From: Dave Parson
To: Amortl@glynnfinley.com; byoung@ci.eureka.ca.gov; cbolcom@dblawsf.com; Dave Evans; DPeacock@ensr.aecom.com; ghokkanen@hokenv.com; gps@tscgroup-inc.com; jan@grebenlaw.com; jmark.inglis@chevron.com; kbaugh@ensr.aecom.com; KFD50@sbcglobal.net; mdavidovitz@dblawsf.com; mknight@ci.eureka.ca.gov; mverhey@co.humboldt.ca.us; Niemeyer, Kim; peterk@westenvironmental.com; peterm@westenvironmental.com; rjuncal@groundzeroanalysis.com; sergioborgiotti@chevron.com; sschaffner@ci.eureka.ca.gov; Vath, Tuck
Date: 12/18/2007 10:19:13 AM
Subject: RB Case No. 1NHU630-Unocal Presentation and Inspection Report

Please disregard as these documents have been received. DWP

Happy Holidays to Project Team Members and their Families

On Monday December 3, 2007 members of the Unocal Project Team and Dr. Andy Davis of GEOMEGA presented their conceptual site model to the project team. I requested and Unocal indicated they would send the presentations by Dr. Davis to all team members. To date I have not received these presentations and herein request the presentations again.

I have attached my Site Inspection Report for your project files. This report contains one word file (body of report), one PDF file (Figure 2-1), and eight pictures (jpg images). You will have to manually assemble it into one complete document.

Cheers
Sincerely
David W. Parson PG 6037, CEG 1889
CRWQCB, North Coast Region
Cleanups Division

An Attempt to email met with mixed results due to file size issues. Due to the mixed results copies were mailed out.

DWP

California Regional Water Quality Control Board
North Coast Region
John W. Corbett, Chairman

Linda S. Adams
Secretary for
Environmental Protection

www.waterboards.ca.gov/northcoast
5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403
Phone: (877) 721-9203 (toll free) • Office: (707) 576-2220 • FAX: (707) 523-0135

Arnold
Schwarzenegger
Governor

RB Case No. 1NHU630
Site Inspection Report
for
December 7, 2007

Prepared By
David W. Parson PG 6037, CEG 1889
CRWQCB, North Coast Region
Cleanups Division

Introduction:
I arrived in Eurkea at approximately 4:00PM on Thursday, December 6, 2007. I reserved the business conference room at the Best Western Bayshore Inn in case any project team member wanted to join Mr. Peter Krasnoff of WEST Environmental Services & Technology (WEST) and I in reviewing video tapes produced by WEST and the City of Eureka of the sewer lines associated with RB Case No. 1NHU630 (Project Site). After receiving no calls or email requests from additional team members to participate in viewing the tapes with us, Mr. Krasnoff and I reviewed the video tapes.

The primary purpose in reviewing the video tapes and visiting the project site was to understand the project site's surface water drainage, lateral and main sewer line drainage from the project site, the location and status of the former waste oil underground storage tank (UST) associated with the former Unocal Service Station, the potential of an offsite source ("Norge") contributing to Tetrachloroethene (PCE) that could have entered the main sewer line system, and the discharge location for the former grease interceptor associated with former Unocal Service Station operations. To assist in this effort I applied WEST Figure 2-1 (June 2007 submittal) which shows the locations of drain lines, water lines, sanitary sewer lines and other relevant site features. Attachment A to this Site Inspection Report contains Figure 2-1, with minor modifications that were added as a result of this site inspection.

On Friday (December 7, 2007) morning following the City of Eureka's pancake breakfast at the Wharfinger Building, I went to the Project Site. There, I met Mr. Krasnoff and Mr. Ken Daer and we walked the exterior and interior of the project site as well as surrounding areas. I took some photographs and they are included in Attachment B to this report.

