft environmental documentation. The Regional Board's files include records documenting the activities associated with this Order.

The Regional Board herein finds:

BACKGROUND

1. **Discharger:** ~~Shell Oil Company~~ Shell, previously Shell Company of California, is a Responsible Party due to its: (a) ownership of the former Kast Property Tank Farm, and (b) former operation of a petroleum hydrocarbon tank farm at the Site resulting in discharges of waste at the Site. Barclay Hollander Corporation (BHC) is a responsible party due to its (a) past ownership and/or as a successor to past owners of the Site, and (b) development of the property resulting in discharges of waste at the Site. Shell and BHC are hereafter referred to collectively as "Discharger". The actions of the Discharger have caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and have created a condition of pollution or nuisance.
2. **Location:** The Site is located southeast of the intersection of Marbella Avenue and East 244th Street in the City of Carson, California. The Site occupies approximately 44 acres of land and is bordered by the Los Angeles County Metropolitan Transportation Authority railroad right-of-way on the north, Lomita Boulevard on the south, Marbella Avenue on the west, and Panama Avenue on the east (Figure 1). The Site was previously owned by ~~the Discharger Shell~~, who operated three oil storage reservoirs from the 1920s to the mid-1960s. The central and southern reservoirs each had a capacity of 750,000 barrels of oil and the northernmost reservoir had a capacity of 2,000,000 barrels of oil. The Site presently consists of the Carousel residential neighborhood and city streets.
3. **Groundwater Basin:** The Site is located on the Torrance Plain of the West Coast Groundwater Basin (Basin), in the southwestern part of the Coastal Plain of Los Angeles County. Beneath the Site, the first encountered groundwater is estimated at 54 feet below ground surface (bgs). The Basin is underlain by a series of aquifers, the deeper of which are used for drinking water production. These aquifers are with increasing depth, the Gage aquifer, Lynwood aquifer, and Silverado aquifer. The nearest municipal water supply well is located approximately 400 feet west of the Site. As set forth in the *Water Quality Control Plan for the Los Angeles Region* (the Basin Plan), adopted on June 13, 1994, the Regional Board has designated beneficial uses for groundwater (among which include municipal and domestic drinking water supplies) in the West Coast Basin and has established water quality objectives for the protection of these beneficial uses.



4. As detailed in the findings below, the Discharger's activities at the Site have caused or permitted the discharge of waste resulting in soil, soil vapor, and groundwater pollution, including discharges of waste to the waters of the state, and nuisance.

SITE HISTORY

5. **Property Ownership and Leasehold Information:** Based on information submitted to the Regional Board by the Discharger, the Site has the following property ownership and leasehold history:

- a. According to the Sanborn maps dated 1924 and 1925, the Site was owned and operated by "Shell Company of California (Kast Property)" beginning in approximately 1924 until the mid-1960s. The Site was used as a tank farm, which included three crude oil storage reservoirs, Reservoir Nos. 5, 6 and 7. Reservoir No.5, the center reservoir, had a capacity of 750,000 barrels of oil and was under lease to General Petroleum Corporation. Reservoir No. 6, the southernmost reservoir, had a capacity of 750,000 barrels of oil; and Reservoir No. 7, the northernmost reservoir, had a capacity of 2,000,000 barrels of oil. According to Sanborn map notations, the reservoirs had concrete-lined earth-slopes with frame roofs on wood posts, surrounded by earth levees averaging 20 feet in height with 7 foot wide walks on top. One oil pump house was depicted on the 1925 Sanborn map within the southern portion of the Site. Since construction, the Site was used as a crude oil storage reservoir.
- ~~b. In 1966, SOC sold the Site to Lomita Development Company, an affiliate of Richard Barclay and Barclay Hollander Curei (BHC), with the reservoirs in place. The Pacific Soils Engineering Reports dated January 7, 1966; March 11, 1966; July 31, 1967; and June 11, 1968 documented that: 1) Lomita Development Company emptied and demolished the reservoirs, and graded the Site prior to it developing the Site as residential housing; 2) part of the concrete floor of the central reservoir was removed by Lomita Development Company from the Site; and 3) where the reservoir bottoms were left in place, Lomita Development Company made 8 inch wide circular trenches in concentric circles approximately 15 feet apart to permit water drainage to allow the percolation of water and sludge present in the reservoirs into the subsurface.~~
- ~~c. In phases between 1967 and 1969, Lomita Development Company developed the Site into one and two story single family residential parcels and sold the developed lots to individual homeowners.~~
- d. In 1965, Richard Barclay and Shell executed a Purchase Option Agreement, wherein Richard Barclay (or his nominee) agreed to purchase the Property, subject to a favorable engineering report and other restrictions. Richard Barclay was a principal in an entity known as Barclay-Hollander-Curei. In 1966, Lomita Development Company (Lomita), a California partnership, was designated as Mr. Barclay's "nominee" and purchased the Property from Shell with the reservoirs in place. Lomita explicitly agreed in writing to complete decommissioning of the reservoirs. In phases between 1967 and



1969, Lomita developed the Site into one- and two-story single family residential parcels and sold the developed lots to individual homeowners. In 1969, a group of companies, including Lomita, merged into a company known as Barclay Hollander Curci, Inc., which was then acquired by Castle & Cooke, Inc. and it became a wholly-owned subsidiary of Castle & Cooke, Inc. Barclay Hollander Curci, Inc. continued to sell parcels to residential owners. Barclay Hollander Curci, Inc. was later renamed Barclay Hollander Corporation, Inc. (BHC). Castle & Cooke, Inc. merged with Flexi-Van Corporation in 1985, which in 1991, changed its name to Dole Food Company, Inc. BHC agreed to be responsible for the liabilities of Lomita and the other entities. BHC is currently a wholly-owned subsidiary of Dole, but has no assets.²

6. Site Description and Activities: According to information in the Regional Board's file on this Site, oil related operations at the Site began in 1923 and ended by the early 1960s. The Site was previously owned and operated by Shell Company of California, which was subsequently renamed Shell Oil Company, as a crude oil storage facility. The facility included equipment that pumped the oil to the nearby ~~SOC's~~ Shell refinery for processing from three concrete-lined oil storage reservoirs with a total capacity of 3.5 million barrels. In 1966, ~~SOC Shell~~ closed the Site and ~~SOC~~ sold the Site to Lomita Development Company, an affiliate of Richard Barclay and Barclay-Hollander-Curci. Subsequently, Lomita Development Company developed the Site into the Carousel residential neighborhood, which contains 285 single-family homes.

In 1965, prior to the purchase of the property from Shell, Richard Barclay and/or Barclay Hollander Curci requested permission from Shell to remove the liquid waste and petroleum residue from the property and to begin to grade the property for development. Shell agreed to allow the activities with some conditions, including that "all work done by or for [Barclay Hollander Curci] be done in a good, lawful and workmanlike manner." After purchasing the property in 1966, Lomita, as the owner of the property, actively participated in the decommissioning and grading activities. Lomita conducted the waste removal and grading activities and obtained the required permits from the County. Available information indicates that by August 15, 1966 all three reservoirs had been fully cleaned out. The Pacific Soils Engineering Reports dated January 7, 1966; March 11, 1966; July 31, 1967; and June 11, 1968³ documented that: (1) Lomita emptied and demolished the reservoirs, and graded the Site prior to it developing the Site as residential housing; (2) part of the concrete floor of the central reservoir was removed by Lomita from the Site; and (3) where the reservoir bottoms were left in place, Lomita made 8-inch wide circular trenches in concentric circles approximately 15 feet apart to permit water drainage to allow the percolation of water and sludge present in the reservoirs into the subsurface. Various documents from the soil engineer describe the process of removing water and sludge in the reservoirs, burying concrete and compacting the concrete and soil, and drilling holes in the concrete to allow for percolation into the groundwater. The County's grading permit required that concrete fill must be at least seven feet below grade. Boring logs indicated that soils beneath the concrete slab in Reservoir 7 were "highly oil stained" and that soils in the borings had a

² See Exhibit 76 to Gibson Dunn 2011 Letter.

³ See Exhibits 31, 78, 36, and 42 to Gibson Dunn 2011 Letter.



"petroleum odor, however the amount of actual oil contained in the soil is unknown."⁴ One of the soil engineering reports also indicated that soil used to fill in the reservoirs and return the Property to its natural grade came from the berms surrounding each reservoir and surrounding the perimeter of the Property.⁵ In 1967, Lomita began transferring title of individual parcels. In 1969, title to remaining parcels was granted by grant deed from Lomita to BHC. Then BHC began transferring title to the rest of the parcels.

6. **Chemical Usage:** Based on the Phase I Environmental Site Assessment (ESA) dated July 14, 2008 conducted by Shell Oil Products⁶ (SOPUS) consultant, URS Corporation, the Site was used for the storage of crude oil in all three reservoirs on the property from at least 1924 to 1966. Subsequent records indicate that in the 1960s the reservoirs may also have been used for storage of bunker oil. Ongoing investigations indicate petroleum hydrocarbon compounds including volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) are impacted in the subsurface soil, soil vapor, and groundwater underlying the Site.

EVIDENCE OF DISCHARGES OF WASTE AND BASIS FOR ORDER

7. **Waste Discharges:** The following summarizes assessment activities associated with the Site:
 - a. In 2007, under the regulatory oversight of the California Department of Toxic Substances Control (DTSC), an environmental investigation was initiated at the former Turco Products Facility (TPF). Soil vapor and groundwater were investigated in areas directly west of the Site and at locations in the northwestern portion of the Site. The DTSC-required investigation detected petroleum hydrocarbons, benzene, toluene, and chlorinated solvents in soil and soil vapor. A multi-depth soil vapor survey, which included soil vapor sampling on the Site at locations coincident with the former Kast Site footprints, detected benzene at concentrations up to 150 micrograms per liter ($\mu\text{g/l}$). Benzene was detected at TPF groundwater monitoring well MW-8, which has a northeast flow direction, at a concentration of 1,800 $\mu\text{g/l}$. Therefore, groundwater monitoring well MW-8 is located upgradient of the Kast Site. Chlorinated solvents were also detected at the Kast Site groundwater monitoring well MW-5.
 - b. The *Final Phase I Site Characterization Report* dated October 15, 2009, which was prepared by URS Corporation on behalf of SOPUS showed that soil impacts consisted primarily of petroleum hydrocarbons spanning a wide range of carbon chains and including Total Petroleum Hydrocarbons (TPH) as gasoline (g), TPH as diesel (TPHd), TPH as motor oil (TPHmo), benzene, and naphthalene (See Tables 1, 2A, 2B, and 3).

⁴ See Exhibit 78 to Gibson Dunn 2011 Letter, March 11, 1966 Report by Pacific Soils Engineering Inc.

⁵ See Exhibit 31 and Declaration of Lee Volmer, attached to Gibson Dunn 2011 Letter.

⁶ Shell Oil Products US is the d/b/a for Equilon Enterprises LLC, which is wholly owned by Shell Oil Company.



- I. In June 2009, a subsurface investigation of public streets in the Carousel neighborhood consisting of ten cone penetrometer/rapid optical screening tools (CPT/ROST) was performed. The CPT/ROST logs indicated several locations within the Site with elevated hydrocarbon concentrations. The CPT/ROST logs also showed that the highest apparent soil impacts occurred at depths of 12 feet bgs, 36 feet bgs, and 40 feet bgs.
- II. A total of 228 soil samples were collected during the Phase I Site Characterization. The analytical data for soil samples collected from soil borings advanced on public streets across the Site (Figure 2) were as follows:
 - i. The highest detected concentration of TPH was 22,000 milligrams per kilogram (mg/kg) and TPHg, TPHd, and TPHmo were 8,800, 22,000, and 21,000 mg/kg, respectively;
 - ii. Benzene, ethylbenzene, toluene, and xylenes were detected in concentrations as high as 21,000 micrograms per kilogram ($\mu\text{g}/\text{kg}$), 32,000 $\mu\text{g}/\text{kg}$, 12,000 $\mu\text{g}/\text{kg}$, and 140,000 $\mu\text{g}/\text{kg}$, respectively;
 - iii. SVOCs were detected in concentrations as high as 47 mg/kg of naphthalene, 38 mg/kg of 1-methylnaphthalene, 63 mg/kg of 2-methylnaphthalene, 12 mg/kg phenanthrene, and 9.0 mg/kg pyrene; and
 - iv. Arsenic and lead were detected in concentrations as high as 53.2 mg/kg and 52.5 mg/kg, respectively.
- III. Soil vapor samples collected from a 5-foot depth and greater below the public streets in the Carousel neighborhood indicated elevated benzene and methane (Figures 3 and 4). Benzene was detected at a maximum concentration of 3,800 $\mu\text{g}/\text{l}$, which exceeds the California Human Health Screening Level (CHHSL) value of 0.036 $\mu\text{g}/\text{l}$ for benzene set for shallow soil vapor in a residential area. Methane was also detected in concentrations as high as 59.7 % (by volume) that significantly exceed its lower explosive limit of 5% (by volume), posing a potential safety hazard.
- c. Between September 2009 and February 2010, residential soil and sub-slab soil vapor sampling was conducted at 41 parcels (Figure 5 a - f; Tables 1 and 2) and the results were as follows:
 - I. Surface and subsurface soil (0 to 10 feet bgs) detected concentrations of chemicals of concern that significantly exceeded soil screening levels as follows:
 - i. VOCs - Benzene (14,000 $\mu\text{g}/\text{kg}$), tetrachloroethylene (PCE) (22,000 $\mu\text{g}/\text{kg}$), 1,2,4-trimethylbenzene (34,000 $\mu\text{g}/\text{kg}$), and 1,3,5-trimethylbenzene (14,000 $\mu\text{g}/\text{kg}$);



- ii. SVOCs - Naphthalene (18 mg/kg), Benzo(a)pyrene (2.9 mg/kg), benzo(a)anthracene (0.1 mg/kg), chrysene (0.27 mg/kg), phenanthrene (0.28 mg/kg), and pyrene (0.19 mg/kg); and
 - iii. Lead was also detected at a maximum concentration of 307 mg/kg.
- II. The highest detected concentration of TPHg was 5,000 mg/kg, TPHd was 33,000 mg/kg, and TPHmo was 41,000 mg/kg;
 - III. As of September 27, 2010, sub-slab soil vapor samples have been collected from 172 homes in the Carousel neighborhood. Additional data continues to be collected as part of the Phase II Site Characterization. The validated data from the first 41 homes detected benzene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, ethylbenzene, p/m-xylenes, toluene, and acetone, at a maximum concentration of 4,500 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), 2,200 $\mu\text{g}/\text{m}^3$, 1,000 $\mu\text{g}/\text{m}^3$, 1,100 $\mu\text{g}/\text{m}^3$, 5,200 $\mu\text{g}/\text{m}^3$, 700 $\mu\text{g}/\text{m}^3$, 270 $\mu\text{g}/\text{m}^3$, respectively.
- d. Between November 19, 2009 and February 15, 2010, additional step-out soil and soil vapor sampling at the elevated soil vapor sampling locations were conducted in selected locations beneath the public streets at the Site. The measured concentrations for petroleum hydrocarbons in soil were as follows:
 - I. The highest detected concentrations of TPHg was 9,800 mg/kg, TPHd was 22,000 mg/kg, and TPHmo was 21,100 mg/kg;
 - II. The highest detected concentrations of benzene was 33,000 $\mu\text{g}/\text{kg}$, Ethylbenzene was 42,000 $\mu\text{g}/\text{kg}$, toluene was 11,000 $\mu\text{g}/\text{kg}$, and xylenes were 140,000 $\mu\text{g}/\text{kg}$, respectively;
 - III. SVOCs were detected in concentrations as high as 47 mg/kg of naphthalene, 33 mg/kg of 1-methylnaphthalene, 53 mg/kg of 2-methylnaphthalene, 6.1 mg/kg phenanthrene, and 3.9 mg/kg pyrene; and
 - IV. Arsenic and lead were detected in concentrations as high as 28.2 mg/kg and 13.6 mg/kg, respectively.
 - e. In July 2009, the installation of six on-site groundwater monitoring wells (Figure 6) were completed and quarterly groundwater monitoring was initiated. Groundwater was encountered at 53 feet bgs. Groundwater samples from five of the six wells contained concentrations of benzene at a maximum concentration of 140 $\mu\text{g}/\text{L}$ and trichloroethylene (TCE) at a maximum concentration of 290 $\mu\text{g}/\text{L}$. One of the monitoring wells (MW-3) contains a free product or a light non-aqueous phase liquid (LNAPL) with a maximum measured thickness of 9.01 foot as of May 27, 2010.

8. Source Elimination and Remediation Status at the Site

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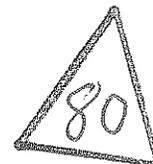
- a. The results of the initial soil and soil vapor investigation indicate the presence of elevated methane and benzene at concentrations exceeding the Lower Explosive Limit and the CHHSL for shallow soil vapor, at several locations beneath the public streets at the Site. On October 15, 2009, the Regional Board directed the Discharger to expeditiously design and implement an interim remedial action.
- b. On May 12, 2010 the Regional Board approved SOPUS's proposed Soil Vapor Extraction (SVE) pilot test in order to evaluate the use of this technology as a remedial option for VOCs at the Site.

9. Summary of Findings from Subsurface Investigations

- a. Regional Board staff have reviewed and evaluated numerous technical reports and records pertaining to the release, detection, and distribution of wastes on the Site and its vicinity. The Discharger has stored, used, and/or discharged petroleum hydrocarbon compounds at the Site. Elevated levels of TPH and other wastes have been detected in soil, soil vapor and groundwater beneath the Site.
- b. The sources for the evidence summarized above include, but are not limited to:
 - I. Various technical reports and documents submitted by the Discharger or its representatives to Regional Board staff.
 - II. Site inspections conducted by Regional Board staff, as well as meetings, letters, electronic mails, and telephone communications between Regional Board staff and the Discharger and/or its representatives.
 - III. Subsurface drainage study for the Site reservoirs submitted by Girardi and Keese, the law firm retained by some of the residents of the Carousel neighborhood.

10. Summary of Current Conditions Requiring Cleanup and Abatement

- a. Based on the Phase I ESA for the Site dated July 14, 2008 (prepared by URS Corporation) and the most recent information provided to the Regional Board by SOPUS: 1) SOC sold the Kast Site to Lomita Development Company, an affiliate of Richard Barclay and Barclay-Hollander-Curci, in 1966 with the reservoirs in place; 2) the Pacific Soils Engineering Reports from 1966 to 1968 indicate that Lomita Development Company emptied and demolished the reservoirs, and constructed residential housing; 3) part of the concrete floor of the central reservoir was removed by Lomita Development Company from the Site; and 4) where the reservoir bottoms were left in place, Lomita Development Company made 8-inch wide circular trenches in concentric circles approximately 15 feet apart to permit water drainage to allow percolation of water and sludge present in the reservoirs into the subsurface.
- b. There is no consistent trend in the vertical distribution of detected concentrations of petroleum hydrocarbon compounds that can be discerned from soil boring data to date. Although, the majority of the aforementioned highest detected TPH concentrations were obtained from the 2.5-foot depth samples, there were



multiple locations where the highest concentrations were in the 5-foot or 10-foot samples. This may be due to the nature of previous development activities by Lomita Development Company at the Site (i.e., the construction and demolition of the former reservoirs and site grading in preparation for development of the residential tract).

- c. On May 11, 2010, Environmental Engineering and Contracting, consultants hired by Girardi and Keese, conducted exploratory trenching in order to locate and identify the obstructions that have been frequently encountered during the advancement of shallow soil borings at many of the residential homes investigated to date. Regional Board staff observed the encountering of an approximately 8-inch thick concrete slab extending at the trench excavation termination depth of 9 feet, 2 inches. The Pacific Soils Engineering Report dated January 7, 1966 states that the reservoirs were lined with a "four inch blanket of reinforced concrete". These obstructions are presumed to be remnants of the concrete liners of the former reservoir.
- d. Results from the 169 Interim Residential Sampling Reports submitted to the Regional Board through November 17, 2010 indicate that for surface and subsurface soil sampling (0 to 10 feet bgs), the cancer risk index estimate is between 0 and 10 for 107 residential parcels, between 10 and 100 for 60 parcels, and exceeded 100 for 2 parcels. In the area where the highest cancer index is documented, SVOCs (i.e. Benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene and chrysene), benzene, and ethylbenzene were the primary chemicals of potential concern (COPCs) contributing to the cancer risk index.

For the Carousel neighborhood investigation, the Regional Board is using the most protective cancer risk screening levels recommended by the State and federal governments, which is one in one million (1×10^{-6}) additional risks. For screening purposes, the Regional Board routinely uses the most conservative (health-protective assumptions) risk based screening levels of 1×10^{-6} for the target chemical. This screening level is based on a target risk level at the lower end of the US Environmental Protection Agency (USEPA) risk management range of one-in-a-million risk (1×10^{-6}) for cancer risk and a hazard quotient of 1.

The presence of a chemical at concentrations in excess of a CHHSL does not indicate that adverse impacts to human health are occurring or will occur, but suggests that further evaluation of potential human health concerns is warranted (Cal-EPA, 2005). It should also be noted that CHHSLs are not intended to "set ... final cleanup or action levels to be applied at contaminated sites" (Cal-EPA, 2005).

- e. Results from the 169 Interim Residential Sampling Reports submitted to the Regional Board through November 17, 2010 also indicate that for the sub-slab soil vapor data collected from the residential parcels, the cancer risk index estimate was between 0 and 10 for 147 parcels, between 10 and 100 for 20 parcels, and greater than 100 for 2 parcels. The two highest cancer risk index



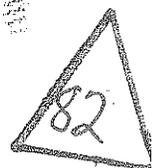
were estimated as 550 and 120. In most cases, benzene was the primary contributor to the cancer risk index estimate.

- f. The Office of Environmental Health Hazard Assessment (OEHHA) performed a quantitative risk evaluation of TPH using surface and subsurface (0 to 10 feet bgs) soil TPH fractionation data for the 41 residential parcels (Table 3). Based on the risk calculation, OEHHA estimated maximum exposures for a child and compared the resulting exposure estimates of reference dosages with that provided by DTSC interim guidance dated June 16, 2009. OEHHA concluded that aromatic hydrocarbons in the C-9 to C-32 range at five parcels exceeded their reference values for children (Exhibit 1).
- g. The San Francisco Bay Regional Water Quality Control Board developed the Environmental Screening Level (ESL) as guidance for determining when concentration of TPH may present a nuisance and detectable odor. The ESL, based on calculated odor indexes, for residential land-use, is 100 mg/kg for TPHg and TPHd. The soil TPHg and TPHd data obtained from the Site were detected up to 9,800 mg/kg and 85,000 mg/kg, respectively, which exceed the ESL.

11. Pollution of Waters of the State: The Discharger has caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance. As described in this Order and the record of the Regional Board, the Discharger owned and/or operated the site in a manner that resulted in the discharges of waste. The constituents found at the site as described in Finding 8 constitute "waste" as defined in Water Code section 13050(d). The discharge of waste has resulted in pollution, as defined in Water Code section 13050(l). The concentration of waste constituents in soil and groundwater exceed water quality objectives contained in the Water Quality Control Plan for the Los Angeles Region (Basin Plan), including state-promulgated maximum contaminant levels. The presence of waste at the Site constitutes a "nuisance" as defined in Water Code section 13050(m). The waste is present at concentrations and locations that *"is injurious to health, or is indecent, or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property . . . and [a]ffects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal."*

12. Need for Technical Reports: This Order requires the submittal of technical or monitoring reports pursuant to Water Code section 13267⁷. The Discharger is required to submit the reports because, as described in the Findings in this Order, the Discharger is responsible for the discharge of waste that has caused pollution and nuisance. The reports are necessary to evaluate the extent of the impacts on water quality and public health and to determine the scope of the remedy.

⁷ Water Code section 13267 authorizes the Regional Board to require any person who has discharged, discharges, or is suspect of having discharged or discharging, waste to submit technical or monitoring program reports.



13. ~~Although requested by the Discharger, the Regional Board is declining to name additional potentially responsible parties (PRPs) to this Order at this time. Substantial evidence indicates that the Discharger caused or permitted waste to be discharged into waters of state and is therefore appropriately named as a responsible party in this Order. Shell owned and operated the Site, then sold the property to the developers, leaving in place three reservoirs and residual petroleum hydrocarbons in at least one tank and in soil underneath and surrounding the reservoir. The residual petroleum hydrocarbons are still present at the Site and continue to cause pollution and nuisance as documented in this Order and the Regional Board files. However, the The Regional Board will continue to has investigated whether additional— potentially responsible parties (including, but not limited to, Lomita Development Company, Richard Barclay, Barclay-Hollander-Curci, Dole Foods, Inc., Barclay Hollander Corporation and/or any of its successors) and has determined that Barclay Hollander Corporation caused or permitted the discharge of waste at the Site and whether these or other parties should be named as additional responsible parties to this Order or a separate Order. The Regional Board may amend this Order or issue a separate Order in the future as a result of this investigation. Although investigation concerning additional PRPs is ongoing, the Regional Board desires to issue this Order as waiting will only delay remediation of the Site. BHC and/or its predecessor purchased the Site with explicit knowledge of the presence of the petroleum reservoirs and the presence of residual petroleum hydrocarbons and conducted various activities, including partially dismantling the concrete in the reservoirs and grading the onsite materials, thereby spreading the waste. The residual petroleum hydrocarbons are still present at the Site and continue to cause pollution and nuisance as documented in this Order and the Regional Board files. BHC is a wholly-owned subsidiary of Dole. Including BHC as a responsible party in this Order is consistent with orders of the State Water Resources Control Board construing Water Code section 13304 naming former owners who had knowledge of the activities that resulted in the discharge and the legal ability to control the continuing discharge.⁸ Including BHC as a responsible party is consistent with Water Code section 13304(i) because BHC's actions that resulted in creating pollution and nuisance were unlawful since at least 1949.² If the Regional Board becomes aware of any other responsible parties it will consider naming such persons in this Order.~~

14. ~~The Discharger Shell, in a letter to the Regional Board dated May 5, 2010 (Exhibit 2), stated that it is considering a variety of potential alternatives that can be applied at specific~~

⁸ See, e.g., State Water Board Order No. WO 92-13 (Wenwest, Inc.); State Water Board Order WO 89-8 (Arthur Spitzer); State Water Board Order WO 86-16 (Stinnes-Western Chemical Corporation); and State Water Board Order WO 86-2 (Zoecon Corporation). See also State Water Board Order No. WO 89-13 (The BOC Group, Inc.) (holding prior owner responsible for discharges associated with an abandoned underground storage tank). Also see State Water Board Order No. WO 96-2 (County of San Diego, City of National City, and City of National City Community Development Commission) (holding County of San Diego responsible for pollution caused by landfill it operated, holding City of National City responsible for actions that contributed to the pollution, and holding City of National City Community Development Commission responsible even though it owned the property for a relatively short period of time).

⁹ See Health and Saf. Code § 5411. In *Newhall Land & Farming Co. v. Superior Court*, 19 Cal.App.4th 334 (1993), the court interpreted the term "nuisance" quoting *Mangini v. Aerojet-General Corp.*, 230 Cal.App.3d 1125 (1991). (the court rejected the argument that one cannot be guilty of a nuisance unless one is in the position to abate it. The court held "Nor is it material that defendant allegedly created the nuisance at some time in the past but does not currently have a possessory interest in the property. "[N]ot only is the party who maintains the nuisance liable but also the party or parties who create or assist in its creation are responsible for the ensuing damage." " 230 Cal.App.3d at p. 1137.

parcels and in the public streets in order to avoid environmental impacts and avoid any significant risks to human health at this Site. ~~The Discharger~~ Shell also indicated that if it becomes necessary for residents to relocate temporarily to perform this work, the ~~Discharger—Shell~~ will take appropriate steps to minimize any inconvenience and compensate them for any resulting expenses.

15. Issuance of this Order is being taken for the protection of the environment and as such is exempt from provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, sections 15061(b)(3), 15306, 15307, 15308, and 15321. This Order generally requires the Discharger to submit plans for approval prior to implementation of cleanup activities at the Site. Mere submittal of plans is exempt from CEQA as submittal will not cause a direct or indirect physical change in the environment and/or is an activity that cannot possibly have a significant effect on the environment. CEQA review at this time would be premature and speculative, as there is simply not enough information concerning the Discharger's proposed remedial activities and possible associated environmental impacts. If the Regional Board determines that implementation of any plan required by this Order will have a significant effect on the environment, the Regional Board will conduct the necessary and appropriate environmental review prior to Executive Officer approval of the applicable plan.
16. Shell submitted a proposed Remedial Action Plan (RAP) on June 30, 2014. After review of the proposed RAP, the Regional Board determined that implementation of the RAP could have a significant impact on the environment and that preparation of an environmental impact report is necessary.
17. Pursuant to section 13304 of the California Water Code, the Regional Board may seek reimbursement for all reasonable costs to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action.

THEREFORE, IT IS HEREBY ORDERED, pursuant to California Water Code section 13304 and 13267, that the Discharger shall cleanup the waste and abate the effects of the discharge, including, but not limited to, total petroleum hydrocarbons (TPH) and other TPH-related wastes discharged to soil and groundwater at the Site in accordance with the following requirements:

1. **Complete Delineation of On- and Off-Site Waste Discharges:** Completely delineate the extent of waste in soil, soil vapor, and groundwater caused by the discharge of wastes including, but not limited to, TPH and other TPH-related waste constituents at the Site into the saturated and unsaturated zones. Assessment has been ongoing under Regional Board oversight, but assessment is not yet complete. If ongoing reinterpretation of new data derived from the tasks performed suggests that modification or expansion of the tasks approved by the Regional Board is necessary for complete assessment, the Discharger is required to submit a work plan addendum(a).
2. **Continue to Conduct Groundwater Monitoring and Reporting:**
 - a. Continue the existing quarterly groundwater monitoring and reporting program previously required by the Regional Board, and

- b. As new wells are installed, they are to be incorporated into the existing groundwater monitoring and reporting program
3. **Conduct Remedial Action:** Initiate a phased cleanup and abatement program for the cleanup of waste in soil, soil vapor, and groundwater and abatement of the effects of the discharges, but not limited to, petroleum and petroleum-related contaminated shallow soils and pollution sources as highest priority.

Shallow soils in this Order are defined as soils found to a nominal depth of 10 feet, where potential exposure for residents and/or construction and utility maintenance workers is considered likely (Ref. Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities – CalEPA 1996).

Specifically, the Discharger shall:

- a. Develop a pilot testing work plan, which includes 1) evaluation of the feasibility of removing impacted soils to 10 feet and removal of contaminated shallow soils and reservoir concrete slabs encountered within the uppermost 10 feet, including areas beneath residential houses; and 2) remedial options that can be carried out where site characterization (including indoor air testing) is completed; 3) plans for relocation of residents during soil removal activities, plans for management of excavated soil on-site, and plans to minimize odors and noise during soil removal. The Discharger is required to submit this Pilot Test Work Plan to the Regional Board for review and approval by the Executive Officer no later than 60 days after the date of issuance of this Order. Upon approval of the Pilot Test Work Plan by the Executive Officer, the Discharger shall implement the Pilot Test Work Plan submit the Pilot Test Report that includes the findings, conclusions, and recommendations within 120 days of the issuance of the approval of the Pilot Test Work Plan.
- b. Conduct an assessment of any potential environmental impacts of the residual concrete slabs of the former reservoir that includes: (1) the impact of the remaining concrete floors on waste migration where the concrete floors might still be present; (2) whether there is a need for the removal of the concrete; and (3) the feasibility of removing the concrete floors beneath (i) unpaved areas at the Site, (ii) paved areas at the Site, and (iii) homes at the Site. The Discharger is required to submit this environmental impact assessment of the residual concrete slabs to the Regional Board no later than 30 days after the completion of the Pilot Test.
- c. Prepare a full-scale impacted soil Remedial Action Plan (RAP) for the Site. The Discharger is required to submit the RAP to the Regional Board for review and approval by the Executive Officer no later than 60 days after the date of the Executive Officer's approval of the Pilot Test Report.
 - I. The RAP shall include, at a minimum, but is not limited to:

- i. A detailed plan for remediation of wastes in shallow soil that will incorporate the results from the Soil Vapor Extraction Pilot Test currently being performed.
 - ii. A plan to address any impacted area beneath any existing paved areas and concrete foundations of the homes, if warranted;
 - iii. A detailed surface containment and soil management plan;
 - iv. An evaluation of all available options including proposed selected methods for remediation of shallow soil and soil vapor; and
 - v. Continuation of interim measures for mitigation according to the Regional Board approved Interim Remediation Action Plan (IRAP).
 - vi. A schedule of actions to implement the RAP.
- II. The RAP, at a minimum, shall apply the following guidelines and Policies to cleanup wastes in soil and groundwater. The cleanup goals shall include:
- i. Soil cleanup goals set forth in the Regional Board's *Interim Site Assessment and Cleanup Guidebook, May 1996*, waste concentrations, depth to the water table, the nature of the chemicals, soil conditions and texture, and attenuation trends, human health protection levels set forth in *USEPA Regional Screening Levels (Formerly Preliminary Remediation Goals)*, for evaluation of the potential intrusion of subsurface vapors (soil vapor) into buildings and subsequent impact to indoor air quality, California Environmental Protection Agency's *Use of Human Health Screening Levels (CHHSL) in Evaluation of Contaminated Properties*, dated January 2005, or its latest version, and Total Petroleum Hydrocarbon Criteria Working Group, Volumes 1 through 5, 1997, 1998, 1999; Commonwealth of Massachusetts, Department of Environmental Protection, *Characterizing Risks Posed by Petroleum Contaminated Sites: Implementation of MADEP VPH/EPH approach*; MADEP 2002; Commonwealth of Massachusetts, Department of Environmental Protection, *Updated Petroleum Hydrocarbon Fraction Toxicity Values for the VPH/EPH/APH Methodology*; MADEP 2003; Commonwealth of Massachusetts, Department of Environmental Protection, *Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH) Final*, MADEP 2008, Soil vapor sampling requirements are stated in the *DTSC Interim Guidance* and the Regional Board's *Advisory*



- *Active Soil Gas Investigations*, dated January 28, 2003, or its latest version, DTSC's *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air*, revised February 7, 2005, or its latest version, USEPA Risk Assessment Guidance for Superfund, Parts A through E; USEPA User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings, 2003; USEPA Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites, 2002; USEPA Supplemental Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites, 2002; CalEPA Selecting Inorganic Constituents as Chemicals of Potential Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities, CalEPA DTSC, February 1997; CalEPA Use of the Northern and Southern California Polynuclear Aromatic Hydrocarbons (PAH) Studies in the Manufactured Gas Plant Site Cleanup Process, CalEPA DTSC, July 2009. Cleanup goals for all contaminant of concerns shall be based on residential (i.e., unrestricted) land use.

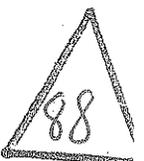
- ii. Groundwater cleanup goals shall at a minimum achieve applicable Basin Plan water quality objectives, including California's Maximum Contaminant Levels or Action Levels for drinking water as established by the California Department of Public Health, and the State Water Resources Control Board's "Antidegradation Policy" (State Board Resolution No. 68-16), at a point of compliance approved by the Regional Board, and comply with other applicable implementation programs in the Basin Plan.
- iii. The State Water Resources Control Board's "Antidegradation Policy", which requires attainment of background levels of water quality, or the highest level of water quality that is reasonable in the event that background levels cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of water, and not result in exceedence of water quality objectives in the Regional Board's *Basin Plan*.
- iv. The State Water Resources Control Board's "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304" (State Board Resolution No. 92-49), requires cleanup to background or the best water quality which is reasonable if background levels cannot be achieved and sets forth criteria to consider where cleanup to background water quality may not be reasonable.



- III. The Discharger shall submit site-specific cleanup goals for residential (i.e., unrestricted) land use for the Executive Officer's approval concurrent with the submittal date of the Pilot Test Report. The proposed site-specific cleanup goals shall include detailed technical rationale and assumptions underlying each goal.
 - IV. Upon approval of the RAP by the Executive Officer, the Discharger shall implement the RAP within 60 days of the issuance of the approval of the RAP.
- d. Continue to conduct residential surface and subsurface soil and sub-slab soil vapor sampling under the current Regional Board approved work plan dated September 24, 2009. If the ongoing reinterpretation of new assessment data derived from the tasks described in the work plan suggests that modification or expansion of the tasks proposed in the RAP is necessary for complete cleanup, then the Discharger shall submit addenda to the September 24, 2009 work plan to the Regional Board for review and approval by the Executive Officer no later than 60 days of the date of issuance of this Order.
 - e. If the ongoing groundwater monitoring and investigation warrants, the Discharger shall:
 - I. Install new wells in order to complete the groundwater monitoring well network and to fully delineate the impacted groundwater plume, and
 - II. Prepare a detailed impacted groundwater RAP. The Regional Board will set forth the due date of the groundwater RAP at a later date.

4. Public Review and Involvement:

- a. Cleanup proposals and RAP submitted to the Regional Board for approval in compliance with the terms of this Order shall be made available to the public for a minimum 30-day period to allow for public review and comment. The Regional Board will consider any comments received before taking final action on a cleanup proposal and RAP.
- b. The Discharger shall encourage public participation. The Discharger is required to prepare and submit a Public Participation Plan for review and approval by the Executive Officer, with the goal of having the Regional Board provide the stakeholders and other interested persons with:
 - I. Information, appropriately targeted to the literacy and translational needs of the community, about the investigation and remedial activities concerning the discharges of waste at the Site; and
 - II. Periodic, meaningful opportunities to review, comment upon, and to influence investigation and cleanup activities at the Site.



- c. Public participation activities shall coincide with key decision making points throughout the process as specified or as directed by the Executive Officer of the Regional Board.
 - d. The Discharger shall prepare draft environmental documentation evaluating the potential environmental impacts associated with the implementation of the RAP and submit to the Regional Board as directed by the Executive Officer.
5. **Time Schedule:** The Discharger shall submit all required technical work plans and reports by the deadlines stated in this Order, which are summarized in Table 4. As field activities at this Site are in progress, additional technical documents may be required and/or new or revised deadlines for the technical documents may be issued. Therefore, Table 4 may be updated as necessary. The Discharger shall continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished to fully comply with this Order..
6. The Regional Board's authorized representative(s) shall be allowed:
 - a. Entry upon premises where a regulated facility or activity is located, conducted, or where records are stored, under the conditions of this Order;
 - b. Access to copy any records that are stored under the conditions of this Order;
 - c. Access to inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. The right to photograph, sample, and monitor the Site for the purpose of ensuring compliance with this Order, or as otherwise authorized by the California Water Code.
7. **Contractor/Consultant Qualification:** A California licensed professional civil engineer or geologist, or a certified engineering geologist or hydrogeologist shall conduct or direct the subsurface investigation and cleanup program. All technical documents required by this Order shall be signed by and stamped with the seal of the above-mentioned qualified professionals.
8. This Order is not intended to permit or allow the Discharger to cease any work required by any other Order issued by this Regional Board, nor shall it be used as a reason to stop or redirect any investigation or cleanup or remediation programs ordered by this Regional Board or any other agency. Furthermore, this Order does not exempt the Discharger from compliance with any other laws, regulations, or ordinances which may be applicable, nor does it legalize these waste treatment and disposal facilities, and it leaves unaffected any further restrictions on those facilities which may be contained in other statutes or required by other agencies.
9. The Discharger shall submit 30-day advance notice to the Regional Board of any planned changes in name, ownership, or control of the facility; and shall provide 30-

day advance notice of any planned physical changes to the Site that may affect compliance with this Order. In the event of a change in ownership or operator, the Discharger also shall provide 30-day advance notice, by letter, to the succeeding owner/operator of the existence of this Order, and shall submit a copy of this advance notice to the Regional Board.

10. Abandonment of any groundwater well(s) at the Site must be approved by and reported to the Executive Officer of the Regional Board at least 14 days in advance. Any groundwater wells removed must be replaced within a reasonable time, at a location approved by the Executive Officer. With written justification, the Executive Officer may approve of the abandonment of groundwater wells without replacement. When a well is removed, all work shall be completed in accordance with California Department of Water Resources Bulletin 74-90, "California Well Standards," Monitoring Well Standards Chapter, Part III, Sections 16-19.
11. The Regional Board, through its Executive Officer or other delegate, may revise this Order as additional information becomes available. Upon request by the Discharger, and for good cause shown, the Executive Officer may defer, delete or extend the date of compliance for any action required of the Discharger under this Order. The authority of the Regional Board, as contained in the California Water Code, to order investigation and cleanup, in addition to that described herein, is in no way limited by this Order.
12. Any person aggrieved by this action of the Regional Board may petition the State Water Resources Control Board (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.
13. Failure to comply with the terms or conditions of this Order may result in imposition of civil liabilities, imposed either administratively by the Regional Board or judicially by the Superior Court in accordance with Sections 13268, 13308, and/or 13350, of the California Water Code, and/or referral to the Attorney General of the State of California.
14. None of the obligations imposed by this Order on the Discharger are intended to constitute a debt, damage claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations are imposed pursuant to the police powers of the State of California intended to protect the public health, safety, welfare, and environment.



Shell Oil Company
Former Kast Property Tank Farm
Cleanup and Abatement Order No. R4-2011-0046

- 19 -

File No. 97 - 043

Ordered by: _____

Deborah Smith

Chief Deputy Executive Officer

Date: _____



ATTACHMENTS

FIGURES

- Figure 1: Site Vicinity Map
- Figure 2: Previous Exploration Location
- Figure 3: Proposed Soil Vapor Sampling Locations
- Figure 4: Benzene and Methane Concentrations in Soil Vapor
- Figure 5a: Carousel Houses Tested as of March 15, 2010
- Figure 5b: Residential Methane Screening Results as of March 15, 2010
- Figure 5c: Summary of Results of Testing for Benzene Concentrations in Soil Vapor as of March 15, 2010
- Figure 5d: Summary of Results of Testing for Non-Benzene Concentrations in Soil Vapor as of March 15, 2010
- Figure 5e: Summary of Soil Sampling Results (0-10' Below Surface) as of March 15, 2010
- Figure 5f: Methane Concentrations in Soil Vapor at 5 Feet Below Surface as of March 15, 2010
- Figure 6: Proposed Groundwater Monitoring Well Locations

TABLES

- Table 1: Data Summary from Phase I and Phase II Site Characterization for Soil and Soil Vapor
- Table 2A: Summary of Soil Samples Analytical Results -VOCs, SVOCs, and TPH
- Table 2B: Summary of Soil Vapor Analytical Results -VOCS and Fixed Gases
- Table 3: Maximum Concentration of Aliphatic and Aromatic Hydrocarbons by Hydrocarbon Fractionations at Individual Properties
- Table 4: Deadlines for Technical Work Plans and Reports

EXHIBITS

- Exhibit 1: OEHHA's Memorandum dated May 19, 2010
- Exhibit 2: Shell Oil Company Letter to the Regional Board dated May 5, 2010

Note: All Figures and Tables, except Table 4, were taken from technical reports prepared by SOPUS's consultant, URS Corporation



December 24, 2014

VIA FIRST CLASS AND ELECTRONIC MAIL

Deborah Smith
Chief Deputy Executive Officer
Los Angeles Regional Water Board
320 West 4th Street, Suite 200
Los Angeles, California 90013

Re: **TENTATIVE REVISED CLEANUP AND ABATEMENT ORDER PURSUANT
TO CALIFORNIA WATER CODE SECTION 13304 CLEANUP AND
ABATEMENT ORDER NO. R4-2011-0046**

**SITE: FORMER KAST PROPERTY TANK FARM LOCATED SOUTHEAST
OF THE INTERSECTION OF MARBELLA AVENUE AND EAST 244TH
STREET, CARSON, CALIFORNIA (SCP NO. 1230, SITE ID NO. 2040330,
CAO NO. R-2011-0046)**

Dear Ms. Smith:

We represent Barclay Hollander Corporation ("Barclay") with respect to the foregoing matter and this letter responds, in part, to the December 8, 2014 letter from Paula Rasmussen to C. Michael Carter.

We were first notified by a phone call from Sam Unger on December 8, that he would be recommending that you name Barclay on the existing Cleanup and Abatement Order No. R4-2011-0046 ("CAO"). Subsequently, we received Ms. Rasmussen's letter and various attachments, one being a 98-page chart purporting to contain the Regional Board staff's responses to comments, including those of Barclay, from previous submissions to the Regional Board on the topic of naming Barclay on the CAO.

Obviously, we were disappointed when we read these materials and we continue to believe that Barclay does not meet the definition of "discharger" under the California Water Code. I spoke with your counsel, Ms. Kuenzi, on December 16 and she suggested that I raise some of my questions in writing with you so that is the purpose of this letter.

Deborah Smith
December 24, 2014
Page 2

Barclay's last correspondence with the Regional Board on this topic was back in June 2014, nearly six months ago, and at that time it was on a relatively limited topic at the Regional Board staff's request -- namely to respond to certain technical comments submitted by Shell. Since then, we have not been told by anyone at the Regional Board whether they were considering naming Barclay, or not, on the CAO. Now, with the information provided by Ms. Rasmussen and Mr. Unger, Barclay seeks to (1) submit additional critical evidence, that was previously unavailable, and that must be considered by you before making any decision on this issue; and (2) schedule a formal hearing before you in order to give Barclay an opportunity to present the key evidence directly to you and to explain why Barclay is not a "discharger" under the Water Code. These requests are made without any intention to waive any and all defenses Barclay may have to being named on the CAO. We further explain these two requests next.

1. **Substantial additional and critical evidence has been developed since Barclay last submitted comprehensive comments in January 2014, nearly a year ago and it must be considered by you before making any decision.**

As you may know, there is ongoing civil litigation between certain residents of the Carousel Tract and Shell, Dole and Barclay with respect to the homeowners' claims of property damage and personal injury (the homeowners are herein referred to as "Plaintiffs"). That litigation has been very active, especially this past year since Barclay last submitted comprehensive comments and evidence to the Regional Board staff on January 21, 2014. Depositions of fact and expert witnesses have been taken, substantial expert reports have been exchanged, and additional documents have been produced -- some of which bear directly upon the decision you are being asked to make.

By way of one example, Dr. Dagdigian's opinion regarding upward migration of historic contamination left by Shell at the site has been further developed since our submissions to the Regional Board and it now includes a three dimensional model which has been presented to Shell and the Plaintiffs, but never seen by the Regional Board staff. As you should be aware, the Regional Board staff supporting the prosecutor in this action reviewed Dr. Dagdigian's earlier work on this topic, but concluded that while upward migration through capillary action might explain some of the contaminant distribution at the site it did not explain all of it. Now, with the completion of Dr. Dagdigian's 3-D modeling report, you will see that there is overwhelming evidence to support Dr. Dagdigian's opinion concerning upward migration as the explanation for the contaminant distribution at the site today. And, Dr. Dagdigian's opinion is further supported by another expert report (never sent to the

GIBSON DUNN

Deborah Smith
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Page 3

Regional Board but served on Shell and the Plaintiffs) from a pre-eminent hydrogeologist, Dr. Charles Faust.¹ In that 40-page report, Dr. Faust confirms that capillary action caused the upward migration of the petroleum contamination left at the site by Shell and that well-known principle explains the current distribution of contaminants.

Another example of crucial evidence that has not been made available to the Regional Board, is the third day of deposition of George Bach. Mr. Bach was deposed in November 2014 in the civil litigation at the request of Plaintiffs and Shell and the transcript from that deposition is now available. As you are probably aware, the Regional Board staff supporting the prosecutor in this action repeatedly cites to a 2011 unsworn statement of Mr. Bach, even though he signed a later declaration under penalty of perjury in 2013. In our June 2014 comments to the Regional Board we explained why no one should rely on Mr. Bach's 2011 statement but the prosecutorial staff apparently disregarded that recommendation. In the November 2014 deposition Shell and Plaintiffs cross-examined Mr. Bach under oath, and he confirmed the veracity of the 2013 declaration and explained the 2011 unsworn statement, making even clearer that all known petroleum hydrocarbon contamination at the site was disposed of offsite. Mr. Bach also directly refuted any contention that there was evidence of petroleum contamination in the berms, or that any petroleum contamination was brought up from below the reservoir bottoms as a result of the ripping of the concrete floors -- two additional points that the Regional Board's staff claims are supported solely by Mr. Bach's 2011 unsworn statement, but that now certainly cannot be attributed to Mr. Bach (nor anyone else) given his recent deposition².

As for this last example, under the most basic rules of evidence, Mr. Bach's 2014 deposition testimony (along with his other deposition testimony) is the most credible evidence of his recollections of the events surrounding the redevelopment of the site in the mid-1960s and it would be an error to arbitrarily apply greater weight to a 2011 unsworn statement made at a time when Mr. Bach was not subject to cross-examination under oath by all parties, and in which he relies on inaccurate information supplied to him by Plaintiffs' counsel (as the November 2014 deposition evidence makes plain). In short, the Regional Board staff has no

¹ We submitted a very short 6-page declaration from Dr. Faust to the Regional Board in connection with Barclay's comments in June 2014. The 40-page report mentioned here was prepared after that submission and was served in the litigation but never provided to the Regional Board because the comment period had concluded.

² No other eyewitness to the redevelopment activities of Barclay testified that there was evidence of any petroleum contamination in the berms, or that any petroleum contamination was brought up from below the reservoir bottoms.



Deborah Smith
December 24, 2014
Page 4

basis to rely upon Mr. Bach's 2011 unsworn statement when the November 2014 deposition transcript is now available and makes clear that no one should interpret his 2011 unsworn statement to suggest that any petroleum compounds were known to have been left onsite by Barclay.

As you can see from these two examples, some of the evidence developed in the litigation this past year bears directly upon the decision you are being asked to make and was not available when Barclay's previous comments were submitted to the Regional Board. We have begun the process of collecting that information but it will take a few weeks to compile it and submit it to the Regional Board.

2. Barclay seeks a hearing in order to present its case that it is not a "discharger" under California Water Code Section 13304.

Barclay seeks a hearing before you in order to directly address the question whether Barclay is a "discharger" under the California Water Code, including the presentation of new evidence previously unavailable to submit to the Regional Board, as well as to respond to the comments of the prosecutor's staff with respect to Barclay's prior submissions. This is a necessary step, especially here where there is a contested amendment to a CAO in a highly charged, politicized, and contemporaneously-litigated matter and where Barclay is highly likely to appeal any amendment naming it in the order.

Further, at the hearing Barclay must have an opportunity to cross examine the witnesses that the prosecutor is relying upon and who have provided their views on the evidence in their effort to persuade you to name Barclay Hollander on the order. This includes those on the Regional Board staff who claim to have read the technical reports and declarations of Waterstone and disagree with those conclusions, as well as those who have read the George Bach materials and decided to rely on his 2011 unsworn statement, and not his sworn testimony under cross examination, in order to form the bases for their recommendation to you to name Barclay on the CAO. At a minimum, Barclay must have this opportunity to question the witnesses who offer these views and to test their credibility and their credentials to offer these conclusions in support of the prosecutor's recommendation.

Scheduling that hearing and giving Barclay a reasonable opportunity to prepare will take a few weeks, as well.

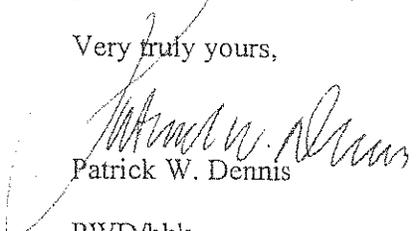


GIBSON DUNN

Deborah Smith
December 24, 2014
Page 5

Given that Mr. Unger asked that you make a decision on the recommendation to include Barclay in the CAO by January 9, 2015, we ask that you respond to this letter as soon as possible, especially in light of the year-end holiday season, and our need to plan how to provide information to you as quickly as possible.

Very truly yours,



Patrick W. Dennis

PWD/hhk

cc: Nicole Kuenzi (*Via First Class and Electronic Mail*)
See Attached for Additional Recipients

101853441.1



GIBSON DUNN

Deborah Smith
December 24, 2014
Page 6

Barclay Hollander Corporation *(Via U.S. Mail)*
5840 Uplander Way, Suite 202
Culver City, California 90230

Deanne Miller *(Via U.S. Mail)*
Morgan, Lewis & Bockius LLP
300 South Grand Avenue
Twenty-Second Floor
Los Angeles, California 90071-3132

Michael Leslie *(Via U.S. Mail)*
Caldwell Leslie & Proctor, PC
1000 Wilshire Boulevard, Suite 600
Los Angeles, California 90017-2463

Frances L. McChesney *(Via U.S. Mail)*
Attorney IV
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, California 95814

Jennifer Fordyce *(Via U.S. Mail)*
Attorney III
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, California 95814

Janice Hahn, Honorable Congresswoman, US House of Representatives,
California's 44th District *(Via U.S. Mail)*

Mark Ridley-Thomas, Supervisor, Second District County of Los Angeles *(Via U.S. Mail)*

Isadore Hall, III, Assembly Member, 64th Assembly District *(Via U.S. Mail)*

Jim Dear, Mayor of Carson *(Via U.S. Mail)*

Nelson Hernandez, Carson City Manager *(Via U.S. Mail)*



GIBSON DUNN

Deborah Smith
December 24, 2014
Page 7

Ky Truong, City of Carson *(Via U.S. Mail)*

James Carlisle, Office of Environmental Health Hazard Assessment *(Via U.S. Mail)*

Bill Jones, Los Angeles County Fire Department *(Via U.S. Mail)*

Barry Nugent, Los Angeles County Fire Department *(Via U.S. Mail)*

Shahin Nourishad, Los Angeles County Fire Department *(Via U.S. Mail)*

Miguel Garcia, Los Angeles County Fire Department *(Via U.S. Mail)*

Kim Clark, Los Angeles County Fire Department *(Via U.S. Mail)*

Hoang Ly, Los Angeles County Fire Department *(Via U.S. Mail)*

Cyrus Rangan, Los Angeles County Department of Health *(Via U.S. Mail)*

Angelo Bellomo, Los Angeles County Department of Health *(Via U.S. Mail)*

Karen A. Lyons, Shell Oil Products US *(Via U.S. Mail)*

Thomas V. Girardi, Girardi and Keese Lawyers *(Via U.S. Mail)*

Robert W. Bowcock, Integrated Resources Management, LLC *(Via U.S. Mail)*





EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

January 2, 2015

Mr. Angelo Bellomo
Director of Environmental Health
County of Los Angeles Department of Public Health
5050 Commerce Drive
Baldwin Park, California 91706

Dear Mr. Bellomo:

Thank you for your letter to me of November 3, 2014 regarding the proposed remedial action plan for the former Kast Tank Farm Property Site, now the Carousel Tract in Carson, California. The Los Angeles Regional Water Quality Control Board (Regional Board) has appreciated the support from the Los Angeles County Department of Public Health of the Regional Board's oversight of the Site during the past six years. In that time, the responsible party – Shell Oil Products US – has completed an extensive Site Investigation, conducted frequent monitoring, and proposed a remedial action plan (RAP) for review and approval by the Regional Board. The Regional Board has prepared a draft Environmental Impact Report (EIR) that evaluates the potentially significant impacts of the proposed RAP.

In November this year the Regional Board held several community meetings in Carson providing a question and answer opportunity for the residents and other interested persons regarding the proposed RAP and draft EIR. Both the proposed RAP and the draft EIR are currently subject to a public comment period that began on November 7, 2014 and closes on January 9, 2015.

The Regional Board intends to consider your November 3, 2014 letter as a comment on the proposed RAP and will include it in the public record with other comments we receive by the close of the written comment period. The Regional Board will prepare a response to comments, including comments to your letter, as it considers whether to certify the EIR and approve the RAP. In the meantime, please let us know if you have questions or need additional information regarding the proposed RAP for the Site.

Thank you again for the interest and support by the County Department of Public Health of the Regional Board's oversight of the investigation and cleanup of the Carousel Tract.

Sincerely,


Samuel Unger, P.E.
Executive Officer

cc: Mailing List

CHARLES STRINGER, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

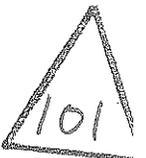
320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

♻️ RECYCLED PAPER



Mailing List

Janice Hahn, Honorable Congresswoman, US House of Representatives,
California's 44th District
Mark Ridley-Thomas, Supervisor, Second District County of Los Angeles
Karly Katona, Assistant Senior Deputy for Environmental Sustainability, Second District
Eric Boyd, Deputy District Director, California's 44th District
Cyrus Rangan, County of Los Angeles Department of Health
James Carlisle, Office of Environmental Health Hazard Assessment (OEHHA)
Jim Dear, Mayor of Carson
Nelson Hernandez, Carson City Manager
Ky Truong, City of Carson
Michael Lauffer, Chief Counsel, State Water Resources Control Board
Frances McChesney, Senior Staff Counsel, State Water Resources Control Board
Bill Jones, Los Angeles County Fire Department
Shahin Nourishad, Los Angeles County Fire Department
Hoang Ly, Los Angeles County Fire Department
Douglas J. Weimer, Shell Oil Products US
Karen A. Lyons, Shell Oil Products US





Integrated Resource Management, Inc.

January 7, 2015

Deborah Smith
Chief Deputy Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 West Fourth Street; Suite 200
Los Angeles, California 90013

RE: Dole Food Company, Inc.
Tentative Revised CAO No. R4-2011-0046; SCP No. 1230, Site ID No. 2040330

Dear Ms. Smith,

I have reviewed the work performed by the Los Angeles Regional Water Quality Control Board and State Board teams resulting in the reissuance of the Tentative Revised Cleanup and Abatement Order (CAO) No. R4-2011-0046 on December 8, 2014. Your team's effort, often criticized by me for taking so long, demonstrates the thoroughness and dedication of your staff and resulted in a CAO incomprehensibly near perfection. I seriously doubt anyone will ever fully appreciate the hours devoted to this monumental task.

Faithful once more, I was pleased to be sharing with the community this great accomplishment and just in time for the holiday season, when on December 24, 2014, I was advised of a visit by that tortuous demon Ghost of Christmas Past, Dole Food Company's counsel, Patrick Dennis. The events of the past "are but shadows," according to the Ghost of Christmas Past; confronting the shadows of their past is agonizing for Dole Food Company. "Show me no more! Why do you delight to torture me?" cries Counsel.

While the cries of foul are many, contrary facts are few; the awkward and divergent citations are mere attempts to divert our attention as if there really was substantial additional and critical evidence which has been developed since Dole Food Company's comments from January 2014.

There is no new evidence to be presented in this matter; this is clearly a stall tactic. Dr. Jeffrey Dagdigian's opinion is based on a cleverly crafted concept with the singular purpose of replacing fact with fantasy. Dr. Charles Faust does not confirm Dr. Dagdigian's work in anyway; it is a ridiculous attempt to perpetuate Dole Food Company's desire to fashion an excuse for their abhorrent behavior of concealing dangerous pollution for profit and then later procuring science to tell a fictional story. Even if the Los Angeles Regional Water Quality Control Board were to consider all of the science fiction concerning the petroleum contamination capillary migration presented by Drs. Dagdigian and Faust, as suggested by Mr. Dennis, it wouldn't change a thing. Dole Food Company, Inc. and its wholly owned subsidiaries Barclay Hollander Corporation and Oceanic Properties, Inc. are collectively known polluters subject to the laws of the State of California.

As for the rhetoric concerning Mr. George Bach's veracity, I offer that it is indeed in question. I have personally met with Mr. Bach, been present at his depositions, and read his declarations and documents. Mr. Bach is very proud of his clever, cost-saving approaches throughout his career. By his own telling (under oath) he brags how he was hired on the spot by Barclay Hollander Corporation for his cunning ability to "violate every ordinance that you could think of relative to a plot plan". Mr. Bach has quite an imagination for storytelling and prides himself on being a real rule breaker. Mr. Bach sought me out to tell his story and offered his written Declaration as proof of his recollection of events. Whether or not we accept his clarification of events he remembers isn't really important either, although the locations he describes as to where higher concentrations of contaminants are found have proven to be remarkably accurate.

405 North Indian Hill Boulevard
Claremont, CA 91711-4600

(909) 621-1266
(909) 621-1196 Fax



Dole Food Company, Inc. and its wholly owned subsidiaries Barclay Hollander Corporation and Oceanic Properties, Inc. purchased the polluted, contaminated, and distressed property from Shell Oil Company at a significant discount; promising to cleanup the property. Shell Oil Company was not only concerned about their image in the community after the drowning death of the young boy on site but, also with the general appearance of the property once it was under the control of Dole Food Company, Inc. and its wholly owned subsidiaries Barclay Hollander Corporation and Oceanic Properties, Inc. We hear tales of immigrant workers wading through waist deep oil and of the multiple illicitly set fires burning throughout the night televised by helicopter news crews.

Bottom line, the issuance of the Cleanup and Abatement Order No. R4-2011-0046 on December 8, 2014 adding Dole Food Company, Inc. as a Responsible Party is more than appropriate. I would request that you review any and all additional documents Mr. Dennis provides; now and throughout the cleanup process. Ongoing investigation, data collection, and new evidence can and should always be presented and reviewed...but as for naming Dole Food Company, Inc. and its wholly owned subsidiaries Barclay Hollander Corporation and Oceanic Properties, Inc. as responsible Parties, that is long over due.

Whether or not you feel compelled to grant a hearing so that this Responsible Party might present a case that it is not a "discharger" is entirely within your discretion; I only request that we are provided notice and an opportunity to be equally heard. The idea that Dole Food Company, Inc. would want to have a public evidentiary hearing disputing facts concerning how its subsidiaries knowingly concealed dangerous pollution from hard working families is their business...I find it rather newsworthy.

I am also including with this correspondence a brief report from a pre-eminent geologist, Dr. James Wells, which is presented to help your team better separate fact from fiction.

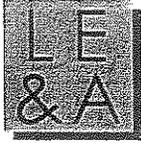
Sincerely,



Mr. Robert W. Bowcock
Integrated Resource Management, Inc.

cc: Nicole Kuenzi, Esq. RWQCB
Sam Unger – RWQCB
Tekewold Ayalew – RWQCB
Thizar Tintut-Williams – RWQCB
Arthur Heath – RWQCB
Frances McChesney, Esq. – State Board
Jennifer Fordyce, Esq. – State Board





L. EVERETT & ASSOCIATES

ENVIRONMENTAL CONSULTANTS

January 7, 2015

Deborah Smith, Chief Deputy Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 West Fourth Street; Suite 200
Los Angeles, California 90013

Subject: Former Kast Tank Farm Environmental Program
Comments on Tentative Revised Cleanup and Abatement Order Naming Barclay Hollander
and Dole Foods as Responsible Parties

Dear Ms. Smith,

We applaud the RWQCB in its determination (December 8, 2014 letter from Samuel Unger to Shell and Dole) that the developers of the Carousel Tract, including Barclay Hollander Corporation and Dole Foods Company should be named as responsible parties in the revised Cleanup and Abatement Order (CAO) for this site. As you know, our firm has been retained by Girardi | Keese to advise them on matters related to the environmental site investigation, contaminant fate and transport and remediation plans for this site. Girardi | Keese represents most of the homeowners of the Carousel Tract and the City of Carson. The RWQCB noted: "BHC [Barclay Hollander Corporation] and/or its predecessor purchased the Site with explicit knowledge of the presence of the petroleum reservoirs and the presence of residual petroleum hydrocarbons and conducted various activities, including partially dismantling the concrete in the reservoirs and grading the onsite materials, thereby spreading the waste."

To support Barclay Hollander's effort to avoid being named in the CAO, its consultant, Dr. Dagdigian, fabricated a theory that shallow soil was clean when the site was redeveloped in the 1960s and only became contaminated later. Dr. Dagdigian has proffered a "capillary rise" and "buoyancy" theory in which he hypothesizes that a perched water zone could have been created in the vadose zone either just above or just below the floors of each of the three former oil reservoirs at the Carousel Tract in response to rainfall events. According to this speculative theory, rising groundwater levels (which have never actually been observed at such a shallow level at this site) could have created a smear zone and could have brought the hydrocarbon light non-aqueous phase liquids (LNAPL) into previously clean shallow soil by capillary action and buoyancy forces. The Regional Board Response to Comments on the revised Cleanup and Abatement Order states: "Regional Board staff finds the Waterstone [Dagdigian] explanation of upward chemical migration at the site to be speculative and incomplete." I agree with the RWQCB's conclusion about and provide additional evidence below that refutes this theory.



The process of grading this site in the 1960s could easily be characterized as a burial project to dispose of petroleum-contaminated concrete and soil and the former reservoirs can be thought of as unregulated landfills. In preparation for redeveloping the site for residential land use in the 1960s, the developer defendants needed to dismantle the three massive oil reservoirs that Shell had previously operated at this site. These were huge storage reservoirs, covering much of the current residential neighborhood, with wood-frame roofs and concrete floors. The walls of the reservoirs were concrete-lined earthen berms. There were also interior berms providing spill containment around each reservoir and another earthen berm surrounding the entire property which I refer to in this report as the “perimeter berm.” For the purposes of this letter, it is important to differentiate between the “reservoir berms” (which were an integral part of the reservoir structures and in constant contact with oil; see Figure 1) from the “interior” and “perimeter berms” (which were not part of the reservoir structures and appear to have had lower levels of soil contamination).

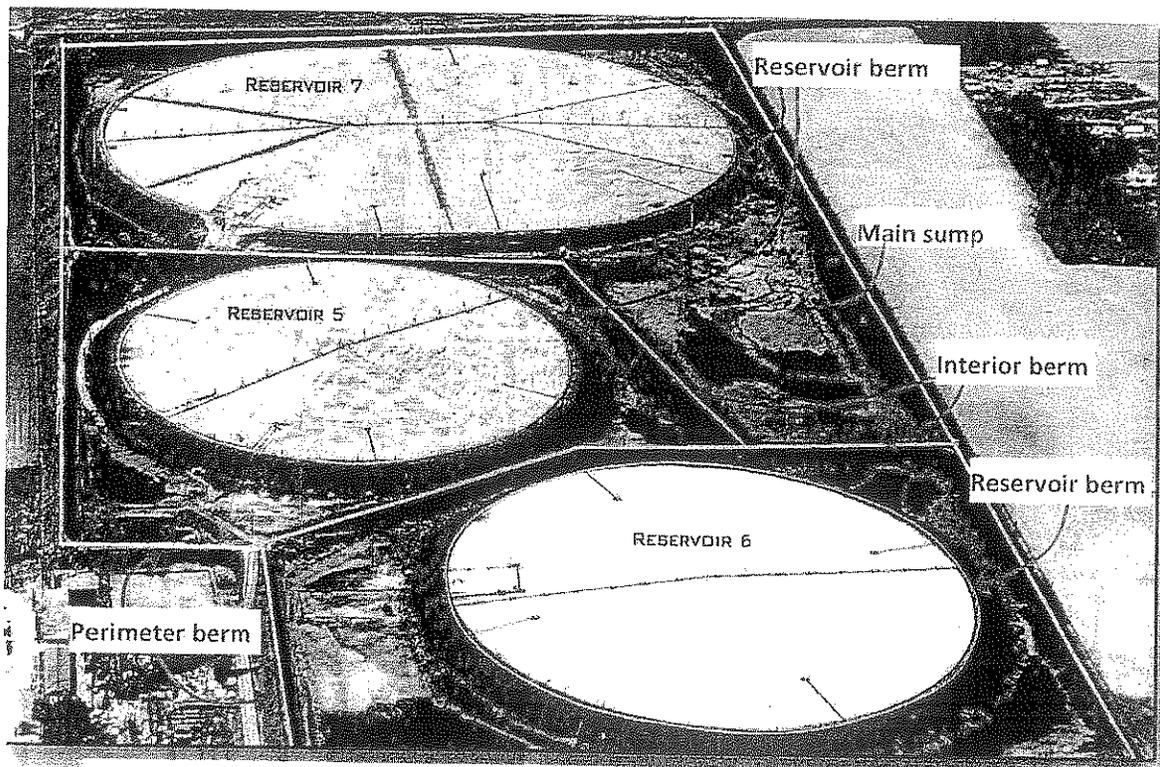


Figure 1. Historical site layout (Modified after Figure 4 in Dr. Dagdigian’s Expert Report).

The reservoirs had been constructed in the 1920s by digging down approximately 15 feet and building up earthen reservoir berms another 12 to 15 feet. Before homes could be built on this property, these massive reservoirs needed to be filled in and the large berms needed to be leveled. The concrete floor on the

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western portion of Reservoir 5 was removed. For the remainder of Reservoir 5 and the other reservoirs, the concrete floors were left in place although eight-inch wide trenches were reportedly ripped into the concrete floors about 15 feet apart to facilitate drainage. Concrete from the trenches and the reservoir walls was broken up and placed above the floors. At minimum, Barclay was fully aware of the concrete burial. To this day, it remains unclear how much of this concrete exceeds cleanup standards due to petroleum soaking into the concrete during its decades of contact with oil.

Obviously, soil from the various berms would need to be placed back into the depressions that had constituted the oil reservoirs in order to make the final grade. Dr. Dagdigian makes the unsubstantiated claim that the reservoir berms were free of contamination at the time this work was accomplished but that in the intervening years, massive amounts of contamination naturally migrated upward into this fill material from below, thus causing the gross contamination we now find in soil above the reservoir floors. In issuing its revised Cleanup and Abatement Order, the State of California RWQCB has correctly rejected this argument.

Capillary rise refers to the rise of water or other fluids in soil pores resulting from the molecular attraction between the soil and the fluid (adhesion) and the surface tension of the fluid (cohesion). Although the term is obscure to non-scientists, most of us have observed capillary rise when we've placed a straw in a drink and noted that the liquid rises slightly higher in the straw than the level of the liquid in the glass. One can continue the drink experiment and dip different diameter straws into the same drink. You will find that there is a higher capillary rise for smaller and smaller diameter straws. For water in soils, this same phenomenon can occur, although capillary rise is generally only significant for fine grained soils (where the pore spaces are very small: comparable to a very small straw) directly above a water table. Up to several feet of capillary rise of water has been observed in fine-grained soils directly above a water table. For coarser grained sand, capillary rise (if observed at all) is limited to just a few inches. Weathered crude oil is more viscous than water, so weathered crude oil will be subject to much less capillary rise in soils than water. Dr. Dagdigian states "Much of the soil beneath the former reservoir floors is sandy and would act as a natural reservoir for the leaked oil."¹ Capillary rise of weathered crude oil would be infinitesimal in sandy soil. This kind of contrived logic is seldom seen in serious environmental science.

I am pleased that the professional environmental scientists and engineers at the State of California (Regional Water Quality Control Board, also known as "RWQCB") agree with me and have stated in their December 2014 Response to Comments (on the draft tentative revised Cleanup and Abatement Order naming Barclay Hollander as a responsible party) that:

¹ Paradoxically, according to Dr. Dagdigian, four eyewitnesses from the 1960s had never seen any oil in soil under the reservoirs.



“Based on Site investigation data, Regional Board staff concludes that the lateral and vertical distribution of petroleum hydrocarbons in soils at the Site is highly variable and could not have resulted from upward capillary migration.”

My colleague, Dr. Lorne Everett and I have for many years focused our professional activities on the vadose zone (Dr. Everett is the Chair of the ASTM Vadose Zone Committee and as the former Director of the University of California at Santa Barbara Vadose Zone Monitoring Laboratory). Given our vadose zone experience, we completely reject Dr. Dagdigian’s theory. Some of the bases for this opinion are summarized below.

The site was redeveloped by the developer defendants as a residential neighborhood beginning in 1966. The defendants did not remediate the subsurface contamination at the time of redevelopment. The roofs of the reservoirs were removed, but debris from the floors and walls were buried on site. Contaminated soil from the berms was redistributed across the site into low areas as part of the grading process in preparation for building homes on this site. There is evidence that Barclay Hollander was not experienced in dealing with contaminated sites: “thank you and Mr. Tubman for your patience in giving us sufficient time to remove the hazards on the Kast tank farm site. This type of cleanup work is a little unusual for our operation, and we are embarrassed for the length of time that it took to complete the job.”² There is also evidence that Barclay Hollander was anxious to cut costs for the cleanup work:

Q. And – what happened with the concrete? What did you do? Did you dig it all out and send it away?

A. Well, initially when we were first looking at the job, the concept was to basically push it all in a pile and truck it out of there. But George Bach, the field engineer, for lack of a better title, came up with an idea that everyone accepted.

And his idea was to break the – to rip the floor of the tanks and – and so that they would – any moisture would not be held up from draining on down and out of there and creating a problem. So that – he was quite proud of himself for coming up with a money-saving concept.³

² Richard Barclay, August 25, 1966 letter to D. E. Clark of Shell Oil Company.

³ Lee Vollmer, March 2013, Deposition, page 98.

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This combination of a drive to save time and money and lack of experience with contaminated sites may be part of the reason the site was left in such an unacceptable state by today's environmental standards. To our knowledge, all experts in this case agree that the floors of the reservoirs leaked when in use and caused contamination of the underlying soil. Dr. Dagdigian would have us believe that by some miracle, the concrete lining on the berms of the reservoirs—which were constructed the same way as the floors—did not leak oil and the soil in the reservoir berms somehow remained clean. This is a highly improbable scenario.

The first line of evidence cited by Dr. Dagdigian to support his theory that the reservoir berms were clean is his claim that no-one at the time noted contaminated soil. However, by Dr. Dagdigian's own admission, soil contamination is not always observable to the naked eye.⁴ As an example of the unreliability of casual visual observation, Dr. Dagdigian notes that four workers at the site all testified that they did not observe petroleum hydrocarbon contamination under the reservoir floors during the ripping operation.⁵ We now know that there was widespread contamination under the reservoir floors at the time, which these four workers apparently failed to discern. As a matter of fact, contamination under the floors was actually known at least as early as 1966 from the geotechnical borings advanced through the reservoir floors for a drainage study dated March 11, 1966. In that study, Pacific Soils reported "oil stains" and "oily" soil encountered in six borings that were advanced (12 to 15 feet) into soil beneath the concrete floor of Reservoir 6.⁶ At this site, the major concern about oily soil was whether or not it could be adequately compacted and whether or not it allowed sufficient drainage. Soil could be quite contaminated and still pass these geotechnical criteria.

Dr. Dagdigian also helpfully documents that at Reservoirs 1 and 2 (these reservoirs were on the nearby Refinery site, were built at approximately the same time as the Carousel Tract reservoirs with the same design, and were decommissioned in the 1990s) soil contamination could not be reliably identified by visual inspection alone.⁷ There was little correlation between visual signs of contamination and laboratory readings confirming contaminated soil. For example, the sample from 9-11.5 feet at boring 1 had no visual hydrocarbons, but a subsequent laboratory test revealed that this sample contained 4,900 mg/kg of total petroleum hydrocarbons (TPH). The sample from 0-1.5 feet at boring 8 contained 5,600 mg/kg of TPH but it was reported to have no visual signs of contamination. Obviously, visual observations alone are an unreliable test for soil contamination.

⁴ Dagdigian, January 2014, Technical Response to the RWQCB Draft Cleanup and Abatement Order, Table 3.

⁵ Dagdigian, June 2014, Technical Response to Shell's Comment Letter, p. 26.

⁶ Pacific Soils Engineering, Inc. 1966. Subsurface drainage study for reservoir located in the southeast corner of Tract No. 24836 in County of Los Angeles, California. March 11. p. 1-8.

⁷ Dagdigian, January 2014, Technical Response to the RWQCB Draft Cleanup and Abatement Order, Table 3.



The second line of evidence relied upon by Dr. Dagdigian to support his opinion that soil in the upper berms was clean is a comparative analysis of the better-characterized soil conditions at the nearby Reservoirs 1 and 2. While some of the soil in the upper berms of these reservoirs was indeed clean, other portions were highly contaminated. For example, as shown in Dagdigian's January 2014 report⁸, all the following samples were in the upper portion of the berms of Reservoirs 1 and 2. This is soil even Dr. Dagdigian would acknowledge, would have been bulldozed into the reservoirs for backfill at the Carousel Tract:

- Reservoir 1, Quadrant 1, Location H: TPH = 42,000 mg/kg
- Reservoir 1, Quadrant 3, Location H: TPH = 43,000 mg/kg
- Reservoir 1, Quadrant 5, Location H: TPH = 32,000 mg/kg
- Reservoir 2, Quadrant 1, Location G: TPH = 16,000 mg/kg
- Reservoir 2, Quadrant 4, Location H: TPH = 34,000 mg/kg
- Reservoir 2, Quadrant 1, Location E: TPH = 16,000 mg/kg
- Reservoir 2, Quadrant 3, Location H: TPH = 30,000 mg/kg

The question is not whether all the soil in the upper berms was contaminated; the question is whether at least some of the soil in the upper berms was contaminated. Dr. Dagdigian's own example from Reservoirs 1 and 2 show conclusively that some of the soil in the upper berms of these reservoirs was highly contaminated. Perversely, he then uses this information to conclude that none of the soil in the upper berms from the Carousel Tract reservoirs was contaminated even though these berms are otherwise extremely similar. This is clearly false logic.

There is another aspect of the Reservoir 1 and 2 project that Dr. Dagdigian obscures. The RWQCB required removal of hydrocarbon-saturated soils from the berms and under the reservoir floors. However, Dr. Dagdigian neglects to mention that there were additional requirements that needed to be met for any soil to be buried in the reservoir. The responsible party was required to insure that benzene was below 0.1 mg/kg, TPHg was below 1,000 mg/kg and PAH was non-detect (using the TCLP extract test) among other things. In his reports, Dr. Dagdigian plays a sleight of hand in which he sometimes implies that contamination is only significant if it is so severe as to be saturated with oil. Soil may be highly contaminated with dissolved, sorbed hydrocarbons and may pose a serious health risk but still not be "oil-saturated."

There is also a strange and unexplained temporal element to Dr. Dagdigian's theory. He opines that the largest amount of oil leakage was along the perimeter of the reservoirs, at the seam between the floors and

⁸ Dagdigian, January 2014, Technical Response to the RWQCB Draft Cleanup and Abatement Order, Figures 23 and 24.



the walls. This is likely correct and this leakage likely occurred throughout the operational life of the reservoirs. However, in Dr. Dagdigian's theory, the forces of upward contaminant migration mysteriously do not begin until after 1966. The laws of physics and chemistry and hydrogeology cannot be suspended at will. If Dr. Dagdigian's theory (that capillary rise and buoyancy can cause large amounts of petroleum to rise up from depth and contaminate previously clean shallow soil) is to be believed, these forces would have been acting in the 1920s, 1930s, 1940s, 1950s and the 1960s and the berms would have become contaminated via this process long before Barclay graded them and spread the soil around the site. Instead, in Dr. Dagdigian's theory, somehow the forces of upward migration are only unleashed after 1966 after the allegedly clean upper berms had been spread into the former reservoirs. This is clearly an unreliable theory.

Excavation pilot studies conducted recently at the site confirm that the concrete slabs were relatively intact (other than the widely-spaced trenches) and thereby constitute an impervious layer that would prevent the upward migration via capillary pressure. Much of the soil immediately above the concrete floors is highly contaminated. It would have been impossible for these hydrocarbons to somehow have penetrated solid concrete by way of capillary rise or buoyancy to contaminate soil immediately above the reservoir floors.

Dr. Dagdigian's theory requires the highest petroleum concentrations to be under the reservoir floors.⁹ If this pattern turns out to not be true, then his theory is disproven. In fact, this pattern does not hold up. The Regional Board stated in its December 2014 Response to Comments that:

“Approximately 11,000 shallow soil samples from the Site have been analyzed from 2008 to present. Results of the sampling confirm that there are numerous instances where higher concentrations of petroleum hydrocarbons are observed at shallower depths than at deeper depths.”

Dr. Dagdigian's own summary of data from the excavation pilot test at 24612 Neptune Avenue (Dagdigian Expert Report, Figure 9) shows numerous instances in which the highest concentrations of TPH are above the reservoir floor, not below it. For example, the 8-foot sample at location N24612XSWS was above the slab and the 9-foot sample was below the slab. The 8-ft sample contained 14,000 mg/kg of total petroleum hydrocarbons as diesel (TPHd) but the 9-foot sample had no detectable TPHd at all. Similarly, the 8.5-foot sample at location N24612XNWS was above the slab and the 9-foot sample was below the slab. The 8-ft sample contained 8,900 mg/kg of TPHd but the 9-foot sample had only 420 mg/kg of TPHd. These findings contradict Dr. Dagdigian's theory.

⁹ Dagdigian, November 2014, Expert Report, p. 37.



Dr. Dagdigian presents several arguments that petroleum hydrocarbons were not present in shallow soils (less than 10 feet deep) when Barclay developed the site in the late 1960's and that shallow soil only became contaminated by oil migrating upward from under the reservoirs. This theory requires that shallow soil outside the reservoir boundaries must still be clean (it would have been clean in the 1960s and would not be subject to future impact because it does not overlie the alleged contamination under the reservoir floors). However, occurrences of severe shallow petroleum hydrocarbon contamination do exist

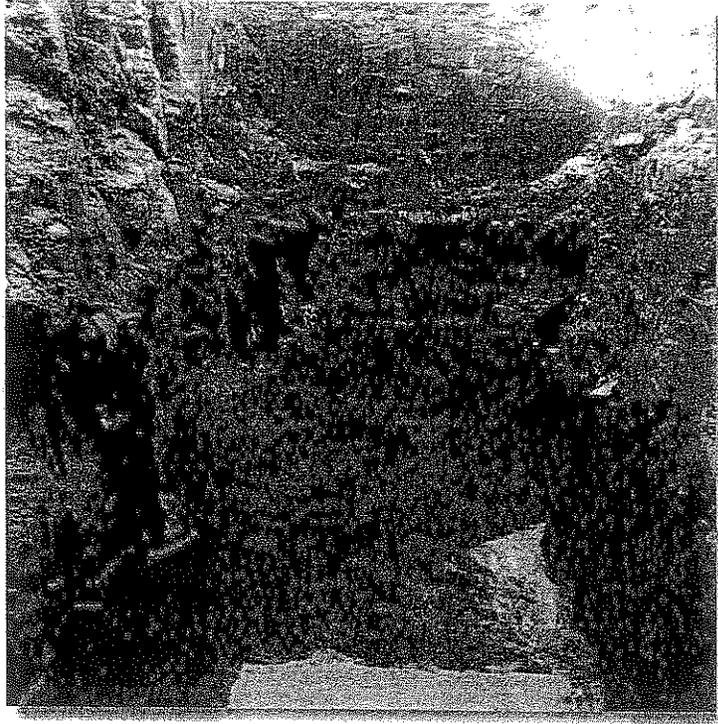
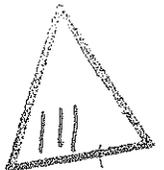


Figure 2. Photo taken near 317 E 244th Street showing very viscous petroleum oozing out of the soil into a utility trench.

outside of the footprint of the tanks, contrary to the theory of capillary rise and buoyancy effects. For example, Figure 2 above, shows thick petroleum hydrocarbon found just 18 inches below the land surface in the vicinity of 317 E 244th Street, northwest of Reservoir 7. The petroleum observed in Figure 2 is extremely thick and viscous. This oil could never rise up through capillary action or be buoyed up by a rising water table to any measurable degree.

In its December 2014 revised Cleanup and Abatement Order, the RWQCB correctly states: "the lateral and vertical distribution of petroleum hydrocarbons in soil at this site is highly variable" (page 54). If capillary action and buoyancy were bringing petroleum hydrocarbons to the surface as Dr. Dagdigian has theorized, we would see a more even distribution of hydrocarbons at or near the surface. A layer of mobile LNAPL on top of a rising perched water table would result in a continuous smear zone and an



even distribution in terms of depth across the footprint of the reservoirs. A homogeneous hydrocarbon presence across the site has never been noted.

Dr. Dagdigian's theory is further debunked by Geosyntec's series of soil contamination contour maps (an example of which is provided as Figure 3). When a perched aquifer develops, any mobile LNAPL¹⁰ hydrocarbon will accumulate on top of the water table and can rise as the water table grows shallower and smear across the intervening soil lithology. Since water has a flat surface as it rises, the resulting hydrocarbon surface must be generally flat as well. As clearly demonstrated in the 10-foot data in Figure 3, the center of each of the three reservoirs has lower levels of hydrocarbon contamination: concentrations that are too low to be indicative of LNAPL. Secondly the majority of the hydrocarbon is found along the inside edge of the former reservoirs. It is impossible for a perched water table to spread hydrocarbon (whether by capillary rise or buoyancy effects) selectively along the edge of the reservoirs but leave the center of the reservoirs relatively free of hydrocarbon.

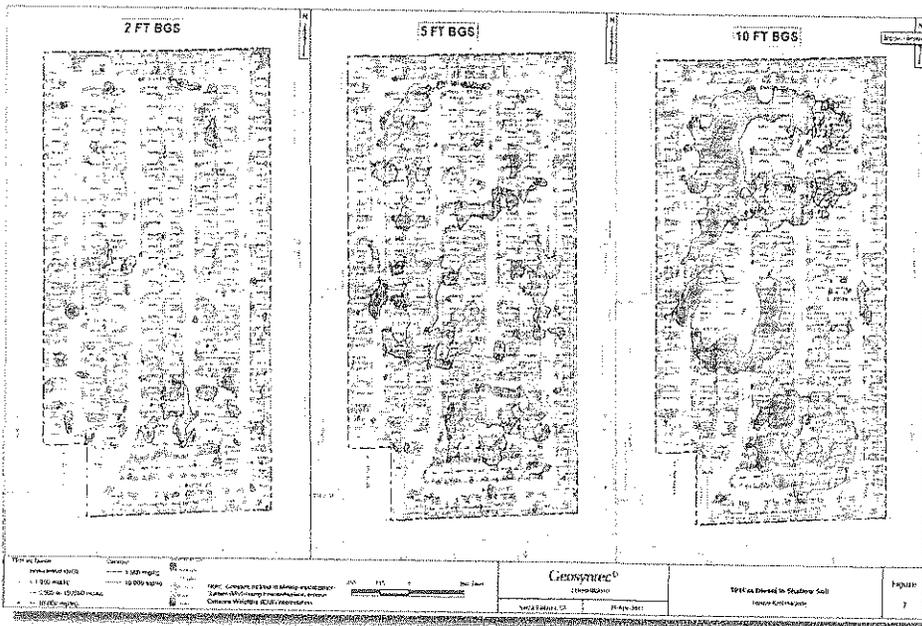


Figure 3. TPH as diesel in shallow soil.

In order to fill in the reservoir depressions, the circular reservoir berms would have been bulldozed first so that the outer perimeter berms (with lower concentrations of soil contamination compared to the reservoir berms) could subsequently be leveled. Since the highest concentrations of hydrocarbons are found along the inside edges of the former reservoirs, a logical interpretation is that the grading activity

¹⁰ After time, much of the LNAPL (even if present) will not be mobile due to its increasing viscosity as it weathers in the environment and due to forces that bind it to the soil matrix. In this case, LNAPL would not rise at all in response to a rising water table. Instead, we would see submerged LNAPL as is depicted in Figure 4.



simply bulldozed the contaminated berms into the reservoir depressions, thereby creating the currently observed pattern. Since the perimeter and interior berms were less contaminated than the reservoir berms, their contribution would result in lower concentration soil being placed in the center and shallowest soil of each former reservoir depression.

Figure 4, below, is from EPA's Ground Water Issue, EPA/540/S-95/500 entitled "Light Nonaqueous Phase Liquids (Newell et al, 1995)." This figure demonstrates the accepted understanding that a rising water table will result in a generally even distribution of LNAPL as the water level rises. At Reservoirs 5, 6 and 7 (see Figure 3) the center of each reservoir has notably lower levels of contamination compared to the perimeter of the reservoirs. Thus Dr. Dagdigian's theory is contrary to EPA's understanding of LNAPL and perched water behavior. It is also contrary to my education and decades of experience in the environmental field.

Dr. Dagdigian's response to earlier critiques of his capillary rise argument was to shift gears and to rely on the phenomena of fluid saturation, buoyancy and pressure to explain the novel theory of upward migration of hydrocarbons at this site.¹¹ I have evaluated the only soil moisture data available over several vertical profiles at this site and the hard data demonstrates a highly variable soil moisture pattern completely inconsistent with any uniform pattern of perched groundwater or fluid saturation causing buoyancy. I have not seen any capillary pressure measurements at the site and therefore Dr. Dagdigian's capillary rise theory is simply speculation with no testing or credible scientific methodology to back it up.

Regarding the buoyancy component of Dr. Dagdigian's theory: this requires the formation of a perched aquifer (regional groundwater is between 50 and 60 feet deep under the Carousel Tract and it has never been measured as rising into the upper ten feet of soil). In order for infiltrating water to form a perched aquifer it must accumulate on an impermeable lithologic layer (or a very low permeability layer through which water percolates slower than the vertical recharge rate). Further this impermeable layer must be continuous under essentially the entire site in order to create a perched thickness of several feet required to bring the hydrocarbons close to the surface. (The very first illustration [Figure 1-1] in Dr. Everett's book entitled "Vadose Zone Monitoring for Hazardous Waste Sites" demonstrates that infiltrating water simply runs off the edges of fine grained layers unless they are continuous). No such impermeable layer has ever been observed at this site. For Dr. Dagdigian's theory to be correct, there must be a continuous clay layer under the reservoir floors at this site that no-one has ever mapped, in spite of literally thousands of soil borings and numerous cone penetrometer test (CPT) and ultraviolet optical screening tool (UVOST) vertical surveys having been advanced at this site. In fact, the only possible perching layers ever identified in the subsurface of the Carousel Tract are the concrete reservoir floors themselves and the only way they could act as a perching layer is if Barclay's drainage plan (cutting trenches in the floors)

¹¹ Dagdigian, June 2014, Technical Response to Shell's Comment Letter, p. 3.



was faulty: in which case Barclay would still be responsible for exacerbating the subsurface environmental problems at this site.

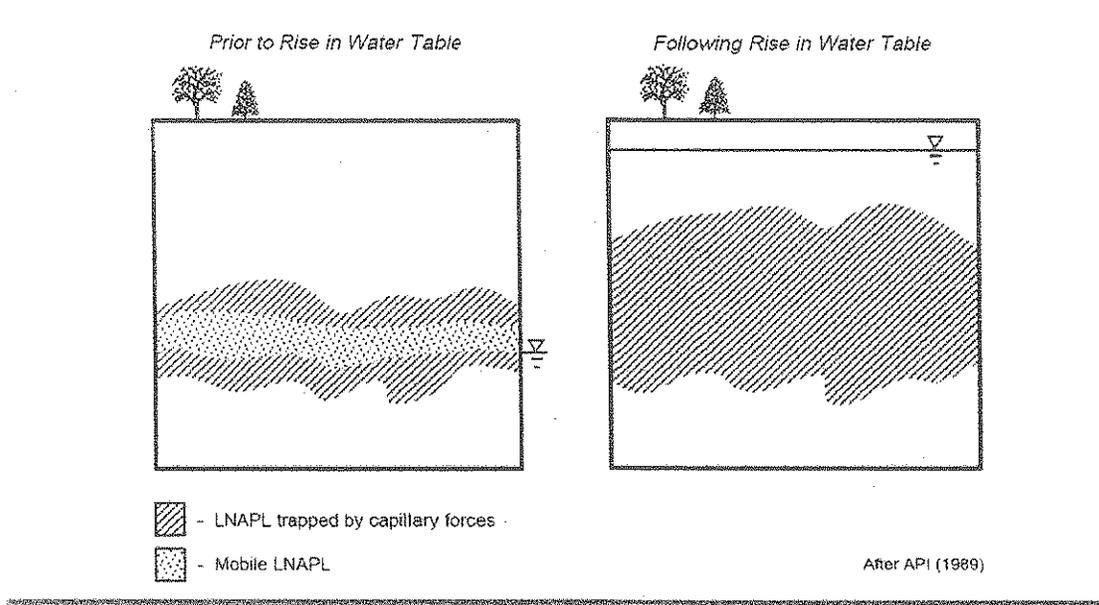


Figure 4. Effect of rising water table on LNAPL distribution in porous medium.

In addition, there must have been enough infiltration for a perched aquifer to actually form above the clay layer (or possibly the buried concrete floors): no perched aquifer has ever been observed at this site.

The buoyancy theory appears to only apply to LNAPL, thus it requires that the soil below the reservoir floors must have contained free product. This may have been the case in certain areas under Reservoir 6 where Pacific Soils encountered odorous and oily soils and where recent sampling has detected high concentrations of TPH. However, by Dr. Dagdigian's own admission, similar explorations under the other two reservoirs allegedly did not report visual signs of oil-saturated soils. Dagdigian notes that: "Sworn testimony from all 4 eyewitnesses indicated there was no observation of petroleum hydrocarbons beneath the reservoir floors."¹² Thus presumably the buoyancy and capillary rise theories cannot have been valid for Reservoirs 5 and 7 because Dr. Dagdigian would have us believe that the soil under these reservoirs was clean in 1967. This topic highlights a fundamental inconsistency in Dr. Dagdigian's unreliable and irrelevant theory. As noted above, one of the only lines of evidence for the berms being clean in 1967 was the assertion that workers at the site did not report observing oily soil in the berms. Dr. Dagdigian relies

¹² Dagdigian, June 2014, Technical Response to Shell's Comment Letter, p. 26.

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on this testimony to conclude that the berms must have been clean. However, workers also apparently did not observe oily soil under the floors of Reservoirs 5 and 7 but Dr. Dagdigian selectively rejects this information and concludes that this soil actually must have been grossly contaminated. (The true answer is that much of the soil under Reservoirs 5 and 7 is contaminated. The lesson to be drawn from this scenario is that visual observations are unreliable because there can be quite high levels of soil contamination that are not apparent to one's eyes or nose. Such contamination is only detectable by laboratory tests).

Dr. Dagdigian acknowledges that Barclay conducted infiltration tests to verify that ripping of the concrete floors would provide adequate subsurface drainage. Further, the County Engineer noted that the size and frequency of the planned channels were adequate to properly drain irrigation and rainfall water from the overlying soil.¹³ Now Dr. Dagdigian says the drainage was not satisfactory for larger rainfall events and the infiltrating water built up to form a perched aquifer, but he has not done any calculations to show that any such increased infiltration ever actually happened or if it did, that the drainage was truly inadequate. Once again, Dr. Dagdigian's theory rests on untested speculation. Rather, Dr. Dagdigian simply says, *ipse dixit*, that unspecified rainfall events at unspecified dates caused an as-yet unobserved perched aquifer to form, which (in turn) provided a buoyancy effect to draw hydrocarbons upwards "for a number feet into the fill material."¹⁴

Dr. Dagdigian misrepresents the volume and source of the soil required to backfill each reservoir

Dr. Dagdigian's theory relies on the misconception that all soil required to fill the reservoirs to the original, natural grade came from the berms surrounding each reservoir.

"...the berms surrounding each reservoir were created from the excavation of the reservoir itself, so backfilling that soil to its original location would have filled the reservoir to the current level grade. Therefore, soil from the outer berms would not have been required to fill the reservoirs back to grade."¹⁵

Contrary to Dr. Dagdigian's claim, simple volumetric calculations show that the amount of soil in each reservoir berm was insufficient, even if conservatively assuming that there was no volume reduction due to compaction. This means that soil from the perimeter berms was needed to complete the grade in the former reservoir depressions. This explains the broad pattern of less contaminated soil in the center of each reservoir and in the upper few feet of soil (which came largely from the perimeter berms) and more contaminated soil along the edges of the reservoirs and from 5-10 feet (which came largely from the

¹³ Dagdigian, June 2014, Technical Response to Shell's Comment Letter, p. 21.

¹⁴ Dagdigian, June 2014, Technical Response to Shell's Comment Letter, Appendix B, p. 2.

¹⁵ Dagdigian, June 2014, Technical Response to Shell's Comment Letter, p. 21.



contaminated reservoir berms). The following are volume calculations for Reservoir 7 to exemplify the difference in volumes of the reservoir below the original, natural grade compared to the reservoir berm.

Referring to Figure 5, the volume of the reservoir below the original, native grade can be calculated as follows:

$$V_{reservoir} = \left[\frac{1}{2} * (B - A) + A \right] * d$$

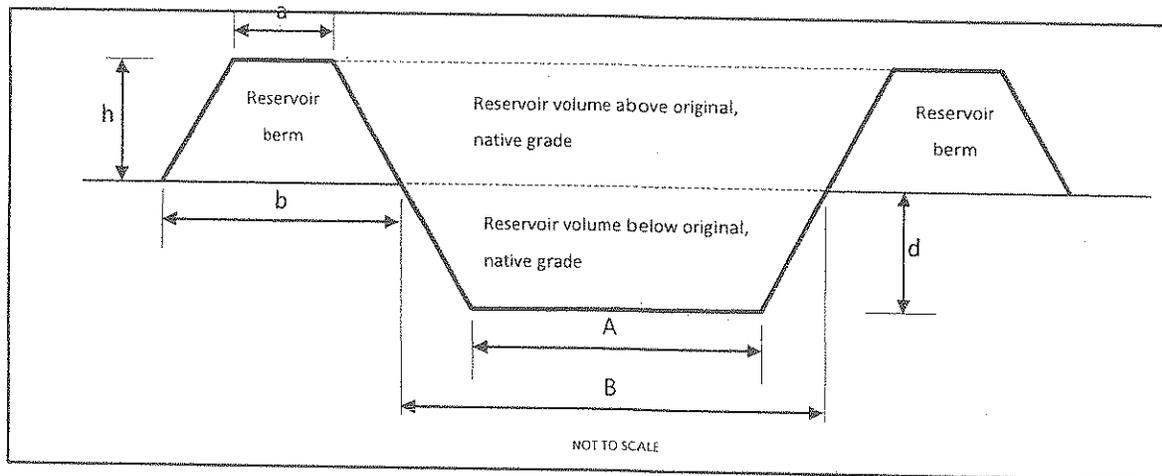


Figure 5. Cross Section of Typical Reservoir and Surrounding Berm.

Where,

$V_{reservoir}$ = volume of reservoir below original, natural grade (cubic feet)

A = area of reservoir at the floor level (square feet)

A = 354,062 sf, estimated based on historical reservoir topography¹⁶

B = area of reservoir at the original, native grade level (square feet)

B = 398,428 sf, estimated based on historical reservoir topography [*ibid.*]

d = depth of reservoir below the original, native grade (feet)

d = 12.5 ft, estimated based on historical reservoir topography [*ibid.*] and site conditions described in geotechnical reports by Pacific Soils Engineering, Inc.¹⁷

Given the values above, $V_{reservoir} = 4,703,062$ cu ft

¹⁶ Dagdigian, November 2014, Expert Report, Figure 6.

¹⁷ Pacific Soils Engineering, January 7, 1966, Preliminary soils investigation on Tract No. 24836 in the County of Los Angeles, California, p. 1.



The volume of reservoir berm can be calculated as follows:

$$V_{berm} = \frac{1}{2} * (a + b) * h * l$$

Where,

V_{berm} = volume of reservoir berm (cu ft)

a = width of top of berm (ft)

a = 20 ft, estimated average based on historical reservoir topography¹⁸

b = width of bottom of berm at the original, native grade (ft)

b = 60 ft, estimated average based on historical reservoir topography [*ibid.*]

h = height of berm above the original, native grade (ft)

h = 15 ft, estimated based on historical reservoir topography [*ibid.*] and site conditions described in geotechnical reports by Pacific Soils Engineering, Inc.¹⁹

l = length of berm (ft) measured along the center line of the berm

l = 2,427 ft, estimated based on historical reservoir topography [*ibid.*]

Given the values above, $V_{berm} = 1,456,200$ cu ft

There was not nearly enough soil in the Reservoir 7 berm to fill the depression left by the reservoir. The shortfall is a huge volume of soil, estimated above to be more than 3,200,000 cu ft. This is the approximate additional volume of soil beyond the volume available in the reservoir berm that was required to fill Reservoir 7. If no imported soil was brought on site during grading,²⁰ then the additional soil must have been from the perimeter and interior berms. Because the perimeter and interior berms were not in constant contact with oil, it make sense that these berms were less contaminated compared to the reservoir berms. This explains why the centers of the former reservoirs and the shallowest soil has generally lower levels of contamination than the deeper soil that now occupies the former reservoirs. Soil in these areas was predominantly from the less contaminated perimeter and interior berms.

In the case of Reservoirs 5 and 6, the difference between the volume to be filled and the amount of soil available from the reservoir berm was calculated to be approximately 860,644 cu ft. This difference is smaller than Reservoir 7 due to the size difference of the reservoirs (2M barrels for Reservoir 7 as compared to 0.75M barrels for Reservoirs 5 and 6). The amount of soil available from the reservoir berm corresponds to 55% of the volume needed to fill in Reservoirs 5 and 6, but only 31% in the case of Reservoir 7. This difference in the relative proportion of volumes also explains the difference in the distribution of the petroleum hydrocarbons contaminated soil between the larger Reservoir 7 and the

¹⁸ Dagdigian, November 2014, Expert Report, Figure 6.

¹⁹ Pacific Soils Engineering, January 7, 1966, Preliminary soils investigation on Tract No. 24836 in the County of Los Angeles, California, p. 1.

²⁰ Dagdigian, November 2014, Expert Report, p. 14.



smaller Reservoirs 5 and 6 as discussed below. Specifically, the smaller reservoirs have less of a “doughnut hole” of less contaminated soil in the center of the reservoir footprint. This is because the berm volume from these smaller reservoirs would have filled more of the depression and the developers were able to use less soil from the perimeter berms.

Dr. Dagdigian misinterprets the distribution of petroleum hydrocarbon concentrations

Barclay Hollander and Dr. Dagdigian want us to believe that they minimally handled the soil at the site during grading and development. However, mixing of highly contaminated soil with less-contaminated soil during grading best explains the distribution of concentrations of petroleum hydrocarbons observed in shallow soils. Highly-contaminated soils were caused by leaking of petroleum hydrocarbons directly into the soils adjacent to the concrete-lined reservoir floors and berms. Less-contaminated soils (such as from the perimeter berms) were intentionally mixed with the more potent contamination from the reservoir berms and this mixture was spread over much of the site.

In addition to oil leaking out of the reservoirs, another source of contamination was the asphalt coating on the outside of the reservoir berms, and on the interior and perimeter berms. Some of the interior berms even had asphalt roads along the top of the berms. Asphalt is largely composed of high-molecular weight petroleum hydrocarbons and aggregate. This asphalt coating was left on site and mixed into the soil by the developer defendants during grading activities in the 1960s:

- 15 And so as we -- as we moved that material,
16 the dirt into the -- to complete the compaction, the
17 asphalt just broke up. It just kind of got ground
18 under and didn't require any special treatment. I'm
19 sorry, but it just simply disappeared into the mix.²¹

Among other things, asphalt frequently contains naphthalene. Grading the asphalt-impregnated soil from the berms created a ring of naphthalene around the perimeter of the reservoir depressions. This pattern is consistent with the naphthalene sampling results and is further evidence that Dr. Dagdigian's theory of contamination rising with an imaginary perched water table is without merit.

Mr. Vollmer dismisses the asphalt as not requiring treatment and simply disappearing. Dr. Dagdigian does not acknowledge its contribution to the observed distribution of petroleum-contaminated soil. However, I estimated the volume of asphalt spread across the site and buried to be quite significant. Most of this material is likely now found in shallow soils because the interior and perimeter berms were used to grade the site after each reservoir had been partially filled with the soil from its own berm. This helps to explain the observed distribution of petroleum hydrocarbons in the reservoirs, and is furthered discussed below.

²¹ Vollmer, March 15, 2013, Deposition, p. 116.



In the following calculations, I estimated the volume of the asphalt coating to show that it is a significant source of contamination at this site. (See also Figure 6).

For the Reservoir Berms: $V_{asphalt} = (a + x) * \text{berm length} * \text{asphalt thickness}$

For the Interior and Perimeter Berms: $V_{asphalt} = (a + 2x) * \text{berm length} * \text{asphalt thickness}$

Where,

$V_{asphalt}$ = volume of asphalt coating (cu ft)

a = width of berm (ft)

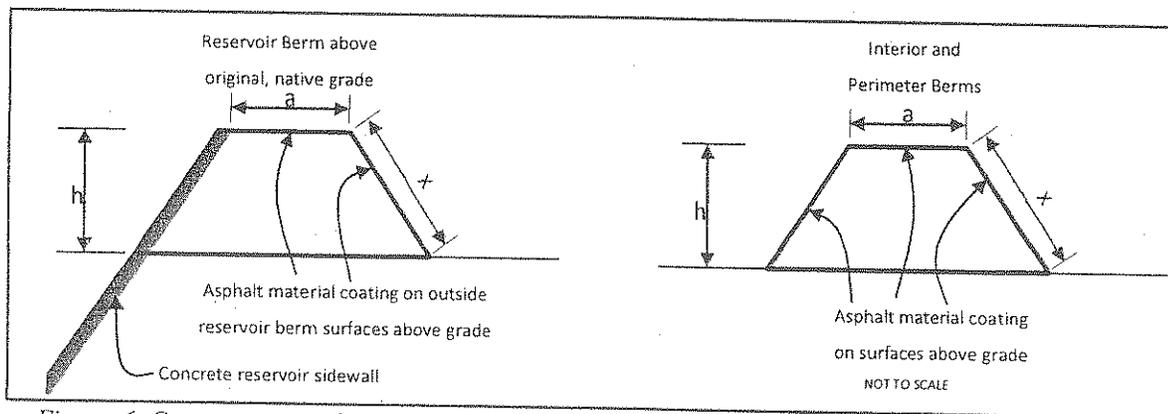


Figure 6. Cross sections of typical reservoir and perimeter berms showing dimensions of asphalt coatings.

$a = 20$ ft for reservoir berms and 13 ft for interior and perimeter berms, estimated average based on historical reservoir topography²²

$x = 27$ ft for reservoir berms and 22.5 ft for interior and perimeter berms based on an angle of 33.7 degrees and a height (h) of 15 ft for reservoir berms and 12.5 ft for interior and perimeter berms, estimated average based on historical reservoir topography.

Berm length = 5,681 ft for reservoir berms and 7,613 ft for interior and perimeter berms, estimated average based on historical reservoir topography.

Assuming an asphalt thickness of one inch, the total volume of asphalt coating the berms (and subsequently mixed into the soil and left on site) was approximately 59,000 cubic feet or about 4,000,000 pounds (based on a specific gravity for asphalt of 1.04).

²² Dagdigan, November 2014, Expert Report, Figure 6.

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The fact that the reservoir berms were contaminated even when the grading occurred in the 1960s is reflected in the current distribution of TPHd in the soil of Reservoirs 5 and 6 as compared to Reservoir 7. The current distribution of TPHd is presented in Figure 7 that was prepared using concentration data provided by the RWQCB in the form of a Microsoft Excel electronic file in 2014. The data was interpolated using C Tech Development Corporation's Mining Visualization System (MVS) software package. The data was interpolated in 3D (three dimensional) space using an Inverse Distance Weighting (IDW, Franke/Nielson) algorithm at a resolution of 5 by 5 by 0.5 feet in the X, Y and Z coordinate directions, respectively. Sample locations included in the dataset with a negative depth (collected above normal grade such as in planters) were excluded. TPHd results reported as zero were interpreted to be below the laboratory reporting limit or non-detect, and were set equal to one-half the reporting limit.

Figure 7 shows that, for example, at 5 ft below ground surface (bgs), Reservoirs 5 and 6 exhibit overall higher concentrations throughout the entire footprint of the reservoirs. Reservoir 7 exhibits lower concentrations in the central area of the footprint and higher concentrations towards the perimeter of the reservoir footprint. By contrast, when only concentrations between 50 and 625 mg/kg are plotted, the pattern is reversed. That is, Reservoir 7 exhibits impacted soils over the entire footprint including the central areas, but Reservoirs 5 and 6 exhibit less soil with lower concentrations in the central footprint areas. The simple explanation (Occam's razor) is that the depressions of Reservoirs 5 and 6 had a smaller volume below the original grade compared to the volume of their berms, and during grading the depressions were more completely filled with the high concentration soils of their own berms and therefore exhibit higher concentrations throughout and up to shallower depths. Reservoir 7 had a larger volume below the original, natural grade with respect to the volume of its berm and during grading the high concentration soils of its berm was only sufficient to fill the an outer ring of the depression and additional, less contaminated soils from the interior and perimeter berms at the site were used to fill the center and the shallower portion of the depression. The volume calculations discussed above and Figure 7 showing the distribution of the TPHd concentration plotted at concentrations above 625 mg/kg and concentrations between 50 and 625 mg/kg show how grading caused the distribution of shallow petroleum hydrocarbons in shallow soils at this site.

Other supporting evidence of the existence of contaminated soil in the reservoir berms in the 1960s and subsequent spreading of this material during grading is presented in Figures 8 and 9. Figure 8 shows an aerial photograph from 1966 which illustrates how the reservoir berms were breached early in the demolition program, presumably to accommodate removal of the roof structure, sludge and liquid waste. The concentration profiles on Figure 8 (from data collected in recent years) clearly shows that high concentration soils from the berm were spread outward during this initial phase of the demolition and grading. It is striking that this pattern is discernable even to this day: it could only be formed if the reservoir berms were already highly contaminated. Its contrastingly different contaminant distribution pattern was caused by the need to push this section of the reservoir berm outward to create access for



heavy equipment to reach the interior of the reservoir. Subsequently and according to Dr. Dagdigian²³ and testimony of Mr. Leroy Vollmer,²⁴ the reservoir berm was bulldozed inward to fill the reservoir, and elsewhere along the perimeter of the reservoirs, the distribution of the TPHd confirms that approach: showing high concentrations forming a ring around the interior of the former reservoir. And as discussed above, because of the insufficient soil volume in the reservoir berm to fill the reservoir, lower concentration soils from the surrounding interior and perimeter berms were subsequently used to complete the backfilling of the reservoir to grade. Hence the presence of lower concentrations found in soils in the central area of the reservoir and in the shallowest soil interval.

Another important piece of evidence relates to soil borings advanced by Pacific Soils in January 1966, including B6 and B8 which are shown on Figure 8. In 1966, these borings were advanced to depths of up to 35 feet at locations outside the footprint of the reservoirs and there are no indications of contamination in the descriptive boring logs.²⁵ Yet, as shown on Figure 8, the shallow soil in both these areas is now contaminated with petroleum hydrocarbons. These areas were clean before the grading activities at this site and now they are contaminated. This is clear proof that the backfill used in the vicinity of borings B6 and B8 must have been contaminated when the site was graded in 1967.

Dr. Dagdigian claims that "All petroleum hydrocarbon impacted soil that Barclay encountered was removed from the fill material and stockpiled onsite," and ultimately "hailed offsite for disposal" (Dagdigian, 2014, Expert Report, p. 14). He expanded upon this opinion in his January 2014 submittal to the RWQCB where he claimed that: "Petroleum Hydrocarbons 'Explicitly- Known' in Areas Outside the Reservoirs Were Minor and, Where Encountered, Were Removed from the Subject Property."²⁶ This is clearly false. For example, in his 2011 Declaration Mr. Bach noted, "I would expect to find higher level of contamination in and around the old sump areas because it was not possible to remove all of what would now be considered to be and prove to be contaminated soil" (p. 10, lines 7-10). It appears that the only contaminated soil removed from the site was soil so saturated with oil that it could not be adequately compacted or would not accommodate adequate drainage. This was purely a geotechnical consideration.

Another example that contamination was evident during redevelopment in the 1960s is illustrated in Figure 9. This figure shows details of an area north-west of Reservoir 7 where historical photographs from 1968 captured discoloration of surface soils during final phases of the development of the site. If visible on aerial photography, this stained soil would certainly have been visible to workers on the ground, yet this occurrence of contamination was rediscovered a few years ago when utility workers dug a trench in that area: proof that "explicitly known" areas of soil contamination were not removed in the

²³ Dagdigian, November 2014, Expert Report, Appendix B, p. 7.

²⁴ Vollmer Deposition, Volume 1, March 15, 2013, pp. 80-84.

²⁵ Pacific Soils Engineering, January 7, 1966, Preliminary Soils Investigation Report

²⁶ Dagdigian, January 2014, Technical Response to the RWQCB Draft Cleanup and Abatement Order, p. 7.



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1960s. Decades later, utility workers uncovered contamination by a heavy liquid and tarry product during trenching in the same area as shown in the historical aerial photo (see also Figure 2 which is a recent photo from this location). The location and extent of this area was investigated and documented in 2013²⁷, and it coincides with the stained area in the 1968 aerial photograph. The distribution of the shallow TPHd concentrations show the presence of a continuous zone of high concentration of TPHd in soils extending from under the Reservoir 7 berm between 2 and 5 feet bgs that connects to this area outside of the reservoir footprint. This contamination was clearly evident to workers at the site during demolition of the reservoirs and grading of the site and yet it was not removed and was left to be rediscovered in homeowners' lawns many decades later.

In summary, we agree with the RWQCB's decision to name Barclay Hollander as a responsible party for subsurface contamination at the Carousel Tract and we trust the analysis contained in this letter will lend further support to your determination. Thank you for the opportunity to provide our comments on this important project.

Sincerely yours,

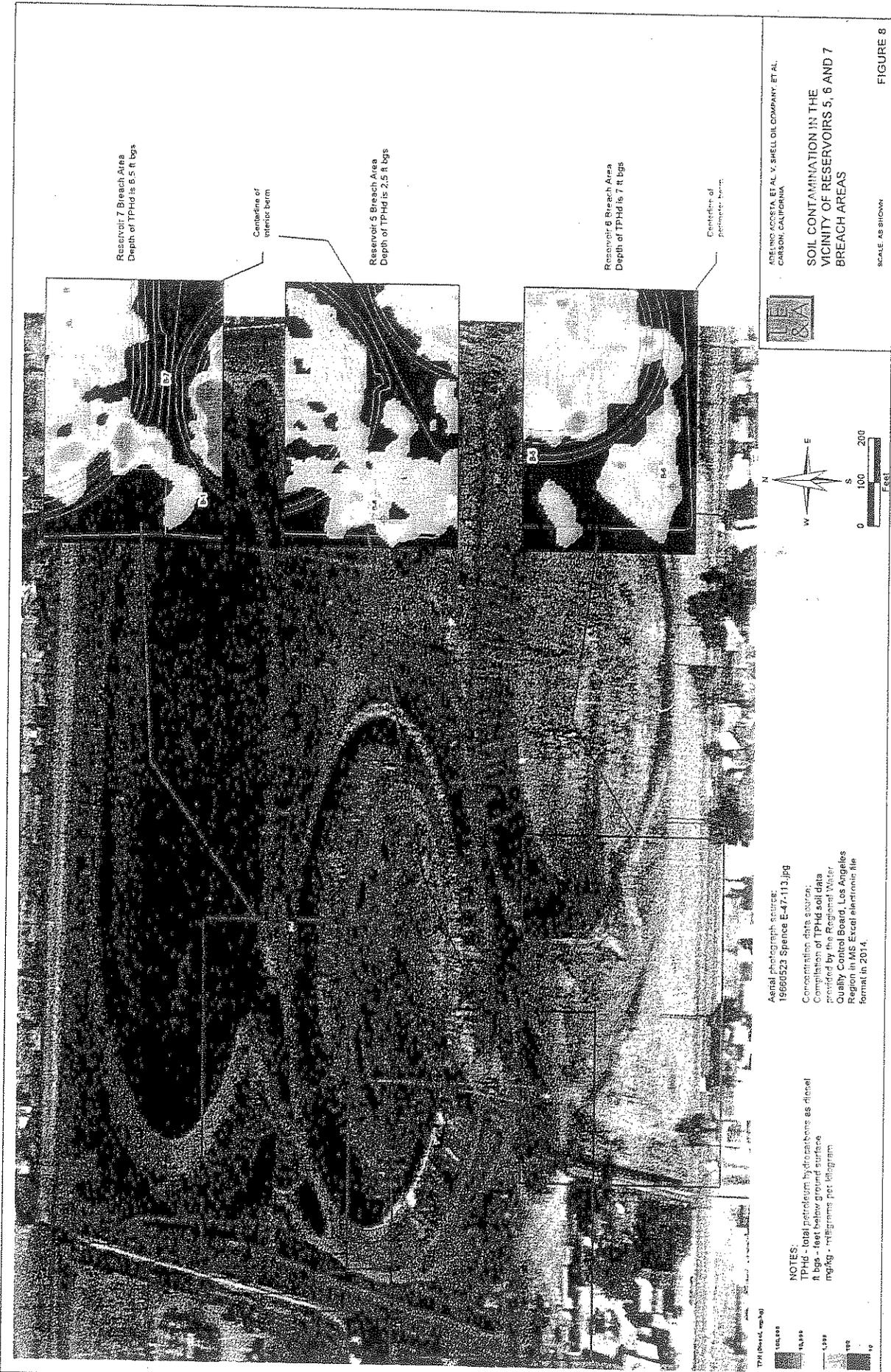
L. EVERETT & ASSOCIATES, LLC



James T. Wells, PhD, PG

²⁷ URS, February 2013, Delineation of Tar-like Material in the Vicinity of AT&T Excavations Near the Intersection of 244th Street and Marbella Avenue, Former Kast Property, Carson, California.





RESERVOIR 7 BREACH AREA
Depth of TPHd is 6.5 ft bgs

Centerline of venturi berm

RESERVOIR 5 BREACH AREA
Depth of TPHd is 2.5 ft bgs

Centerline of petroleum berm

RESERVOIR 8 BREACH AREA
Depth of TPHd is 7 ft bgs

SCALE AS SHOWN

Aerial photograph source:
19060523 Spence E-47-113.jpg

Concentration data source:
Compilation of TPHd soil data
provided by the Regional Office
County Central Board, Los Angeles
Region, in MS Excel electronic file
format in 2014.

NOTES:
 TPHd - total petroleum hydrocarbons as diesel
 0 bgs - feet below ground surface
 mg/kg - milligrams per kilogram

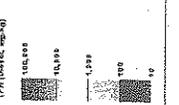


FIGURE 8

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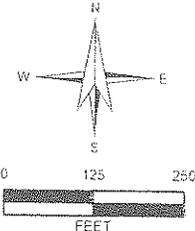


ZOOMED VIEW OF
NW CORNER OF SITE

Discolored soil in same general area where utility workers uncovered tar-like material while trenching near the intersection of E 244th St. and Marbella Ave. in August, 2012.

S:\Projects\033_Carson\GIS\Map_Project\033_00_010_ATT_Trench_Area.mxd

Aerial photograph source:
19680822 UCSB lg-2400_2-66.jpg



ADELINO ACOSTA, ET AL. V. SHELL OIL COMPANY, ET AL
CARSON, CALIFORNIA

DISCOLORED SOIL OBSERVED
IN 1968 AERIAL PHOTOGRAPH
NEAR INTERSECTION OF E 244TH ST
AND MARBELLA AVE

SCALE: AS SHOWN

FIGURE 9

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VIA HAND DELIVERY AND ELECTRONIC MAIL

Deborah Smith
Chief Deputy Executive Officer
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles CA 90013

Re: TENTATIVE REVISED CLEANUP AND ABATEMENT ORDER PURSUANT
TO CALIFORNIA WATER CODE SECTION 13304 CLEANUP AND
ABATEMENT ORDER NO. R4-2011-0046

SITE: FORMER KAST PROPERTY TANK FARM LOCATED SOUTHEAST OF
THE INTERSECTION OF MARBELLA AVENUE AND EAST 244TH STREET,
CARSON, CALIFORNIA (SCP NO. 1230, SITE ID NO. 2040330 CAO NO. R-
2011-0046)

Dear Deborah:

We represent Barclay Hollander Corporation (“Barclay”) with respect to the foregoing matter. This letter follows up on my letter to you dated December 24, 2014, which responded in part to the December 8, 2014 correspondence from Paula Rasmussen to C. Michael Carter on the topic of naming Barclay to the existing Cleanup and Abatement Order No. R4-2011-0046 (“CAO”).

In my December 24 letter, we described certain previously unavailable and highly relevant evidence that has been developed in the ongoing civil litigation between certain residents of the Carousel Tract and Shell, Dole and Barclay that bears directly upon the decision that you have been asked to make as to whether Barclay should be named to the CAO. We have now collected some of that evidence, enclosed with this letter, and below we describe a few of the more important documents that require your attention before any decision is made in response to the December 8 recommendation from the prosecutor:

- November 19, 2014 deposition of George Bach (“2014 Bach Deposition,” transcript attached hereto as “Attachment A”);



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- Expert Report of Jeffrey V. Dagdigian, Ph.D., dated November 14, 2014 (“Dr. Dagdigian’s Report,” attached hereto as “Attachment B”);
- Rebuttal Report of Jeffrey V. Dagdigian, Ph.D. in Response to the Plaintiffs’ Expert Reports, dated December 22, 2014 (“Dr. Dagdigian’s Rebuttal Report,” attached hereto as “Attachment C”);
- Expert Report of Charles R. Faust, Ph.D., P.G., dated November 14, 2014 (“Dr. Faust’s Report,” attached hereto as “Attachment D”);
- July 7, 2014 deposition of F. Edward Reynolds, Jr., RCE (“Reynolds Deposition,” transcript attached hereto as “Attachment E”);
- Expert Report of Charles R. Faust, Ph.D., P.G., dated March 7, 2014 (“Dr. Faust’s Rebuttal Conduct Report,” attached hereto as “Attachment F”);
- Expert Report of Mark Armbruster, dated March 7, 2014 (“Mr. Armbruster’s Rebuttal Conduct Report,” attached hereto as “Attachment G”);
- Supplemental Report of William R. Brasher, dated March 7, 2014 (“Mr. Brasher’s Rebuttal Conduct Report,” attached hereto as “Attachment H”);
- Various County of Los Angeles Regional Planning Commission (“Regional Planning Commission”) documents, dated January 25, 1966, February 10, 1966, August 9, 1966 (two), September 20, 1966 and September 21, 1966 (collectively attached hereto as “Attachment I”); and
- County of Los Angeles Board of Supervisors (“Board of Supervisors”) meeting minutes dated March 17, 1966 and October 20, 1966 (collectively attached hereto as “Attachment J”).

The Regional Board’s staff did not previously have this evidence and therefore it was not considered by the prosecutor when it made its recommendation to name Barclay on the CAO. Moreover, after our June 2014 submission to the Regional Board until the December 8 phone call from Mr. Unger, we did not have any reason to gather this additional evidence and submit it to the Regional Board because we received no response from Regional Board staff and we were never told whether or not the prosecutor was considering naming Barclay to the CAO. In the meantime, the related civil litigation generated additional evidence. Now that we have the Regional Board prosecutor’s response, it is clear that this newly generated evidence must be considered before any decision is made to name Barclay to the CAO.

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Therefore, this letter and all attachments listed above and references and information cited therein should be included in the public record in this matter and be given full consideration before making any decision. We explain the significance of this additional evidence next.

1. **A Third Day of the Deposition of George Bach Taken by Counsel for the Plaintiffs and Shell Confirms That All Significant Petroleum Hydrocarbon Impacts Known to Barclay Were Disposed Offsite, And Makes Plain That The Regional Board Has No Basis For Relying on Mr. Bach's 2011 Unsworn Statement to Support An Opposite Finding.**

We provide the transcript of the third day of deposition of George Bach, dated November 19, 2014, which had not been reviewed by the Regional Board prosecutor when it issued its recommendation to name Barclay to the CAO. As you may be aware, Mr. Bach personally supervised the dismantling of the reservoirs and grading efforts to prepare the Kast property for construction of the Carousel Tract in 1965-66. The transcript of this third day of testimony contains additional testimony regarding his first-hand knowledge of the presence and treatment of oil-impacted soils that were encountered during those efforts, which is absolutely critical to any evaluation of Barclay's potential liability as a "discharger" under the California Water Code.

The prosecutor's conclusion that the "contamination pattern presently on site likely resulted from site development activities of fill and grading with site soils"¹ is based in substantial part on its belief that during redevelopment there was evidence of petroleum hydrocarbon odors in the berm soils and observable impacts to soil directly beneath the reservoir floors.² Yet the only evidence cited by the prosecutor for these two propositions is an unsworn statement signed on May 13, 2011 by Mr. Bach ("2011 Statement"). In order to reach this conclusion based solely on the 2011 Statement, it was necessary for the prosecutor to (i) disregard the sworn deposition testimony of multiple witnesses, including that of Mr. Bach, that does not support the prosecutor's conclusions; (ii) interpret ambiguous language in the 2011 Statement in ways that are not appropriate in the circumstances; (iii) ignore the inherent lack of evidentiary value in the inadmissible hearsay presented by the entire 2011 Statement taken while the witness was working with the lawyers for only one side in the litigation, which side had not given him access to documents to refresh his recollection except notes made by the lawyers who were advocates for only one point of view; and (iv) disregard the declaration submitted by Mr. Bach in June 2014 ("2014 Declaration"), which explained and

¹ Regional Board Site Cleanup Program Response to Comments on the Draft Revised Cleanup and Abatement Order, Former Kast Property Tank Farm ("Comment Chart") at 17.

² Comment Chart at 44.



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clarified the circumstances in which the 2011 Statement was made and stated that his 2013 deposition better represented his first-hand knowledge of what occurred at the Subject Property after he had been given an opportunity to refresh his recollection with historical documents.

After Barclay's June, 2014 submission to the Regional Board, the deposition of Mr. Bach was reopened at the request of Shell and Plaintiffs for the specific purpose of asking him about the 2011 Statement. That deposition, which marked the third day of Mr. Bach's sworn testimony in the litigation, was taken in November, 2014. All of the questions were asked by counsel for Shell and Plaintiffs.

That deposition testimony confirms that the prosecutor's reliance on the 2011 Statement is misplaced. Even before Mr. Bach's deposition was reopened, there were four eye-witnesses still living who had given depositions on the subject of spreading the berm soils and ripping the concrete floors during the 1965-66 redevelopment activities. These eye-witnesses are George Bach, Lee Vollmer, Lowell Anderson, and Al Vollmer. In their depositions, which are admissible evidence, each testified that they did not observe any petroleum hydrocarbons in the berm soil.³ Those who were asked about odors testified that there were no petroleum odors in the berm soil.⁴ Thus, all of the admissible evidence contradicts the prosecutor's conclusion on that point. The same is true for observations of soil beneath the reservoir bottoms seen when the concrete floors were being ripped. All of the eye-witnesses who observed the soil beneath the slabs on the reservoir bottoms observed no petroleum hydrocarbons beneath the ripped concrete.⁵ Al Vollmer in particular was cross-examined closely about this.⁶ Once again, all of the admissible evidence contradicts the prosecutor's conclusions on this subject.

As noted in my December 24 letter, the Regional Board prosecutor relied exclusively on its interpretation of Mr. Bach's 2011 unsworn statement despite the fact that Mr. Bach's subsequent June 26, 2014 declaration⁷ signed under penalty of perjury, explained that the

³ Bach Deposition, March 7, 2013 at 143:23-144:4; L. Vollmer Deposition, March 15, 2013 at 86:2-87:1; Anderson Deposition, December 18, 2013 at 35:9-36:8; A. Vollmer Deposition, January 14, 2014 at 44:3-15.

⁴ Anderson Deposition, December 18, 2013 at 36:9-12; A. Vollmer Deposition, January 14, 2014 at 60:4-6; 110:19-111:2.

⁵ Bach Deposition, March 13, 2013 at 188:15-189:1; L. Vollmer Deposition, March 15, 2013 at 97:18-98:3; Anderson Deposition, December 18, 2013 at 42:4-12; A. Vollmer Deposition, January 14, 2014 at 61:18-62:7; 62:19-22; 109:14-110:11.

⁶ A. Vollmer Deposition, January 14, 2014 at 61:18-62:7.

⁷ In my December 24, 2014 letter, I erroneously referred to this as a "2013" declaration.

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2011 unsworn statement should not be relied upon, and that the 2014 declaration and his March 7, 2013 and March 13, 2013 depositions provided the most reliable account of his first-hand memory of the events surrounding redevelopment of the Kast Site in the 1960s up to that point. Much of the 2011 Statement is similar to the testimony given by Mr. Bach during his 2013 deposition, but as Mr. Bach explains in his 2014 declaration, by the time of his deposition, he had been given an opportunity to refresh his recollection with documents, something the Plaintiffs' lawyers did not give him a chance to do before he signed the 2011 Statement while working exclusively with them. Inexplicably, the Regional Board staff focused on a few differences between the 2011 Statement and the 2013 deposition and, without explanation disregarded the admissible evidence (the deposition) in favor of the inadmissible evidence (the 2011 Statement) based upon an interpretation that the person who signed the Statement clearly refuted.

In his November 2014 deposition, Mr. Bach, testifying under oath and subject to cross examination by lawyers for Shell and the Plaintiffs, directly refutes the "factual" assertions made by the Regional Board staff in its document attached to the December 8 recommendation entitled, Site Cleanup Program Response to Comments on the Draft Revised Cleanup and Abatement Order, Former Kast Property Tank Farm ("Comment Chart"), and which they claim are supported solely by Mr. Bach's unsworn statement in 2011. Mr. Bach is unequivocal in his deposition testimony that he did not see or smell oil in the berm soil that was used as fill or in other soils on the property,⁸ he did not observe oil in the soil below reservoir floors,⁹ and he saw no ponding of oil onsite.¹⁰ He also clarifies that, contrary to the way in which his 2011 unsworn statement has been misinterpreted, petroleum-impacted sand used to clean oil residue was not blended with clean fill and left onsite.¹¹ Mr. Bach's 2014 deposition testimony, considered in conjunction with his 2013 depositions and 2014 sworn declaration, provides the most comprehensive, competent evidence of his first-hand knowledge of events at the Site and provides no support for the prosecutor's reliance on the 2011 unsworn, and inadmissible, statement.

What is particularly noteworthy about this third day of deposition—and what we ask you to pay specific consideration to now—is Mr. Bach's testimony regarding his 2011 unsworn statement. Like his 2014 declaration and earlier depositions, Mr. Bach's deposition contains testimony that convincingly negates any basis for relying on the 2011 Statement to conclude that any petroleum hydrocarbons were left onsite by Barclay.

⁸ Bach Deposition, November 19, 2014 at 126:16-127:1; 127:19-129:6; 130:4-132:11.

⁹ Bach Deposition, November 19, 2014 at 130:4-132:11.

¹⁰ Bach Deposition November 19, 2014 at 135:4-136:10.

¹¹ Bach Deposition, November 9, 2014 at 120:4-124:20.

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The Regional Board prosecutor purports to glean facts from the 2011 Statement that are necessary for the conclusions it draws regarding Barclay's liability; however, the 2011 Statement would not be admissible under the most basic rules of evidence and it has been long established that no California court would permit reliance on it to support a finding of fact. *See, e.g., Fishbaugh v. Fishbaugh*, 15 Cal. 2d 445, 457 (1940) (basing conclusions upon inadmissible evidence may constitute sufficient ground for a reversal of judgment); *Estate of Pierce*, 32 Cal. 2d 265, 277 (1948) (noting that once "the inadmissibility of the evidence came to light...it was the duty of the trial court to disregard the inadmissible portion of the evidence").

The 2011 Statement is not competent evidence under the Evidence Code because it is hearsay and not subject to any recognized hearsay exception. Evid. Code § 1200 Furthermore, it was not signed under penalty of perjury (Evid. Code § 710), Mr. Bach does not have personal, first-hand knowledge about much of the contents of the statement (Evid. Code § 702(a)), and information in the statement is a product of speculation rather than Mr. Bach's memory (Evid. Code §§ 702, 800). Each of these reasons is clear from the face of the document and from the 2014 declaration, but if there were ever a doubt in anyone's mind, a reading of Mr. Bach's 2014 deposition transcript would remove it.

Mr. Bach explained in the November 2014 deposition that the 2011 Statement represented his best recollection at the time it was written and signed, but that it was written without the benefit of looking at documents generated at the time the Kast Site was developed. He stated, "The statements in here are what I believed to be true after 25 - 40 years of not looking at it. It's what I could recall at that time with no reference material, just out of my head."¹² Once he had the opportunity to review documents, his recollection was refreshed and he could offer an accurate account of his first-hand knowledge.

In his most recent deposition, Mr. Bach also offered clear and unequivocal testimony that many purported "facts" detailed in the 2011 Statement did not reflect his own first-hand knowledge. For example, he testified that he did not detect petroleum hydrocarbon odors in the soil, and that he included an account in the 2011 Statement of odor in the soil only because he thought he remembered it being in a soils report:

Q. Okay. Now when you were meeting with Mr. Mitchell in order to prepare -- and subsequently prepared your [2011 statement], you spoke with him about some -- some of the soil having odors. Do you recall that discussion?

(Objections)

¹² Bach Deposition, November 9, 2014 at 117:17-21.

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Mr. Bach: We discussed that there was a soils report that indicated that there was some odor. I didn't - - myself, I didn't recall smelling or having the odor there, but it was in a report."¹³

Likewise, Mr. Bach explained that he did not personally observe petroleum hydrocarbons in soil under the reservoir floors, but that he saw a description of the presence of petroleum hydrocarbons contained in the boring logs in a soils report:

Q. You wrote in your [2011 statement] that you did find that the soil immediately under the concrete was oil stained and had an odor, correct?

(Objections)

Mr. Bach: No. What I said was we did find it, but that was based on the comments from the boring logs that were -- that I did look at at that time. So I'm --

Q. And you didn't --

Mr. Bach: -- quoting from somebody else.¹⁴

Mr. Bach: It's from [a soils] report and it's what the observer saw and the way he classified the material. And I took the information from that.

The prosecutor is well aware of the soils report Mr. Bach references in the above passage; it is a drainage study dated March 11, 1966 and referred to repeatedly by the prosecutor in its comments. It is the only document in the record that refers to boring logs that mention oil odors. It is a single piece of evidence. One item of evidence cannot be expanded into more than it is by lawyers who persuade a witness in his eighties, without the benefit of documents, counsel, or cross-examination, to sign a document that refers to the fact without referring to its source.

Finally, the 2011 unsworn statement must be disregarded because Mr. Bach testified that the statement is riddled with speculation that was included at the request of plaintiffs' counsel in the civil litigation:

Mr. Bach: [Areas identified in the 2011 Statement as those that "might have higher levels of contamination"] were written because I was asked to speculate about where things might be found. In the notes that Adam [an attorney at Girardi-Keese] sent me, that was one of the requests.

(Motion to strike, Objection)

¹³ Bach Deposition, November 9, 2014 at 126:16-127:1.

¹⁴ Bach Deposition, November 9, 2014 at 130:4-17, 132:9-11.

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Mr. Bach: That's what he asked me to do.

Q. That's a good question. Mr. Bach, were you referring to [plaintiffs' counsel] or [Barclay's counsel] when you said you were doing what he instructed you to do?

Mr. Bach: [Plaintiffs' counsel's] people.¹⁵

Mr. Bach's testimony makes clear that the prosecutor's reliance on the 2011 unsworn statement is arbitrary and without basis, especially in light of the already robust compilation of admissible evidence in the Regional Board's possession related to Mr. Bach and the subjects he addresses. *See Houghtaling v. Super. Ct.*, 17 Cal. App. 4th 1128, 1141 (1993) ("recognizing the "centuries old evidentiary doctrine that only trustworthy and reliable evidence should be considered..."); *Ojala v. Bohlin*, 178 Cal. App. 2d 292, 304 (1960) ("Resort must be had to the best evidence that is available...").

In making findings of fact upon which a determination is made to name a party to a CAO, the Regional Board is duty-bound to consider all competent, admissible evidence. *See, e.g., Cnty. of San Diego v. Assessment Appeals Bd. No. 2*, 148 Cal. App. 3d 548, 558 (1983) (upholding trial court's finding of abuse of discretion where board chose to disregard important competent evidence); *Marshall v. Dept. of Water & Power*, 219 Cal. App. 3d 1124, 1147 (1990) ("the only evidence which the [fact finder] is not free to disregard is competent evidence"); *Gilbert v. Gilbert*, 98 Cal. App. 2d 444 (1950) (abuse of discretion for failing to consider competent evidence). The decision by the Regional Board prosecutor to prefer the incompetent and inadmissible 2011 statement over a mountain of credible and admissible evidence violates due process protections, which are spelled out in the California Administrative Procedure Act ("APA") and the State Water Board's own regulations. Under both the APA and the State Water Board regulations, hearsay evidence, such as that contained in the 2011 unsworn statement which is not the product of Mr. Bach's personal knowledge, may be used for the purpose of supplementing or explaining other evidence *but shall not be sufficient in itself to support a finding unless it would be admissible over objection in civil actions.*" Gov. Code § 1153(c), (d) (emphasis added); Cal. Code Regs. tit. 23, § 648.5.1 (incorporating Gov. Code section 11513 by reference); *see also, e.g., Molenda v. Dept. of Motor Vehicles*, 172 Cal. App. 4th 974, 996 (2009) ("The mere admissibility of evidence at an administrative hearing does not confer the status of 'sufficiency' to support a finding absent other competent evidence" (citation omitted).); *Daniels v. Dept. of Motor Vehicles*, 33 Cal. 3d 532 (1983) (noting that Gov. Code. section 11515 "render[s] hearsay

¹⁵ Bach Deposition, November 9, 2014 at 137:22-139:11.

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evidence insufficient in itself to support a finding”); *see also* Evid. Code § 1200 (defining hearsay evidence).

“While administrative bodies are not expected to observe meticulously all of the rules of evidence applicable to a court trial, common sense and fair play dictate certain requirements for the conduct of any [proceeding] at which facts are to be determined. Among these [is]...hearsay evidence standing alone can have no weight.” *Desert Turf Club v. Bd. of Supervisors*, 141 Cal. App. 2d 446, 455 (1956) (ordering the board to annul an order and reconsider an application “wholly excluding each and every instance of hearsay testimony unless supported by properly admissible testimony”); *accord Ashford v. Culver City Unified School Dist.*, 130 Cal. App. 4th 344, 349 (2005) (finding that the board’s reliance on hearsay evidence alone to support its findings violated Gov. Code section 11513 and concluding that “no responsible person would rely solely on the [unauthenticated hearsay evidence],” which precluded the board’s consideration of it).

The law does not permit the Regional Board to simply point to its relaxed evidence standard as justification for ignoring superior evidence in its possession in favor of making a finding based on incompetent evidence; nor does it permit the Regional Board now to ignore highly relevant evidence that was previously unavailable before making its final determination. As such, Mr. Bach’s 2011 Statement must be disregarded and Mr. Bach’s 2014 deposition must be considered before you make the decision to accept or reject the prosecutor’s recommendation. If you follow that procedure as required by the law cited above, you will not be able to make the determinations recommended by the prosecutor that rely on Mr. Bach’s 2011 unsworn statement.

2. **Further Developed Expert Opinions Regarding Fate and Transport of Petroleum Hydrocarbons Provide Overwhelming Support for Dr. Dagdigian’s Opinion That Upward Migration Explains The Contaminant Distribution at The Carousel Tract Today.**

Barclay’s last comprehensive submission to the Regional Board staff on January 21, 2014 contained an opinion by Dr. Jeffrey V. Dagdigian that the distribution of petroleum hydrocarbons seen in the fill soil above the former reservoir bottoms and associated lower berms at the Carousel Tract today is explained by the upward migration of historic discharges left by Shell at the Site, which is caused by capillary action and other factors such as buoyancy. The Regional Board staff reviewed Dr. Dagdigian’s opinion and—while it agreed that capillary action is responsible for some upward movement of petroleum hydrocarbons at the Site—it nevertheless concluded that such upward migration “cannot

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account for the larger portion of the petroleum hydrocarbons found in shallow surface soils across the Site.”¹⁶ This conclusion disregards Dr. Dagdigian’s June 30, 2014 submission to the Regional Board in which he expanded on his opinion concerning the role of buoyancy in the upward movement of contaminants as well as pressure and fluid saturation. Since the prosecutor did not respond to these latter points, we request clarification whether the prosecutor ever fully considered and weighed Dr. Dagdigian’s June 2014 submission. As discussed below, because the prosecutor relies on data taken both inside and outside the former reservoir footprint, we also request clarification whether the prosecutor’s analysis mistakenly applies the top-down patterns of petroleum hydrocarbons found in specific areas outside the footprint that Dr. Dagdigian has said should demonstrate such top-down patterns to areas inside the footprint that in fact do not demonstrate top-down patterns.

In any event, since the time of Barclay’s January 21, 2014 submission, substantial additional expert work has been completed and is reflected in expert reports prepared for the litigation regarding the fate and transport of petroleum hydrocarbons at the Site, including two by Dr. Dagdigian where he has further developed his opinion concerning upward migration as the explanation for the contaminant distribution at the Site today. Dr. Dagdigian’s additional opinions are also supported by another expert report developed in the litigation and never before sent to the Regional Board, prepared by Dr. Charles Faust, a pre-eminent hydrogeologist with significant expertise in fate and transport of contaminants in the vadose zone—the very subject at issue here regarding the migration of petroleum hydrocarbons left at the Site by Shell.

Dr. Dagdigian’s Report and Rebuttal Report and Dr. Faust’s Report must be reviewed by the Regional Board before a decision is made to name Barclay to the CAO because they provide even more clarity of concepts that the Regional Board staff may not have understood.

Most notably, Dr. Dagdigian’s Report now contains the results of a three-dimensional (“3-D”) model that Dr. Dagdigian developed using three million lines of data from the Site.¹⁷ This model provides additional clarity of the patterns of petroleum hydrocarbons in the relevant areas, yielding compelling evidence consistent with the theory of upward migration. Dr. Dagdigian also took steps since the January 21, 2014 submission to generate a more complete database to serve as the basis for his 3-D model, and so the analysis contained in his Report is based on the most complete, up-to-date data available at the time the report was written. The scientific methodology with which he generated the database, evaluated the data, and created this model is outlined in Appendix C to Dr. Dagdigian’s Report.

¹⁶ Comment Chart at 4.

¹⁷ Dr. Dagdigian Report at 36.

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Previous analyses of the distribution of petroleum hydrocarbons at the Site that were reviewed by the Regional Board were based on a two-dimensional ("2-D") model generated by Shell's consultant, Geosyntec, using a less complete dataset than that employed by Dr. Dagdigian.¹⁸ Dr. Dagdigian's 3-D model demonstrates the limitations of this 2-D model and brings to light significant information not previously available to the Regional Board. As Dr. Dagdigian explains in Appendix C to his Report, the benefit of the 3-D model over the 2-D model is that it interpolates concentrations of TPHd between all sample depths in all directions, providing a more accurate representation of the lateral and vertical extent of impacted soil. The 3-D model confirms Dr. Dagdigian's opinion regarding upward migration because it shows a pattern of highest petroleum hydrocarbon concentrations close to the original release locations at or beneath the former reservoir floors and near the intersections of the floors and sidewalls and lower concentrations at shallower depths; the contaminant concentration pattern follows vertical and lateral pathways that, combined, confirm an overall upward migration pathway within the former reservoir footprints and also into the directly adjacent surrounding soil that once constituted the lower portions of the berms.¹⁹

Dr. Dagdigian's Report and Rebuttal Report also refute the alternative explanation provided by the prosecutor for the current distribution of petroleum hydrocarbons at the Site. To provide justification for its recommendation to name Barclay to the CAO, the prosecutor rejects Dr. Dagdigian's upward migration theory in favor of an alternative explanation that attributes the distribution of petroleum hydrocarbons to the actions of Barclay. The prosecutor concludes that "the current contamination pattern in the Site soil is explained by the procedure Barclay used to backfill and compact berm soil into the former reservoirs which resulted in a random pattern which characterizes the present hydrocarbons onsite."²⁰ However, the prosecutor's characterization of the true, current distribution of petroleum hydrocarbons at the Site as random is inaccurate. Dr. Dagdigian's Report and 3-D model shows that the pattern of hydrocarbons onsite is not "random," and so could not have been created by Barclay's backfilling procedures. Dr. Dagdigian demonstrates that the pattern of petroleum hydrocarbons requiring abatement today is instead correlated with releases that occurred during Shell's operations.²¹ 3-D representation of lateral and vertical petroleum hydrocarbon impacts to soil reveals that in many cases what looks to be what the Regional

¹⁸ Geosyntec, Transmittal of Concentration Contour Maps Former Kast Property, Carson California, Site Cleanup No. 1230, Site I.D. 2040330. Figures 4-9 (Apr. 29, 2011).

¹⁹ Dr. Dagdigian Report at 36-37.

²⁰ Comment Letter at 43.

²¹ Dr. Dagdigian Report at 27, 29-30.

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Board staff calls “highly variable” patterns of distribution in Geosyntec’s 2-D modeling²² is not variable at all, but is fully explained by a more accurate picture of the contaminant migration pathways due to forces including capillary action, buoyancy, and pressure. “””

Dr. Dagdigian’s Rebuttal Report also provides additional analysis beyond what has been presented to the Regional Board previously on this topic. In that report, Dr. Dagdigian explains that the procedure used by Barclay would have resulted in homogenized soils and randomly distributed hydrocarbons, which is definitely not the pattern seen on the Site today or reflected in the 10,000 soil sample analyses of TPHd and three million lines of data that support Dr. Dagdigian’s theory. Dr. Dagdigian’s 3-D model requires a fresh look at the patterns of petroleum hydrocarbons. Based on that fresh look, we anticipate you and the Regional Board will agree with Dr. Dagdigian and disagree with the prosecutor’s conclusion.

In addition, if we are allowed the requested hearing where we can cross-examine the prosecutorial staff claiming to have opinions about the patterns, we anticipate that you will agree with Dr. Dagdigian and disagree with the prosecutor’s staff on this critical issue.

Dr. Dagdigian’s Report must be reviewed and considered before determining if Barclay should be named to the CAO for the additional reason that it directly refutes the prosecutor’s rejection of his upward migration theory. The prosecutor relies solely on its analysis that capillary action could only account for “limited” upward migration of petroleum hydrocarbons at the Site.²³ This was the very same position taken by Dr. Johnson, an expert retained by Shell, who submitted a letter to the Regional Board in June, 2014. Dr. Dagdigian responded to Dr. Johnson’s letter by pointing out that while he was correct that capillary action could only account for vertical movement of a certain amount, the remainder of the distance of upward migration was accounted for by buoyancy and other forces. Dr. Johnson understood this because he was careful to limit his letter to a comment only on capillary action and he did not comment on the entirety of Dr. Dagdigian’s theory of upward migration. However, giving everyone the benefit of the doubt, Dr. Dagdigian explained in detail in his June 30, 2014 report how buoyancy worked in the specific environment of the Carousel site, where sometimes petroleum hydrocarbons would wick upward through capillary action and come to rest; then rain or irrigation would cause an area to become flooded thereby causing the petroleum hydrocarbons to move further upward in the saturated ground. Over the ensuing 40 years since the redevelopment, those combined forces explain the additional vertical migration seen in the contaminant distribution today.

²² Comment Chart at 54.

²³ See, e.g., Comment Chart at 46-48.

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Because of the importance of this subject, we asked Dr. Charles Faust, a highly regarded hydrogeologist with expertise in the movement of liquids in the vadose zone, to provide a further explanation of how the vertical and lateral movement of petroleum hydrocarbons worked in this case. That short declaration by Dr. Faust was submitted to the Regional Board on the same day as Dr. Dagdigian's June submission. The prosecutor makes no mention of buoyancy or pressure when it rejects Dr. Dagdigian's upward migration theory. Nor does the prosecutor explain why it rejects the points made in the June reports of Dr. Dagdigian or Dr. Faust.

In furtherance of its rejection of upward capillary migration, the prosecutor states that data attached to a June 16, 2014 comment letter from Shell's project manager, Douglas J. Weimer, which included several examples of purported top-down patterns of migration in shallow soils, supports the conclusion that "site demolition and grading activities [rather than upward capillary migration] account for the occurrence of petroleum hydrocarbons in shallow soils in Reservoirs 5, 6, and 7 formerly at the Site" (emphasis added).²⁴ But, as Dr. Dagdigian explains in his June submission, more than two-thirds of the samples provided in Mr. Weimer's submissions were taken from *outside of the reservoir footprints*. The data provided by Mr. Weimer makes no distinction in location between the areas within the former reservoirs footprints and other areas outside the reservoirs where one would expect top-down patterns of concentrations in certain areas due to Shell's operations. Indeed, as Dr. Dagdigian explained in his June 2014 submission, data provided by Mr. Weimer shows an overall upward migration pattern of petroleum hydrocarbons within the reservoir footprints, and it shows top-down patterns precisely in the areas specified in Dr. Dagdigian's January 21, 2014 report as those where discharges to surface soils took place during Shell's operations (i.e. the former sump area east of Reservoir 5 and the pump house area). The prosecutor provides no response to Dr. Dagdigian's important evaluation of information provided by Mr. Weimer; nor does it explain how it can rely on Mr. Weimer in light of Dr. Dagdigian's critique. The prosecutor simply ignores the logical problems with Mr. Weimer's evidence, side-steps his failure to distinguish between the sample locations, and treats the Weimer evidence as though it shows patterns in the former reservoirs even if it does not. This appears to be one of the bases for the prosecutor's finding that grading activities account for petroleum hydrocarbons in shallow soils in the reservoir footprints.

We do not understand why the prosecutor would limit its criticism to capillary action without addressing the other factors that contribute to upward migration, and why it would disregard Dr. Dagdigian's expert analysis of data unless it simply never read the June submissions of

²⁴ Comment Chart at 85-86.

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Dr. Dagdigian and Dr. Faust. We understand that those submissions were received by the Regional Board based on their inclusion on the Comment Chart; but the prosecutor failed to respond to or otherwise acknowledge these important components to Dr. Dagdigian's theory of upward migration when it responded to the January 21, 2014 submission.²⁵ At a minimum they demonstrate strong reasons for a public hearing with a right to cross-examine the prosecutorial staff to have them explain their reasoning. And the absence of any analysis by the prosecutor on this subject certainly justifies consideration of the latest scientific analyses by Dr. Dagdigian and Dr. Faust in the attached submission.

Like Dr. Dagdigian's January 21, 2014 and June 30, 2014 reports to the Regional Board, Dr. Dagdigian's Report in the litigation explains how other forces—buoyancy and, to a lesser extent pressure—also effect upward migration and how those forces have worked in conjunction with capillary action to move petroleum hydrocarbons to their present location.²⁶ Dr. Dagdigian has analyzed additional data and has developed the discussion of buoyancy and pressure further since those submissions, and these elements of his theory warrant the Regional Board's consideration now.

We have also included and urge you to review Dr. Faust's Report filed in the litigation, which confirms Dr. Dagdigian's theory of upward migration. Dr. Faust, who has 34 years of experience in subsurface fate and transport of non-aqueous phase liquids ("NAPLs") and has authored guidance documents for USEPA on topics relevant to his opinions in this matter, concluded that upward migration of petroleum hydrocarbons has occurred at the Site and is the most likely explanation of the current Site conditions.²⁷ To reach his conclusion, Dr. Faust conducted an analysis, not previously presented to the Regional Board, of the sand composition at the Site²⁸ and of site-specific data related to phase saturation (on rainfall, water content of soil samples, and water saturation), a critical condition that influences the mobility and migration of petroleum in the subsurface under Dr. Dagdigian's theories.²⁹ Like Dr. Dagdigian, Dr. Faust finds that the Site data is inconsistent with the prosecutor's theory that the pattern of petroleum hydrocarbons within the reservoir footprints can be explained by contamination in the berms during Shell's operations and subsequent redistribution of former berm soil during grading operations.³⁰ Dr. Faust explains that the prosecutor's conclusion that Barclay's backfilling of the interior of the reservoirs could create the current

²⁵ See Comment Chart at 95.

²⁶ Dr. Dagdigian Report at 39-41.

²⁷ Dr. Faust Report at 39.

²⁸ Dr. Faust Report at 12 and Figure 3.

²⁹ Dr. Faust Report at 39.

³⁰ Dr. Faust Report at 24.

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pattern of petroleum hydrocarbons is completely implausible because the top of the berms would have had to have been more contaminated than the deeper sections of the berms and there is no evidence to suggest that this was the case.³¹

3. New Evidence Continues to Support That County and State Regulators Had The Same Knowledge That Barclay Had About Petroleum Hydrocarbons and Approved The Project, Demonstrating What The Standards Were At The Time.

The remaining documents which have been generated in the civil litigation since January 21, 2014 and here submitted for your review provide additional evidence from the time period during which Barclay's development activities were conducted. They show, among other things, that Barclay met the standard of care and standard of practice at the time and complied with all applicable laws and regulations. The following also provides further evidence that regulators approved development of the Carousel Tract with full knowledge of the Site's prior use as an oil storage facility, and that no one expressed concern that development on the Site would pose a risk to human health or the environment. We have noted the remarks by the prosecutor on the Comment Chart to the effect that evidence of this nature is not relevant. However, based on the case law cited in our January 21, 2014 letter, we believe that the prosecutor is wrong about that. Barclay wishes to make its record on the issues identified in that letter and therefore submits this evidence to further support its case on those issues.

In conjunction with our January 21, 2014 submission, we presented a report by Donald Shepardson, a soils engineering standard of care expert. Since that submission, F. Edward Reynolds, an expert designated by the Plaintiffs in the civil litigation to rebut Mr. Shepardson, has been deposed and it is necessary that the transcript be reviewed before a decision is made by the Regional Board. Mr. Reynolds testified that he agrees with Mr. Shepardson that Barclay met the standard of care at the time when it left in place the petroleum hydrocarbons (below the reservoir floors) which are noted in the March 11, 1966 Pacific Soils Report.³²

We also enclose a second report by Dr. Faust, his Rebuttal Conduct Report, in which he concludes that Barclay conducted development activities consistent with the standards of the time. Dr. Faust opines that Barclay's reliance on visibility to determine the suitability of soils was reasonable, especially because analytical tools available today for testing the non-

³¹ Dr. Faust Report at 24.

³² Reynold's Deposition at 115:19-29.

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observable composition of soil were not yet developed back then. Dr. Faust further explains that the fate and transport of hydrocarbons in the subsurface was not well understood in the 1960s and concludes therefore that Barclay had no basis for knowing that hydrocarbons below the reservoir floors would impact soil above the reservoir floors.

Mr. Armbruster's Rebuttal Conduct Report explains that there is ample evidence of Barclay's interaction with County regulators and disclosure to those regulators of all facts known to Barclay about the Kast Site. Mr. Armbruster notes that during the process of applying for a zoning change that would permit Barclay to construct homes on the Kast Site, Barclay was required to comply with conditions of approval supplied by several County departments and divisions. According to a document cited by Mr. Armbruster, these included the Flood Control District, the Health Department, the Road Department, and the following divisions of the Department of the County Engineer: Design, Sanitation, Waterworks & Utilities, Building & Safety, and Parks & Recreation. During that process, none of these departments or divisions presented Barclay with a condition that Barclay conduct environmental remediation of the Site before a zone change would be approved. Mr. Armbruster opines that at the time, it was not the standard of practice for developers to have plans and conditions for environmental remediation in relation to seeking a zone change.

Similarly, Mr. Brasher's Rebuttal Conduct Report determined that when Barclay was applying for the zone change that would permit development of the Kast Site, no one interested in the Carousel project expressed concern with regard to hazardous substances, toxic pollution, health risks to humans, or a failure by Barclay to assess the negative impacts of its work at Carousel. Mr. Brasher states that what Barclay knew about the subsurface conditions of the Kast Site before development is contained in the March 11, 1966 Pacific Soils Engineering Report, which was disclosed to the County engineer.

Mr. Armbruster and Mr. Brasher both base their opinions in part on various Regional Planning Commission documents and Board of Supervisors meeting minutes, which we also enclose for your reference. Among these documents is an August 9, 1966 Regional Planning Commission memorandum that was provided to the Board of Supervisors and which notes the Kast Site's prior use as a petroleum tank farm. This is just one example of evidence of the Regional Planning Commission's and Board of Supervisors' awareness of the Site's use as an oil storage facility but which fact did not raise cause for alarm on the part of regulators at the time.

We urge you to review and weigh all of the foregoing evidence before making your determination regarding naming Barclay to the CAO. This evidence, which was not



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available to the Regional Board prosecutor staff when it was making its recommendation to name Barclay, does not support the conclusions that the prosecutor recommends that you draw. For that reason, this evidence must be carefully considered by you now and before making any decision.

Finally, I reiterate Barclay's requests from my December 24 letter that you allow for a public hearing before making any decision in order to address the question whether Barclay is a "discharger" under the California Water Code. That hearing would allow Barclay to present its evidence, including this new evidence, allow for cross-examination of key witnesses, and respond to the comments of the Regional Board's prosecutor's staff with respect to Barclay's prior submissions, among other things. The State Water Board itself recognizes that the issuance of cleanup and abatement orders is an action that is "of an adjudicative nature" and therefore governed by the California Administrative Procedure Act³³ and by regulations adopted by the State Water Board.^{34 35} Both the Administrative Procedure Act and the State Water Board regulations provide for a hearing and the opportunity to cross examine witnesses, under oath, as Barclay has specifically requested.³⁶

We understand that Mr. Unger has asked that you make a decision on the prosecutor staff's recommendation to include Barclay in the CAO by January 9, 2015. However, there is nothing in the recommendation that supports the need for a determination of Barclay's liability by the January 9 requested deadline—nor are we aware of any reason especially given the long delay in that recommendation coming forth. In light of the fact that the Regional Board has been aware of Barclay's connection to the Carousel Tract since at least 2010 and that it has had months—and in some respects, years—to evaluate evidence of Barclay's potential liability, there is simply no reason why you should not both consider the foregoing recently developed evidence and provide Barclay the full hearing that the law requires.

³³ Cal. Gov. Code § 11400 et seq.

³⁴ Cal. Code Regs. tit. 23, §§ 648-648.8

³⁵ State Water Resources Control Board, Office of Chief Counsel, M. A.M. Lauffer Chief Counsel Memorandum (Aug. 2, 2006).

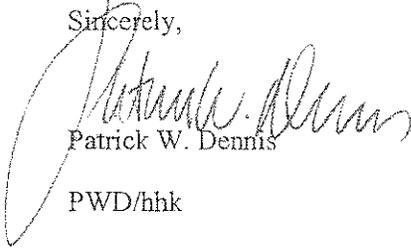
³⁶ Cal. Gov. Code § 11513; Cal. Code Regs. tit. 23, § 648.5(a)(6). See also *Desert Turf Club v. Bd. of Supervisors*, 141 Cal. App. 2d 446, 455 (1956) ("common sense and fair play" dictates that cross-examination of witnesses should be permitted at administrative hearings).

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We look forward to your response to this letter and the crucial information contained herein.

Sincerely,



Patrick W. Dennis

PWD/hhk

cc: Nicole Kuenzi (*Via First Class and Electronic Mail*)
See Attached for Additional Recipients

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Barclay Hollander Corporation *(Via U.S. Mail)*
5840 Uplander Way, Suite 202
Culver City, California 90230

Deanne Miller *(Via U.S. Mail)*
Morgan, Lewis & Bockius LLP
300 South Grand Avenue
Twenty-Second Floor
Los Angeles, California 90071-3132

Michael Leslie *(Via U.S. Mail)*
Caldwell Leslie & Proctor, PC
1000 Wilshire Boulevard, Suite 600
Los Angeles, California 90017-2463

Frances L. McChesney *(Via U.S. Mail)*
Attorney IV
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, California 95814

Jennifer Fordyce *(Via U.S. Mail)*
Attorney III
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, California 95814

Janice Hahn, Honorable Congresswoman, US House of Representatives, California's
44th District *(Via U.S. Mail)*

Mark Ridley-Thomas, Supervisor, Second District County of Los Angeles *(Via U.S.
Mail)*

Isadore Hall, III, Assembly Member, 64th Assembly District *(Via U.S. Mail)*

Jim Dear, Mayor of Carson *(Via U.S. Mail)*

Nelson Hernandez, Carson City Manager *(Via U.S. Mail)*



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Ky Truong, City of Carson *(Via US. Mail)*

James Carlisle, Office of Environmental Health Hazard Assessment *(Via US. Mail)*

Bill Jones, Los Angeles County Fire Department *(Via US. Mail)*

Barry Nugent, Los Angeles County Fire Department *(Via US. Mail)*

Shahin Nourishad, Los Angeles County Fire Department *(Via US. Mail)*

Miguel Garcia, Los Angeles County Fire Department *(Via US. Mail)*

Kim Clark, Los Angeles County Fire Department *(Via US. Mail)*

Hoang Ly, Los Angeles County Fire Department *(Via US. Mail)*

Cyrus Rangan, Los Angeles County Department of Health *(Via US. Mail)*

Angelo Bellomo, Los Angeles County Department of Health *(Via US. Mail)*

Karen A. Lyons, Shell Oil Products US *(Via US. Mail)*

Thomas V. Girardi, Girardi and Keese Lawyers *(Via US. Mail)*

Robert W. Bowcock, Integrated Resources Management, LLC *(Via US. Mail)*



Morgan, Lewis & Bockius LLP
300 South Grand Avenue
Twenty-Second Floor
Los Angeles, CA 90071-3132
Tel: 213.612.2500
Fax: 213.612.2501
www.morganlewis.com

Morgan Lewis
COUNSELORS AT LAW

Deanne L. Miller
Partner
+1.213.612.2536
dlmiller@morganlewis.com

January 7, 2015

VIA FIRST CLASS AND ELECTRONIC MAIL

Ms. Deborah Smith
Chief Deputy Executive Officer
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, California 90013

**Re: TENTATIVE REVISED CLEANUP AND ABATEMENT ORDER PURSUANT
TO CALIFORNIA WATER CODE SECTION 13304 CLEANUP AND
ABATEMENT ORDER NO. R4-2011-0046**

**SITE: FORMER KAST PROPERTY TANK FARM LOCATED SOUTHEAST OF THE
INTERSECTION OF MARBELLA AVENUE AND EAST 244TH STREET,
CARSON, CALIFORNIA (SCP NO. 1230, SITE ID NO. 2040330, CAO NO. R4-
2011-0046**

Dear Ms. Smith:

We represent Shell Oil Company ("Shell") with respect to the above-referenced matter. This letter responds to the December 24, 2014 letter addressed to you from Patrick W. Dennis of Gibson Dunn & Crutcher, LLP ("Gibson Dunn"), counsel for Dole Food Company, Inc. and Barclay Hollander Corporation (the "Developer").

As you know, Shell has been cooperating with the Carousel neighborhood investigation since 2008 and performing under Cleanup and Abatement Order No. R4-2011-0046 ("CAO") since it was issued on March 11, 2011. Shell has undertaken exhaustive efforts at tremendous expense to comply. Shell has been and continues to be committed to the investigation and remediation process and to implementing its revised Remedial Action Plan ("RAP") in the Carousel neighborhood upon its approval.

There is substantial evidence that the Developer is a responsible party and discharger under the California Water Code and applicable law. To date, however, the Developer has failed and

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refused to participate in the investigation and remediation process and has not contributed a penny to the cost thereof. Accordingly, Shell urges the Regional Board to promptly issue the Tentative Revised Cleanup and Abatement Order ("Revised CAO") based on the substantial evidence in the record, including all of the site investigation and sampling data and reports, the comments and submissions by Shell, the Developer and others, and also based on the December 8, 2014 Memorandum from Samuel Unger, Executive Officer, the December 8, 2014 correspondence from Paula Rasmussen, Assistant Executive Officer, as well as the Regional Board Site Cleanup Program staff's Response to Comments Received Regarding the Revised CAO.

It is disappointing that the Developer continues its efforts to delay the Regional Board's issuance of the Revised CAO. Mr. Dennis misleadingly suggests that the Developer has not had sufficient opportunity to present comments to the Revised CAO.¹ In fact, the Developer has had a full and fair opportunity to provide comments, and has provided extensive comments, on multiple occasions, over the course of more than three years.

The December 8, 2014 Memorandum correctly summarizes the CAO Revision Process, the multiple opportunities for comments, and the voluminous comments submitted by the Developer through its legal counsel at Gibson Dunn. *See* Memorandum by S. Unger, at pp. 3-5. Specifically, Gibson Dunn submitted comments to the Regional Board regarding their view of the role of the Developer on at least the following occasions:

- On September 15, 2011, in response to the Regional Board's 13267 Order;
- On January 21, 2014, in response to the Proposed Draft Revised CAO, after Gibson Dunn obtained two extensions of time to submit comments; and,
- On June 30, 2014, in response to the Regional Board's Notice of Opportunity for Additional Comments on the Proposed Draft Revised CAO.

As the Regional Board Site Cleanup Program staff is well aware, and as the 98-page response to comments ("RTC") reflects, the Developer's comments were voluminous and appear to have

¹ Mr. Dennis goes so far as to state that since Gibson Dunn last submitted comments, "we have not been told by anyone at the Regional Board whether they were considering naming Barclay, or not, on the CAO." Such a comment is disingenuous, at best, given that Gibson Dunn and the Developer have been well aware that the Board has been considering naming the Developer a responsible party and discharger since the Revised CAO was first issued on October 31, 2013.



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been carefully considered and ultimately rejected by the Regional Board staff.² Mr. Dennis proposes to submit additional information from the exact same witnesses whose theories and testimony have already been carefully considered. There is nothing new, and there most certainly is not "substantial additional and critical evidence" not yet considered by the Regional Board staff as Mr. Dennis suggests.

Indeed, the Regional Board staff have already received and considered the comments, technical opinions and testimony of each of the witnesses Mr. Dennis seeks to proffer yet again in some sort of repackaged form: Jeffrey Dagdigian of Waterstone Environmental (who already provided his technical theory for the Regional Board's consideration); Mr. George Bach (whose conflicting testimony was previously submitted by Gibson Dunn for the Regional Board's consideration); and Dr. Charles Faust (whose declaration was also previously submitted by Gibson Dunn for the Regional Board's consideration).

Tellingly, Mr. Dennis chose not to submit with his letter the supposedly "substantial additional and critical evidence" from these individuals and contends that it will "take a few weeks" to compile – a tactic which further demonstrates his clients' goal of merely delaying a final resolution of this important issue.

Mr. Dennis cites to various alleged developments in the litigation involving his clients and the Carousel residents. That litigation, however, will likely go on for years. The first trial is not scheduled to begin until August 2015. The regulatory process should not be postponed based on alleged developments in that litigation.

Finally, Mr. Dennis now requests a hearing for the first time in this multiple-year process. However, the Developer has already had more than sufficient opportunity to "persuade you not to name Barclay Hollander on the order" and, simply, has failed. A hearing at this late juncture is not necessary, appropriate or mandated, and is designed to continue to delay issuance of the Revised CAO.³

For years, Shell has been incurring all of the costs associated with the investigation and remediation process. It is long past time for the Developers to contribute. Neither the Developer's delay tactics nor the Developer's continued efforts to shirk their responsibility

² Mr. Dennis accusatorily refers to Regional Board staff who "claim to have read" the technical reports and declarations; yet, the Memorandum and RTC demonstrate the Regional Board staff's thorough review of the comments submitted by Gibson Dunn.

³ Mr. Dennis also seeks to harass Regional Board staff, noting in his letter without citation to any supporting authority, that the Developer purportedly "must" have an opportunity to question those on the Regional Board staff who "claim to have read" the technical reports and declarations of Waterstone and disagree with those conclusions, as well as those who relied on George Bach's 2011 testimony, and to "test their credibility and their credentials to offer these conclusions in support of the prosecutor's recommendation." See Dennis letter, p. 4.

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should be further condoned. Shell encourages the Regional Board to issue the Revised CAO as recommended by the Regional Board Site Cleanup Program staff, Regional Board Executive Officer Sam Unger and Assistant Executive Officer Paula Rasmussen.

Sincerely,



Deanne L. Miller

DLM/mmb

cc: Nicole Kuenzi, Esq.
nicole.kuenzi@waterboards.ca.gov
Frances L. McChesney, Esq.
frances.mcchesney@waterboards.ca.gov
Samuel Unger, Executive Officer
samuel.unger@waterboards.ca.gov
Paula Rasmussen, Assistant Executive Officer
paula.rasmussen@waterboards.ca.gov
Patrick W. Dennis, Gibson Dunn
pdennis@gibsondunn.com

Los Angeles Regional Water Quality Control Board

January 9, 2015

Via E-Mail Only

TO ALL PARTIES AND INTERESTED PERSONS:

Pending Procedural Requests regarding Tentative Revised Cleanup and Abatement Order No. R4-2011-0046, Former Kast Property Tank Farm

The Regional Water Quality Control Board, Los Angeles Region (Regional Board), acting through Ms. Deborah Smith, Chief Deputy Executive Officer, has received several procedural requests and comments related to the Board's consideration of the Revised Cleanup and Abatement Order No. R4-2011-0046 for the Former Kast Property Tank Farm (Revised CAO).

On December 24, 2014, Barclay Hollander Corporation submitted a request (December 24 Letter) to (1) submit additional written evidence, and (2) schedule a formal evidentiary hearing prior to the Regional Board's determination whether to adopt the Revised CAO.

On January 6, 2015, Barclay Hollander sent a second letter following up on the December 24 Letter, which describes and attaches copies of some of the additional documentary evidence requested to be submitted to the Regional Board.

On January 7, 2015, Shell Oil Company responded to Barclay Hollander's December 24 Letter. Shell opposes Barclay Hollander's requests to submit additional evidence and for a formal evidentiary hearing.

Also on January 7, 2015, Mr. Robert Bowcock of Integrated Resource Management, Inc. responded to Barclay Hollander's December 24 Letter. Mr. Bowcock does not oppose the request to submit additional evidence or the request for a formal evidentiary hearing as long as his client is provided appropriate notice and opportunity to be heard. In addition, Mr. Bowcock commented on the substance of the Revised CAO and attached documentary evidence to his letter in support of his comments. The Regional Board therefore considers Mr. Bowcock's letter, in part, as a request to submit the additional substantive comments and the attached report by L. Everett & Associates dated January 7, 2015.

The Regional Board is considering these pending procedural requests in light of the factual, legal, and policy matters at issue. The Regional Board will consider additional comments on these pending procedural requests that are received by the Regional Board by **5:00 pm on Friday, January 16, 2015**. Please send comments by e-mail to nicole.kuenzi@waterboards.ca.gov, and to all parties and interested persons cc'ed on this notice. If you are unable to submit comments by e-mail, comments may be submitted by mail to

CHARLES STRINGER, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

Nicole Kuenzi, Office of Chief Counsel, State Water Resources Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814. The Regional Board will issue a determination regarding the procedural requests after January 16, 2015.

If you have any questions regarding this letter, please contact me at (916) 322-4142 or at nicole.kuenzi@waterboards.ca.gov.

Sincerely,



Nicole L. Kuenzi
Attorney for the Los Angeles Regional Water Board

Cc:

Ms. Deborah Smith
Chief Deputy Executive Officer
dsmith@waterboards.ca.gov

Mr. Samuel Unger
Executive Officer
sunger@waterboards.ca.gov

Patrick Dennis, Esq.
Gibson Dunn & Crutcher LLP
PDennis@gibsondunn.com

Krista Hernandez, Esq.
Gibson Dunn & Crutcher LLP
khernandez@gibsondunn.com

Deanne Miller, Esq.
Morgan, Lewis & Bockius LLP
dlmiller@morganlewis.com

Mr. Robert Bowcock
Integrated Resource Management, Inc.
rbowcock@irmwater.com

Frances McChesney, Esq.
Senior Staff Counsel
Fmcchesney@waterboards.ca.gov

Michael Leslie, Esq.
Caldwell Leslie & Proctor, PC
leslie@caldwell-leslie.com

Interested parties e-mail list maintained by the Regional Board:

Bellomo, Angelo (LOS ANGELES COUNTY) <abellomo@ph.lacounty.gov>;
'Alan.Caldwell@shell.com';
'rbowcock@irmwater.com';
'BC7@fire.lacounty.gov';
'bjones@fire.lacounty.gov';
'caumais@girardikeese.com';
'chris.manzini@edelman.com';
'crangan@ph.lacounty.gov';
'derrick.mims@asm.ca.gov';
'ed.platt@shell.com';
'eramirez@ph.lacounty.gov';
'eric.boyd@mail.house.gov';
'jdear@carson.ca.us';
Carlisle, Jim@OEHHA <Jim.Carlisle@oehha.ca.gov>;
'kim.lesniak@shell.com';



'kkatona@bos.lacounty.gov';
'ktruong@carson.ca.us';
'leslie@caldwell-leslie.com';
'lisa@cerrell.com';
'markridley-thomas@bos.lacounty.gov';
'MarkGrivetti (mgrivetti@geosyntec.com) (mgrivetti@geosyntec.com)';
'rclark@fire.lacounty.gov';
'rcustance@geosyntec.com';
'Robbie Ettinger (rettinger@geosyntec.com) (rettinger@geosyntec.com)';
Romero, Robert@DTSC <Robert.Romero@dtsc.ca.gov>;
'rtahara@bos.lacounty.gov';
'rvasquez@ph.lacounty.gov';
'snourish@fire.lacounty.gov';
Arano, Wendy@DTSC <Wendy.Arano@dtsc.ca.gov>;
'wuroff@fire.lacounty.gov';
'zaft@caldwell-leslie.com';
'Christian Osterberg (christian.osterberg@urs.com)';
'heather.benfield@tetrattech.com';
'javier.weckmann@tetrattech.com';
'Nancy MeilahnFowler (nancy.meilahn.fowler@urs.com)';
'Rebecca Frend (rebecca.frend@urs.com)';
'Roy Patterson (roy.patterson@urs.com)';
Romero, Robert@DTSC <Robert.Romero@dtsc.ca.gov>;
Unger, Samuel@Waterboards <Samuel.Unger@waterboards.ca.gov>;
Rasmussen, Paula@Waterboards <Paula.Rasmussen@waterboards.ca.gov>;
Heath, Arthur@Waterboards <Arthur.Heath@waterboards.ca.gov>;
Williams, Thizar@Waterboards <Thizar.Williams@waterboards.ca.gov>;
Kapahi, Gita@Waterboards <Gita.Kapahi@waterboards.ca.gov>;
Fordyce, Jennifer@Waterboards <Jennifer.Fordyce@waterboards.ca.gov>;
McChesney, Frances@Waterboards <Frances.McChesney@waterboards.ca.gov>;
'eric.boyd@mail.house.gov';
'henry.connelly@mail.house.gov';
Lauffer, Michael@Waterboards <michael.lauffer@waterboards.ca.gov>;
'crangan@ph.lacounty.gov';
'Kim.Clark@fire.lacounty.gov';
'deBoer, Krista (KdeBoer@gibsondunn.com)';
Lagudis, Susana@Waterboards <Susana.Lagudis@Waterboards.ca.gov>;
'pdennis@gibsondunn.com';
'rhernand@carson.ca.us';
'nhernandez@gibsondunn.com';
Doug Weimer (douglas.weimer@shell.com) (douglas.weimer@shell.com);
Ayalew, Teklewold@Waterboards <Teklewold.Ayalew@waterboards.ca.gov>





Integrated Resource Management, Inc.

January 9, 2015

Deborah Smith
Chief Deputy Executive Officer
California Regional Water Quality Control Board - Los Angeles Region
320 West Fourth Street; Suite 200
Los Angeles, California 90013

RE: Tentative Revised CAO No. R4-2011-0046; SCP No. 1230, Site ID No. 2040330

Dear Ms. Smith,

You were provided a voluminous box of documents accompanied by a letter dated January 6, 2014 from Mr. Patrick Dennis, counsel for Dole Food Company, Inc. and its wholly owned subsidiaries Barclay Hollander Corporation and Oceanic Properties, Inc. Mr. Dennis would like to characterize this box of documents as previously unavailable and highly relevant evidence as to why his clients should not be named Responsible Parties in the CAO No. R4-2011-0046; SCP No. 1230, Site ID No. 2040330.

The California Regional Water Quality Control Board - Los Angeles Region should continuously review, analyze and consider all information as it is presented. Information has been generated concerning CAO No. R4-2011-0046; SCP No. 1230, Site ID No. 2040330 for many years and I expect it will continue to be for many more.

What causes me greatest concern is the apparent sandbagging of information by Dole Food Company, Inc. and its wholly owned subsidiaries Barclay Hollander Corporation and Oceanic Properties, Inc. in an attempt to drag this process along. Use of the language indicating "we have now collected *some* of that evidence" and "below we describe a *few* of the more important documents" is really quite pathetic. All information needs to be submitted in complete form. This is not a game; all of the data concerning this matter should be in your possession immediately not subject to third party picking and choosing what they want you to see and what they don't accompanied by misleading editorial.

The information in your possession the day you first considered naming Dole Food Company, Inc. and its wholly owned subsidiaries Barclay Hollander Corporation and Oceanic Properties, Inc. Responsible Parties was sufficient. Frankly, all the time delay has provided is the opportunity to manipulate and conceal further this polluter's behavior when they made the cost-savings business-decisions to cover up in lieu of cleaning up, as they had contracted to do.

Sincerely,

Mr. Robert W. Bowcock
Integrated Resource Management, Inc.

cc: Nicole Kuenzi, Esq. RWQCB
Sam Unger - RWQCB
Tekewold Ayalew - RWQCB
Thizar Tintut-Williams - RWQCB
Arthur Heath - RWQCB
Frances McChesney, Esq. - State Board
Jennifer Fordyce, Esq. - State Board

405 North Indian Hill Boulevard
Claremont, CA 91711-4600

(909) 621-1266
(909) 621-1196 Fax





EDUARDO G. BROWN, JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

TO: Deborah Smith, Chief Deputy Executive Officer
Los Angeles Regional Water Quality Control Board

CC: Nicole L. Kuenzi, Staff Counsel
State Water Resources Control Board

FROM: 
Frances L. McChesney
Attorney IV
State Water Resources Control Board, Office Of Chief Counsel

DATE: January 15, 2015

SUBJECT: **RESPONSE TO THE JANUARY 9, 2015 NOTICE FROM NICOLE L. KUENZI, ATTORNEY FOR THE LOS ANGELES REGIONAL BOARD, TO ALL PARTIES AND INTERESTED PERSONS: PENDING PROCEDURAL REQUESTS REGARDING TENTATIVE REVISED CLEANUP AND ABATEMENT ORDER NO. R4-2011-0046, FORMER KAST PROPERTY TANK FARM**

On January 9, 2015, the Site Cleanup Program Staff (SCP Staff) of the Regional Water Quality Control Board, Los Angeles Region (Regional Board) received a notice regarding pending procedural requests with respect to Tentative Revised Cleanup and Abatement Order No. R4-2011-0046 for the Former Kast Tank Farm (Tentative Revised CAO). This Memorandum responds to the notice.

The SCP Staff has reviewed the January 9, 2015 notice, the December 24, 2014 and January 6, 2015 letters from Gibson, Dunn & Crutcher LLP (Gibson Dunn) on behalf of Barclay Hollander Corporation (Barclay) to Deborah Smith, Chief Deputy Executive Officer, regarding the Tentative Revised CAO, the January 7, 2015 letter from Morgan, Lewis & Bockius LLP (Morgan Lewis), on behalf of Shell Oil Company, to Deborah Smith, regarding the Tentative Revised CAO, and the January 9, 2015 letter from Integrated Resource Management, Inc. to Deborah Smith regarding the Revised Tentative CAO.

The SCP Staff has no opinion on whether an oral hearing should be held before Ms. Smith, but notes that Barclay's request is surprising given that Barclay has known since at least October 31, 2013, that the SCP Staff was considering adding Barclay and other parties to the CAO. On October 31, 2013, Paula Rasmussen, Assistant Executive Officer of the Regional Board and Supervisor of the SCP Staff involved in this matter, issued a public notice providing the opportunity to comment on a Proposed Draft Revised CAO proposing to add Barclay to the CAO. Since that date, Barclay has had multiple opportunities to comment and has never once

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

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requested an oral hearing. In a notice published on June 30, 2014, Shell was provided an opportunity to submit responses to Barclay's submittal, and Barclay was provided an opportunity to submit responses to Shell's comments. Shell and Barclay submitted timely comments. The technical and legal comments submitted were extensive and thorough. The paper hearing process is sufficient given the many opportunities Barclay has had to submit written comments and evidence regarding the Proposed Draft Revised CAO. If Ms. Smith chooses to proceed with a hearing, the SCP Staff requests the opportunity to comment on any proposed hearing procedures.

The SCP Staff objects to Barclay's request to submit additional evidence in this matter. As noted above, Barclay has had many opportunities to do so and was provided extensions of time to allow an adequate opportunity to respond. If Ms. Smith chooses to allow the evidence to be submitted into the record, the SCP Staff requests the opportunity to provide responses. The SCP Staff has not had sufficient time to do that now, but does have preliminary responses to Gibson Dunn's December 24, 2014 letter as follows:

Barclay Comment: Substantial additional and critical evidence has been developed since Barclay last submitted comprehensive comments in January 2014, nearly a year ago and it must be considered by you before making any decision.

SCP Staff Response: Barclay claims that Waterstone's 3-dimensional model constitutes "*substantial additional and critical evidence*" that must be considered. The SCP Staff disagrees that the model constitutes substantial or critical evidence because it is not relevant to whether Barclay discharged waste and, further, the model is not appropriate for the circumstances at the Site. In order to evaluate the merits of 3-dimensional modeling, one has to understand how the parent materials of soils are classified according to how they came to be deposited. These are: (1) residual or in-situ soils: those that have weathered in place from primary bedrock, and (2) transported materials: those that have been moved and transformed into soil. Undisturbed in-situ soil has more homogeneous physical properties such as soil texture, particle size, sorting, and porosity than disturbed soil. The development activities transformed the fill material into a heterogeneous soil profile that is consistent with the observed shallow soil boring logs across the site. The recognition of the lack of uniformity in hydrocarbon distribution due to variation in soil particle size attests to soil heterogeneity. Consequently, 3-dimensional modeling will not provide reliable information to support the upward chemical migration theory of Waterstone. In addition to the reasons set forth in its response to comments, the SCP Staff disagrees with the use of the 3-dimensional model of a potential waste distribution pattern; such a model is at best questionable due to its conceptual inability to model the complexity introduced by soil heterogeneity. Therefore, the Regional Board staff disagrees with the use of the 3-dimensional modeling as evidence that supports Barclay's contention that it did not discharge wastes at the Site.

The SCP Staff also objects because Barclay has provided no reason why it could not have submitted such a model during the comment period provided by the SCP Staff nor why the Regional Boards should accept information that relates to litigation to which the Regional Board is not a party. The SCP Staff objects to the inclusion of such "new" information.

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The SCP Staff has provided detailed responses in its Response to Comments regarding the likelihood of upward chemical migration at the Site, and while it agrees that some upward chemical migration could have occurred, this theory cannot possibly account for the widespread distribution of petroleum hydrocarbons found in shallow soils at the Site.

Barclay Comment: Dr. Faust confirms that capillary action caused the upward migration of the petroleum hydrocarbons left at the site by Shell and that that well-known principle explains the current distribution of contaminants.

SCP Staff Response: The SCP Staff object to the inclusion of Dr. Faust's report in the record for this matter. Barclay had sufficient opportunity to submit comments and evidence to the Regional Board. The Regional Board should not accept evidence created for a different matter to which the Board is not a party. Dr. Faust's comments were in response to Mr. Thomas Johnson's Report submitted by Shell and dated June 16, 2014. The letter from Gibson Dunn misstates Dr. Faust's conclusions. Dr. Faust did not conclude that capillary action caused the upward migration of all the petroleum hydrocarbons left at the site by Shell.

The Regional Board's staff response on the distribution of petroleum hydrocarbons at shallow depths on the Site explained by Dr. Faust and others within the context of the theory of upward migration from the reservoir floors to shallow depths has been adequately addressed in the Response to Comments Sections 1.1.6, 1.1.7, 1.1.8, 1.1.11, 1.1.20 and 3.0.1.

Barclay Comment: In the November 2014 deposition Shell and Plaintiffs cross-examined Mr. Bach under oath, and he confirmed that all known petroleum hydrocarbon contamination at the site was disposed offsite.

SCP Staff Response: The SCP Staff disagrees with the conclusions set forth in Gibson Dunn's letter. Mr. Bach's deposition under oath did not invalidate his statements cited in the Waterstone Report. Moreover, the Waterstone Report states that Barclay disposed of three dump trucks of petroleum hydrocarbon impacted soil during reservoir decommissioning and Site development activities. Based on Site investigation data, approximately 14 million pounds of petroleum hydrocarbon impacted soils are present on Site. The mass estimate suggests that thousands of truckloads of petroleum hydrocarbon impacted soils would have been needed to be exported offsite. The amount of soil that was exported from the Site conforms with eyewitness testimony referenced in the Waterstone Report that Barclay did not overexcavate petroleum hydrocarbon impacted areas to remove all impacted soils and did leave large amounts of petroleum impacted soil on the Site. The mass estimate also indicates the reservoir berms were impacted by the petroleum hydrocarbon waste. Mr. Bach's deposition under oath confirmed that only soil that was saturated by petroleum hydrocarbons were removed from the site. Mr. Bach's deposition under oath confirms that soils that were impacted by petroleum hydrocarbons at levels less than saturation were left on site as addressed in the SCP Staff's Response to Comments.

January 15, 2015

In addition, the SCP Staff's conclusions regarding Barclay's contribution to the pollution and nuisance conditions at the Site are not based solely on the information provided by Mr. Bach, but rather, the conclusions are based on significant evidence regarding discharges of waste caused by the developers. Such evidence includes, but is not limited to the evidence that the developers used onsite soils from the berms to fill in the reservoirs in the process of preparing and grading the site for development and ripped or removed the concrete floors of the three reservoirs. These actions caused or contributed to the pollution and nuisance conditions at the Site.

The current distribution of petroleum hydrocarbons in shallow soils resulted primarily from reservoir demolition, site grading and development activities, and could not have resulted from the alleged mechanism of upward chemical migration. The December 24, 2014 letter does not offer any rationale for the postponement of the issuance of the Tentative Revised CAO naming Barclay Hollander Corporation.

In conclusion, the SCP Staff objects to the inclusion of additional evidence into the record, but if such documents are included, requests the opportunity to submit additional responses. If Ms. Smith chooses to hold an oral hearing, the SCP Staff requests the opportunity to review and comment on any proposed hearing procedures.

If you have any questions, please contact me at frances.mcchesney@waterboards.ca.gov or (916)341-5174 or Sam Unger at Samuel.unger@waterboards.ca.gov or (213)576-6605.

cc: See Next Page:



Deborah Smith
Chief Deputy Executive Officer
Los Angeles Regional Water Quality Control Board

- 5 -

January 15, 2015

cc: **[Via email only]**
Samuel Unger
Executive Officer
sunger@waterboards.ca.gov

Deanne Miller
Morgan, Lewis & Bockius LLP
300 South Grand Avenue
Twenty-Second Floor
Los Angeles, CA 90071-3132
dmliller@morganlewis.com

Michael Leslie
Coldwell Leslie & Proctor, PC
1000 Wilshire Blvd, Suite 600
Los Angeles, CA 90017-2463
leslie@caldwell-leslie.com

Patrick W. Dennis
Gibson, Dunn & Crutcher LLP
333 South Grand Avenue
Los Angeles, CA 90074-3197
pdennis@gibsondunn.com

Krista Hernandez
Gibson, Dunn & Crutcher LLP
333 South Grand Avenue
Los Angeles, CA 90074-3197
khernandez@gibsondunn.com

Jennifer Fordyce
Attorney III
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, CA 95814
jennifer.fordyce@waterboards.ca.gov

[Via US Mail Only]
Barclay Hollander Corporation
5840 Uplander Way, Suite 202
Culver City, CA 90230

Interested Persons (see next page)

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Deborah Smith
Chief Deputy Executive Officer
Los Angeles Regional Water Quality Control Board

- 6 -

January 15, 2015

cc: Interested Persons:

abellomo@ph.lacounty.gov
Alan.Caldwell@shell.com
bbowcock@irmwater.com
BC7@fire.lacounty.gov
bjones@fire.lacounty.gov
caumais@girardikeese.com
chris.manzini@edelman.com
crangan@ph.lacounty.gov
derrick.mims@asm.ca.gov
ed.platt@shell.com
eramirez@ph.lacounty.gov
eric.boyd@mail.house.gov
idear@carson.ca.us
Jim.Carlisle@cehha.ca.gov
kim.lesniak@shell.com
kkatona@bos.lacounty.gov
ktruong@carson.ca.us
leslie@caldwell-leslie.com
lisa@cerrell.com
markridley-thomas@bos.lacounty.gov
mgrivetti@geosyntec.com
rclark@fire.lacounty.gov
rcustance@geosyntec.com
rettinger@geosyntec.com
Jennifer.Fordyce@waterboards.ca.gov
Frances.McChesney@waterboards.ca.gov
eric.boyd@mail.house.gov
henry.connelly@mail.house.gov
michael.lauffer@waterboards.ca.gov

crangan@ph.lacounty.gov
Kim.Clark@fire.lacounty.gov
KdeBoer@gibsondunn.com
Susana.Lagudis@Waterboards.ca.gov
pdennis@gibsondunn.com
rhernand@carson.ca.us
nhernandez@gibsondunn.com
douglas.weimer@shell.com
tayalew@waterboards.ca.gov
Robert.Romero@dtsc.ca.gov
riahara@bos.lacounty.gov
rvasquez@ph.lacounty.gov
snourish@fire.lacounty.gov
Wendy.Arano@dtsc.ca.gov
wuroff@fire.lacounty.gov
zaft@caldwell-leslie.com
christian.osterberg@urs.com
heather.benfield@tetrattech.com
javier.weckmann@tetrattech.com
nancy.meilahn.fowler@urs.com
rebecca.frend@urs.com
roy.patterson@urs.com
Robert.Romero@dtsc.ca.gov
Samuel.Unger@waterboards.ca.gov
Paula.Rasmussen@waterboards.ca.gov
Arthur.Heath@waterboards.ca.gov
Thizar.Williams@waterboards.ca.gov
Gita.Kapahi@waterboards.ca.gov

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January 16, 2015

VIA EMAIL AND FIRST CLASS MAIL

Deborah Smith
Chief Deputy Executive Officer
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles CA 90013

Re: TENTATIVE REVISED CLEANUP AND ABATEMENT ORDER PURSUANT TO CALIFORNIA WATER CODE SECTION 13304 CLEANUP AND ABATEMENT ORDER NO. R4-2011-0046

SITE: FORMER KAST PROPERTY TANK FARM LOCATED SOUTHEAST OF THE INTERSECTION OF MARBELLA AVENUE AND EAST 244TH STREET, CARSON, CALIFORNIA (SCP NO. 1230, SITE ID NO. 2040330 CAO NO. R-2011-0046)

Dear Ms. Smith:

We represent Barclay Hollander Corporation (“Barclay”) with respect to the foregoing matter and this letter responds to your January 9, 2015 notice that the Regional Board will consider additional comments on pending procedural requests submitted in relation to Tentative Revised Cleanup and Abatement Order No. RF-2011-0046 (“Revised CAO”).

Thank you for taking the requests in our December 24, 2014 letter under consideration. In this letter we (1) further clarify the scope of Barclay’s request to submit additional evidence into the record and for your review, (2) seek clarification regarding your planned treatment of substantive comments submitted by other parties since December 8, 2014, and (3) suggest timing for the hearing we requested in our December 24 letter.

1. Scope of Barclay’s Request to Submit Additional Evidence

As we noted in our December 24 letter substantial, key evidence that bears directly on whether Barclay qualifies as a “discharger” under the Water Code has been developed since Barclay’s last comprehensive submission to the Regional Board in January 2014. Barclay’s January 6, 2015 letter detailed applicable case law, certain California Administrative Procedure Act (“APA”) provisions, and State Water Resources Control Board (“State



Deborah Smith
January 16, 2015
Page 2

Board”) regulations supporting our request that such evidence be admitted into the record and carefully considered by the Regional Board before it makes any determination whether to name Barclay in the CAO. With the January 6 letter, Barclay submitted some of that critical evidence to the Regional Board, including a Report by Dr. Dagdigian that was—unlike any of the submissions by any other party—supported by 3-D modeling generated using the most complete data set available to date from the Kast Site. Our January 6 submission also included sworn deposition testimony from the November 2014 deposition of George Bach which, according to the California Evidence Code and State Board regulations governing these deliberations, should supersede the 2011 unsworn statement by Mr. Bach upon which the prosecutorial staff erroneously relied in making its recommendation to name Barclay to the CAO.

In addition to the evidence Barclay submitted on January 6, new evidence that will directly inform whether Barclay can be properly named to the CAO is being developed now and over the next few weeks in the ongoing civil litigation, *Acosta et al. v. Shell et al.* We request that this new evidence also be made part of the record and considered by you before making a final decision whether to adopt the Revised CAO. Among this new evidence is the anticipated deposition testimony of the very same Regional Board staff who serve as the prosecution team here. The depositions of Teklewold Ayalew, Thizar Tintut-Williams, Samuel Unger, and Paula Rasmussen, noticed by Barclay just last week, are expected to cover the bases and methodology the staff used to arrive at some of their conclusions regarding the distribution of chemical contamination at the Kast Site. In fact, these four individuals were specifically identified in the *Acosta* case by the Plaintiffs as their own experts on chemical fate and transport at Site.

Further, in connection with the subpoenas Barclay served on these four Plaintiff-designated experts, we are also asking for all documents that these individuals prepared, considered, reviewed, or relied upon in forming their opinions for the Plaintiffs. We anticipate that there may be documentary evidence in those materials that will be important and relevant to the Regional Board’s consideration of Barclay’s status as a “discharger” as well.

Finally, based upon a letter received late yesterday, we understand that the prosecutor asks that our request for the admission of additional evidence be denied. According to that letter (1) Barclay should have submitted the new evidence during one of the comment periods provided by the Site Cleanup Program Staff, and (2) evidence generated in litigation, to which the Regional Board is not a party, should not be considered. With respect to the first point, as we explained in our December 24 and January 6 letters, this evidence was not yet available during the comment periods offered by the Regional Board to Barclay, and so Barclay could not possibly have submitted it earlier – certainly not during any identified comment period. The Regional Board has three times reached out to Barclay and asked Barclay specifically to provide comments—the first time in response to a 13267 letter in

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Deborah Smith
January 16, 2015
Page 3

2011, then two years later in the fall of 2013 in response to the proposed CAO, and then again in June 2014 when it requested narrower comments in response to Shell's comments on the proposed CAO. Since the last comment period closed in June 2014, there has never been any invitation from the Regional Board for more evidence, nor any indication from the Regional Board that it was still considering naming Barclay to the CAO. It would have been completely contrary to the established procedures in this matter for Barclay to continue submitting evidence absent a request from the Regional Board and absent any indication that a recommendation to name Barclay was forthcoming. In fact, the December 8 correspondence from Ms. Rasmussen made it very clear that only comments, including evidence, that were submitted within the time frames dictated by the Regional Board had been considered by the prosecutor and were part of the record. There was never any open invitation to continue submitting evidence outside the formally-dictated comment periods.¹

With regard to the prosecutor's second point, there is nothing in the regulations or case law prohibiting your consideration of any and all relevant evidence, regardless of the circumstances causing it to be generated. And testimony under oath and subject to cross examination, as in the case of depositions, is one of the best forms of evidence and recognized by all California courts. It is inexplicable that the prosecutor would draw some distinction between evidence generated in litigation versus that which is not—especially here where there is no recognized opportunity to depose witnesses in connection with consideration of a CAO.²

Last, given the Plaintiffs' designation of the prosecution team as "experts" in support of their case, how can their depositions be deemed irrelevant when they clearly will be focused on the very opinions they offer in support of Barclay's consideration as a discharger under the Water Code? There is simply no rational argument that those depositions are not competent, and highly relevant, evidence for the current decision before you.

¹ If the prosecutor's position is that the comment deadlines set by its staff are irrelevant then it needs to make that clear now so parties are not misled by the deadlines in such correspondence. And certainly if the prosecutor is relying on any information received from commenters outside the deadlines it set as reflected in Ms. Rasmussen's December 8, 2014 correspondence then the prosecutor needs to make that clear as well.

² There is a clear inconsistency in the prosecutor's position here—if there is a concern about materials generated in litigation that the Regional Board is not a party to, then the prosecutor certainly cannot defend any of its findings based upon the unsworn statement from George Bach in 2011. It is undisputed that that statement was generated purely in a litigation setting by the Plaintiffs' lawyers.

GIBSON DUNN

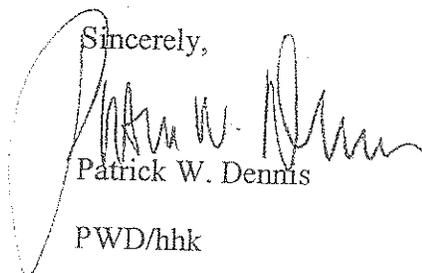
Deborah Smith
January 16, 2015
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the Regional Board should schedule a hearing to allow the additional evidence to be submitted along with live cross-examination of key witnesses.

In the prosecutor's comments submitted yesterday, Ms. McChesney states that before now Barclay "has never once requested an oral hearing." In 2013 we had a discussion with Ms. McChesney about the possibility of a hearing. In those discussions, we agreed that a hearing would be premature because there was no way to know at that point if the Regional Board prosecutor was actually considering naming Barclay to the CAO, or not. Now that we know the prosecutor is recommending naming Barclay, it makes perfect sense to hold a hearing before a final decision is made. And, of course, the prosecutor offers "no opinion" on whether an oral hearing should take place.

We appreciate your efforts to consider and adopt procedures that will ensure that determinations in this matter are based on the most accurate, comprehensive evidence available, and that any determination is consistent with applicable law.

Sincerely,



Patrick W. Dennis

PWD/hhk

cc: Nicole Kuenzi (*Via First Class and Electronic Mail*)
See Attached for Additional Recipients

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GIBSON DUNN

Deborah Smith
January 16, 2015
Page 6

Barclay Hollander Corporation *(Via US. Mail)*
5840 Uplander Way, Suite 202
Culver City, California 90230

Deanne Miller *(Via US. Mail)*
Morgan, Lewis & Bockius LLP
300 South Grand Avenue
Twenty-Second Floor
Los Angeles, California 90071-3132

Michael Leslie *(Via US. Mail)*
Caldwell Leslie & Proctor, PC
1000 Wilshire Boulevard, Suite 600
Los Angeles, California 90017-2463

Frances L. McChesney *(Via US. Mail)*
Attorney IV
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, California 95814

Jennifer Fordyce *(Via US. Mail)*
Attorney III
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, California 95814

Janice Hahn, Honorable Congresswoman, US House of Representatives, California's
44th District *(Via US. Mail)*

Mark Ridley-Thomas, Supervisor, Second District County of Los Angeles *(Via US.
Mail)*

Isadore Hall, III, Assembly Member, 64th Assembly District *(Via US. Mail)*

Jim Dear, Mayor of Carson *(Via US. Mail)*

Nelson Hernandez, Carson City Manager *(Via US. Mail)*

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GIBSON DUNN

Deborah Smith
January 16, 2015
Page 7

Ky Truong, City of Carson *(Via US. Mail)*

James Carlisle, Office of Environmental Health Hazard Assessment *(Via US. Mail)*

Bill Jones, Los Angeles County Fire Department *(Via US. Mail)*

Barry Nugent, Los Angeles County Fire Department *(Via US. Mail)*

Shahin Nourishad, Los Angeles County Fire Department *(Via US. Mail)*

Miguel Garcia, Los Angeles County Fire Department *(Via US. Mail)*

Kim Clark, Los Angeles County Fire Department *(Via US. Mail)*

Hoang Ly, Los Angeles County Fire Department *(Via US. Mail)*

Cyrus Rangan, Los Angeles County Department of Health *(Via US. Mail)*

Angelo Bellomo, Los Angeles County Department of Health *(Via US. Mail)*

Karen A. Lyons, Shell Oil Products US *(Via US. Mail)*

Thomas V. Girardi, Girardi and Keese Lawyers *(Via US. Mail)*

Robert W. Bowcock, Integrated Resources Management, LLC *(Via US. Mail)*

101865471.1

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Los Angeles Regional Water Quality Control Board

February 20, 2015

Si necesita información en español, por favor llame a Susana Lagudis, Participación Pública: 213-576-6694

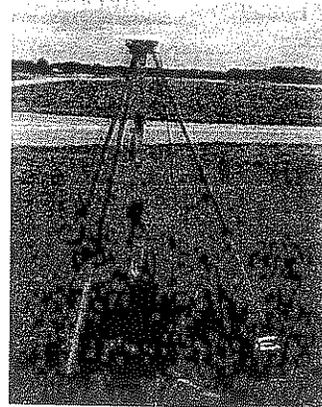
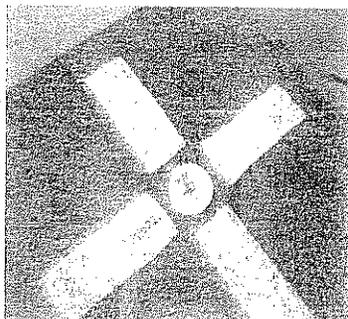
NOTIFICATION OF WORK
Surveying in Public Rights of Way and Aerial Photographic Survey
Carousel Tract and Surrounding Area

Under the oversight of the Los Angeles Regional Water Quality Control Board (Regional Board), Shell Oil Products US (Shell) will conduct land and aerial survey work in support of the proposed remedial activities in public streets and rights of way in the Carousel Tract in the City of Carson (the Site) and in the adjoining Wilmington District of the City of Los Angeles. Shell has submitted a revised Remedial Action Plan (RAP) that describes planned remedial actions for the Site. The proposed RAP and a draft Environmental Impact Report (EIR) are currently under Regional Board review. Shell plans to begin initial design activities for the proposed RAP during this review period. Please be advised that no work will be conducted on private property.

WHEN: Land (public streets) survey activities: from March 2, 2015 for approximately two weeks
Aerial photographic survey activities: TBD between March 6 and March 20, 2015

These schedules are tentative as they are determined by permitting, weather, equipment, etc.

WHAT:
Land (public streets) survey activities: Psomas, a subcontractor to AECOM (formerly URS) will conduct the land surveying work. One or two two-man survey crews will be in the area conducting utility and right-of-way surveys, documenting locations and depths of utilities by opening manholes and catch basins, and taking a hand measurement of the depth. Their work will also consist of placing survey control panels marked with a white "X" (see photo below), at approximately eight locations in public rights of way within and outside of the Carousel Tract. Psomas personnel will use one or two clearly marked trucks or vans with placards indicating the company name during the surveying work. Onsite personnel will wear vests with name badges to identify them as Psomas survey crew.



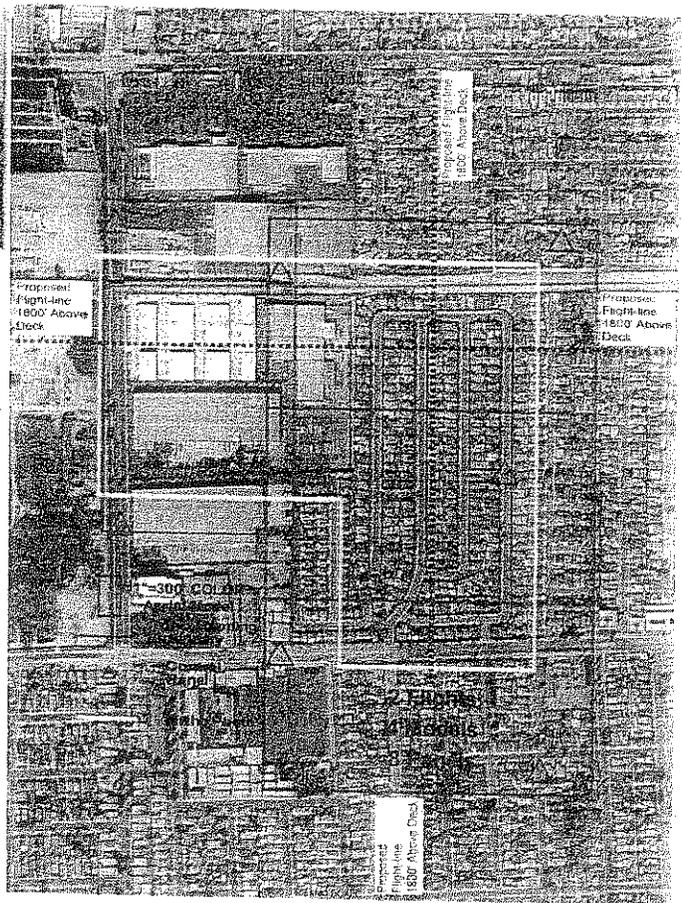
CHARLES STRINGER, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90012 | www.waterboards.ca.gov/losangeles

Aerial survey activities: Aerial survey images will be used in combination with conventional surveying to generate a topographic base map of the Carousel Tract and local surrounding area for use in designing aspects of the Site cleanup. The aerial photographic survey will be conducted by Commercial Aerial Images Inc., a Federal Aviation Agency (FAA) commercially licensed aerial survey company, using a Cessna 206/G aircraft (see photo below).

The small aircraft will make two flight passes at an altitude of approximately 1,800 feet over the Carousel Tract. One pass will be in a north-south direction and a second pass will be in an east-west direction (see map below). Neither pass will be over the Wilmington Middle School or other school facilities. The aerial overflight will comply with Federal Aviation Regulations and will take approximately 2 minutes to complete the aerial survey. All flights in Southern California will be pre-coordinated with Traffic Management (Southern California TRACON):

http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/air_traffic_services/tracon/sct/



For more information please contact:

Dr. Teklewold Ayalew, Project Manager
LARWQCB: (213) 576-6739
Teklewold.Avalew@waterboards.ca.gov

Susana Lagudis, Public Participation
LARWQCB: (213) 576-6694
susana.lagudis@waterboards.ca.gov

Roy Patterson, VP and Sr. Principal Geologist
Design & Consulting Services Group, Environment
AECOM: 714-433-7699 or 714-227-5924
roy.patterson@aecom.com

For project-related documents please visit the following link:
<http://www.waterboards.ca.gov/losangeles/Kast/index.shtml>

No activities will be conducted on private property, and all efforts will be made to minimize any inconvenience. Thank you for your patience and cooperation.



Los Angeles Regional Water Quality Control Board

February 27, 2015

Via E-Mail Only

TO ALL PARTIES AND INTERESTED PERSONS:

**Procedural Requests regarding Tentative Revised Cleanup and Abatement Order
No. R4-2011-0046, Former Kast Property Tank Farm**

The Regional Water Quality Control Board, Los Angeles Region (Regional Board), acting through Ms. Deborah Smith, Chief Deputy Executive Officer, received several procedural requests related to the Board's consideration of the Revised Cleanup and Abatement Order No. R4-2011-0046 for the Former Kast Property Tank Farm (Revised CAO).

Procedural Requests by Barclay Hollander Corporation.

On December 24, 2014, Barclay Hollander Corporation submitted a request to (1) submit additional written evidence for consideration by the Regional Board and inclusion in the administrative record, and (2) schedule a formal evidentiary hearing prior to the Regional Board's determination whether to adopt the Revised CAO. Both requests are denied, with the following exception.

The Regional Board will accept into the administrative record for this matter the deposition of Mr. George Bach dated November 19, 2014, as submitted by Barclay Hollander Corporation to the Regional Board on January 6, 2015.

On October 31, 2013, Site Cleanup Program Staff first circulated a draft Revised CAO that identified Barclay Hollander Corporation as a responsible party. A copy of the Draft Revised CAO and notice of an opportunity to comment on the Draft were provided by Site Cleanup Program Staff to Barclay Hollander by U.S. Mail. After receiving written comments, Shell and Barclay Hollander were provided an additional opportunity to respond to the comments received. Barclay Hollander submitted extensive comments and evidence to the Regional Board on both January 21, 2014 and June 30, 2014. Barclay Hollander now seeks to submit additional evidence into the evidentiary record.

The Regional Board will not accept evidence into the record that was previously available and could have been submitted in a timely matter during the prior noticed comment periods. The Regional Board will therefore not accept reports or other evidence dated prior to the June 30, 2014 comment deadline.

The Regional Board will not accept into the record the expert reports by Mr. Jeffrey V. Dagdigian and Mr. Charles R. Faust dated November 14, 2014 and December 22, 2014. A total of two sworn declarations and three technical reports by Mr. Dagdigian and Mr. Faust are already included in the evidentiary record. The reports now offered were prepared after the noticed comment periods in this proceeding, for purposes of litigation. The Regional Board concludes that the additional delay and burden of a technical review and evaluation of these additional reports, at this point in the proceedings, outweighs their probative value. This conclusion is supported by the fact that timely-submitted sworn statements and technical reports by these authors are a part of the record and are being considered by the Board.

The Regional Board will not accept into the record the deposition transcript of Mr. F. Edward Reynolds, Jr. dated July 7, 2014. This deposition appears to concern an expert report written by Mr. Reynolds at the request of the law firm of Girardi & Keese. Because that expert report has not been submitted to the Regional Board and is not a part of the evidentiary record, the deposition testimony regarding the report and the theories underlying the report is not sufficiently probative to justify consideration at this point in the proceedings.

The Regional Board will accept into the administrative record the deposition of Mr. George Bach dated November 19, 2014. In this instance, the probative value of Mr. Bach's testimony, insofar as it contributes to evaluation of his prior testimony already submitted, is outweighed by the additional burden on the parties and the Regional Board. Although all parties to the proceeding shall be allowed time to review and respond to the testimony, it is not of a nature that would require a technical evaluation and response as would the review of a technical expert report.

The request by Barclay Hollander Corporation to schedule a formal evidentiary hearing prior to the Regional Board's determination whether to adopt the Revised CAO is denied. The Regional Board has considered whether an evidentiary hearing would substantially assist in its consideration of the Revised CAO. The Site Cleanup Program Staff offered multiple opportunities for parties and interested persons to submit written testimony and evidence relevant to the Draft Revised CAO. Barclay Hollander has utilized these opportunities and submitted more than 1,000 pages of documentary evidence. The factual questions raised by the Draft Revised CAO are primarily technical and therefore, fit to be addressed through written expert reports and written rebuttal. Some factual questions are raised that relate to events that occurred at the former Kast Property Tank Farm nearly fifty years ago. To the extent that the parties have been able to locate witnesses with first-hand knowledge of these events, written statements – by Mr. Leroy M. Vollmer and Mr. George Bach – are included in the record and will be considered by the Regional Board. These witnesses are very elderly and the Regional Board would hesitate to require their physical attendance at any hearing, particularly given that their oral testimony is likely to duplicate previously submitted written testimony. An oral evidentiary hearing would not likely enhance the evidentiary record, but rather, result in the needless presentation of cumulative evidence.

In light of the particular factual, legal, and policy questions that are raised, the Board has determined that the issues are adequately and thoroughly addressed through the submitted written evidence and testimony, that Barclay Hollander has been provided the opportunity for fair consideration of its claims, and the burden and cost of an oral hearing is not warranted in this instance.



Procedural Requests and Substantive Comments by Mr. Robert Bowcock.

On January 7, 2015, Mr. Robert Bowcock of Integrated Resource Management, Inc. commented on the substance of the Revised CAO and attached documentary evidence to his letter in support of his comments. The Regional Board considers Mr. Bowcock's letter, in part, as a request to submit the additional substantive comments and the attached report by L. Everett & Associates dated January 7, 2015.

Mr. Bowcock's substantive comments and the attached report by L. Everett & Associates are untimely and will not be accepted into the record. Mr. Bowcock has not alleged that he was not appropriately notified of the prior opportunities to submit written comments or provided other justification for the date of these submittals.

Deposition Testimony of Site Cleanup Program Staff.

The Regional Board is aware of pending subpoenas for the depositions of certain staff of the Regional Board who are members of the Site Cleanup Program Staff with respect to this matter. Should these depositions go forward, the Regional Board will consider at a future time and upon the request of any party, whether to accept the deposition transcripts into the evidentiary record.

Opportunity to Comment and Request for Additional Information.

An electronic copy of the transcript of the deposition of Mr. George Bach dated November 19, 2014, is attached with this letter. The Regional Board will consider comments or evidence in rebuttal to the attached document from parties or interested persons that are received by **March 26, 2015, at 5:00 pm.**

The Regional Board requests that the Site Cleanup Program Staff submit the following by **March 13, 2015**, regarding the March 20, 2014 memo from Dr. C.P. Lai to Samuel Unger: (1) a more detailed explanation of the three assumptions on which the finite method analysis was based and (2) full page color copies of the series of contour graphic results.

The Regional Board also requests that the Site Cleanup Program Staff provide the Regional Board with three complete copies of the materials provided to the Regional Board on December 8, 2014, as well as subsequent information that was submitted in response to the December 8th materials, with the exception of evidence rejected by this letter. The Regional Board requests these copies by **March 13, 2015.**

Please send comments by e-mail to nicole.kuenzi@waterboards.ca.gov, and to all parties and interested persons cc'ed on this notice. If you are unable to submit comments by e-mail, comments may be submitted by mail to Nicole Kuenzi, Office of Chief Counsel, State Water Resources Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814.

If you have any questions regarding this letter, please contact Nicole L. Kuenzi at (916) 322-4142 or at nicole.kuenzi@waterboards.ca.gov.

Sincerely,



Deborah J. Smith
Chief Deputy Executive Officer, Los Angeles Regional Water Board



Cc:

Mr. Samuel Unger
Executive Officer
sunger@waterboards.ca.gov

Patrick Dennis, Esq.
Gibson Dunn & Crutcher LLP
PDennis@gibsondunn.com

Krista Hernandez, Esq.
Gibson Dunn & Crutcher LLP
khernandez@gibsondunn.com

Deanne Miller, Esq.
Morgan, Lewis & Bockius LLP
dmliller@morganlewis.com

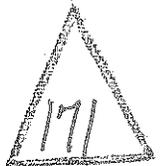
Mr. Robert Bowcock
Integrated Resource Management, Inc.
bbowcock@irmwater.com

Frances McChesney, Esq.
Senior Staff Counsel
Fmcchesney@waterboards.ca.gov

Michael Leslie, Esq.
Caldwell Leslie & Proctor, PC
leslie@caldwell-leslie.com

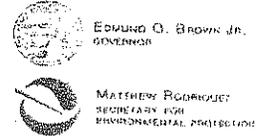
Interested parties e-mail list maintained by the Regional Board:

Bellomo, Angelo (LOS ANGELES COUNTY) <abellomo@ph.lacounty.gov>;
'Alan.Caldwell@shell.com';
'bbowcock@irmwater.com';
'BC7@fire.lacounty.gov';
'bjones@fire.lacounty.gov';
'caumais@girardikeese.com';
'chris.manzini@edelman.com';
'crangan@ph.lacounty.gov';
'derrick.mims@asm.ca.gov';
'ed.platt@shell.com';
'eramirez@ph.lacounty.gov';
'eric.boyd@mail.house.gov';
'jdear@carson.ca.us';
Carlisle, Jim@OEHHA <Jim.Carlisle@oehha.ca.gov>;
'kim.lesniak@shell.com';
'kkatona@bos.lacounty.gov';
'ktruong@carson.ca.us';
'leslie@caldwell-leslie.com';
'lisa@cerrell.com';
'markridley-thomas@bos.lacounty.gov';
'MarkGrivetti (mgrivetti@geosyntec.com) (mgrivetti@geosyntec.com)';
'rclark@fire.lacounty.gov';
'rcustance@geosyntec.com';
'Robbie Ettinger (rettinger@geosyntec.com) (rettinger@geosyntec.com)';
Romero, Robert@DTSC <Robert.Romero@dtsc.ca.gov>;
'rtahara@bos.lacounty.gov';
'rvasquez@ph.lacounty.gov';
'snourish@fire.lacounty.gov';
Arano, Wendy@DTSC <Wendy.Arano@dtsc.ca.gov>;
'wuroff@fire.lacounty.gov';
'zaft@caldwell-leslie.com';
'Christian Osterberg (christian.osterberg@urs.com)';



'heather.benfield@tetrattech.com';
'javier.weckmann@tetrattech.com';
'Nancy MeilahnFowler (nancy.meilahn.fowler@urs.com)';
'Rebecca Frend (rebecca.frend@urs.com)';
'Roy Patterson (roy.patterson@urs.com)';
Romero, Robert@DTSC <Robert.Romero@dtsc.ca.gov>;
Unger, Samuel@Waterboards <Samuel.Unger@waterboards.ca.gov>;
Rasmussen, Paula@Waterboards <Paula.Rasmussen@waterboards.ca.gov>;
Heath, Arthur@Waterboards <Arthur.Heath@waterboards.ca.gov>;
Williams, Thizar@Waterboards <Thizar.Williams@waterboards.ca.gov>;
Kapahi, Gita@Waterboards <Gita.Kapahi@waterboards.ca.gov>;
Fordyce, Jennifer@Waterboards <Jennifer.Fordyce@waterboards.ca.gov>;
McChesney, Frances@Waterboards <Frances.McChesney@waterboards.ca.gov>;
'eric.boyd@mail.house.gov';
'henry.connelly@mail.house.gov';
Lauffer, Michael@Waterboards <michael.lauffer@waterboards.ca.gov>;
'crangan@ph.lacounty.gov';
'Kim.Clark@fire.lacounty.gov';
'deBoer, Krista (KdeBoer@gibsondunn.com)';
Lagudis, Susana@Waterboards <Susana.Lagudis@Waterboards.ca.gov>;
'pdennis@gibsondunn.com';
'rhernand@carson.ca.us';
'nhernandez@gibsondunn.com';
Doug Weimer (douglas.weimer@shell.com) (douglas.weimer@shell.com);
Ayalew, Teklewold@Waterboards <Teklewold.Ayalew@waterboards.ca.gov>





Los Angeles Regional Water Quality Control Board

TO: Deborah Smith, Chief Deputy Executive Officer
Los Angeles Regional Water Quality Control Board
CC: Nicole L. Kuenzi, Staff Counsel
State Water Resources Control Board
FROM: Samuel Unger, Executive Officer
Los Angeles Regional Water Quality Control Board
DATE: March 11, 2015
SUBJECT: Procedural Requests Regarding Tentative Revised Cleanup and Abatement Order
No. R4-2011-0046, Former Kast Property Tank Farm

The Site Cleanup Program Staff received your letter dated February 27, 2015 regarding procedural requests and provides the following responses:

Opportunity to Comment and Request for Additional Information

Memo from Dr. C. P. Lai to Samuel Unger dated March 20, 2014:

You have requested that the Site Cleanup Program Staff submit a more detailed explanation of the three assumptions on which the finite method analysis was based as discussed in the Dr. C.P. Lai Memo dated March 20, 2014.

The approach used to calculate an estimate of the mass of TPH below ground surface was described in the above mentioned memo. The mass of TPH is obtained by using the areas of the triangles formed by adjacent sampling stations and the concentrations collected at the sampling stations and depths. The concentrations at sampling stations were provided by Geosyntec. The areas of triangles are obtained by using the finite element method. The average concentration at each triangle is obtained through using the interpolation function of the three-node elements formed by adjacent sampling stations. Then, the mass at each depth can be obtained by calculating the sum of the mass in each triangular element. The total mass from ground to different depths is obtained by integration of the mass at each depth.

The mass analysis is based on the following assumptions:

- 1. Density of sub-soil is assumed to be a constant value of 110 pound/cubic foot (lb/ft³) (1762 kg/m³):
In most soils, the soil density has a range of 90 to 130 lb/ft³ (refer to Standard Handbook for Civil Engineers, 1983). The average value of 110 lb/ft³ was used as the soil density for the TPH mass analysis.
2. TPH concentration varies linearly within sampling stations:



March 11, 2015

The linear triangular element was used to estimate the average concentration of the three-node elements formed by adjacent sampling stations through a linear interpolation function. In other words, the concentration in each element (sub-area) was approximated by linear interpolation from the values at the nodes (sampling stations).

3. TPH mass varies linearly with depth:

The TPH mass in the sub-area below ground surface is defined by data of soil TPH concentrations collected from the sampling stations. The TPH mass was estimated by multiplying the average TPH concentration in each triangular element by the corresponding soil volume and soil density at each depth.

You have also requested full page color copies of the series of contour graphic results. Those copies are enclosed with this response.

Copies of Materials: The Site Cleanup Program Staff is providing three binders of the materials submitted on December 8, 2014 to Ms. Smith as requested. It was unclear if there are additional materials that you are requesting be provided. If so, please clarify and those materials will be provided.

If you have any questions, please contact me at (213) 576-6605 or samuel.unger@waterboards.ca.gov or Frances McChesney at (916)341-5174 or frances.mechesney@waterboards.ca.gov.

cc: [via email only, without enclosures]

Deanne Miller
Morgan, Lewis & Bockius LLP
300 South Grand Avenue
Twenty-Second Floor
Los Angeles, CA 90071-3132
dmiller@morganlewis.com

Michael Leslie
Coldwell Leslie & Proctor, PC
1000 Wilshire Blvd, Suite 600
Los Angeles, CA 90017-2463
leslie@caldwell-leslie.com

Patrick W. Dennis
Gibson, Dunn & Crutcher LLP
333 South Grand Avenue
Los Angeles, CA 90074-3197
pdennis@gibsondunn.com

Krista Hernandez
Gibson, Dunn & Crutcher LLP
333 South Grand Avenue
Los Angeles, CA 90074-3197
khernandez@gibsondunn.com



March 11, 2015

Barclay Hollander Corporation
5840 Uplander Way, Suite 202
Culver City, CA 90230

Frances L. McChesney
Attorney IV
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, CA 95814
frances.mcchesney@waterboards.ca.gov

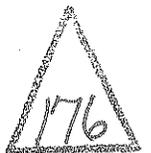
Jennifer Fordyce
Attorney III
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, CA 95814
jennifer.fordyce@waterboards.ca.gov

Interested parties e-mail list

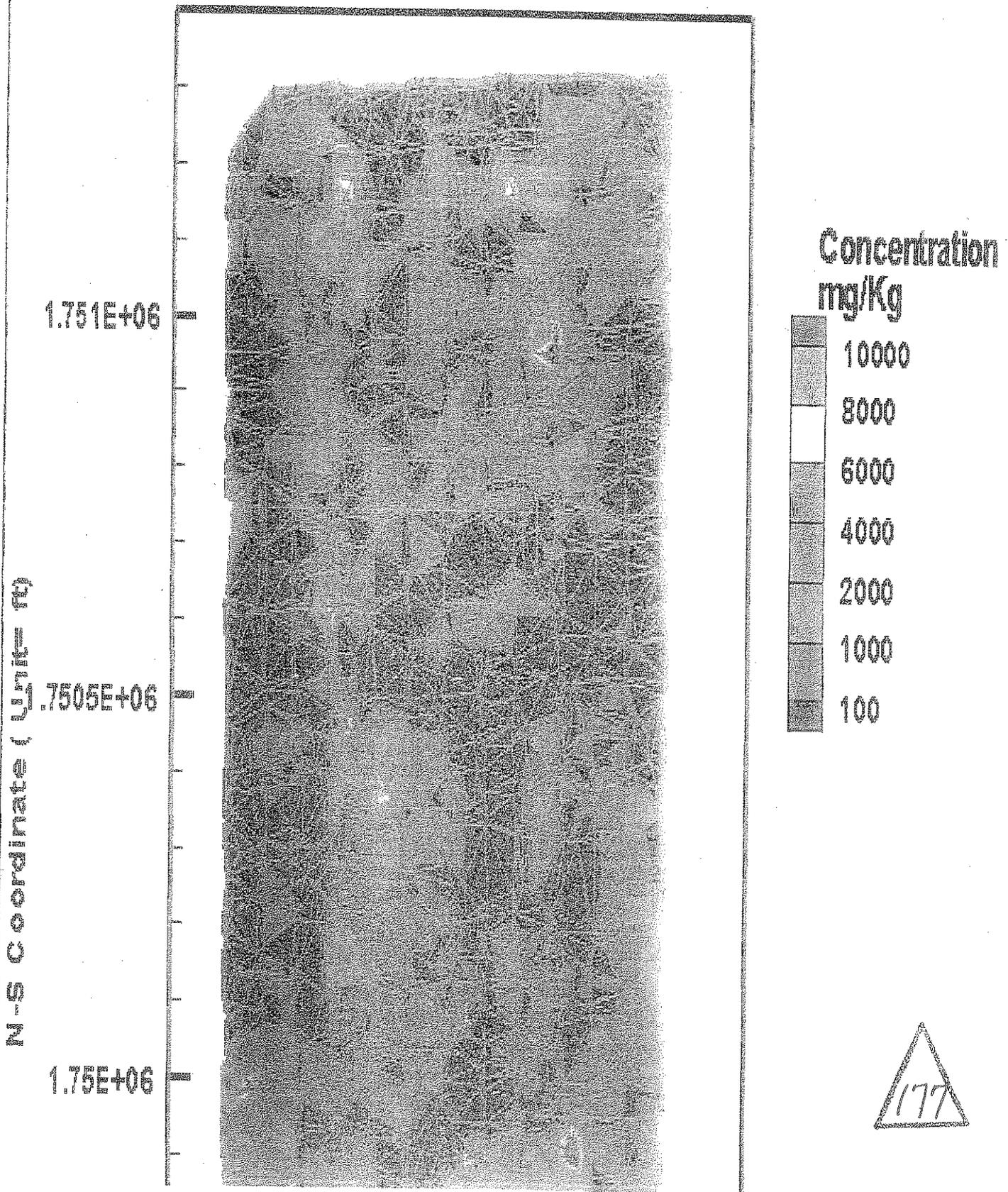
Bellomo, Angelo (LOS ANGELES COUNTY) <abellomo@ph.lacounty.gov>;
'Alan.Caldwell@shell.com';
'bhowcock@irmwater.com';
'BC7@fire.lacounty.gov';
'bjones@fire.lacounty.gov';
'caumais@girardikeese.com';
'chris.manzini@edelman.com';
'crangan@ph.lacounty.gov';
'derrick.mims@asm.ca.gov';
'ed.platt@shell.com';
'eramirez@ph.lacounty.gov';
'eric.boyd@mail.house.gov';
'jdear@carson.ca.us';
Carlisle, Jim@OEHHHA <Jim.Carlisle@oehha.ca.gov>;
'kim.lesniak@shell.com';
'kkatona@bos.lacounty.gov';
'ktruong@carson.ca.us';
'leslie@caldwell-leshe.com';
'lisa@cerrell.com';
'markridley-thomas@bos.lacounty.gov';
'MarkGrivetti (mgrivetti@geosyntec.com) (mgrivetti@geosyntec.com)';
'relark@fire.lacounty.gov';
'reustance@geosyntec.com';
'Robbie Ertinger (rettinger@geosyntec.com) (rettinger@geosyntec.com)';
Romero, Robert@DTSC <Robert.Romero@dtsc.ca.gov>;
'rtahara@bos.lacounty.gov';
'rvasquez@ph.lacounty.gov';



'snourish@fire.lacounty.gov';
Arano, Wendy@DTSC <Wendy.Arano@dtsc.ca.gov>;
'wuroff@fire.lacounty.gov';
'zaft@caldwell-leslie.com';
'Christian Osterberg (christian.osterberg@urs.com)';
'heather.benfield@tetratech.com';
'javier.weckmann@tetratech.com';
'Nancy MeilahnFowler (nancy.meilahn.fowler@urs.com)';
'Rebecca Frend (rebecca.frend@urs.com)';
'Roy Patterson (roy.patterson@urs.com)';
Romero, Robert@DTSC <Robert.Romero@dtsc.ca.gov>;
Unger, Samuel@Waterboards <Samuel.Unger@waterboards.ca.gov>;
Rasmussen, Paula@Waterboards <Paula.Rasmussen@waterboards.ca.gov>;
Heath, Arthur@Waterboards <Arthur.Heath@waterboards.ca.gov>;
Williams, Thizar@Waterboards <Thizar.Williams@waterboards.ca.gov>;
Kapahi, Gita@Waterboards <Gita.Kapahi@waterboards.ca.gov>;
Fordyce, Jennifer@Waterboards <Jennifer.Fordyce@waterboards.ca.gov>;
McChesney, Frances@Waterboards <Frances.McChesney@waterboards.ca.gov>;
'eric.boyd@mail.house.gov';
'henry.comelly@mail.house.gov';
Lauffer, Michael@Waterboards <michael.lauffer@waterboards.ca.gov>;
crangan@plh.lacounty.gov';
'Kim.Clark@fire.lacounty.gov';
'deBoer, Krista (KdeBoer@gibsondunn.com)';
Lagudis, Susana@Waterboards <Susana.Lagudis@Waterboards.ca.gov>;
'pdennis@gibsondunn.com';
'rhernandez@carson.ca.us';
Doug Weimer (douglas.weimer@shell.com) (douglas.weimer@shell.com);
'nhernandez@gibsondunn.com';
Ayalew, Teklewold@Waterboards <Teklewold.Ayalew@waterboards.ca.gov>;
Smith, Deborah@Waterboards <Deborah.Smith@waterboards.ca.gov>;
'pdennis@gibsondunn.com' (pdennis@gibsondunn.com);
khernandez@gibsondunn.com; dlmiller@morganlewis.com;
'leslie@caldwell-leslie.com' (leslie@caldwell-leslie.com)

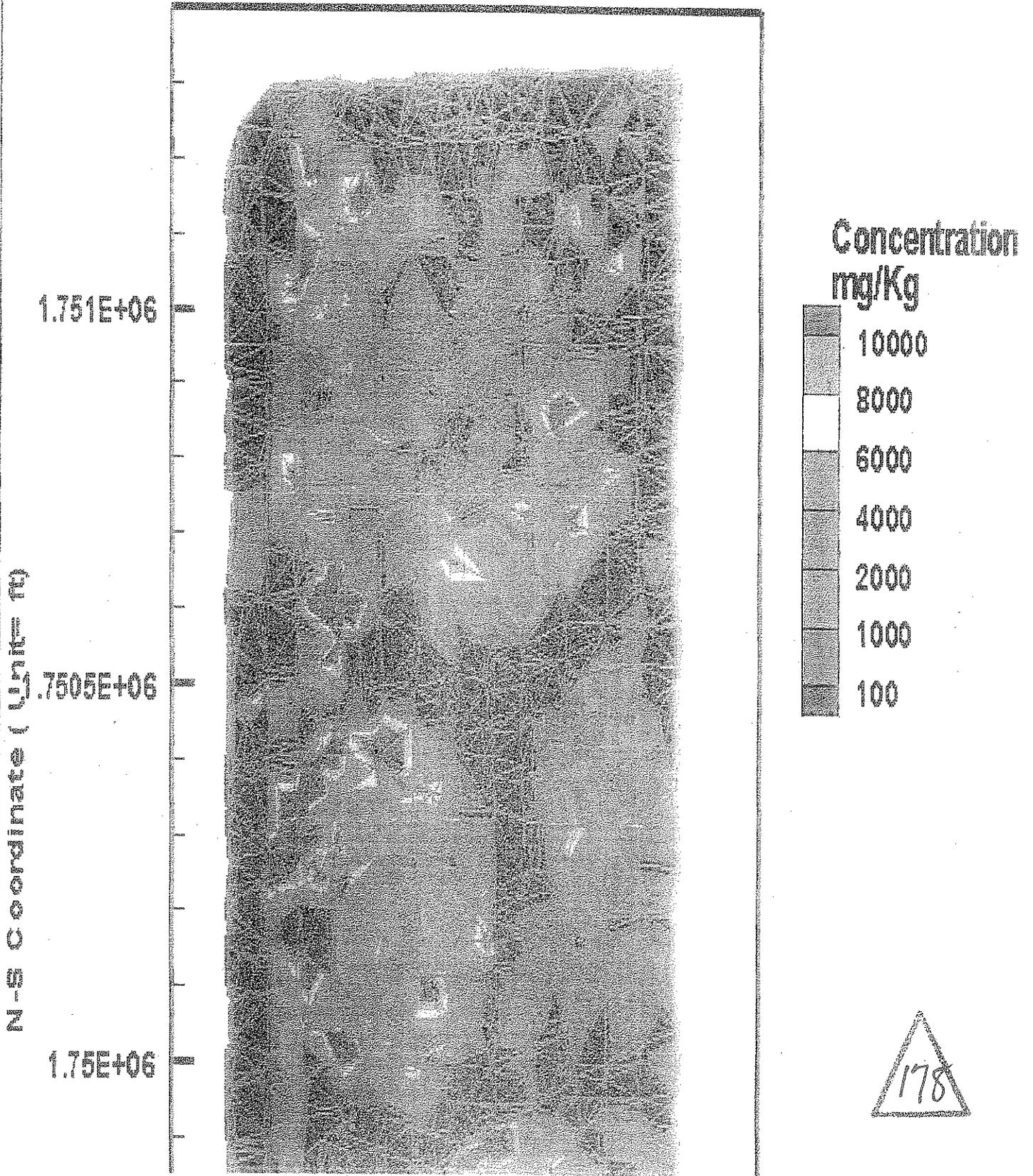


Diesel at 2ft BGS

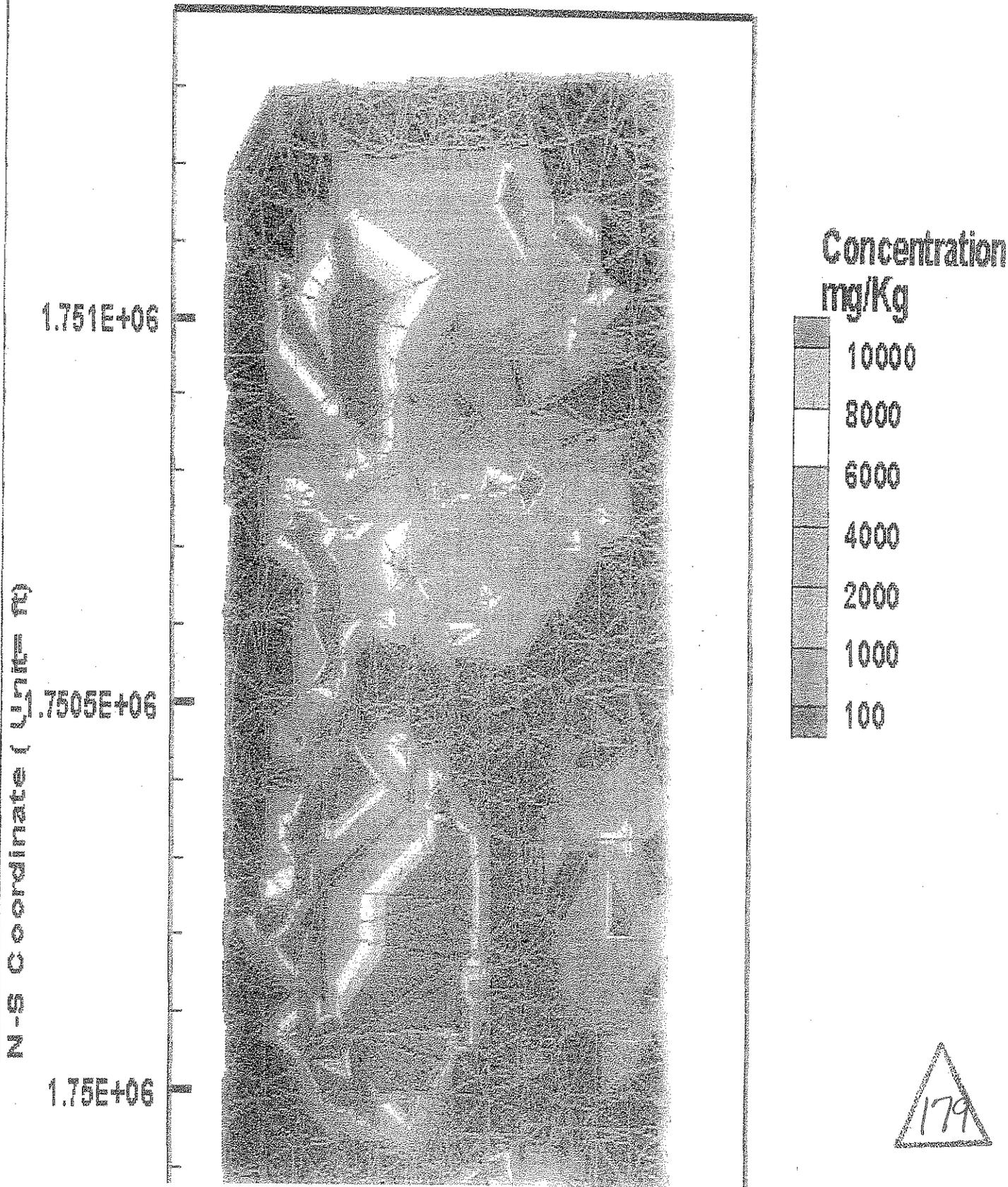


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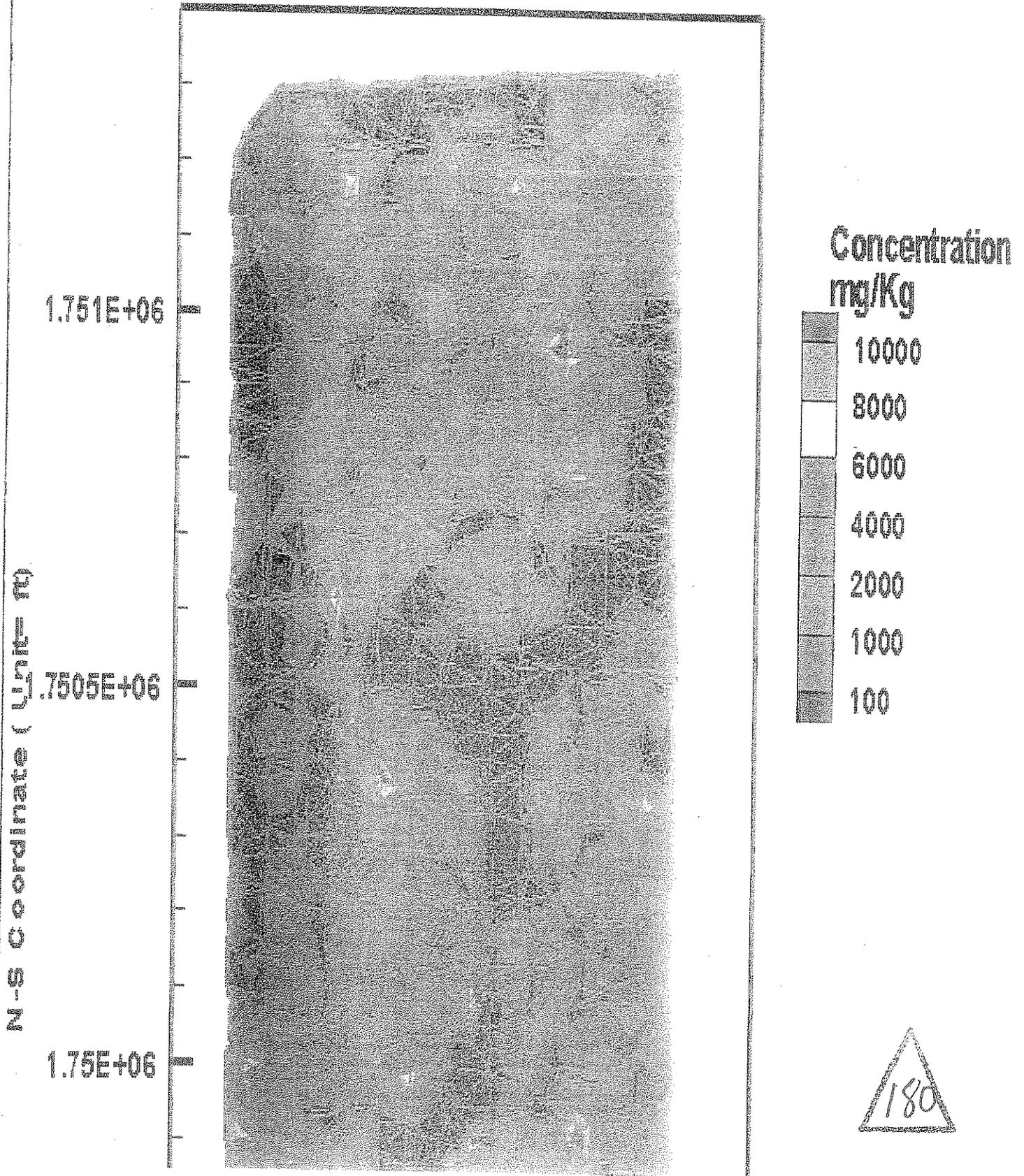
Diesel at 5ft BGS



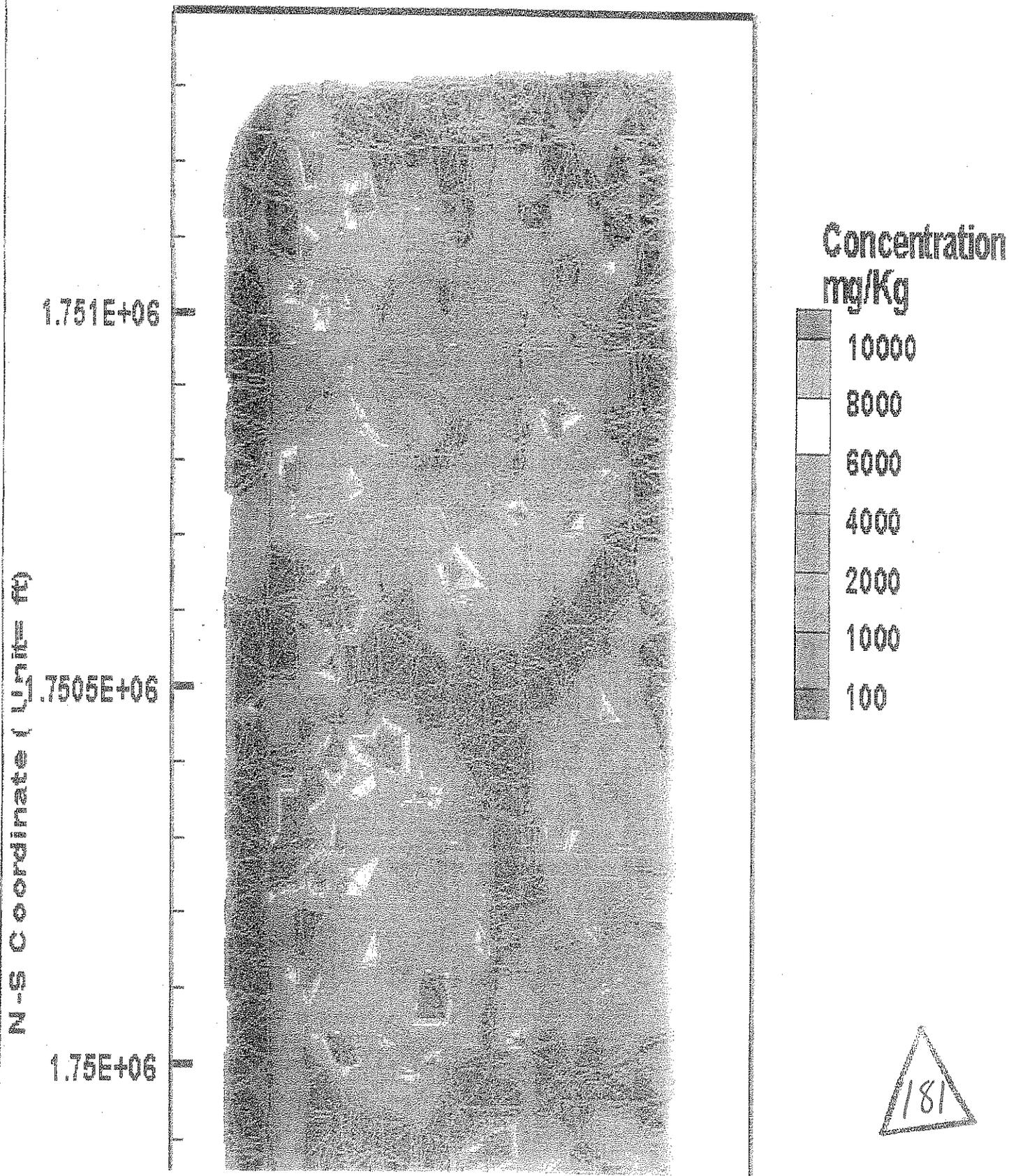
Diesel at 10ft BGS



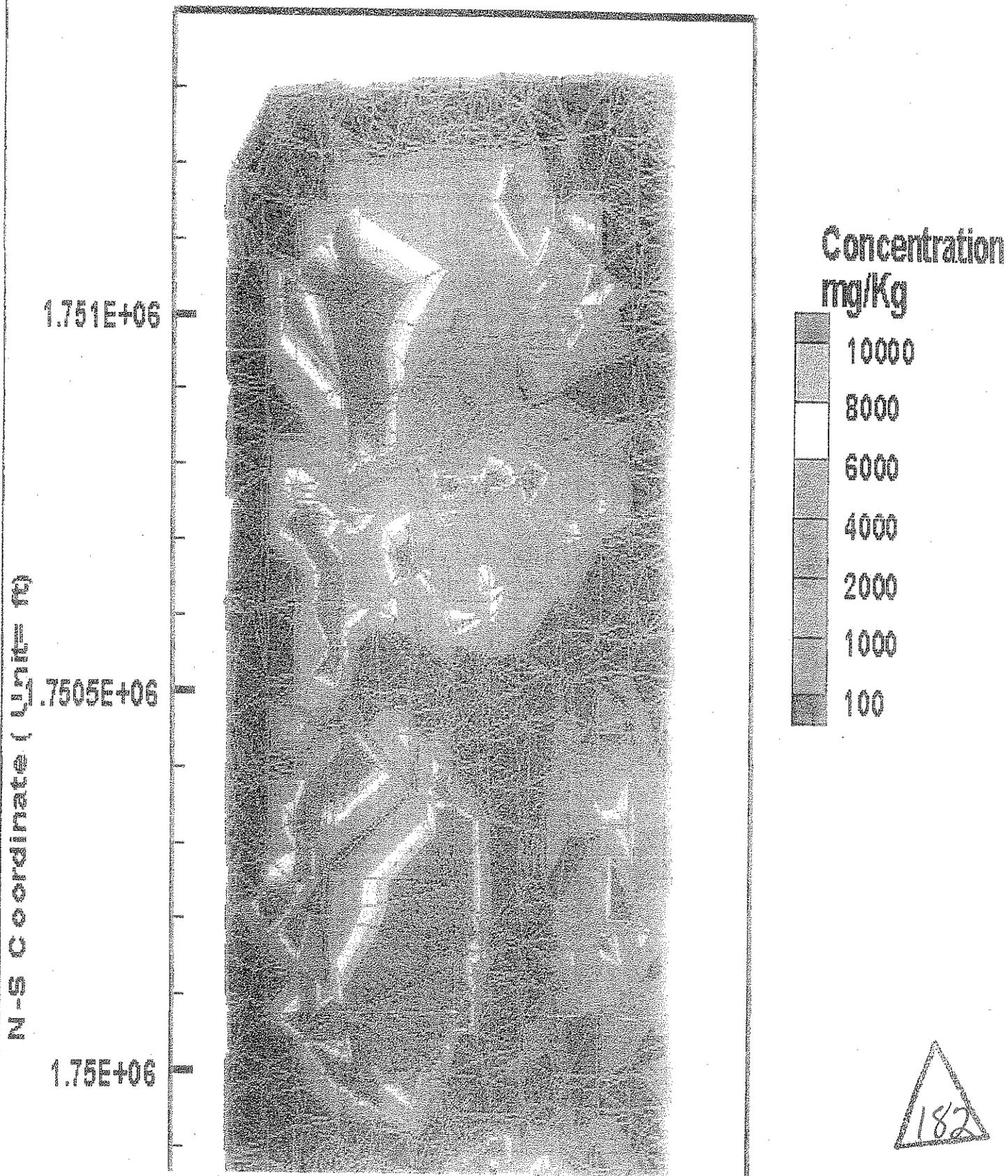
Motor Oil at 2ft BGS



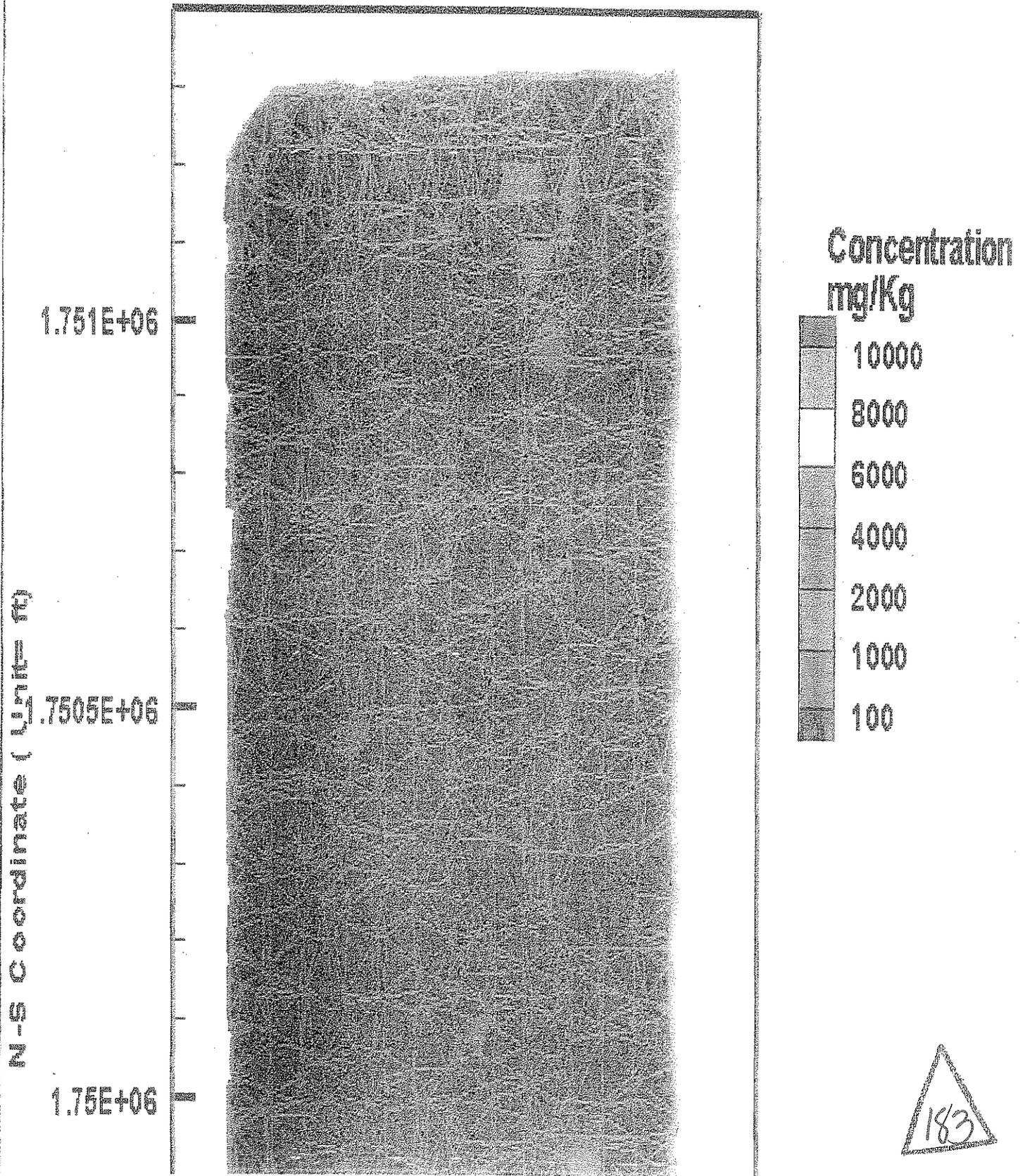
Motor Oil at 5ft BGS



Motor Oil at 10ft BGS

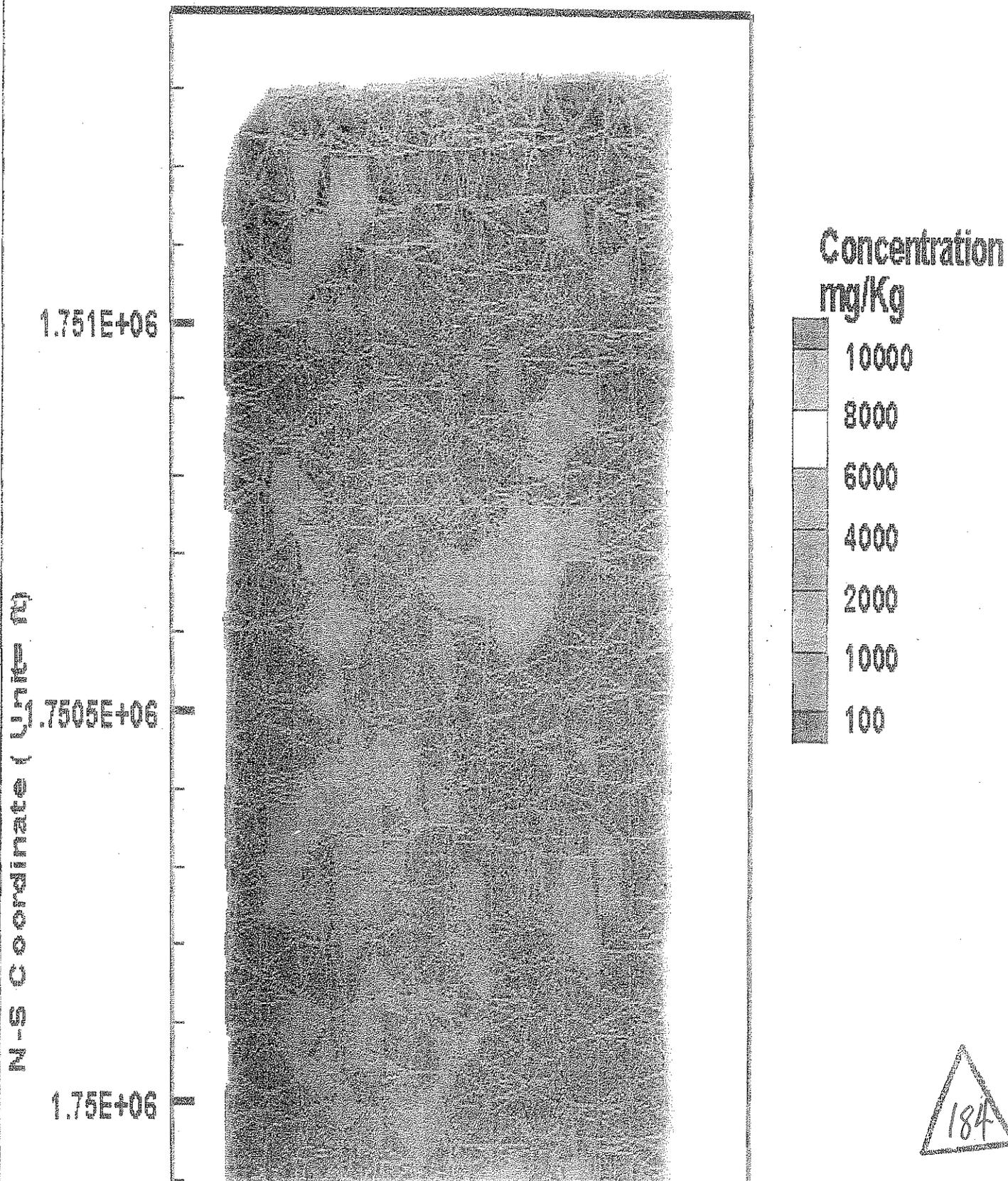


Gasoline at 2ft BGS

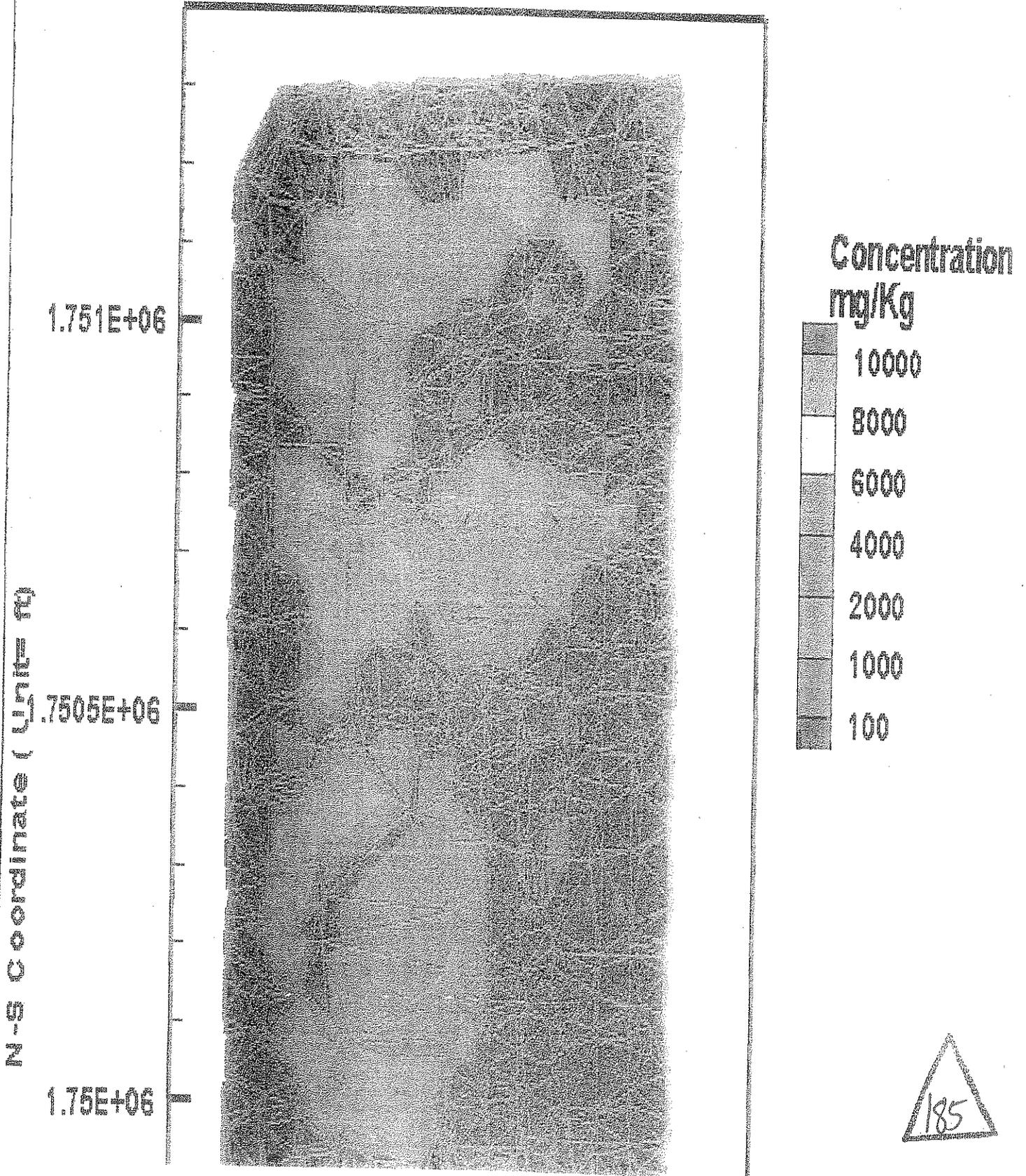


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Gasoline at 5 ft BGS



Gasoline at 10ft BGS



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Los Angeles Regional Water Quality Control Board

February 27, 2015

Via E-Mail Only

TO ALL PARTIES AND INTERESTED PERSONS:

**Procedural Requests regarding Tentative Revised Cleanup and Abatement Order
No. R4-2011-0046, Former Kast Property Tank Farm**

The Regional Water Quality Control Board, Los Angeles Region (Regional Board), acting through Ms. Deborah Smith, Chief Deputy Executive Officer, received several procedural requests related to the Board's consideration of the Revised Cleanup and Abatement Order No. R4-2011-0046 for the Former Kast Property Tank Farm (Revised CAO).

Procedural Requests by Barclay Hollander Corporation.

On December 24, 2014, Barclay Hollander Corporation submitted a request to (1) submit additional written evidence for consideration by the Regional Board and inclusion in the administrative record, and (2) schedule a formal evidentiary hearing prior to the Regional Board's determination whether to adopt the Revised CAO. Both requests are denied, with the following exception.

The Regional Board will accept into the administrative record for this matter the deposition of Mr. George Bach dated November 19, 2014, as submitted by Barclay Hollander Corporation to the Regional Board on January 6, 2015.

On October 31, 2013, Site Cleanup Program Staff first circulated a draft Revised CAO that identified Barclay Hollander Corporation as a responsible party. A copy of the Draft Revised CAO and notice of an opportunity to comment on the Draft were provided by Site Cleanup Program Staff to Barclay Hollander by U.S. Mail. After receiving written comments, Shell and Barclay Hollander were provided an additional opportunity to respond to the comments received. Barclay Hollander submitted extensive comments and evidence to the Regional Board on both January 21, 2014 and June 30, 2014. Barclay Hollander now seeks to submit additional evidence into the evidentiary record.

The Regional Board will not accept evidence into the record that was previously available and could have been submitted in a timely matter during the prior noticed comment periods. The Regional Board will therefore not accept reports or other evidence dated prior to the June 30, 2014 comment deadline.

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The Regional Board will not accept into the record the expert reports by Mr. Jeffrey V. Dagdigian and Mr. Charles R. Faust dated November 14, 2014 and December 22, 2014. A total of two sworn declarations and three technical reports by Mr. Dagdigian and Mr. Faust are already included in the evidentiary record. The reports now offered were prepared after the noticed comment periods in this proceeding, for purposes of litigation. The Regional Board concludes that the additional delay and burden of a technical review and evaluation of these additional reports, at this point in the proceedings, outweighs their probative value. This conclusion is supported by the fact that timely-submitted sworn statements and technical reports by these authors are a part of the record and are being considered by the Board.

The Regional Board will not accept into the record the deposition transcript of Mr. F. Edward Reynolds, Jr. dated July 7, 2014. This deposition appears to concern an expert report written by Mr. Reynolds at the request of the law firm of Girardi & Keese. Because that expert report has not been submitted to the Regional Board and is not a part of the evidentiary record, the deposition testimony regarding the report and the theories underlying the report is not sufficiently probative to justify consideration at this point in the proceedings.

The Regional Board will accept into the administrative record the deposition of Mr. George Bach dated November 19, 2014. In this instance, the probative value of Mr. Bach's testimony, insofar as it contributes to evaluation of his prior testimony already submitted, is outweighed by the additional burden on the parties and the Regional Board. Although all parties to the proceeding shall be allowed time to review and respond to the testimony, it is not of a nature that would require a technical evaluation and response as would the review of a technical expert report.

The request by Barclay Hollander Corporation to schedule a formal evidentiary hearing prior to the Regional Board's determination whether to adopt the Revised CAO is denied. The Regional Board has considered whether an evidentiary hearing would substantially assist in its consideration of the Revised CAO. The Site Cleanup Program Staff offered multiple opportunities for parties and interested persons to submit written testimony and evidence relevant to the Draft Revised CAO. Barclay Hollander has utilized these opportunities and submitted more than 1,000 pages of documentary evidence. The factual questions raised by the Draft Revised CAO are primarily technical and therefore, fit to be addressed through written expert reports and written rebuttal. Some factual questions are raised that relate to events that occurred at the former Kast Property Tank Farm nearly fifty years ago. To the extent that the parties have been able to locate witnesses with first-hand knowledge of these events, written statements – by Mr. Leroy M. Vollmer and Mr. George Bach – are included in the record and will be considered by the Regional Board. These witnesses are very elderly and the Regional Board would hesitate to require their physical attendance at any hearing, particularly given that their oral testimony is likely to duplicate previously submitted written testimony. An oral evidentiary hearing would not likely enhance the evidentiary record, but rather, result in the needless presentation of cumulative evidence.

In light of the particular factual, legal, and policy questions that are raised, the Board has determined that the issues are adequately and thoroughly addressed through the submitted written evidence and testimony, that Barclay Hollander has been provided the opportunity for fair consideration of its claims, and the burden and cost of an oral hearing is not warranted in this instance.



Procedural Requests and Substantive Comments by Mr. Robert Bowcock.

On January 7, 2015, Mr. Robert Bowcock of Integrated Resource Management, Inc. commented on the substance of the Revised CAO and attached documentary evidence to his letter in support of his comments. The Regional Board considers Mr. Bowcock's letter, in part, as a request to submit the additional substantive comments and the attached report by L. Everett & Associates dated January 7, 2015.

Mr. Bowcock's substantive comments and the attached report by L. Everett & Associates are untimely and will not be accepted into the record. Mr. Bowcock has not alleged that he was not appropriately notified of the prior opportunities to submit written comments or provided other justification for the date of these submittals.

Deposition Testimony of Site Cleanup Program Staff.

The Regional Board is aware of pending subpoenas for the depositions of certain staff of the Regional Board who are members of the Site Cleanup Program Staff with respect to this matter. Should these depositions go forward, the Regional Board will consider at a future time and upon the request of any party, whether to accept the deposition transcripts into the evidentiary record.

Opportunity to Comment and Request for Additional Information.

An electronic copy of the transcript of the deposition of Mr. George Bach dated November 19, 2014, is attached with this letter. The Regional Board will consider comments or evidence in rebuttal to the attached document from parties or interested persons that are received by **March 26, 2015, at 5:00 pm.**

The Regional Board requests that the Site Cleanup Program Staff submit the following by **March 13, 2015**, regarding the March 20, 2014 memo from Dr. C.P. Lai to Samuel Unger: (1) a more detailed explanation of the three assumptions on which the finite method analysis was based and (2) full page color copies of the series of contour graphic results.

The Regional Board also requests that the Site Cleanup Program Staff provide the Regional Board with three complete copies of the materials provided to the Regional Board on December 8, 2014, as well as subsequent information that was submitted in response to the December 8th materials, with the exception of evidence rejected by this letter. The Regional Board requests these copies by **March 13, 2015.**

Please send comments by e-mail to nicole.kuenzi@waterboards.ca.gov, and to all parties and interested persons cc'ed on this notice. If you are unable to submit comments by e-mail, comments may be submitted by mail to Nicole Kuenzi, Office of Chief Counsel, State Water Resources Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814.

If you have any questions regarding this letter, please contact Nicole L. Kuenzi at (916) 322-4142 or at nicole.kuenzi@waterboards.ca.gov.

Sincerely,



Deborah J. Smith
Chief Deputy Executive Officer, Los Angeles Regional Water Board



Cc:

Mr. Samuel Unger
Executive Officer
sunger@waterboards.ca.gov

Patrick Dennis, Esq.
Gibson Dunn & Crutcher LLP
PDennis@gibsondunn.com

Krista Hernandez, Esq.
Gibson Dunn & Crutcher LLP
khernandez@gibsondunn.com

Deanne Miller, Esq.
Morgan, Lewis & Bockius LLP
dmliller@morganlewis.com

Mr. Robert Bowcock
Integrated Resource Management, Inc.
bbowcock@irmwater.com

Frances McChesney, Esq.
Senior Staff Counsel
Fmcchesney@waterboards.ca.gov

Michael Leslie, Esq.
Caldwell Leslie & Proctor, PC
leslie@caldwell-leslie.com

Interested parties e-mail list maintained by the Regional Board:

Bellomo, Angelo (LOS ANGELES COUNTY) <abellomo@ph.lacounty.gov>;
'Alan.Caldwell@shell.com';
'bbowcock@irmwater.com';
'BC7@fire.lacounty.gov';
'bjones@fire.lacounty.gov';
'caumais@girardikeese.com';
'chris.manzini@edelman.com';
'crangan@ph.lacounty.gov';
'derrick.mims@asm.ca.gov';
'ed.platt@shell.com';
'eramirez@ph.lacounty.gov';
'eric.boyd@mail.house.gov';
'jdear@carson.ca.us';
Carlisle, Jim@OEHHA <Jim.Carlisle@oehha.ca.gov>;
'kim.lesniak@shell.com';
'kkatona@bos.lacounty.gov';
'ktruong@carson.ca.us';
'leslie@caldwell-leslie.com';
'lisa@cerrell.com';
'markridley-thomas@bos.lacounty.gov';
'MarkGrivetti (mgrivetti@geosyntec.com) (mgrivetti@geosyntec.com)';
'rciark@fire.lacounty.gov';
'rcustance@geosyntec.com';
'Robbie Ettinger (rettinger@geosyntec.com) (rettinger@geosyntec.com)';
Romero, Robert@DTSC <Robert.Romero@dtsc.ca.gov>;
'rtahara@bos.lacounty.gov';
'rvasquez@ph.lacounty.gov';
'snourish@fire.lacounty.gov';
Arano, Wendy@DTSC <Wendy.Arano@dtsc.ca.gov>;
'wuroff@fire.lacounty.gov';
'zaft@caldwell-leslie.com';
'Christian Osterberg (christian.osterberg@urs.com)';



'heather.benfield@tetrattech.com';
'javier.weckmann@tetrattech.com';
'Nancy MeilahnFowler (nancy.meilahn.fowler@urs.com)';
'Rebecca Frend (rebecca.frend@urs.com)';
'Roy Patterson (roy.patterson@urs.com)';
Romero, Robert@DTSC <Robert.Romero@dtsc.ca.gov>;
Unger, Samuel@Waterboards <Samuel.Unger@waterboards.ca.gov>;
Rasmussen, Paula@Waterboards <Paula.Rasmussen@waterboards.ca.gov>;
Heath, Arthur@Waterboards <Arthur.Heath@waterboards.ca.gov>;
Williams, Thizar@Waterboards <Thizar.Williams@waterboards.ca.gov>;
Kapahi, Gita@Waterboards <Gita.Kapahi@waterboards.ca.gov>;
Fordyce, Jennifer@Waterboards <Jennifer.Fordyce@waterboards.ca.gov>;
McChesney, Frances@Waterboards <Frances.McChesney@waterboards.ca.gov>;
'eric.boyd@mail.house.gov';
'henry.connelly@mail.house.gov';
Lauffer, Michael@Waterboards <michael.lauffer@waterboards.ca.gov>;
'crangan@ph.lacounty.gov';
'Kim.Clark@fire.lacounty.gov';
'deBoer, Krista (KdeBoer@gibsondunn.com)';
Lagudis, Susana@Waterboards <Susana.Lagudis@Waterboards.ca.gov>;
'pdennis@gibsondunn.com';
'rhernand@carson.ca.us';
'nhernandez@gibsondunn.com';
Doug Weimer (douglas.weimer@shell.com) (douglas.weimer@shell.com);
Ayalew, Teklewold@Waterboards <Teklewold.Ayalew@waterboards.ca.gov>





Los Angeles Regional Water Quality Control Board

TO: Samuel Unger, Executive Officer

FROM: C.P. Lai
Ph.D., P.E., Water Resources Control Engineer
LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD

DATE: March 20, 2014

SUBJECT: TPH MASS CALCULATION FOR SUBSOIL AT KAST PROPERTY

As requested by Executive Officer Samuel Unger, I have calculated an estimate of the mass of total petroleum hydrocarbons (TPH) in the subsoil at the Former Shell Tank Farm at the Kast Property (Site).

The total TPH mass was obtained at three depths below ground surface by using the areas of the triangles formed by adjacent sampled stations and the concentrations collected at the sampled stations and depths. The areas of triangles are obtained by using the finite element method. The analysis is based on the following assumptions:

- 1. Density of sub-soil is assumed to be a constant value of 110 lb/ft3 (1762 kg/m3)
2. Concentration varies linearly within sampling stations
3. Mass varies linearly with depth

The results of total mass and impacted area of TPH at different depths below ground surface are presented in Table 1 through Table 3 for TPH as Diesel, TPH as Motor Oil, and TPH as Gasoline, respectively. Concentration contour lines at different depths are shown in Figure 1 through Figure 3.

Table 1 Total Mass and Impact Area of TPH as Diesel

Table with 4 columns: Depth (ft) BGS, Impact Area (ft2), Mass (lbs)/ft, Total Mass (lbs). Rows for depths 2, 3, 5, and 10.

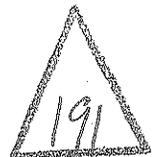


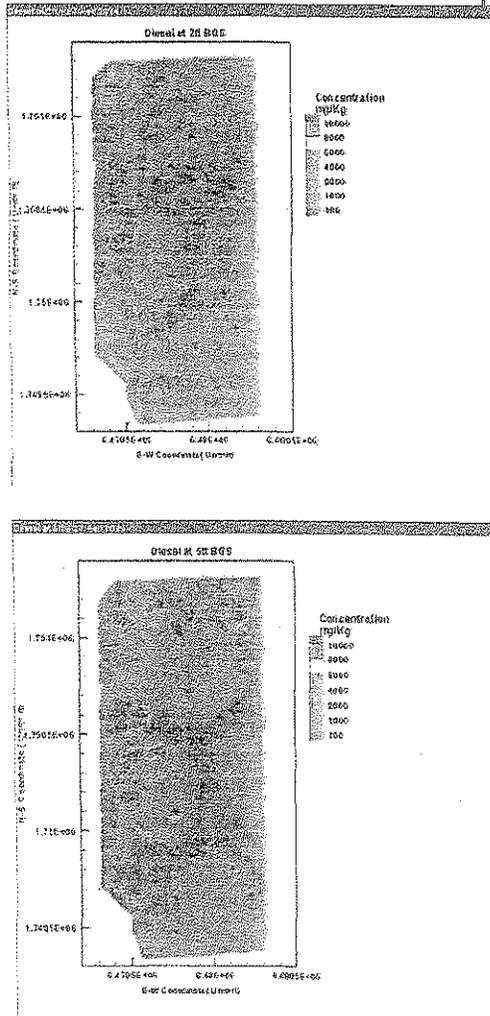
Table 2 Total Mass and Impact Area of TPH as Motor Oil

Depth (ft) BGS	Impact Area (ft2)	Mass (lbs)/ft	Total Mass (lbs)
2	1792074	187857	187857
3	1710030	240675	402123
5	1627986	346310	989108
10	1528505	605052	3367513

Table 3 Total Mass and Impact Area of TPH as Gasoline

Depth (ft) BGS	Impact Area (ft2)	Mass (lbs)/ft	Total Mass (lbs)
2	991603	1797	1797
3	1192861	8596	6994
5	1394119	22164	37739
10	1398650	55342	231504

Figure 1 Concentration contour line at different depths for TPH as Diesel



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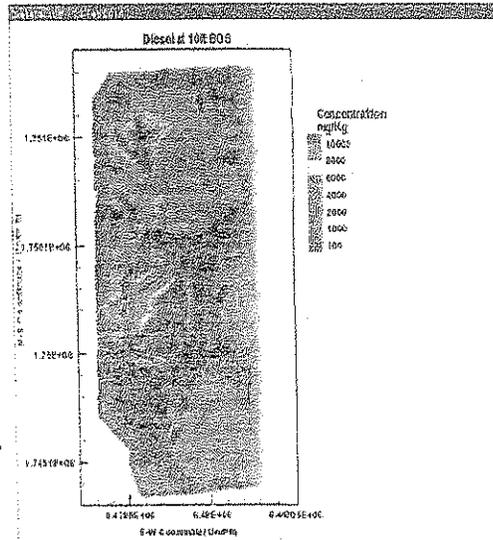
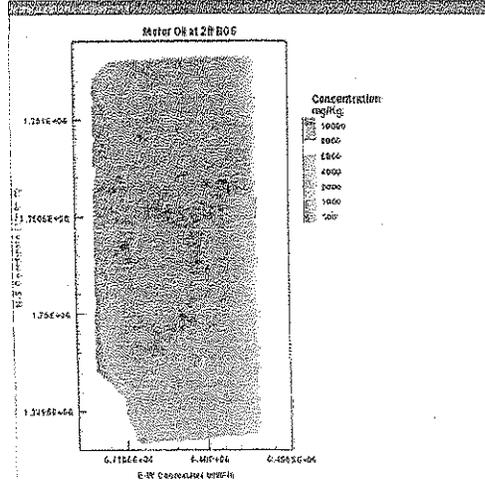


Figure-2 Concentration contour line at different depths for TPH as Motor Oil



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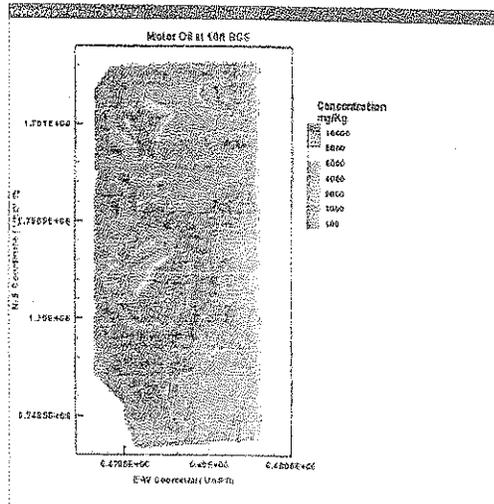
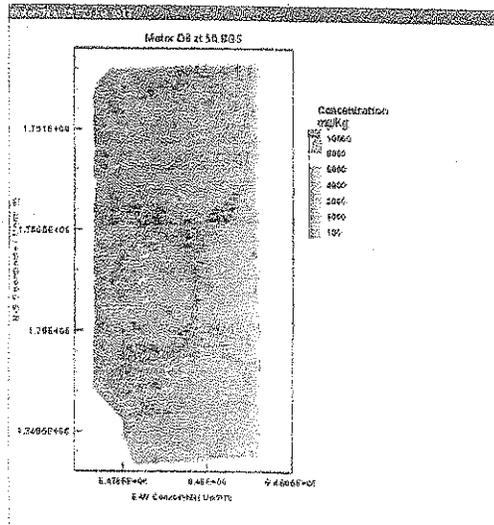
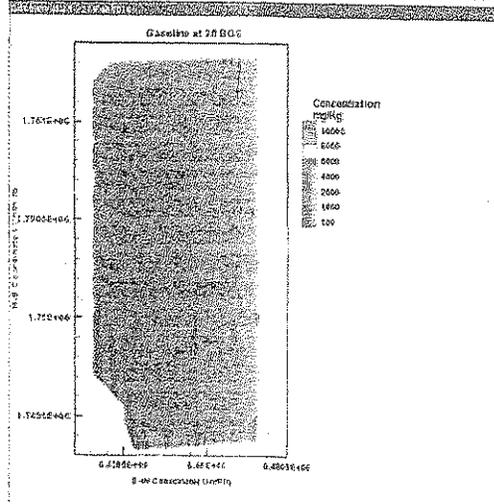
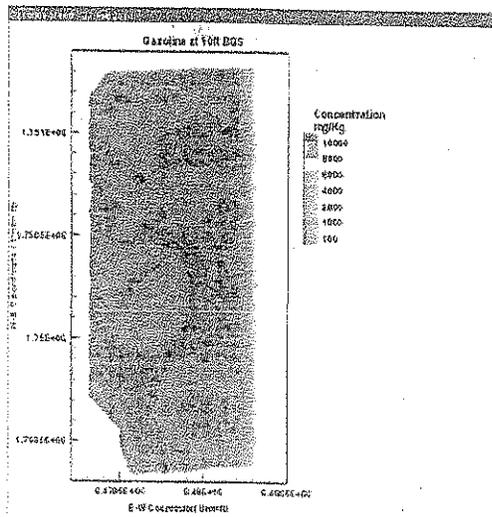
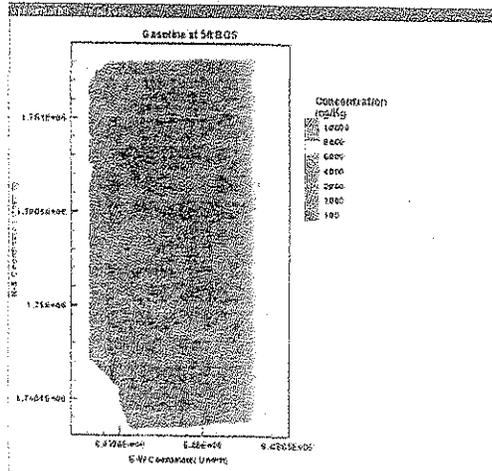


Figure 3 Concentration contour line at different depths for TPH as Gasoline



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EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

TO: Deborah Smith, Chief Deputy Executive Officer
Los Angeles Regional Water Quality Control Board

CC: Nicole L. Kuenzi, Staff Counsel
State Water Resources Control Board

FROM: Samuel Unger, Executive Officer *Samuel Unger*
Los Angeles Regional Water Quality Control Board

DATE: April 2, 2015

SUBJECT: **Procedural Requests Regarding Tentative Revised Cleanup and Abatement Order No. R4-2011-0046, Former Kast Property Tank Farm**

The Site Cleanup Program Staff of the Regional Water Quality Control Board, Los Angeles Region (Regional Board) received your letter dated February 27, 2015 regarding procedural requests. On March 12, 2015, the Site Cleanup Program Staff provided responses regarding the Memorandum from Dr. C. P. Lai to Samuel Unger dated March 20, 2014 and provided the documents requested.

In your letter of February 27, 2015, you also provided the opportunity to submit comments regarding the deposition of Mr. George Bach, dated November 19, 2014 and you agreed to an extension until April 2, 2015 to submit any comments.

The Site Cleanup Program Staff has reviewed the deposition of Mr. Bach and concludes that the deposition testimony does not alter the Staff's conclusions and recommendation that Cleanup and Abatement Order No. R4-2011-0046 be revised to add Barclay Hollander Corporation (Barclay) as a responsible party.

The Site Cleanup Program Staff concluded after review of the detailed comments on the proposed draft revised CAO, technical literature, and data from the Site investigation, that Barclay (1) acquired the Former Kast Tank Farm with explicit knowledge that it was a crude oil storage facility and general knowledge of the presence of petroleum hydrocarbons; (2) agreed to and did decommission the reservoirs after acquiring the property; (3) had explicit knowledge of the presence of petroleum hydrocarbons in the reservoirs, under the reservoirs, in the reservoir berms, in the swing pit, in the pump house, and in pipeline areas; (4) removed a miniscule amount of soil saturated with petroleum hydrocarbons, and removed soil based only on geotechnical considerations not on whether petroleum hydrocarbons were present, (5) distributed the remaining soil containing petroleum hydrocarbons and concrete slabs with attached wastes, i.e., petroleum hydrocarbons, around the Site during grading and development activities which accounts for the distribution of petroleum hydrocarbons in on-site shallow soils and soil vapor, and could not have resulted from the alleged mechanism of upward capillary migration; and (6) ripped open and removed concrete slabs causing and contributing to the movement of petroleum hydrocarbons into groundwater.

Mr. Bach, in his deposition, made statements that support these conclusions, including in particular that Barclay had explicit knowledge of the presence of petroleum hydrocarbons at the Site, removed a minor

CHARLES STONGER, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles



Deborah Smith
Los Angeles Regional Water Quality Control Board

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April 2, 2015

amount of petroleum from the Site, left concrete slabs with oil at the Site, and used the earth embankments to fill in the reservoirs.

The Site Cleanup Program Staff continue to assert that the developers' actions have caused or permitted and continue to cause or permit wastes to be discharged where they impact the waters of the State and cause and continue to cause pollution and nuisance.

If you have any questions, please contact me at (213) 576-6605 or samuel.unger@waterboards.ca.gov or Frances McChesney at (916)341-5174 or frances.mcchesney@waterboards.ca.gov.

cc:

Deanne Miller
Morgan, Lewis & Bockius LLP
300 South Grand Avenue
Twenty-Second Floor
Los Angeles, CA 90071-3132
dmliller@morganlewis.com

Michael Leslie
Coldwell Leslie & Proctor, PC
1000 Wilshire Blvd, Suite 600
Los Angeles, CA 90017-2463
leslie@caldwell-leslie.com

Patrick W. Dennis
Gibson, Dunn & Crutcher LLP
333 South Grand Avenue
Los Angeles, CA 90074-3197
pdennis@gibsondunn.com

Krista Hernandez
Gibson, Dunn & Crutcher LLP
333 South Grand Avenue
Los Angeles, CA 90074-3197
khernandez@gibsondunn.com

Barclay Hollander Corporation
5840 Uplander Way, Suite 202
Culver City, CA 90230

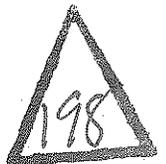
Frances L. McChesney
Attorney IV
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, CA 95814
frances.mcchesney@waterboards.ca.gov



Jennifer Fordyce
Attorney III
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, CA 95814
jennifer.fordyce@waterboards.ca.gov

Interested parties e-mail list

Bellomo, Angelo (LOS ANGELES COUNTY) <abellomo@ph.lacounty.gov>;
'Alan.Caldwell@shell.com';
'bbowcock@irmwater.com';
'BC7@fire.lacounty.gov';
'bjones@fire.lacounty.gov';
'caumais@girardikeese.com';
'chris.manzini@edelman.com';
'crangan@ph.lacounty.gov';
'derrick.mims@asm.ca.gov';
'ed.platt@shell.com';
'eramirez@ph.lacounty.gov';
'eric.boyd@mail.house.gov';
'jdear@carson.ca.us';
Carlisle, Jim@OEHHA <Jim.Carlisle@oehha.ca.gov>;
'kim.lesniak@shell.com';
'kkatona@bos.lacounty.gov';
'ktruong@carson.ca.us';
'leslie@caldwell-leslie.com';
'lisa@cerrell.com';
'markridley-thomas@bos.lacounty.gov';
'MarkGrivetti (mgrivetti@geosyntec.com) (mgrivetti@geosyntec.com)';
'rlark@fire.lacounty.gov';
'rcustance@geosyntec.com';
'Robbie Ettinger (rettinger@geosyntec.com) (rettinger@geosyntec.com)';
Romero, Robert@DTSC <Robert.Romero@dtsc.ca.gov>;
'rtahara@bos.lacounty.gov';
'rvasquez@ph.lacounty.gov';
'snourish@fire.lacounty.gov';
Arano, Wendy@DTSC <Wendy.Arano@dtsc.ca.gov>;
'wuroff@fire.lacounty.gov';
'zaft@caldwell-leslie.com';
'Christian Osterberg (christian.osterberg@urs.com)';
'heather.benfield@tetrattech.com';
'javier.weckmann@tetrattech.com';
'Nancy MeilahnFowler (nancy.meilahn.fowler@urs.com)';
'Rebecca Frend (rebecca.frend@urs.com)';
'Roy Patterson (roy.patterson@urs.com)';
Romero, Robert@DTSC <Robert.Romero@dtsc.ca.gov>;
Unger, Samuel@Waterboards <Samuel.Unger@waterboards.ca.gov>;
Rasmussen, Paula@Waterboards <Paula.Rasmussen@waterboards.ca.gov>;



Deborah Smith
Los Angeles Regional Water Quality Control Board

- 4 -

April 2, 2015

Heath, Arthur@Waterboards <Arthur.Heath@waterboards.ca.gov>;
Williams, Thizar@Waterboards <Thizar.Williams@waterboards.ca.gov>;
Kapahi, Gita@Waterboards <Gita.Kapahi@waterboards.ca.gov>;
Fordyce, Jennifer@Waterboards <Jennifer.Fordyce@waterboards.ca.gov>;
McChesney, Frances@Waterboards <Frances.McChesney@waterboards.ca.gov>;
'eric.boyd@mail.house.gov';
'henry.connelly@mail.house.gov';
Lauffer, Michael@Waterboards <michael.lauffer@waterboards.ca.gov>;
crangan@ph.lacounty.gov';
'Kim.Clark@fire.lacounty.gov';
'deBoer, Krista (KdeBoer@gibsondunn.com)';
Lagudis, Susana@Waterboards <Susana.Lagudis@Waterboards.ca.gov>;
'pdennis@gibsondunn.com';
'rhermand@carson.ca.us';
Doug Weimer (douglas.weimer@shell.com) (douglas.weimer@shell.com);
'nhernandez@gibsondunn.com';
Ayalew, Teklewold@Waterboards <Teklewold.Ayalew@waterboards.ca.gov>;
Smith, Deborah@Waterboards <Deborah.Smith@waterboards.ca.gov>;
'pdennis@gibsondunn.com' (pdennis@gibsondunn.com);
khernandez@gibsondunn.com; dlmiller@morganlewis.com;
'leslie@caldwell-leslie.com' (leslie@caldwell-leslie.com)

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GIBSON DUNN

Gibson, Dunn & Crutcher LLP
333 South Grand Avenue
Los Angeles, CA 90071-3197
Tel 213.229.7000
www.gibsondunn.com

Patrick W. Dennis
Direct: +1 213.229.7567
Fax: +1 213.229.6567
PDennis@gibsondunn.com

April 2, 2015

VIA FIRST CLASS AND ELECTRONIC MAIL

Deborah Smith
Chief Deputy Executive Officer
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles CA 90013

Re: Procedural Requests regarding Tentative Revised Cleanup and Abatement Order No. R4-2011-0046, Former Kast Property Tank Farm

Dear Ms. Smith:

We represent Barclay Hollander Corporation (“Barclay”) with respect to the above-referenced matter. This letter responds to your February 27, 2015 request for comments relating to the Regional Water Quality Control Board’s (“Regional Board”) consideration of the transcript of the third day of deposition of George Bach, dated November 19, 2014 (“2014 Bach Transcript”) now admitted into the administrative record for this matter.

We urge your complete and careful consideration of the 2014 Bach Transcript because it bears directly upon your decision whether Barclay should be named as a discharger in the existing Cleanup and Abatement Order No. R4-2011-0046 (“CAO”). Specifically, the 2014 Bach Transcript constitutes the sworn, cross-examined testimony of Mr. Bach, and thus—pursuant to the most basic rules of evidence—supersedes the May 13, 2011 unsworn statement by Mr. Bach (“2011 Statement”), upon which the Regional Board Prosecutor¹ relied in making its December 8, 2014 recommendation to name Barclay to the CAO. Your consideration of the 2014 Bach Transcript is critical because it contains clarifying, sworn, and cross-examined testimony that directly refutes purported “facts” that form the basis of the Regional Board Prosecutor’s recommendation, without which the Regional Board cannot support a conclusion that Barclay is a “discharger” under California Water Code section 13304.

¹ The “Regional Board Prosecutor” or “Prosecutor” is defined as the prosecutorial team identified in the December 8, 2014 Paula Rasmussen Letter to Dole Food Company, Inc. and to Shell Oil Company and December 8, 2014 Samuel Unger Memorandum to Deborah Smith, consisting of Teklewold Ayalew, Thizar Tintut-Williams, Paula Rasmussen, and Samuel Unger.



GIBSON DUNN

April 2, 2015

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1. Mr. Bach's 2014 Deposition Testimony Contradicts Key Purported "Facts" Asserted By The Regional Board Prosecutor, Without Which Barclay Cannot Be Found To Be A Discharger.

The Prosecutor's recommendation is based largely on its conclusion that the "contamination pattern presently on site likely resulted from site development activities of fill and grading with site soils."² In other words, the Prosecutor apparently believes that there was contemporaneous evidence of petroleum hydrocarbon odors in the berm soils and observable impacts to soil immediately beneath the reservoir floors, and that Barclay, with "explicit knowledge," mixed petroleum hydrocarbon impacted soils with other soils on the Kast Site and left them onsite.³ Yet the only evidence cited by the Prosecutor for this belief is the unsworn 2011 Statement.⁴

The 2014 Bach Transcript precludes any reliance on the unsworn 2011 Statement. In his November 2014 deposition, given under oath and during cross-examination by lawyers for Shell and Plaintiffs, Mr. Bach directly refuted the Prosecutor's assertions regarding discerned oil in the berm soils and soil beneath the reservoirs.⁵ Mr. Bach also explained that many of the statements contained in the unsworn 2011 Statement did not reflect his own first-hand knowledge.⁶ Because Mr. Bach personally supervised the dismantling of the reservoirs and

² Site Cleanup Program Response to Comments on the Draft Revised Cleanup and Abatement Order, Former Kast Property Tank Farm ("Comment Chart") at 44.

³ Comment Chart at 44.

⁴ The Comment Chart also cites to the June 2014 Waterstone Report in the administrative record to support the assertions that there were observable petroleum hydrocarbons in the berm soils and beneath the reservoir floors; however, the only document referenced in the Waterstone Report is the unsworn 2011 Statement. (See, e.g., Comment Chart at 36; 82.) And the Waterstone Report notes the same reasons the unsworn 2011 Statement cannot be relied upon as are discussed in this letter.

Likewise, the Comment Chart expresses agreement with the view of Shell's expert, Thomas Johnson, that the distribution of petroleum hydrocarbons in shallow soils reflects the history of Barclay's redevelopment activities. (Comment Chart at 82, 84-85, 97.) Mr. Johnson, however, relies on the same unsworn 2011 Statement for his conclusions, (6/16/14 Johnson Letter at 2), as noted in Barclay's June 2014 submission to the Regional Board (6/30/14 Gibson Dunn Letter at 3-7).

⁵ The Site Cleanup Program Response to Comments on the Draft Revised Cleanup and Abatement Order, Former Kast Property Tank Farm was attached to the prosecutor's December 8, 2014 recommendation.

⁶ 11/9/14 Bach Dep. at 126:16-127:1 (testifying that he included an account in the unsworn 2011 Statement of oil in the soil only because he thought he remembered it being in a soils report); 130:4-17, 132:9-11 ("Q: You wrote in your [2011 Statement] that you did find that the soil immediately under the concrete was oil stained and had an odor, correct? MR. BACH: No...It's from [a soils] report and it's what the observer saw and the way he classified the material. And I took the information from that.")

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the grading efforts to prepare the Kast Property for construction of the Carousel Tract in 1965-66, he is one of the few people with first-hand knowledge of the presence and treatment of any oil-impacted soils that were encountered during those efforts. His testimony is therefore critical for any finding regarding how petroleum hydrocarbon impacted soils were observed and treated during redevelopment of the Kast Site. Mr. Bach is unequivocal in his November 2014 deposition that he “didn’t recall smelling or having [oil] odor” in the berm soil that was used as fill, or in any other soils left on the property,⁷ he did not observe oil in the soil immediately below reservoir floors,⁸ and he saw no ponding of oil onsite.⁹ He also clarifies that petroleum-impacted sand used to clean oil residue inside Reservoir 7 was not blended with clean fill and left onsite,¹⁰ and that oil saturated soil found near the swing pits “was all removed,”¹¹ and that in places where there was “physically oil...[t]hat was removed.”¹²

In other words, not only does the 2014 Bach Transcript provide no support for the Prosecutor’s reliance on the unsworn and unreliable 2011 Statement, but it compels a contrary finding—i.e., that there is no evidence of oil left in the soil by Barclay and used for grading and redevelopment.

In making findings of fact upon which a determination is made to name a party to a CAO, the Regional Board is required to consider all competent, admissible evidence. *See, e.g., Cnty. of San Diego v. Assessment Appeals Bd. No. 2*, 148 Cal. App. 3d 548, 558 (1983)

⁷ 11/9/14 Bach Dep. at 126:16-127:1 (“[T]here was a soils report that indicated there was some odor. I didn’t – myself, I didn’t recall smelling or having the odor there, but it was in a report.”); 127:19-129:6 (“Q: During that time from February, 1966, to August of 1966 when you were working on demolishing the oil storage reservoirs, you had occasion to observe oil in the soil at the site; is that correct? BACH: No.”); 130:4-132:11 (“Q: You wrote in [the unsworn 2011 Statement] that you . . . did find that the soil immediately under the concrete was oil stained and had an odor, correct? BACH: No, What I said was we did find it, but that was based on the comments from the boring logs – that I did look at at that time. So I’m -- quoting from somebody else.”).

⁸ 11/9/14 Bach Dep. at 130:4-132:11 (“Q: You wrote in [the unsworn 2011 Statement] that you . . . did find that the soil immediately under the concrete was oil stained and had an odor, correct? BACH: No. . . .”).

⁹ 11/9/14 Bach Dep. at 135:4-136:10 (testifying that he only observed *evidence* of ponding, specifically “evidence that [oil] *might* have ponded”; he did not observe ponding resulting from discharges of petroleum hydrocarbons from pipelines or other structures caused by Barclay’s redevelopment activities (emphasis added)).

¹⁰ 11/9/14 Bach Dep. at 103:5-9 (“[S]and [used for cleaning tank bottoms] that had oil was exported... The sand that was clean at the end, when it was clean, that was used in the fill.”); 120:4-124:20.

¹¹ 11/9/14 Bach Dep. at 136:5-10.

¹² 11/9/14 Bach Dep. at 147:15-19.



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(upholding trial court's finding of abuse of discretion where board chose to disregard important competent evidence); *Marshall v. Dept. of Water & Power*, 219 Cal. App. 3d 1124, 1147 (1990) ("the only evidence which the [fact finder] is not free to disregard is competent evidence"); *Gilbert v. Gilbert*, 98 Cal. App. 2d 444 (1950) (abuse of discretion for failing to consider competent evidence). The 2014 Bach Transcript is competent evidence which contains Mr. Bach's sworn testimony, given under oath and obtained principally during cross-examination by Shell and Plaintiffs. It is admissible and reliable by any legal standard.¹³ And now that it is admitted into the record, it must not only be given full consideration by the Regional Board, but must be preferred to the unsworn 2011 Statement. See Section 2, *infra*.

When Mr. Bach's testimony regarding his first-hand knowledge is taken into consideration and when the unsworn 2011 Statement is disregarded (as it must be under the rules of evidence), the Prosecutor can no longer support the central "factual" assertions that are spelled out in its Comment Chart and that form the basis for its conclusion that Barclay is a discharger.

The Bach 2014 Transcript vitiates key purported "facts" relied upon by the prosecutorial staff—and the testimony does not stand alone. Even before Mr. Bach's November 2014 deposition, there were three other eye witnesses and Mr. Bach who were still living who had given depositions on the subject of spreading the berm soils and ripping the concrete floors during the 1965-66 redevelopment activities. Consistent with the Bach 2014 Transcript, each testified that they did not observe any petroleum hydrocarbons in the berm soil.¹⁴ Those who were asked about odors testified that there were no petroleum odors in the berm soil, and some testified they specifically attempted to detect hydrocarbon odors but did not encounter any.¹⁵ Thus, all of the admissible and reliable evidence contradicts the Prosecutor's conclusion on this pivotal issue. The same is true for observations of soil immediately beneath the reservoir bottoms seen when the concrete floors were being ripped. All of the

¹³ See, e.g., Code of Civil Procedure section 2025.620, which provides, in part: "any part or all of a deposition may be used against any party who was present or represented at the taking of the deposition . . . so far as admissible under the rules of evidence applied as though the deponent were then present and testifying as a witness, in accordance with the following [rules set forth in this subdivision]"; see also *Leasman v. Beech Aircraft Corp.*, 48 Cal. App. 3d 376, 380 (1975) ("Admissions contained in depositions and interrogatories are admissible in evidence to establish any material fact.").

¹⁴ Bach Dep., March 7, 2013 at 143:23-144:4; L. Vollmer Dep., March 15, 2013 at 86:2-87:1; Anderson Dep., December 18, 2013 at 35:9-36:8; A. Vollmer Dep., January 14, 2014 at 44:3-15.

¹⁵ Anderson Dep., December 18, 2013 at 36:9-12; A. Vollmer Dep., January 14, 2014 at 60:4-6; 110:19-111:2.



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eye witnesses who observed the soil beneath the slabs on the reservoir bottoms saw no petroleum hydrocarbons immediately beneath the ripped concrete.¹⁶ Once again, all of the admissible and reliable evidence contradicts the Prosecutor's conclusions.

Mr. Bach's testimony regarding the absence of any discerned petroleum hydrocarbon-impacted soil blended into fill and spread during grading adds to an already robust body of evidence in the record that directly counters the Regional Board Prosecutor's December 8 conclusions that Barclay had "explicit" knowledge of petroleum hydrocarbons that were left onsite and that Barclay then "distributed [the petroleum hydrocarbon-impacted soil] around the Site during grading."¹⁷ And the only evidence supporting these conclusions is the unsworn, unreliable and inadmissible 2011 Statement. Without reliable, admissible evidence that can be legally preferred to Mr. Bach's and the other eyewitnesses' sworn testimony, the Prosecutor cannot support the necessary conclusions to find Barclay to be a discharger under controlling precedent, as discussed in section three below.

2. The Regional Board Must Disregard The Unsworn 2011 Statement In Light Of Mr. Bach's 2014 Deposition Testimony, Which Is Superior Evidence.

The 2014 Bach Transcript not only refutes key "facts" that the Prosecutor purports to glean from that unsworn 2011 Statement—it is *superior* evidence to the unsworn 2011 Statement signed by Mr. Bach on which the Prosecutor relies to conclude that Barclay should be liable as a "discharger" under the California Water Code.

While the Regional Board may follow a slightly relaxed standard with respect to generating and gathering the evidence necessary to make a finding that an entity is a discharger, that standard does not permit the Regional Board to ignore superior evidence in its possession in favor of making a finding based on unreliable and/or inadmissible evidence. The unsworn 2011 Statement is inferior evidence for a host of reasons, not the least of which is that it would not be admissible in any court of law under even the most basic rules of evidence because it is hearsay and not subject to any recognized hearsay exception. *See* Evid. Code § 1200.¹⁸ Further, it was not signed under penalty of perjury. Evid. Code § 710. In contrast,

¹⁶ Bach Dep., March 13, 2013 at 188:15-189:1; L. Vollmer Dep., March 15, 2013 at 97:18-98:3; Anderson Dep., December 18, 2013 at 42:4-12; A. Vollmer Dep., January 14, 2014 at 61:18-62:7; 62:19-22; 109:14-110:11.

¹⁷ 12/8/14 S. Unger Memorandum to D. Smith.

¹⁸ Even if a hearsay exception would allow the unsworn 2011 Statement to be allowed into the record for consideration, the outcome discussed in this letter is the same – i.e., that Statement cannot be the basis for a "finding" and it does not override the more competent competing evidence from Bach's 2014 deposition and other sworn statements and depositions by Mr. Bach that are in the same record.

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in his November 2014 deposition, Mr. Bach testified under oath and was examined by counsel for Shell, Plaintiffs, and Barclay. Moreover, the November 2014 deposition was taken for the specific purpose of asking Mr. Bach about the unsworn 2011 Statement, and as Mr. Bach testified, he does not have personal, first-hand knowledge about much of the unsworn 2011 Statement (Evid. Code § 702(a))—and therefore information in that statement is a product of speculation rather than Mr. Bach’s memory. *See* Evid. Code §§ 702, 800.

During the 2014 deposition, Mr. Bach testified that the unsworn 2011 Statement was written without the benefit of his review of documents generated at the time the Kast Site was developed. He stated, “The statements in [the 2011 Statement] are what I believed to be true after 25 – 40 years of not looking at it. It’s what I could recall at that time with no reference material, just out of my head.”¹⁹ Once Mr. Bach had the opportunity to review the relevant documents, however, his recollection was refreshed, and he offered an accurate account of his first-hand knowledge. Mr. Bach further testified that Plaintiffs’ counsel “asked [him] to speculate” in the unsworn 2011 Statement.²⁰ Thus, the unsworn 2011 Statement is riddled with speculation that was included in the statement at the request of Plaintiffs’ counsel.

In weighing the relative value of the 2014 Bach Transcript against the unsworn 2011 Statement, the circumstances that led to Mr. Bach’s 2014 deposition are relevant. It was not Barclay who asked for the third day of Mr. Bach’s deposition. Rather, in September 2014, Shell and Plaintiffs sought to reopen Mr. Bach’s deposition for the sole purpose of cross-examining him regarding the unsworn 2011 Statement. Barclay opposed the attempt to re-depose Mr. Bach, arguing that there was an opportunity to examine Mr. Bach about his unsworn 2011 Statement during his prior deposition in March 2013. At an October 3, 2014 hearing, the Court granted the request and permitted the deposition to take place, which it did in the Court’s jury room, where it was presided over by Judge Highberger.

Thus, the 2014 Bach Transcript was generated under the supervision of the Court by Shell and Plaintiffs, who obtained a court order to take it. Indeed, the testimony provided by Mr. Bach in November was principally in response to questioning by Shell and Plaintiffs. Further, it is telling that while Shell had already submitted the unsworn 2011 Statement to the Regional Board by the time of Mr. Bach’s 2014 deposition, neither Shell nor Plaintiffs submitted the 2014 Bach Transcript—a deposition they sought a court order to take—to the Regional Board. Rather, they opted to withhold information necessary to correct the record

¹⁹ 11/9/14 Bach Dep. at 117:17-21.

²⁰ *See, e.g.*, 11/9/14 Bach Dep. at 137:22-139:11 (“MR. BACH: I was asked to speculate about where [areas of higher contamination] might be found. In the notes that Adam [an attorney at Girardi-Keese] sent me, that was one of the requests.”).



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and get the most accurate information in front of the Prosecutor prior to its December 8 decision.

In light of Mr. Bach's 2014 testimony and the circumstances surrounding Mr. Bach's deposition, the Regional Board cannot justify reliance on the unsworn 2011 Statement. In addition, the Regional Board *is not permitted* to rely on the unsworn 2011 Statement as a basis for concluding that Barclay is a "discharger." Under both the California Administrative Procedures Act, Gov. Code § 11340 et seq., and the State Water Resources Control Board's regulations that are applicable and binding on the Regional Board, hearsay evidence, such as that contained in the unsworn 2011 Statement which is not the product of Mr. Bach's personal knowledge, may be used for the purpose of supplementing or explaining other evidence "*but shall not be sufficient in itself to support a finding unless it would be admissible over objection in civil actions.*" Gov. Code § 11513(c), (d) (emphasis added); Cal. Code Regs. tit. 23, § 648.5.1 (incorporating Gov. Code section 11513 by reference); *see also, e.g., Molenda v. Dept. of Motor Vehicles*, 172 Cal. App. 4th 974, 996 (2009) ("The mere admissibility of evidence at an administrative hearing does not confer the status of 'sufficiency' to support a finding absent other competent evidence" (citation omitted).); *Daniels v. Dept. of Motor Vehicles*, 33 Cal. 3d 532 (1983) (noting that Gov. Code section 11515 "render[s] hearsay evidence insufficient in itself to support a finding [by an administrative agency]"); *Desert Turf Club v. Bd. of Supervisors*, 141 Cal. App. 2d 446, 455 (1956) (ordering the board to annul an order and reconsider an application "wholly excluding each and every instance of hearsay testimony unless supported by properly admissible testimony" and noting that "hearsay evidence standing alone can have no weight"); *accord Ashford v. Culver City Unified School Dist.*, 130 Cal. App. 4th 344, 349 (2005) (finding that the board's reliance on hearsay evidence alone to support its findings violated Gov. Code section 11513 and concluding that "no responsible person would rely solely on the [unauthenticated hearsay evidence]," which precluded the board's consideration of it); *see also Evid. Code § 1200* (defining hearsay evidence).

In making its December 8 recommendation to name Barclay to the CAO, the Prosecutor exclusively relied on its interpretation of the unsworn 2011 Statement despite the existence of admissible evidence in the administrative record that directly refutes the reliability of the unsworn 2011 Statement. Mr. Bach's June 26, 2014 declaration, signed under penalty of perjury and submitted to the Regional Board in Barclay's comments of June 30, 2014, explained that the unsworn 2011 Statement should not be relied upon, and that the 2014 declaration and Mr. Bach's March 7, 2013 and March 13, 2013 depositions provided the most reliable account of his first-hand memory of the events surrounding redevelopment of the Kast Site in the 1960s. Now with the 2014 Bach Transcript, there is overwhelming and superior evidence in the record refuting the unsworn and inadmissible 2011 Statement.

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3. In Light of Mr. Bach's 2014 Testimony, Naming Barclay In The CAO Would Be Inconsistent With Controlling Precedent.

As discussed above, the Prosecutor seeks to hold Barclay responsible as a discharger because Barclay's redevelopment activities purportedly "spread petroleum hydrocarbon impacted soil on Site."²¹ However, in *Redevelopment Agency of the City of Stockton v. BNSF Railway Company* ("*City of Stockton*"), 643 F.2d 668 (9th Cir. 2011), the Ninth Circuit held that the unknowing redistribution of contamination that was originally discharged by another party does not constitute a discharge under the California Water Code. 643 F.3d at 677-78. In its January 21, 2014 submission to the Regional Board, Barclay discussed the application of *City of Stockton* to the facts here, but the record is now even clearer that Barclay, at worst, unknowingly moved contaminants discharged by Shell from one place to another, and therefore—pursuant to *City of Stockton*—did not "discharge" waste under the California Water Code section 13304.

Mr. Bach's 2014 deposition testimony, considered with the other admissible evidence in the record, contradicts the Prosecutor's conclusion that Barclay directly discharged petroleum hydrocarbons from pipelines and other equipment. Without the unsworn 2011 Statement, there is no evidence in the record that the soil used for grading and redevelopment was impacted with petroleum hydrocarbons, and there is certainly no evidence that anyone at the time had knowledge that any soil used for grading was impacted. However, there is substantial evidence, as acknowledged by the Regional Board Prosecutor, "that Shell's operation of the Site resulted in discharges of petroleum hydrocarbon waste that presently remain on the Site."²²

In *City of Stockton*, the Court of Appeals held that an "otherwise innocent party" who engages in conduct which "*happens to affect the distribution of contamination released by someone else*" cannot be held liable for creating or assisting in the creation of a nuisance. *Id.* at 675. The Regional Board Prosecutor's determination that Barclay's activities constitute a discharge is inconsistent with this ruling, and the Prosecutor's attempt to distinguish *City of Stockton* in its Comment Chart based on the fact that Barclay owned the property²³ (whereas the Railroads in the case did not) is unavailing. The question of ownership was irrelevant to the Court's analysis in *City of Stockton*; rather, the Court considered the nature of the Railroad's activities as they related to the original contaminant spill. And even if ownership is relevant under *City of Stockton* (and it is not), Shell, not Barclay, owned the property

²¹ See, e.g., Comment Chart at 20.

²² Comment Chart at 20.

²³ Comment Chart at 15.



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during the time of the tank decommissioning and grading activities at issue here. Further, Barclay—as with the Railroads in *City of Stockton*—“did not in any way cause or permit the *initial discharge* of petroleum at the Site,” *id.* at 677 (emphasis added); Barclay’s redevelopment activities, conducted for the purposes of drainage and soil stability, was “conduct . . . wholly unrelated to the contamination,” *id.* at 674; and Barclay’s “involvement with [Shell’s] petroleum *spill* was not only remote, it was nonexistent. . . . Therefore [Barclay, like the Railroads] did not ‘cause or permit’ the discharge under [California Water Code section] 13304.” *Id.* at 678 (emphasis in original).

The Prosecutor further attempts to distinguish Barclay from *City of Stockton* by asserting that Barclay “actually moved the waste to where it was currently located.”²⁴ But this, too, is not enough to hold Barclay responsible under *City of Stockton*. Without the unsworn 2011 Statement, there is no evidence in the record that the berm soil used for grading activities was impacted, and so there is no evidence that Barclay “actually moved” petroleum hydrocarbon impacted soil where it is currently located. However, even if there were such evidence (there is not), the foregoing analysis would still apply to the nature of Barclay’s activities and their relation to the original petroleum hydrocarbon spill. The mere “distribution of contamination released by someone else” is insufficient to create liability. *Id.* at 675.

Because Barclay did not “cause or permit” a discharge as those terms are used in California Water Code section 13304, the only discharge of contaminants to the Site that is in need of abatement today was caused by Shell. As such, Barclay cannot be named a responsible party in the CAO under controlling State Water Resources Control Board precedent cited in the proposed revised CAO.

Moreover, under the *Wenwest* three-part test,²⁵ a prior owner can only be held responsible for the contamination caused by another party if the former owner: (1) had a significant ownership interest in the property *at the time of the discharge*; (2) had knowledge of the activities which resulted in the discharge; and (3) had the legal ability to *prevent* the discharge. Barclay arguably satisfies only the second *Wenwest* prong; as the Regional Board points out in the Tentative CAO and its Comment Chart,²⁶ Barclay entered the Site with knowledge of the presence of petroleum reservoirs. But this alone is not enough to support the conclusion that Barclay should be named to the CAO. Barclay does not satisfy the first prong because it did not own the property *at the time* Shell’s discharges to the Site occurred

²⁴ Comment Chart at 15.

²⁵ *In the Matter of Wenwest, Inc., et al.*, State Board Order No. WQ 92-13.

²⁶ CAO at 10; Comment Chart at 2.



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(which are the only contaminants on the Site and subject to abatement). The Prosecutor completely glosses over this temporal requirement, and wrongly contends that Barclay's mere ownership of "the entire Site," without consideration of the time period, suffices.²⁷ And Barclay does not satisfy the third prong because it did not have the legal ability to *prevent* Shell's discharge. The Prosecutor's assertion to the contrary is based on its conclusion that Barclay "had full control of the property" *after* Shell's discharges took place, "and took actions, such as breaking up the concrete and distributing berm soil throughout the site."²⁸ Given this timeline, Barclay was never in the position to *prevent* Shell's discharge of petroleum hydrocarbons to the Site, and the Prosecutor's position that breaking up concrete and distributing berm soil amounts to a discharge that Barclay could have "prevented" is inconsistent with the analysis in *Wenwest*, which applies the third prong to the initial discharge of contaminants. Barclay's January 21, 2014 submission to the Regional Board fully analyzes *Wenwest* and other State Water Resources Control Board precedent as they apply to Barclay, but with the November 2014 deposition of Mr. Bach it is now clearer than ever that naming Barclay to the CAO would be inconsistent with that precedent.

* * *

In light of the full administrative record, which is replete with reliable, admissible evidence, and specifically in light of the 2014 Bach Transcript, the unsworn 2011 Statement (and all of the purported "facts" based on the statement) must be disregarded, and any of the Prosecutor's conclusions based on the statement lack a proper basis. If you follow the law cited above and disregard the unsworn 2011 Statement, as you must, then you will not be able to make the determinations recommended by the Prosecutor that rely on the unsworn 2011 Statement and you cannot conclude Barclay is a discharger under California Water Code section 13304.

Sincerely,



Patrick W. Dennis

cc: Interested Persons (by email only)

²⁷ Comment Chart at 7.

²⁸ Comment Chart at 7-8. Incidentally, the Prosecutor is also wrong when arguing that Barclay "had full control of the property" when the grading activities occurred. Shell owned the property during that process, but allowed Barclay to enter the site early.



Morgan Lewis

Morgan, Lewis & Bockius LLP
300 South Grand Avenue
Twenty-Second Floor
Los Angeles, CA 90071-3132
Tel: +1.213.612.2500
Fax: +1.213.612.2501
www.morganlewis.com

Deanne L. Miller
Partner
+1.213.612.2536
dmiller@morganlewis.com

April 2, 2015

VIA FIRST CLASS AND ELECTRONIC MAIL

Ms. Deborah Smith
Chief Deputy Executive Officer
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, California 90013

**Re: TENTATIVE REVISED CLEANUP AND ABATEMENT ORDER PURSUANT
TO CALIFORNIA WATER CODE SECTION 13304 CLEANUP AND
ABATEMENT ORDER NO. R4-2011-0046**

**SITE: FORMER KAST PROPERTY TANK FARM LOCATED SOUTHEAST OF THE
INTERSECTION OF MARBELLA AVENUE AND EAST 244TH STREET,
CARSON, CALIFORNIA (SCP NO. 1230, SITE ID NO. 2040330, CAO NO. R4-
2011-0046)**

Dear Ms. Smith:

We represent Shell Oil Company ("Shell") with respect to the above-referenced matter. This letter provides comments regarding the transcript of the deposition of Mr. George Bach, dated November 19, 2014. The transcript is from the third session of Mr. Bach's deposition ("Bach Vol. 3") and was belatedly submitted to the Regional Water Quality Control Board ("Regional Board") by the Gibson Dunn law firm representing Barclay Hollander Corporation ("Barclay Hollander" or the "Developer").¹

As evidenced by the deposition and exhibits thereto, Bach Vol. 3 adds nothing new to the detailed, extensive factual and technical analyses that have already been conducted by the Regional Board Site Cleanup Program staff. Instead, Bach Vol. 3 merely confirms information previously stated by Mr. Bach and already considered by the Regional Board Site Cleanup

¹ The transcripts of Mr. Bach's first two deposition sessions (dated March 7 and 11, 2013) and the Declaration of George Bach, based on his personal knowledge and signed with his engineering licenses listed (dated March 13, 2011), are already a part of the record in this matter, along with a subsequent declaration prepared by Gibson Dunn and signed by Mr. Bach.



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Program staff. Bach Vol. 3 should not in any way change or modify the recommendation and decision that the Tentative Revised Cleanup and Abatement Order No. R4-2011-0046 for the Former Kast Property Tank Farm ("Revised CAO") should be issued, adding Barclay Hollander as a responsible party. There is nothing new, and there most certainly is not "substantial additional and critical evidence" not yet considered by the Regional Board staff.

Specifically, in Bach Vol. 3, Mr. Bach *confirmed* that he prepared his 2011 declaration on his computer, that he labeled the document the "Declaration of George Bach," and that the declaration is based on his personal knowledge. [Bach Vol. 3, 75:11-76:20.] Mr. Bach signed the declaration and listed his registered civil engineering license and geotechnical engineering license next to his signature. [Bach Vol. 3, 77:4-19.] Mr. Bach's 2011 declaration reflected his recollection of the Kast property and the Carousel development. [Bach Vol. 3, 77:23-78:2.] He prepared it "in [his] own words," based on his personal knowledge with his signature and licenses behind it, and it was "[his] story." [Bach Vol. 3, 78:12-16; 106:9-14; 186:9-11.] In Bach Vol. 3, Mr. Bach reiterates the details of his recollection, repeating the facts that the Regional Board Site Cleanup Program staff has already appropriately considered from the previously submitted evidence.

Prior to giving this deposition, Mr. Bach met privately for hours with lawyers for Barclay Hollander. In some of his deposition testimony, Mr. Bach attempted to downplay his own personal knowledge of the presence of petroleum in the soil at the Site while he was working there. However, the fact that the Developer was aware of the presence of petroleum in the soil at the Site starting at the surface is evidenced by contemporaneous records. In particular, a Pacific Soils Engineering report dated March 11, 1996, which has previously been submitted to the Regional Board, stated unequivocally that soil found on the Site was "highly oil stained" and had a "petroleum odor." It is undisputed that the Developer took virtually no steps to remove this petroleum before constructing the homes, and disrupted and distributed that petroleum-containing soil during the Developer's work and activities at the Site.

As you know, Shell has been cooperating with the Carousel neighborhood investigation since 2008 and performing under the CAO since it was issued on March 11, 2011. Shell has undertaken exhaustive efforts at tremendous expense to comply. Shell has been and continues to be committed to the investigation and remediation process and to implementing its revised Remedial Action Plan ("RAP") in the Carousel neighborhood upon its approval.

There is substantial evidence that Barclay Hollander is a responsible party and discharger under the California Water Code and applicable law. The Regional Board Site Cleanup Program staff correctly concluded that

after review of the detailed comments on the proposed draft revised CAO, technical literature, and data from the Site investigation, that Barclay (1) acquired the Former Kast Tank



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Farm with explicit knowledge that it was a crude oil storage facility, and general knowledge of the presence of petroleum hydrocarbons; (2) agreed to and did decommission the reservoirs after acquiring the property; (3) had explicit knowledge of the presence of petroleum hydrocarbons in the reservoirs, under the reservoirs, in the reservoir berms, in the swing pit, in the pump house, and in the pipeline areas; (4) removed a miniscule amount of soil saturated with petroleum hydrocarbons, and removed soil based only on geotechnical considerations not on whether petroleum hydrocarbons were present, (5) distributed the remaining soil containing petroleum hydrocarbons and concrete slabs with attached wastes, i.e., petroleum hydrocarbons, around the Site during grading and development activities which accounts for the distribution of petroleum hydrocarbons in on-site shallow soils and soil vapor, and could not have resulted from the alleged mechanism of upward capillary migration; and (6) ripped open and removed concrete slabs causing and contributing to the movement of petroleum hydrocarbons into groundwater.

[Regional Board Site Cleanup Program Staff Memorandum, Dec. 8, 2014.] For these reasons, the Regional Board Site Cleanup Program staff correctly concluded and recommended that you issue the attached Revised CAO adding Barclay Hollander as a responsible party. Shell urges that the Revised CAO be issued expeditiously.

To date, the Developer has failed and refused to participate in the investigation and remediation process and has not contributed a penny to the cost thereof. For years, Shell has been incurring all of the costs associated with the investigation and remediation process. It is long past time for the Developer to contribute. Neither the Developer's delay tactics for strategic purposes in completely separate litigation nor the Developer's continued efforts to shirk its responsibility in this context should be further condoned. Shell encourages the Regional Board to issue the Revised CAO as recommended by the Regional Board Site Cleanup Program staff, Regional Board Executive Officer Sam Unger and Assistant Executive Officer Paula Rasmussen.

Sincerely,

Deanne L. Miller (MEC)

Deanne L. Miller

DLM/mmb

cc: Mr. Samuel Unger, Executive Officer
sunger@waterboards.ca.gov



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Patrick Dennis, Esq.
PDennis@gibsondunn.com
Krista Hernandez, Esq.
khernandez@gibsondunn.com
Mr. Robert Bowcock
rbowcock@irmwater.com
Frances McChesney, Esq., Senior Staff Counsel
Fmmchesney@waterboards.ca.gov
Michael Leslie, Esq.
leslie@caldwell-leslie.com
Paula Rasmussen
Paula.Rasmussen@waterboards.ca.gov
Arthur Heath
Arthur.Heath@waterboards.ca.gov
Thizar Williams
Thizar.Williams@waterboards.ca.gov
Gita Kapahi
Gita.Kapahi@waterboards.ca.gov
Jennifer Fordyce
Jennifer.Fordyce@waterboards.ca.gov
Michael Lauffer
michael.lauffer@waterboards.ca.gov
Susana Lagudis
Susana.Lagudis@waterboards.ca.gov
Teklewold Ayalew
Teklewold.Ayalew@waterboards.ca.gov
abellomo@ph.lacounty.gov
Alan.Caldwell@shell.com
BC7@fire.lacounty.gov
bjones@fire.lacounty.gov
caumais@girardikeese.com
chris.manzini@edelman.com
crangan@ph.lacounty.gov
derrick.mims@asm.ca.gov
ed.platt@shell.com
eramirez@ph.lacounty.gov
eric.boyd@mail.house.gov
idear@carson.ca.us
Jim.Carlisle@oehha.ca.gov
kim.lesniak@shell.com
kkatona@bos.lacounty.gov
ktruong@carson.ca.us



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lisa@cerrell.com
markridley-thomas@bos.lacounty.gov
mgrivetti@geosyntec.com
rclark@fire.lacounty.gov
rcustance@geosyntec.com
rettinger@geosyntec.com
Robert.Romero@dtsc.ca.gov
rtahara@bos.lacounty.gov
snourish@fire.lacounty.gov
Wendy.Arano@dtsc.ca.gov
wuroff@fire.lacounty.gov
zaft@caldwell-leslie.com
christian.osterberg@urs.com
heather.benfield@tetrattech.com
javier.weckmann@tetrattech.com
nancy.meilahn.fowler@urs.com
rebecca.frend@urs.com
roy.patterson@urs.com
henry.connelly@mail.house.gov
Kim.Clark@fire.lacounty.gov
KdeBoer@gibsondunn.com
rhernand@carson.ca.us
nhernandez@gibsondunn.com
douglas.weimer@shell.com



ATTACHMENT 16
DRAFT TENTATIVE REVISED CAO

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

CLEANUP AND ABATEMENT ORDER NO. R4-2011-0046
REQUIRING

SHELL OIL COMPANY
AND
BARCLAY HOLLANDER CORPORATION

TO CLEANUP AND ABATE WASTE
DISCHARGED TO WATERS OF THE STATE
PURSUANT TO CALIFORNIA WATER CODE SECTION 13304¹
AT THE FORMER KAST PROPERTY TANK FARM,
CARSON, CALIFORNIA

REVISED
[DATE]
(FILE NO. 97-043)

Cleanup and Abatement Order No. R4-2011-0046 (Order) requires Shell Oil Company and Barclay Hollander Corporation, (hereinafter "Discharger") to assess, monitor, and cleanup and abate the effects of petroleum hydrocarbon compounds and other contaminants of concern discharged to soil and groundwater at the former Kast Property Tank Farm facility (hereinafter, the "Site") located southeast of the intersection of Marbella Avenue and East 244th Street, in Carson, California.

On March 11, 2011, the Regional Water Quality Control Board, Los Angeles Region (Regional Board) issued the Order requiring Shell Oil Company (Shell) to investigate and cleanup the Site. On July 28, 2010 in comments on the draft Order, the law firm of Morgan Lewis on behalf of Shell, requested that the Regional Board name Dole Food Company, Inc. (Dole) and its wholly-owned subsidiary Barclay Hollander Corporation (BHC) as responsible parties in the Order ("Morgan Lewis 2010 Letter"). At that time, the Regional Board declined to add Dole and BHC to the draft Order and issued the Order to Shell only. Subsequently, on April 22, 2011 the Regional Board issued an order pursuant to California Water Code section 13267 (13267 Order) requiring Dole to provide technical information about the Site. On September 15, 2011, the law firm of Gibson Dunn on behalf of Dole provided a detailed letter and attachments in response to the 13267 Order disputing that it and/or BHC should be named as responsible parties in the Order ("Gibson Dunn 2011 Letter"). On October 31, 2013, the Regional Board's Assistant Executive Officer proposed adding BHC as a responsible party to the Order and provided

¹ Water Code section 13304 (a) states, in part: Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts.

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opportunities to submit comments on October 31, 2013 and June 3, 2014. Gibson Dunn and Morgan Lewis submitted comments. For the reasons discussed below, the Order is hereby revised to add BHC, a wholly-owned subsidiary of Dole, as a responsible party in the Order based on information provided by Shell and Dole and in the files of the Regional Board.

As of the date of this revised Order, Shell has completed many of the tasks required by the Order since its issuance on March 11, 2011. This Order is not being revised to delete tasks already completed by Shell but is being revised to add BHC as a responsible party and to make appropriate findings based on the information provided by Dole and Shell since issuance of the Order and to clarify that the Discharger is responsible for preparing draft environmental documentation. The Regional Board's files include records documenting the activities associated with this Order.

The Regional Board herein finds:

BACKGROUND

1. **Discharger:** ~~Shell Oil Company~~ Shell, previously Shell Company of California, is a Responsible Party due to its: (a) ownership of the former Kast Property Tank Farm, and (b) former operation of a petroleum hydrocarbon tank farm at the Site resulting in discharges of waste at the Site. Barclay Hollander Corporation (BHC) is a responsible party due to its (a) past ownership and/or as a successor to past owners of the Site, and (b) development of the property resulting in discharges of waste at the Site. Shell and BHC are hereafter referred to collectively as "Discharger". The actions of the Discharger have caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and have created a condition of pollution or nuisance.
2. **Location:** The Site is located southeast of the intersection of Marbella Avenue and East 244th Street in the City of Carson, California. The Site occupies approximately 44 acres of land and is bordered by the Los Angeles County Metropolitan Transportation Authority railroad right-of-way on the north, Lomita Boulevard on the south, Marbella Avenue on the west, and Panama Avenue on the east (Figure 1). The Site was previously owned by ~~the Discharger~~ Shell, who operated three oil storage reservoirs from the 1920s to the mid-1960s. The central and southern reservoirs each had a capacity of 750,000 barrels of oil and the northernmost reservoir had a capacity of 2,000,000 barrels of oil. The Site presently consists of the Carousel residential neighborhood and city streets.
3. **Groundwater Basin:** The Site is located on the Torrance Plain of the West Coast Groundwater Basin (Basin), in the southwestern part of the Coastal Plain of Los Angeles County. Beneath the Site, the first encountered groundwater is estimated at 54 feet below ground surface (bgs). The Basin is underlain by a series of aquifers, the deeper of which are used for drinking water production. These aquifers are with increasing depth, the Gage aquifer, Lynwood aquifer, and Silverado aquifer. The nearest municipal water supply well is located approximately 400 feet west of the Site. As set forth in the *Water Quality Control Plan for the Los Angeles Region* (the Basin Plan), adopted on June 13, 1994, the Regional Board has designated beneficial uses for groundwater (among which include municipal and domestic drinking water supplies) in the West Coast Basin and has established water quality objectives for the protection of these beneficial uses.

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4. As detailed in the findings below, the Discharger's activities at the Site have caused or permitted the discharge of waste resulting in soil, soil vapor, and groundwater pollution, including discharges of waste to the waters of the state, and nuisance.

SITE HISTORY

5. **Property Ownership and Leasehold Information:** Based on information submitted to the Regional Board by the Discharger, the Site has the following property ownership and leasehold history:

- a. According to the Sanborn maps dated 1924 and 1925, the Site was owned and operated by "Shell Company of California (Kast Property)" beginning in approximately 1924 until the mid-1960s. The Site was used as a tank farm, which included three crude oil storage reservoirs, Reservoir Nos. 5, 6 and 7. Reservoir No. 5, the center reservoir, had a capacity of 750,000 barrels of oil and was under lease to General Petroleum Corporation. Reservoir No. 6, the southernmost reservoir, had a capacity of 750,000 barrels of oil; and Reservoir No. 7, the northernmost reservoir, had a capacity of 2,000,000 barrels of oil. According to Sanborn map notations, the reservoirs had concrete-lined earth-slopes with frame roofs on wood posts, surrounded by earth levees averaging 20 feet in height with 7 foot wide walks on top. One oil pump house was depicted on the 1925 Sanborn map within the southern portion of the Site. Since construction, the Site was used as a crude oil storage reservoir.
- ~~b. In 1966, SOC sold the Site to Lomita Development Company, an affiliate of Richard Barclay and Barclay-Hollander-Curei (BHC), with the reservoirs in place. The Pacific Soils Engineering Reports dated January 7, 1966; March 11, 1966; July 31, 1967; and June 11, 1968 documented that: 1) Lomita Development Company emptied and demolished the reservoirs, and graded the Site prior to it developing the Site as residential housing; 2) part of the concrete floor of the central reservoir was removed by Lomita Development Company from the Site; and 3) where the reservoir bottoms were left in place, Lomita Development Company made 8-inch wide circular trenches in concentric circles approximately 15 feet apart to permit water drainage to allow the percolation of water and sludge present in the reservoirs into the subsurface.~~
- ~~c. In phases between 1967 and 1969, Lomita Development Company developed the Site into one and two story single family residential parcels and sold the developed lots to individual homeowners.~~
- d. In 1965, Richard Barclay and Shell executed a Purchase Option Agreement, wherein Richard Barclay (or his nominee) agreed to purchase the Property, subject to a favorable engineering report and other restrictions. Richard Barclay was a principal in an entity known as Barclay-Hollander-Curei. In 1966, Lomita Development Company (Lomita), a California partnership, was designated as Mr. Barclay's "nominee" and purchased the Property from Shell with the reservoirs in place. Lomita explicitly agreed in writing to complete decommissioning of the reservoirs. In phases between 1967 and



1969, Lomita developed the Site into one- and two-story single family residential parcels and sold the developed lots to individual homeowners. In 1969, a group of companies, including Lomita, merged into a company known as Barclay Hollander Curci, Inc., which was then acquired by Castle & Cooke, Inc. and it became a wholly-owned subsidiary of Castle & Cooke, Inc. Barclay Hollander Curci, Inc. continued to sell parcels to residential owners. Barclay Hollander Curci, Inc. was later renamed Barclay Hollander Corporation, Inc. (BHC). Castle & Cooke, Inc. merged with Flexi-Van Corporation in 1985, which in 1991, changed its name to Dole Food Company, Inc. BHC agreed to be responsible for the liabilities of Lomita and the other entities. BHC is currently a wholly-owned subsidiary of Dole, but has no assets.²

6. Site Description and Activities: According to information in the Regional Board's file on this Site, oil related operations at the Site began in 1923 and ended by the early 1960s. The Site was previously owned and operated by Shell Company of California, which was subsequently renamed Shell Oil Company, as a crude oil storage facility. The facility included equipment that pumped the oil to the nearby SOG's Shell refinery for processing from three concrete-lined oil storage reservoirs with a total capacity of 3.5 million barrels. In 1966, SOG Shell closed the Site and SOG sold the Site to Lomita Development Company, an affiliate of Richard Barclay and Barclay-Hollander-Curci. Subsequently, Lomita Development Company developed the Site into the Carousel residential neighborhood, which contains 285 single-family homes.

In 1965, prior to the purchase of the property from Shell, Richard Barclay and/or Barclay Hollander Curci requested permission from Shell to remove the liquid waste and petroleum residue from the property and to begin to grade the property for development. Shell agreed to allow the activities with some conditions, including that "all work done by or for [Barclay Hollander Curci] be done in a good, lawful and workmanlike manner." After purchasing the property in 1966, Lomita, as the owner of the property, actively participated in the decommissioning and grading activities. Lomita conducted the waste removal and grading activities and obtained the required permits from the County. Available information indicates that by August 15, 1966 all three reservoirs had been fully cleaned out. The Pacific Soils Engineering Reports dated January 7, 1966; March 11, 1966; July 31, 1967; and June 11, 1968³ documented that: (1) Lomita emptied and demolished the reservoirs, and graded the Site prior to it developing the Site as residential housing; (2) part of the concrete floor of the central reservoir was removed by Lomita from the Site; and (3) where the reservoir bottoms were left in place, Lomita made 8-inch wide circular trenches in concentric circles approximately 15 feet apart to permit water drainage to allow the percolation of water and sludge present in the reservoirs into the subsurface. Various documents from the soil engineer describe the process of removing water and sludge in the reservoirs, burying concrete and compacting the concrete and soil, and drilling holes in the concrete to allow for percolation into the groundwater. The County's grading permit required that concrete fill must be at least seven feet below grade. Boring logs indicated that soils beneath the concrete slab in Reservoir 7 were "highly oil stained" and that soils in the borings had a

² See Exhibit 76 to Gibson Dunn 2011 Letter.

³ See Exhibits 31, 78, 36, and 42 to Gibson Dunn 2011 Letter.



"petroleum odor, however the amount of actual oil contained in the soil is unknown."⁴ One of the soil engineering reports also indicated that soil used to fill in the reservoirs and return the Property to its natural grade came from the berms surrounding each reservoir and surrounding the perimeter of the Property.⁵ In 1967, Lomita began transferring title of individual parcels. In 1969, title to remaining parcels was granted by grant deed from Lomita to BHC. Then BHC began transferring title to the rest of the parcels.

6. **Chemical Usage:** Based on the Phase I Environmental Site Assessment (ESA) dated July 14, 2008 conducted by Shell Oil Products⁶ (SOPUS) consultant, URS Corporation, the Site was used for the storage of crude oil in all three reservoirs on the property from at least 1924 to 1966. Subsequent records indicate that in the 1960s the reservoirs may also have been used for storage of bunker oil. Ongoing investigations indicate petroleum hydrocarbon compounds including volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) are impacted in the subsurface soil, soil vapor, and groundwater underlying the Site.

EVIDENCE OF DISCHARGES OF WASTE AND BASIS FOR ORDER

7. **Waste Discharges:** The following summarizes assessment activities associated with the Site:
 - a. In 2007, under the regulatory oversight of the California Department of Toxic Substances Control (DTSC), an environmental investigation was initiated at the former Turco Products Facility (TPF). Soil vapor and groundwater were investigated in areas directly west of the Site and at locations in the northwestern portion of the Site. The DTSC-required investigation detected petroleum hydrocarbons, benzene, toluene, and chlorinated solvents in soil and soil vapor. A multi-depth soil vapor survey, which included soil vapor sampling on the Site at locations coincident with the former Kast Site footprints, detected benzene at concentrations up to 150 micrograms per liter ($\mu\text{g/l}$). Benzene was detected at TPF groundwater monitoring well MW-8, which has a northeast flow direction, at a concentration of 1,800 $\mu\text{g/l}$. Therefore, groundwater monitoring well MW-8 is located upgradient of the Kast Site. Chlorinated solvents were also detected at the Kast Site groundwater monitoring well MW-5.
 - b. The *Final Phase I Site Characterization Report* dated October 15, 2009, which was prepared by URS Corporation on behalf of SOPUS showed that soil impacts consisted primarily of petroleum hydrocarbons spanning a wide range of carbon chains and including Total Petroleum Hydrocarbons (TPH) as gasoline (g), TPH as diesel (TPHd), TPH as motor oil (TPHmo), benzene, and naphthalene (See Tables 1, 2A, 2B, and 3).

⁴ See Exhibit 78 to Gibson Dunn 2011 Letter, March 11, 1966 Report by Pacific Soils Engineering Inc.

⁵ See Exhibit 31 and Declaration of Lee Volmer, attached to Gibson Dunn 2011 Letter.

⁶ Shell Oil Products US is the d/b/a for Equilon Enterprises LLC, which is wholly owned by Shell Oil Company.



- I. In June 2009, a subsurface investigation of public streets in the Carousel neighborhood consisting of ten cone penetrometer/rapid optical screening tools (CPT/ROST) was performed. The CPT/ROST logs indicated several locations within the Site with elevated hydrocarbon concentrations. The CPT/ROST logs also showed that the highest apparent soil impacts occurred at depths of 12 feet bgs, 36 feet bgs, and 40 feet bgs.
- II. A total of 228 soil samples were collected during the Phase I Site Characterization. The analytical data for soil samples collected from soil borings advanced on public streets across the Site (Figure 2) were as follows:
 - i. The highest detected concentration of TPH was 22,000 milligrams per kilogram (mg/kg) and TPHg, TPHd, and TPHmo were 8,800, 22,000, and 21,000 mg/kg, respectively;
 - ii. Benzene, ethylbenzene, toluene, and xylenes were detected in concentrations as high as 21,000 micrograms per kilogram ($\mu\text{g}/\text{kg}$), 32,000 $\mu\text{g}/\text{kg}$, 12,000 $\mu\text{g}/\text{kg}$, and 140,000 $\mu\text{g}/\text{kg}$, respectively;
 - iii. SVOCs were detected in concentrations as high as 47 mg/kg of naphthalene, 38 mg/kg of 1-methylnaphthalene, 63 mg/kg of 2-methylnaphthalene, 12 mg/kg phenanthrene, and 9.0 mg/kg pyrene; and
 - iv. Arsenic and lead were detected in concentrations as high as 53.2 mg/kg and 52.5 mg/kg, respectively.
- III. Soil vapor samples collected from a 5-foot depth and greater below the public streets in the Carousel neighborhood indicated elevated benzene and methane (Figures 3 and 4). Benzene was detected at a maximum concentration of 3,800 $\mu\text{g}/\text{l}$, which exceeds the California Human Health Screening Level (CHHSL) value of 0.036 $\mu\text{g}/\text{l}$ for benzene set for shallow soil vapor in a residential area. Methane was also detected in concentrations as high as 59.7 % (by volume) that significantly exceed its lower explosive limit of 5% (by volume), posing a potential safety hazard.
- c. Between September 2009 and February 2010, residential soil and sub-slab soil vapor sampling was conducted at 41 parcels (Figure 5 a - f; Tables 1 and 2) and the results were as follows:
 - I. Surface and subsurface soil (0 to 10 feet bgs) detected concentrations of chemicals of concern that significantly exceeded soil screening levels as follows:
 - i. VOCs - Benzene (14,000 $\mu\text{g}/\text{kg}$), tetrachloroethylene (PCE) (22,000 $\mu\text{g}/\text{kg}$), 1,2,4-trimethylbenzene (34,000 $\mu\text{g}/\text{kg}$), and 1,3,5-trimethylbenzene (14,000 $\mu\text{g}/\text{kg}$);



- a. The results of the initial soil and soil vapor investigation indicate the presence of elevated methane and benzene at concentrations exceeding the Lower Explosive Limit and the CHHSL for shallow soil vapor, at several locations beneath the public streets at the Site. On October 15, 2009, the Regional Board directed the Discharger to expeditiously design and implement an interim remedial action.
- b. On May 12, 2010 the Regional Board approved SOPUS's proposed Soil Vapor Extraction (SVE) pilot test in order to evaluate the use of this technology as a remedial option for VOCs at the Site.

9. Summary of Findings from Subsurface Investigations

- a. Regional Board staff have reviewed and evaluated numerous technical reports and records pertaining to the release, detection, and distribution of wastes on the Site and its vicinity. The Discharger has stored, used, and/or discharged petroleum hydrocarbon compounds at the Site. Elevated levels of TPH and other wastes have been detected in soil, soil vapor and groundwater beneath the Site.
- b. The sources for the evidence summarized above include, but are not limited to:
 - I. Various technical reports and documents submitted by the Discharger or its representatives to Regional Board staff.
 - II. Site inspections conducted by Regional Board staff, as well as meetings, letters, electronic mails, and telephone communications between Regional Board staff and the Discharger and/or its representatives.
 - III. Subsurface drainage study for the Site reservoirs submitted by Girardi and Keese, the law firm retained by some of the residents of the Carousel neighborhood.

10. Summary of Current Conditions Requiring Cleanup and Abatement

- a. Based on the Phase I ESA for the Site dated July 14, 2008 (prepared by URS Corporation) and the most recent information provided to the Regional Board by SOPUS: 1) SOC sold the Kast Site to Lomita ~~Development Company~~, an affiliate of Richard Barclay and Barclay-Hollander-Curci, in 1966 with the reservoirs in place; 2) the Pacific Soils Engineering Reports from 1966 to 1968 indicate that Lomita ~~Development Company~~ emptied and demolished the reservoirs, and constructed residential housing; 3) part of the concrete floor of the central reservoir was removed by Lomita ~~Development Company~~ from the Site; and 4) where the reservoir bottoms were left in place, Lomita ~~Development Company~~ made 8-inch wide circular trenches in concentric circles approximately 15 feet apart to permit water drainage to allow percolation of water and sludge present in the reservoirs into the subsurface.
- b. There is no consistent trend in the vertical distribution of detected concentrations of petroleum hydrocarbon compounds that can be discerned from soil boring data to date. Although, the majority of the aforementioned highest detected TPH concentrations were obtained from the 2.5-foot depth samples, there were



multiple locations where the highest concentrations were in the 5-foot or 10-foot samples. This may be due to the nature of previous development activities by Lomita Development Company at the Site (i.e., the construction and demolition of the former reservoirs and site grading in preparation for development of the residential tract).

- c. On May 11, 2010, Environmental Engineering and Contracting, consultants hired by Girardi and Keese, conducted exploratory trenching in order to locate and identify the obstructions that have been frequently encountered during the advancement of shallow soil borings at many of the residential homes investigated to date. Regional Board staff observed the encountering of an approximately 8-inch thick concrete slab extending at the trench excavation termination depth of 9 feet, 2 inches. The Pacific Soils Engineering Report dated January 7, 1966 states that the reservoirs were lined with a "four inch blanket of reinforced concrete". These obstructions are presumed to be remnants of the concrete liners of the former reservoir.
- d. Results from the 169 Interim Residential Sampling Reports submitted to the Regional Board through November 17, 2010 indicate that for surface and subsurface soil sampling (0 to 10 feet bgs), the cancer risk index estimate is between 0 and 10 for 107 residential parcels, between 10 and 100 for 60 parcels, and exceeded 100 for 2 parcels. In the area where the highest cancer index is documented, SVOCs (i.e. Benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene and chrysene), benzene, and ethylbenzene were the primary chemicals of potential concern (COPCs) contributing to the cancer risk index.

For the Carousel neighborhood investigation, the Regional Board is using the most protective cancer risk screening levels recommended by the State and federal governments, which is one in one million (1×10^{-6}) additional risks. For screening purposes, the Regional Board routinely uses the most conservative (health-protective assumptions) risk based screening levels of 1×10^{-6} for the target chemical. This screening level is based on a target risk level at the lower end of the US Environmental Protection Agency (USEPA) risk management range of one-in-a-million risk (1×10^{-6}) for cancer risk and a hazard quotient of 1.

The presence of a chemical at concentrations in excess of a CHHSL does not indicate that adverse impacts to human health are occurring or will occur, but suggests that further evaluation of potential human health concerns is warranted (Cal-EPA, 2005). It should also be noted that CHHSLs are not intended to "set ... final cleanup or action levels to be applied at contaminated sites" (Cal-EPA, 2005).

- e. Results from the 169 Interim Residential Sampling Reports submitted to the Regional Board through November 17, 2010 also indicate that for the sub-slab soil vapor data collected from the residential parcels, the cancer risk index estimate was between 0 and 10 for 147 parcels, between 10 and 100 for 20 parcels, and greater than 100 for 2 parcels. The two highest cancer risk index

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were estimated as 550 and 120. In most cases, benzene was the primary contributor to the cancer risk index estimate.

- f. The Office of Environmental Health Hazard Assessment (OEHHA) performed a quantitative risk evaluation of TPH using surface and subsurface (0 to 10 feet bgs) soil TPH fractionation data for the 41 residential parcels (Table 3). Based on the risk calculation, OEHHA estimated maximum exposures for a child and compared the resulting exposure estimates of reference dosages with that provided by DTSC interim guidance dated June 16, 2009. OEHHA concluded that aromatic hydrocarbons in the C-9 to C-32 range at five parcels exceeded their reference values for children (Exhibit 1).
- g. The San Francisco Bay Regional Water Quality Control Board developed the Environmental Screening Level (ESL) as guidance for determining when concentration of TPH may present a nuisance and detectable odor. The ESL, based on calculated odor indexes, for residential land-use, is 100 mg/kg for TPHg and TPHd. The soil TPHg and TPHd data obtained from the Site were detected up to 9,800 mg/kg and 85,000 mg/kg, respectively, which exceed the ESL.

11. Pollution of Waters of the State: The Discharger has caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance. As described in this Order and the record of the Regional Board, the Discharger owned and/or operated the site in a manner that resulted in the discharges of waste. The constituents found at the site as described in Finding 8 constitute "waste" as defined in Water Code section 13050(d). The discharge of waste has resulted in pollution, as defined in Water Code section 13050(l). The concentration of waste constituents in soil and groundwater exceed water quality objectives contained in the Water Quality Control Plan for the Los Angeles Region (Basin Plan), including state-promulgated maximum contaminant levels. The presence of waste at the Site constitutes a "nuisance" as defined in Water Code section 13050(m). The waste is present at concentrations and locations that *"is injurious to health, or is indecent, or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property . . . and [a]ffects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal."*

12. Need for Technical Reports: This Order requires the submittal of technical or monitoring reports pursuant to Water Code section 13267⁷. The Discharger is required to submit the reports because, as described in the Findings in this Order, the Discharger is responsible for the discharge of waste that has caused pollution and nuisance. The reports are necessary to evaluate the extent of the impacts on water quality and public health and to determine the scope of the remedy.

⁷ Water Code section 13267 authorizes the Regional Board to require any person who has discharged, discharges, or is suspect of having discharged or discharging, waste to submit technical or monitoring program reports.



13. Although requested by the Discharger, the Regional Board is declining to name additional potentially responsible parties (PRPs) to this Order at this time. Substantial evidence indicates that the Discharger caused or permitted waste to be discharged into waters of state and is therefore appropriately named as a responsible party in this Order. Shell owned and operated the Site, then sold the property to the developers, leaving in place three reservoirs and residual petroleum hydrocarbons in at least one tank and in soil underneath and surrounding the reservoir. The residual petroleum hydrocarbons are still present at the Site and continue to cause pollution and nuisance as documented in this Order and the Regional Board files. However, the The Regional Board will continue to has investigated whether additional—potentially responsible parties (including, but not limited to, Lomita Development Company, Richard Barclay, Barclay-Hollander-Curci, Dole Foods, Inc., Barclay Hollander Corporation and/or any of its successors) and has determined that Barclay Hollander Corporation caused or permitted the discharge of waste at the Site and whether these or other parties should be named as additional responsible parties to this Order or a separate Order. The Regional Board may amend this Order or issue a separate Order in the future as a result of this investigation. Although investigation concerning additional PRPs is ongoing, the Regional Board desires to issue this Order as waiting will only delay remediation of the Site. BHC and/or its predecessor purchased the Site with explicit knowledge of the presence of the petroleum reservoirs and the presence of residual petroleum hydrocarbons and conducted various activities, including partially dismantling the concrete in the reservoirs and grading the onsite materials, thereby spreading the waste. The residual petroleum hydrocarbons are still present at the Site and continue to cause pollution and nuisance as documented in this Order and the Regional Board files. BHC is a wholly-owned subsidiary of Dole. Including BHC as a responsible party in this Order is consistent with orders of the State Water Resources Control Board construing Water Code section 13304 naming former owners who had knowledge of the activities that resulted in the discharge and the legal ability to control the continuing discharge.⁸ Including BHC as a responsible party is consistent with Water Code section 13304(j) because BHC's actions that resulted in creating pollution and nuisance were unlawful since at least 1949.² If the Regional Board becomes aware of any other responsible parties it will consider naming such persons in this Order.

14. The Discharger Shell, in a letter to the Regional Board dated May 5, 2010 (Exhibit 2), stated that it is considering a variety of potential alternatives that can be applied at specific

⁸ See, e.g., State Water Board Order No. WO 92-13 (Wenwest, Inc.); State Water Board Order WO 89-8 (Arthur Spitzer); State Water Board Order WO 86-16 (Stinnes-Western Chemical Corporation); and State Water Board Order WO 86-2 (Zoecon Corporation). See also State Water Board Order No. WO 89-13 (The BOC Group, Inc.) (holding prior owner responsible for discharges associated with an abandoned underground storage tank). Also see State Water Board Order No. WO 96-2 (County of San Diego, City of National City, and City of National City Community Development Commission) (holding County of San Diego responsible for pollution caused by landfill it operated, holding City of National City responsible for actions that contributed to the pollution, and holding City of National City Community Development Commission responsible even though it owned the property for a relatively short period of time).

⁹ See Health and Saf. Code § 5411. In Newhall Land & Farming Co. v. Superior Court, 19 Cal.App.4th 334 (1993), the court interpreted the term "nuisance" quoting Mangini v. Aerojet-General Corp., 230 Cal.App.3d 1125 (1991). (the court rejected the argument that one cannot be guilty of a nuisance unless one is in the position to abate it. The court held "Nor is it material that defendant allegedly created the nuisance at some time in the past but does not currently have a possessory interest in the property. '[N]ot only is the party who maintains the nuisance liable but also the party or parties who create or assist in its creation are responsible for the ensuing damage.'" 230 Cal.App.3d at p. 1137.

parcels and in the public streets in order to avoid environmental impacts and avoid any significant risks to human health at this Site. ~~The Discharger~~ Shell also indicated that if it becomes necessary for residents to relocate temporarily to perform this work, ~~the Discharger—Shell~~ will take appropriate steps to minimize any inconvenience and compensate them for any resulting expenses.

15. Issuance of this Order is being taken for the protection of the environment and as such is exempt from provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, sections 15061(b)(3), 15306, 15307, 15308, and 15321. This Order generally requires the Discharger to submit plans for approval prior to implementation of cleanup activities at the Site. Mere submittal of plans is exempt from CEQA as submittal will not cause a direct or indirect physical change in the environment and/or is an activity that cannot possibly have a significant effect on the environment. CEQA review at this time would be premature and speculative, as there is simply not enough information concerning the Discharger's proposed remedial activities and possible associated environmental impacts. If the Regional Board determines that implementation of any plan required by this Order will have a significant effect on the environment, the Regional Board will conduct the necessary and appropriate environmental review prior to Executive Officer approval of the applicable plan.
16. Shell submitted a proposed Remedial Action Plan (RAP) on June 30, 2014. After review of the proposed RAP, the Regional Board determined that implementation of the RAP could have a significant impact on the environment and that preparation of an environmental impact report is necessary.
17. Pursuant to section 13304 of the California Water Code, the Regional Board may seek reimbursement for all reasonable costs to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action.

THEREFORE, IT IS HEREBY ORDERED, pursuant to California Water Code section 13304 and 13267, that the Discharger shall cleanup the waste and abate the effects of the discharge, including, but not limited to, total petroleum hydrocarbons (TPH) and other TPH-related wastes discharged to soil and groundwater at the Site in accordance with the following requirements:

1. **Complete Delineation of On- and Off-Site Waste Discharges:** Completely delineate the extent of waste in soil, soil vapor, and groundwater caused by the discharge of wastes including, but not limited to, TPH and other TPH-related waste constituents at the Site into the saturated and unsaturated zones. Assessment has been ongoing under Regional Board oversight, but assessment is not yet complete. If ongoing reinterpretation of new data derived from the tasks performed suggests that modification or expansion of the tasks approved by the Regional Board is necessary for complete assessment, the Discharger is required to submit a work plan addendum(a).
2. **Continue to Conduct Groundwater Monitoring and Reporting:**
 - a. Continue the existing quarterly groundwater monitoring and reporting program previously required by the Regional Board, and



- b. As new wells are installed, they are to be incorporated into the existing groundwater monitoring and reporting program
3. **Conduct Remedial Action:** Initiate a phased cleanup and abatement program for the cleanup of waste in soil, soil vapor, and groundwater and abatement of the effects of the discharges, but not limited to, petroleum and petroleum-related contaminated shallow soils and pollution sources as highest priority.

Shallow soils in this Order are defined as soils found to a nominal depth of 10 feet, where potential exposure for residents and/or construction and utility maintenance workers is considered likely (Ref. Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities - CalEPA 1996).

Specifically, the Discharger shall:

- a. Develop a pilot testing work plan, which includes 1) evaluation of the feasibility of removing impacted soils to 10 feet and removal of contaminated shallow soils and reservoir concrete slabs encountered within the uppermost 10 feet, including areas beneath residential houses; and 2) remedial options that can be carried out where site characterization (including indoor air testing) is completed; 3) plans for relocation of residents during soil removal activities, plans for management of excavated soil on-site, and plans to minimize odors and noise during soil removal. The Discharger is required to submit this Pilot Test Work Plan to the Regional Board for review and approval by the Executive Officer no later than 60 days after the date of issuance of this Order. Upon approval of the Pilot Test Work Plan by the Executive Officer, the Discharger shall implement the Pilot Test Work Plan submit the Pilot Test Report that includes the findings, conclusions, and recommendations within 120 days of the issuance of the approval of the Pilot Test Work Plan.
- b. Conduct an assessment of any potential environmental impacts of the residual concrete slabs of the former reservoir that includes: (1) the impact of the remaining concrete floors on waste migration where the concrete floors might still be present; (2) whether there is a need for the removal of the concrete; and (3) the feasibility of removing the concrete floors beneath (i) unpaved areas at the Site, (ii) paved areas at the Site, and (iii) homes at the Site. The Discharger is required to submit this environmental impact assessment of the residual concrete slabs to the Regional Board no later than 30 days after the completion of the Pilot Test.
- c. Prepare a full-scale impacted soil Remedial Action Plan (RAP) for the Site. The Discharger is required to submit the RAP to the Regional Board for review and approval by the Executive Officer no later than 60 days after the date of the Executive Officer's approval of the Pilot Test Report.
1. The RAP shall include, at a minimum, but is not limited to:



- i. A detailed plan for remediation of wastes in shallow soil that will incorporate the results from the Soil Vapor Extraction Pilot Test currently being performed.
 - ii. A plan to address any impacted area beneath any existing paved areas and concrete foundations of the homes, if warranted;
 - iii. A detailed surface containment and soil management plan;
 - iv. An evaluation of all available options including proposed selected methods for remediation of shallow soil and soil vapor; and
 - v. Continuation of interim measures for mitigation according to the Regional Board approved Interim Remediation Action Plan (IRAP).
 - vi. A schedule of actions to implement the RAP.
- II. The RAP, at a minimum, shall apply the following guidelines and Policies to cleanup wastes in soil and groundwater. The cleanup goals shall include:
- i. Soil cleanup goals set forth in the Regional Board's *Interim Site Assessment and Cleanup Guidebook, May 1996*, waste concentrations, depth to the water table, the nature of the chemicals, soil conditions and texture, and attenuation trends, human health protection levels set forth in *USEPA Regional Screening Levels (Formerly Preliminary Remediation Goals)*, for evaluation of the potential intrusion of subsurface vapors (soil vapor) into buildings and subsequent impact to indoor air quality, California Environmental Protection Agency's *Use of Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties*, dated January 2005, or its latest version, and Total Petroleum Hydrocarbon Criteria Working Group, Volumes 1 through 5, 1997, 1998, 1999; Commonwealth of Massachusetts, Department of Environmental Protection, *Characterizing Risks Posed by Petroleum Contaminated Sites: Implementation of MADEP VPH/EPH approach*; MADEP 2002; Commonwealth of Massachusetts, Department of Environmental Protection, *Updated Petroleum Hydrocarbon Fraction Toxicity Values for the VPH/EPH/APH Methodology*; MADEP 2003; Commonwealth of Massachusetts, Department of Environmental Protection, Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH) Final, MADEP 2008, Soil vapor sampling requirements are stated in the *DTSC Interim Guidance* and the Regional Board's *Advisory*



-- *Active Soil Gas Investigations*, dated January 28, 2003, or its latest version, DTSC's *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air*, revised February 7, 2005, or its latest version, USEPA Risk Assessment Guidance for Superfund, Parts A through E; USEPA User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings, 2003; USEPA Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites, 2002; USEPA Supplemental Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites, 2002; CalEPA Selecting Inorganic Constituents as Chemicals of Potential Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities, CalEPA DTSC, February 1997; CalEPA Use of the Northern and Southern California Polynuclear Aromatic Hydrocarbons (PAH) Studies in the Manufactured Gas Plant Site Cleanup Process, CalEPA DTSC, July 2009. Cleanup goals for all contaminant of concerns shall be based on residential (i.e., unrestricted) land use.

- ii. Groundwater cleanup goals shall at a minimum achieve applicable Basin Plan water quality objectives, including California's Maximum Contaminant Levels or Action Levels for drinking water as established by the California Department of Public Health, and the State Water Resources Control Board's "Antidegradation Policy" (State Board Resolution No. 68-16), at a point of compliance approved by the Regional Board, and comply with other applicable implementation programs in the Basin Plan.
- iii. The State Water Resources Control Board's "Antidegradation Policy", which requires attainment of background levels of water quality, or the highest level of water quality that is reasonable in the event that background levels cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of water, and not result in exceedence of water quality objectives in the Regional Board's *Basin Plan*.
- iv. The State Water Resources Control Board's "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304" (State Board Resolution No. 92-49), requires cleanup to background or the best water quality which is reasonable if background levels cannot be achieved and sets forth criteria to consider where cleanup to background water quality may not be reasonable.



III. The Discharger shall submit site-specific cleanup goals for residential (i.e., unrestricted) land use for the Executive Officer's approval concurrent with the submittal date of the Pilot Test Report. The proposed site-specific cleanup goals shall include detailed technical rationale and assumptions underlying each goal.

IV. Upon approval of the RAP by the Executive Officer, the Discharger shall implement the RAP within 60 days of the issuance of the approval of the RAP.

- d. Continue to conduct residential surface and subsurface soil and sub-slab soil vapor sampling under the current Regional Board approved work plan dated September 24, 2009. If the ongoing reinterpretation of new assessment data derived from the tasks described in the work plan suggests that modification or expansion of the tasks proposed in the RAP is necessary for complete cleanup, then the Discharger shall submit addenda to the September 24, 2009 work plan to the Regional Board for review and approval by the Executive Officer no later than 60 days of the date of issuance of this Order.
- e. If the ongoing groundwater monitoring and investigation warrants, the Discharger shall:
 - I. Install new wells in order to complete the groundwater monitoring well network and to fully delineate the impacted groundwater plume, and
 - II. Prepare a detailed impacted groundwater RAP. The Regional Board will set forth the due date of the groundwater RAP at a later date.

4. Public Review and Involvement:

- a. Cleanup proposals and RAP submitted to the Regional Board for approval in compliance with the terms of this Order shall be made available to the public for a minimum 30-day period to allow for public review and comment. The Regional Board will consider any comments received before taking final action on a cleanup proposal and RAP.
- b. The Discharger shall encourage public participation. The Discharger is required to prepare and submit a Public Participation Plan for review and approval by the Executive Officer, with the goal of having the Regional Board provide the stakeholders and other interested persons with:
 - I. Information, appropriately targeted to the literacy and translational needs of the community, about the investigation and remedial activities concerning the discharges of waste at the Site; and
 - II. Periodic, meaningful opportunities to review, comment upon, and to influence investigation and cleanup activities at the Site.



- c. Public participation activities shall coincide with key decision making points throughout the process as specified or as directed by the Executive Officer of the Regional Board.
 - d. The Discharger shall prepare draft environmental documentation evaluating the potential environmental impacts associated with the implementation of the RAP and submit to the Regional Board as directed by the Executive Officer.
5. **Time Schedule:** The Discharger shall submit all required technical work plans and reports by the deadlines stated in this Order, which are summarized in Table 4. As field activities at this Site are in progress, additional technical documents may be required and/or new or revised deadlines for the technical documents may be issued. Therefore, Table 4 may be updated as necessary. The Discharger shall continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished to fully comply with this Order..
6. The Regional Board's authorized representative(s) shall be allowed:
 - a. Entry upon premises where a regulated facility or activity is located, conducted, or where records are stored, under the conditions of this Order;
 - b. Access to copy any records that are stored under the conditions of this Order;
 - c. Access to inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. The right to photograph, sample, and monitor the Site for the purpose of ensuring compliance with this Order, or as otherwise authorized by the California Water Code.
7. **Contractor/Consultant Qualification:** A California licensed professional civil engineer or geologist, or a certified engineering geologist or hydrogeologist shall conduct or direct the subsurface investigation and cleanup program. All technical documents required by this Order shall be signed by and stamped with the seal of the above-mentioned qualified professionals.
8. This Order is not intended to permit or allow the Discharger to cease any work required by any other Order issued by this Regional Board, nor shall it be used as a reason to stop or redirect any investigation or cleanup or remediation programs ordered by this Regional Board or any other agency. Furthermore, this Order does not exempt the Discharger from compliance with any other laws, regulations, or ordinances which may be applicable, nor does it legalize these waste treatment and disposal facilities, and it leaves unaffected any further restrictions on those facilities which may be contained in other statutes or required by other agencies.
9. The Discharger shall submit 30-day advance notice to the Regional Board of any planned changes in name, ownership, or control of the facility; and shall provide 30-



day advance notice of any planned physical changes to the Site that may affect compliance with this Order. In the event of a change in ownership or operator, the Discharger also shall provide 30-day advance notice, by letter, to the succeeding owner/operator of the existence of this Order, and shall submit a copy of this advance notice to the Regional Board.

10. Abandonment of any groundwater well(s) at the Site must be approved by and reported to the Executive Officer of the Regional Board at least 14 days in advance. Any groundwater wells removed must be replaced within a reasonable time, at a location approved by the Executive Officer. With written justification, the Executive Officer may approve of the abandonment of groundwater wells without replacement. When a well is removed, all work shall be completed in accordance with California Department of Water Resources Bulletin 74-90, "California Well Standards," Monitoring Well Standards Chapter, Part III, Sections 16-19.
11. The Regional Board, through its Executive Officer or other delegate, may revise this Order as additional information becomes available. Upon request by the Discharger, and for good cause shown, the Executive Officer may defer, delete or extend the date of compliance for any action required of the Discharger under this Order. The authority of the Regional Board, as contained in the California Water Code, to order investigation and cleanup, in addition to that described herein, is in no way limited by this Order.
12. Any person aggrieved by this action of the Regional Board may petition the State Water Resources Control Board (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.
13. Failure to comply with the terms or conditions of this Order may result in imposition of civil liabilities, imposed either administratively by the Regional Board or judicially by the Superior Court in accordance with Sections 13268, 13308, and/or 13350, of the California Water Code, and/or referral to the Attorney General of the State of California.
14. None of the obligations imposed by this Order on the Discharger are intended to constitute a debt, damage claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations are imposed pursuant to the police powers of the State of California intended to protect the public health, safety, welfare, and environment.



Shell Oil Company
Former Kast Property Tank Farm
Cleanup and Abatement Order No. R4-2011-0046

- 19 -

File No. 97 - 043

Ordered by: _____

Date: _____

Deborah Smith
Chief Deputy Executive Officer



ATTACHMENTS

FIGURES

- Figure 1: Site Vicinity Map
- Figure 2: Previous Exploration Location
- Figure 3: Proposed Soil Vapor Sampling Locations
- Figure 4: Benzene and Methane Concentrations in Soil Vapor
- Figure 5a: Carousel Houses Tested as of March 15, 2010
- Figure 5b: Residential Methane Screening Results as of March 15, 2010
- Figure 5c: Summary of Results of Testing for Benzene Concentrations in Soil Vapor as of March 15, 2010
- Figure 5d: Summary of Results of Testing for Non-Benzene Concentrations in Soil Vapor as of March 15, 2010
- Figure 5e: Summary of Soil Sampling Results (0-10' Below Surface) as of March 15, 2010
- Figure 5f: Methane Concentrations in Soil Vapor at 5 Feet Below Surface as of March 15, 2010
- Figure 6: Proposed Groundwater Monitoring Well Locations

TABLES

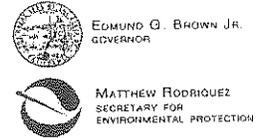
- Table 1: Data Summary from Phase I and Phase II Site Characterization for Soil and Soil Vapor
- Table 2A: Summary of Soil Samples Analytical Results -VOCs, SVOCs, and TPH
- Table 2B: Summary of Soil Vapor Analytical Results -VOCS and Fixed Gases
- Table 3: Maximum Concentration of Aliphatic and Aromatic Hydrocarbons by Hydrocarbon Fractionations at Individual Properties
- Table 4: Deadlines for Technical Work Plans and Reports

EXHIBITS

- Exhibit 1: OEHHA's Memorandum dated May 19, 2010
- Exhibit 2: Shell Oil Company Letter to the Regional Board dated May 5, 2010

Note: All Figures and Tables, except Table 4, were taken from technical reports prepared by SOPUS's consultant, URS Corporation





Los Angeles Regional Water Quality Control Board

April 17, 2015

Via E-Mail Only

TO ALL PARTIES AND INTERESTED PERSONS:

Advisory Team Members, Review of Tentative Revised Cleanup and Abatement Order No. R4-2011-0046, Former Kast Property Tank Farm

The Regional Water Quality Control Board, Los Angeles Region (Regional Board), is considering a Revised Cleanup and Abatement Order No. R4-2011-0046 for the Former Kast Property Tank Farm (Revised CAO). This memo is to notify parties and interested persons that Mr. Eric Wu, Ph.D., P.E. (Senior Water Resources Control Engineer) and Mr. Peter Raftery, P.G., C.Hg. (Engineering Geologist), in addition to Ms. Nicole Kuenzi (Staff Counsel), are the staff members of the advisory team assisting Ms. Deborah Smith regarding the Tentative Revised CAO. None of the members of the advisory team have participated in or received any *ex parte* communications regarding substantive or controversial procedural issues within the scope of this proceeding with or from the Site Cleanup Program Staff, or other parties or interested persons, during the pendency of this proceeding.

During the remainder of this proceeding, there shall be no *ex parte* communications with Ms. Deborah Smith or the advisory team staff regarding substantive or controversial procedural issues within the scope of the proceeding. (Gov. Code, §§ 11430.10-11430.80.) Any communications regarding potentially substantive or controversial procedural matters, including but not limited to evidence, briefs, and motions, must demonstrate that all parties were served and the manner of service. Parties may accomplish this by submitting a proof of service or by other verification, such as correct addresses in an electronic-mail carbon copy list, or a list of the parties copied and addresses in the carbon copy portion of a letter. Communications regarding non-controversial procedural matters are permissible. (Gov. Code, § 11430.20, subd. (b).) A document regarding *ex parte* communications entitled "Ex Parte Questions and Answers" is available upon request or from our website at:
http://www.waterboards.ca.gov/laws_regulations/docs/exparte.pdf.

Expected Action on Tentative Revised Cleanup and Abatement Order No. R4-2011-0046, Former Kast Property Tank Farm

In light of the resolution of pending procedural matters and the close of the comment period on additional admitted evidence, the Regional Board intends to issue a final action regarding the Tentative Revised CAO on or shortly after April 24, 2015.



If you have any questions regarding any of this information, please contact me at (916) 322-4142 or at nicole.kuenzi@waterboards.ca.gov.

Sincerely,

/s/ Nicole L. Kuenzi

Nicole L. Kuenzi
Attorney for the Los Angeles Regional Water Board

Cc:

Ms. Deborah Smith
Chief Deputy Executive Officer
dsmith@waterboards.ca.gov

Mr. Samuel Unger
Executive Officer
sunger@waterboards.ca.gov

Patrick Dennis, Esq.
Gibson Dunn & Crutcher LLP
PDennis@gibsondunn.com

Krista Hernandez, Esq.
Gibson Dunn & Crutcher LLP
khernandez@gibsondunn.com

Deanne Miller, Esq.
Morgan, Lewis & Bockius LLP
dmliller@morganlewis.com

Mr. Robert Bowcock
Integrated Resource Management, Inc.
rbowcock@irmwater.com

Frances McChesney, Esq.
Senior Staff Counsel
Fmcchesney@waterboards.ca.gov

Michael Leslie, Esq.
Caldwell Leslie & Proctor, PC
leslie@caldwell-leslie.com

Interested parties e-mail list maintained by the Regional Board:

Bellomo, Angelo (LOS ANGELES COUNTY) <abellomo@ph.lacounty.gov>;
'Alan.Caldwell@shell.com';
'bbowcock@irmwater.com';
'BC7@fire.lacounty.gov';
'bjones@fire.lacounty.gov';
'caumais@girardikeese.com';
'chris.manzini@edelman.com';
'crangan@ph.lacounty.gov';
'derrick.mims@asm.ca.gov';
'ed.platt@shell.com';
'eramirez@ph.lacounty.gov';
'eric.boyd@mail.house.gov';
'jdear@carson.ca.us';
Carlisle, Jim@OEHHA <Jim.Carlisle@oehha.ca.gov>;
'kim.lesniak@shell.com';
'kkatona@bos.lacounty.gov';
'ktruong@carson.ca.us';
'leslie@caldwell-leslie.com';
'lisa@cerrell.com';



'markridley-thomas@bos.lacounty.gov';
'MarkGrivetti (mgrivetti@geosyntec.com) (mgrivetti@geosyntec.com)';
'rclark@fire.lacounty.gov';
'rcustance@geosyntec.com';
'Robbie Ettinger (rettinger@geosyntec.com) (rettinger@geosyntec.com)';
Romero, Robert@DTSC <Robert.Romero@dtsc.ca.gov>;
'rtahara@bos.lacounty.gov';
'rvasquez@ph.lacounty.gov';
'snourish@fire.lacounty.gov';
Arano, Wendy@DTSC <Wendy.Arano@dtsc.ca.gov>;
'wuroff@fire.lacounty.gov';
'zaft@caldwell-leslie.com';
'Christian Osterberg (christian.osterberg@urs.com)';
'heather.benfield@tetrattech.com';
'javier.weckmann@tetrattech.com';
'Nancy MeilahnFowler (nancy.meilahn.fowler@urs.com)';
'Rebecca Frend (rebecca.frend@urs.com)';
'Roy Patterson (roy.patterson@urs.com)';
Romero, Robert@DTSC <Robert.Romero@dtsc.ca.gov>;
Unger, Samuel@Waterboards <Samuel.Unger@waterboards.ca.gov>;
Rasmussen, Paula@Waterboards <Paula.Rasmussen@waterboards.ca.gov>;
Heath, Arthur@Waterboards <Arthur.Heath@waterboards.ca.gov>;
Williams, Thizar@Waterboards <Thizar.Williams@waterboards.ca.gov>;
Kapahi, Gita@Waterboards <Gita.Kapahi@waterboards.ca.gov>;
Fordyce, Jennifer@Waterboards <Jennifer.Fordyce@waterboards.ca.gov>;
McChesney, Frances@Waterboards <Frances.McChesney@waterboards.ca.gov>;
'eric.boyd@mail.house.gov';
'henry.connelly@mail.house.gov';
Lauffer, Michael@Waterboards <michael.lauffer@waterboards.ca.gov>;
'crangan@ph.lacounty.gov';
'Kim.Clark@fire.lacounty.gov';
'deBoer, Krista (KdeBoer@gibsondunn.com)';
Lagudis, Susana@Waterboards <Susana.Lagudis@Waterboards.ca.gov>;
'pdennis@gibsondunn.com';
'rhernand@carson.ca.us';
'nhernandez@gibsondunn.com';
Doug Weimer (douglas.weimer@shell.com) (douglas.weimer@shell.com);
Ayalew, Teklewold@Waterboards <Teklewold.Ayalew@waterboards.ca.gov>



VIA FIRST CLASS AND ELECTRONIC MAIL

Deborah Smith
Chief Deputy Executive Officer
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles CA 90013

Re: TENTATIVE REVISED CLEANUP AND ABATEMENT ORDER NO. R4-2011-0046

SITE: FORMER KAST PROPERTY TANK FARM LOCATED SOUTHEAST OF THE INTERSECTION OF MARBELLA AVENUE AND EAST 244TH STREET, CARSON CA (SCP NO. 1230, SITE ID NO. 2040330 CAO NO. R-2011-0046)

Dear Ms. Smith:

We represent Barclay Hollander Corporation (“Barclay”) with respect to the foregoing matter. This letter is in reference to Nicole L. Kuenzi’s April 17, 2014 notice regarding expected action on the Tentative Revised Cleanup and Abatement Order for the Kast Site (“Tentative Revised CAO”). The notice states that “the Regional Board intends to issue a final action regarding the Tentative Revised CAO on or shortly after April 24, 2015.”

Your February 27, 2015 correspondence states the following under the heading “Deposition Testimony of Site Cleanup Program Staff”:

The Regional Board is aware of pending subpoenas for the depositions of certain staff of the Regional Board who are members of the Site Cleanup Program Staff with respect to the matter. Should these depositions go forward, the Regional Board will consider at a future time and upon the request of any party, whether to accept the deposition transcripts into the evidentiary record.

On April 10, the Court in *Adelino Acosta, et. al. v. Shell Oil Company, et al.* Los Angeles County Superior Court, Case No. NC053643, ordered the depositions of Dr. Teklewold Ayalew and Samuel Unger to go forward, and Barclay has reserved the right to take the depositions of Thizar Tintut-Williams and Paula Rasmussen if necessary. Dr.



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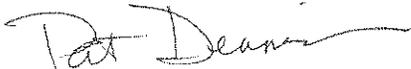
Deborah Smith
April 22, 2015
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Ayalew's deposition is scheduled for May 6-7 (just two weeks after the intended date of the Regional Board's action) and Barclay is waiting for confirmation from the Regional Board regarding dates for Mr. Unger's deposition.

In light of the upcoming depositions of Site Cleanup Program Staff, we urge you to defer making any determination regarding whether to name Barclay in the Tentative Revised CAO until after the Site Cleanup Program Staff depositions are complete and the Regional Board has received and reviewed the transcripts in accordance with your February 27 letter. Barclay's position has been consistent throughout this process—the Site Cleanup Program Staff deposition transcripts should be part of the evidentiary record before a final decision is made. While the purpose of the depositions will be to gather evidence related to Plaintiffs' experts' reliance on the Site Cleanup Program Staff's analysis and conclusions in the *Acosta* litigation, as recognized by your February 27 letter the testimony may be relevant to the Regional Board's determination regarding whether to accept the Site Cleanup Program Staff's recommendation to name Barclay in the Tentative Revised CAO.

Accordingly, in order to have a more complete evidentiary record upon which to base the Regional Board's determination, Barclay requests that the Regional Board defer making a decision on "a final action regarding the Tentative Revised CAO" until after the completion of the Site Cleanup Program Staff depositions and the consideration of this request "to accept the deposition transcripts into the evidentiary record" as your February 27 correspondence makes clear.

Sincerely,



Patrick W. Dennis

PWD/hhk

cc: Nicole L. Kuenzi
Attorney for the Los Angeles Regional Water Board
nicole.kuenzi@waterboards.ca.gov

Samuel Unger
Executive Officer
sunger@waterboards.ca.gov

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Deborah Smith

April 22, 2015

Page 3

Deanne Miller
Morgan, Lewis & Bockius LLP
dmliller@morganlewis.com

Robert Bowcock
Integrated Resource Management, Inc.
bbowcock@irmwater.com

Frances McChesney
Senior Staff Counsel
Frances.McChesney@waterboards.ca.gov
Fmcchesney@waterboards.ca.gov

Michael Leslie
Caldwell Leslie & Proctor, PC
leslie@caldwell_leslie.com

Alan.Caldwell@shell.com
BC7@fire.lacounty.gov
bjones@fire.lacounty.gov
caumais@girardikeese.com
chris.manzini@edelman.com
crangan@ph.lacounty.gov
derrick.mims@asm.ca.gov
ed.platt@shell.com
eramirez@ph.lacounty.gov
eric.boyd@mail.house.gov
heather.benfield@tetrattech.com
henry.connelly@mail.house.gov
javier.weckmann@tetrattech.com
jdear@carson.ca.us
Jim.Carlisle@oehha.ca.gov
Kim.Clark@fire.lacounty.gov
kim.lesniak@shell.com
kkatona@bos.lacounty.gov
ktruong@carson.ca.us
lisa@cerrell.com
markridley-thomas@bos.lacounty.gov
rclark@fire.lacounty.gov
rcustance@geosyntec.com



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April 22, 2015
Page 4

rhemand@carson.ca.us
rtahara@bos.lacounty.gov
rvasquez@ph.lacounty.gov
snourish@fire.lacounty.gov
wuroff@fire.lacounty.gov
zaft@caldwell-leslie.com
abellomo@ph.lacounty.gov
Arthur.Heath@waterboards.ca.gov
christian.osterberg@urs.com
douglas.weimer@shell.com
Gita.Kapahi@waterboards.ca.gov
Jennifer.Fordyce@waterboards.ca.gov
mgrivetti@geosyntec.com
michael.lauffer@waterboards.ca.gov
nancy.meilahn.fowler@urs.com
Paula.Rasmussen@waterboards.ca.gov
rebecca.frend@urs.com
rettinger@geosyntec.com
Robert.Romero@dtsc.ca.gov
roy.patterson@urs.com
susana.Lagudis@Waterboards.ca.gov
Teklewold.Ayalew@waterboards.ca.gov
Thizar.Williams@waterboards.ca.gov
Wendy.Arano@dtsc.ca.gov



Carousel Tract Environmental Investigation Timeline

Date	Significant Actions/Reports	Notes
March 11, 2008	DTSC informed LARWQCB about former Shell Oil Company Tank Farm	
May 2008	LAWRQCB initiated an environmental investigation	
December 2008	LAWRQCB approved proposed work plan submitted by Shell to investigate contaminants of concern	
December 31, 2008	LARWQCB issued California Water Code § 13267 Investigative Order	
October 15, 2009	Shell submitted Final Phase I Site Characterization Report	
March 2011	LARWQCB issued Cleanup and Abatement Order No. R4-201100046	
February 22, 2013	Shell submitted <i>Site-Specific Cleanup Goal Report</i>	
May 2013	LAWRQCB issued a fact sheet providing information and advising of comment period for <i>Site-Specific Cleanup Goal Report</i>	30-day comment period ending June 24, 2013
June 24, 2013	City submitted comments to <i>Site-Specific Cleanup Goal Report</i>	Forwarded reports by Everett & Associates and Soil/Water/Air Protection Enterprise
July 18, 2013	City Council conducted workshop to allow presentation by Mr. Sam Unger, Executive Director of LARWQCB	Presentation by Dr. Lorene Everett and James T. Wells PhD raising concerns related to environmental conditions
July 29, 2013	City Council adopted Resolution No. 13-081 declaring the existence of an emergency in the Carousel Tract	
July 30, 2013	Letters sent to the Governor, Attorney General, Los Angeles County Board of Supervisors and Mr. Unger	Requested immediate assistance due to emergency conditions in Carousel Tract
July 31, 2013	City staff, Mr. Bob Bowcock, Dr. Everett and Mr. Wells met with representatives of Los Angeles County Fire Department and Los Angeles County Department of Public Health	City Council declaration of emergency conditions discussed and copies of Everett & Associates reports transmitted for review

EXHIBIT NO. 3



Carousel Tract Environmental Investigation Timeline

Date	Significant Actions/Reports	Notes
August 21, 2013	LARWQCB sent detailed letter to Shell denying proposed site-specific cleanup goals and requiring revisions to be submitted by October 21, 2013	LARWQCB incorporated OEHHA Memorandum dated July 22, 2013 and UCLA Expert Panel Interim Report dated July 24, 2013
September 11, 2013	City letter to Mr. Sam Unger	Expressing appreciation from City Council and community for response to <i>Site-Specific Cleanup Goal Report</i>
September 24, 2013	LARWQCB community open house CEQA scoping meeting	Request for input from community and public agencies related to evaluation of environmental impacts; comment period ends on October 8, 2013
September 30 – October 10, 2013	LARWQCB Public Participation Specialist to conduct office hours at Carson City Hall	Opportunity for LARWQCB to meet with residents and community stakeholders
October 8, 2013	CEQA scoping comments due to LARWQCB from September 9 through October 8, 2013	Comment letters sent by City of Carson and Bob Bowcock/Barbara Post
October 10, 2013	City staff arranging for a meeting with LARWQCB, LACoFD, Los Angeles County Department of Public Health, OEHHA, Mr. Bowcock, Dr. Everett and Mr. Wells PhD	Review of technical reports and discussion of public agencies responses and actions
October 21, 2013	Shell submitted a <i>Revised Site-Specific Cleanup Goal Report</i> to LARWQCB	Shell proposed to evaluate options that provide excavation in specific areas and does not include any further evaluation associated with the removal of homes
October 24, 2013	Los Angeles County Department of Public Health Letter to City of Carson	Letter states there is not an immediate health threat from site conditions



Carousel Tract Environmental Investigation Timeline

Date	Significant Actions/Reports	Notes
October 30, 2013	LARWQCB letter to Shell for review of <i>Community Outdoor Air Sampling and Analysis Report</i>	Based on statistical tests, LARWQCB concludes that outdoor air concentrations do not differ between the site and surrounding area. Shell is required to address OEHHA comments and to develop a work plan for an additional soil-vapor survey by November 29, 2013. LARWQCB determined on January 13, 2014 that no further evaluation required
October 31, 2013	LARWQCB notice on <i>Proposed Draft Revised Cleanup and Abatement Order No. R4-2011-0046</i>	The proposed draft order names Dole Food Company, Inc. as an additional responsible party. Comments and evidence must be submitted by 12:00 p.m. on December 6, 2013. Dole Food Company has requested an extension to January 2014 to provide comments. LARWQCB approved extension to January 13, 2014. On January 7, 2014, Regional Board approved extension to January 21, 2014
November 12, 2013	Letter to Carousel Tract Owners and Occupants advising of November 19, 2013 City Council Workshop	
November 19, 2013	City Council conducted workshop with Los Angeles County Department of Public Health and Los Angeles County Fire Department	
January 8, 2014	LARWQCB response to <i>Assessment of Environmental Impact and Feasibility of Removal of Residual Concrete Reservoir Slabs</i>	Directs Shell to either remove the residential concrete slabs as appropriate or isolate the residual concrete slabs beneath the foundation of the homes and paved areas using engineering techniques to the extent necessary to address long term health risks or nuisance concerns



Carousel Tract Environmental Investigation Timeline

Date	Significant Actions/Reports	Notes
January 13, 2014	LARWQCB response to <i>Revised Community Outdoor Air Sampling and Analysis Report</i>	LARWQCB concludes that outdoor air concentrations do not differ between the site and surrounding area. No further evaluation required
January 21, 2014	Dole response to <i>Proposed Draft Revised Cleanup and Abatement Order No. R4-2011-0046</i>	Dole requested to not be included in the Draft Order since their subsidiary, Barclay Hollander Corporation, did not discharge any of the contaminants of concern
January 23, 2014	Community meeting organized by Congresswoman Hahn	Meeting to hear from residents and discuss options for obtaining improved levels of response from the Regional Board
January 23, 2014	LARWQCB response to <i>Revised Site-Specific Cleanup Goal Report</i>	LARWQCB identified deficiencies in the Shell Revised Report and directed a remedial action plan, Human Health Risk Assessment and other environmental documents be submitted by March 10, 2014
February 10, 2014	LARWQCB clarification and revision to their January 8, 2014 letter (effective date of January 13, 2014) regarding the Residential Concrete Slab Report	LARWQCB removed reference to regulations for underground storage tanks
February 23, 2014	Shell submitted a Petition for Review and Request for Hearing to the State Water Resources Control Board in the matter of Cleanup and Abatement Order R4-2011-0046 (CAO)	The State Water Resources Control Board has not responded to Shell's petition
March 10, 2014	Shell submitted Remedial Action Plan (RAP), Human Health Risk Assessment (HHRA), and draft environmental documents to LARWQCB	LARWQCB set a tentative period of 30 day to review the documents and provide opportunity for public viewing
March 19, 2014	LARWQCB filed Notice of Preparation (NOP)	Preparation of a draft Environmental Impact Report in accordance to the California Environmental Quality Act (CEQA)
March 25, 2014	LARWQCB and PCR Service Corporation met with City's staff	As part of the draft Environmental Impact Report, staff discussed transportation, noise, and odor concerns with LARWQCB and PCR



Carousel Tract Environmental Investigation Timeline

April 18, 2014	LARWQCB received comments from LAUSD regarding the NOP	LARWQCB is reviewing LAUSD comments and will provide response
April 30, 2014	LARWQCB responded to Shell's RAP, FS, and HHRA	LARWQCB rejected Shell's proposed cleanup plan and revised RAP to be submitted by Shell by June 16, 2014 by 5 p.m.
April 30, 2014	LARWQCB issued notice of violation (NOV) to Shell for failure to submit a RAP based on approved site-specific cleanup goals	LARWQCB directed Shell to comply by June 16, 2014
May 23, 2014	LARWQCB met with Shell regarding the RAP	LARWQCB discussed deficiencies and revisions with Shell
June 3, 2014	LARWQCB issued notice of opportunity for additional public comment	The deadline to submit public comments is 5 p.m. on June 16, 2014
June 4, 2014	LARWQCB granted Shell a two-week extension to submit the revised RAP, FS, and HHRA	The revised documents are due on June 30, 2014
June 16, 2014	Shell submitted additional comments regarding the Proposed Revised Draft Cleanup and Abatement Order No. RB4-2011-0046	The Regional Board is reviewing Shell's comments
June 30, 2014	Shell submitted the revised RAP, FS, and HHRA to the Regional Board	The Regional Board is reviewing the revised documents
July 7, 2014	The City of Carson sent a letter notifying the Carousel Tract residents of the availability of the RAP, FS, and HHRA via the Regional Board	The documents are part of the draft EIR process



Carousel Tract Environmental Investigation Timeline

	website	
July 22, 2014	The Regional Board is reviewing the RAP, FS, HHRA and preparing the draft EIR. Testing of property in the Carousel Tract is ongoing	Testing result and the Regional Board latest activities are available at: http://geotracker.waterboards.ca.gov/
August 25, 2014	The Regional Board is reviewing the RAP, FS, HHRA and preparing the draft EIR.	No new dates set for meeting with the Carousel Tract residents
August 27, 2014	The Regional Board released August 2014 community update for the Carousel Tract	Tentative release of proposed RAP and Draft EIR in mid October 2014
September 19, 2014	Shell submitted the RAP Relocation Plan to the Regional Board	Tentative release of proposed RAP and Draft EIR at end of October 2014, and meeting with the Carousel Tract resident is projected to begin on November 2014
October 8, 2014	The Regional Board continues preparation of Draft EIR and review of the RAP	The Regional Board required the RAP addendums to be submitted by Shell on October 20, 2014. Meeting with the Carousel Tract residents is projected to occur in the middle of November 2014
October 15, 2014	The Regional Board scheduled community meetings	The Regional Board mailed invitations of community meetings to the Carousel Tract residents
October 15, 2014	Shell submitted addendums to the RAP, FS, and HHRA	The documents are posted on the Regional Board website
November 5, 2014	The Regional Board released the draft EIR proposed RAP for public review and comment	The draft EIR, proposed RAP and support documents are available at the Carson Library, the Los Angeles Regional Board Office and website



Carousel Tract Environmental Investigation Timeline

November 12,15,18,20, 2014	The Regional Board held community group meetings with Carousel Tract residents	The discussion was centered on the draft EIR and proposed RAP
November 22, 2014	The Regional Board hosted a public meeting at the Carson Community Center	The discussion centered on the draft EIR and proposed RAP
December 3, 2014	City of Carson Environmental Commission received the draft EIR and proposed RAP for review	City staff will submit the Commission's comments to the Regional Board
December 8, 2014	The Regional Board notified Dole Food Company Inc. (Dole) of its intention to revise the Cleanup and Abatement Order No. R4-2011-0046 CAO)	Barclay Hollander Corporation (Barclay), a wholly-owned subsidiary of Dole, to be named as responsible parties to the Carousel Tract contamination
December 24, 2014	Barclay sent a written request to the Regional Board	Barclay submitted additional written evidence, and schedule a formal evidentiary hearing with the Regional Board
January 6, 2015	Barclay sent a follow up letter to its December 24, 2014 Letter to the Regional Board	Barclay submitted additional documentary evidence to the Regional Board
January 6, 2015	Shell sent a letter to the Regional Board	Shell is opposed to Barclay's requests to submit additional evidence and for a formal evidentiary hearing
January 7, 2015	Integrated Resource Management, Inc. (IRM) responded to Barclay's December 24, 2014 Letter	IRM requested appropriate notice and opportunity to be heard for Carousel Tract residents. IRM also commented on the substance of the revised CAO and attached documentary evidence
January 9, 2015	The Regional Board sent an electronic letter to all interest parties	The Regional Board will consider additional comments on pending procedural request by 5 p.m., January 16, 2015



Carousel Tract Environmental Investigation Timeline

January 15, 2015	Site Cleanup Program Staff (SCP Staff) of the regional Board sent a response letter objecting inclusion of additional evidence into the record as requested by Barclay Hollander Corporation (Barclay)	SPC Staff is requesting opportunity to respond if a hearing for additional evidence is granted by the Chief Deputy Executive Officer of the Regional Board
January 16, 2015	Barclay sent a letter to the Regional Board	Barclay clarified its scope to submit additional evidence, seek clarification from the Regional Board, and request timing of evidential hearing.
February 20, 2015	The Regional Board released a "Notification of Work" to the public	Land (public streets) and aerial photographic survey activities are tentatively scheduled from March 2, 2015 to March 20, 2015 for the Carousel Tract and surrounding area
February 27, 2015	The Regional Board replied to parties and interested persons	The Regional Board accepted Mr. George Bach deposition dated November 19, 2014 into administrative record
March 11, 2015	The SCP Staff provided explanations to assumptions and copies of graphic results	The explanation addressed the three assumptions in memo dated March 20, 2014 from Dr. C.P. Lai to SCP Staff
April 2, 2015	SCP Staff, Barclay, and Shell submitted comments to the Regional Board regarding the revised CAO	Barclay is requesting inclusion of Mr. George Bach deposition dated November 19, 2014 into administrative record. SCP Staff and Shell opposed its inclusion
April 17, 2015	The Regional Board sent letter to all parties and interested persons	Informing all parties and interest persons of the separation of functions between the Advising Team and SCP Staff. The Regional Board intends to issued final action regarding Tentative Revised CAO on or after April 24, 2015
April 22, 2015	Barclay sent a letter to the Regional Board	Barclay is requesting delay of final action regarding the Tentative Revised CAO until depositions of the SCP Staff are completed



Carousel Tract Environmental Investigation Timeline

April 30, 2015	Regional Board sent a letter to Dole and Barclay nka (BHC)	The Regional Board issued the Revised CAO adding Dole and BHC as responsible parties
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