Following completion of site inspection activities, Mr. Kransoff and I went to City Hall at 11:00AM where we met with Mr. Mike Knight and Mr. Bruce Young to view the video tapes and discuss findings from the site inspection. Afterwards, at approximately 12:30 PM, I traveled back to Santa Rosa.

Activities and Findings:
We viewed of the video tapes on Thursday (December 6, 2007) night at the Best Western Bayshore Inn business conference room. Figure 2-1 shows four lateral sanitary sewer lines originating from the project site, and I labeled these lateral sewer lines (from south to north) D, C, B, and A, for ease of reference. In the video tapes it is possible to see where the laterals enter the main line. There were at least two locations that were identified from the video tapes where suspected leaks in the main sewer line may exist.

The lateral D Sanitary Sewer Line runs from the Project Site beneath the sidewalk, and is reported to be inactive. There is a cleanout for this lateral line in the sidewalk (please note approximate location on Figure 2-1), and it is from here that WEST reportedly entered the sewer line system to produce their video tape. The WEST videotape shows an offset in the main sewer line not long after reaching the main sewer line that spatially would exist between lateral lines D and C (see Figure 2-1 "Break Possible"). The second potential break is located between Lateral Sanitary Sewer Lines B and A, the locations of which are also visible in the mainline in the City's video tapes. These laterals are not active as they were connections for the former homes that resided on-site prior to it being a Unocal Service Station. Review of the City's video tapes indicates a potential break in the City's main sewer line between lateral sewer lines B and A at a distance of approximately 405.8 feet from the start point at the manhole on Harris Street, past a lateral entering the mainline from the west side. This location is nearby groundwater monitoring wells MW 11A and MW 11B. These groundwater monitoring wells are completed in the sidewalk and are shown on Pictures_1272007RBCaseNo.1NHU630_LookingNorthonEMW11AB, and their approximate location is shown on Figure 2-1. It appears that the location of this potential break correlates to the existing groundwater plume orientation and geometry.

Line D is shown on Figure 2-1 as being connected to two drop inlets (DIs) that collect surface water runoff from the southeastern and eastern sides of the Project Site. Based on field observations, discussions with Mr. Daer, and review of architectural drawings for the project site, it appears that the drop inlets that collect surface water runoff drain to the gutter and are not tied into the lateral D Sanitary Sewer Line as shown on Figure 2-1. The drop inlet located at the southeast side of the building (Figure 2-1) is shown on Pictures_1272007RBCaseNo.1NHU630_SEDropinlettogutter. This drop inlet discharges into the gutter on E Street as shown on Pictures_1272207RBCasweNo.1NHU630_Dropinletdraintogutter. Another picture, Pictures_1272007RBCaseNo.1NHU630_Looking east from the gutter, is taken from the gutter discharge point looking east toward the drop inlet located at the southeast side of the Project Site.

The lateral C Sanitary Sewer Line is reported to be the only active sewer line leaving the Project Site. When viewing the video tapes it is possible to see warm soapy water in the main sewer line that either originates from Normans or another self-serve laundry located across the street from, and to the south of, the Project Site.

An effort was made, based on viewing the videotapes and during the site inspection, to determine where the former grease interceptor lateral discharge line shown on Figure 2-1 discharges. There has been some discussion that it discharged to the gutter. Field evidence indicates that it does not discharge to the gutter because it would be in an existing driveway. Figure 2-1 indicates it enters the main sewer line about 10 feet north of lateral C Sanitary Sewer Line. Review of the City's video tapes identified a lateral line from the east at approximate distance 338.6 feet from the start point at the manhole in Harris Street. This lateral is thought to be lateral C Sanitary Sewer Line. No other lateral from the east was identified nearby where lateral C Sanitary Sewer Line enters the mainline. Hence, the exact location of the former grease interceptor lateral discharge line is not known precisely, but it may be that the same entry location into the mainline that served the former grease interceptor lateral discharge line and now serves the active lateral C Sanitary Sewer Line from the Project Site.

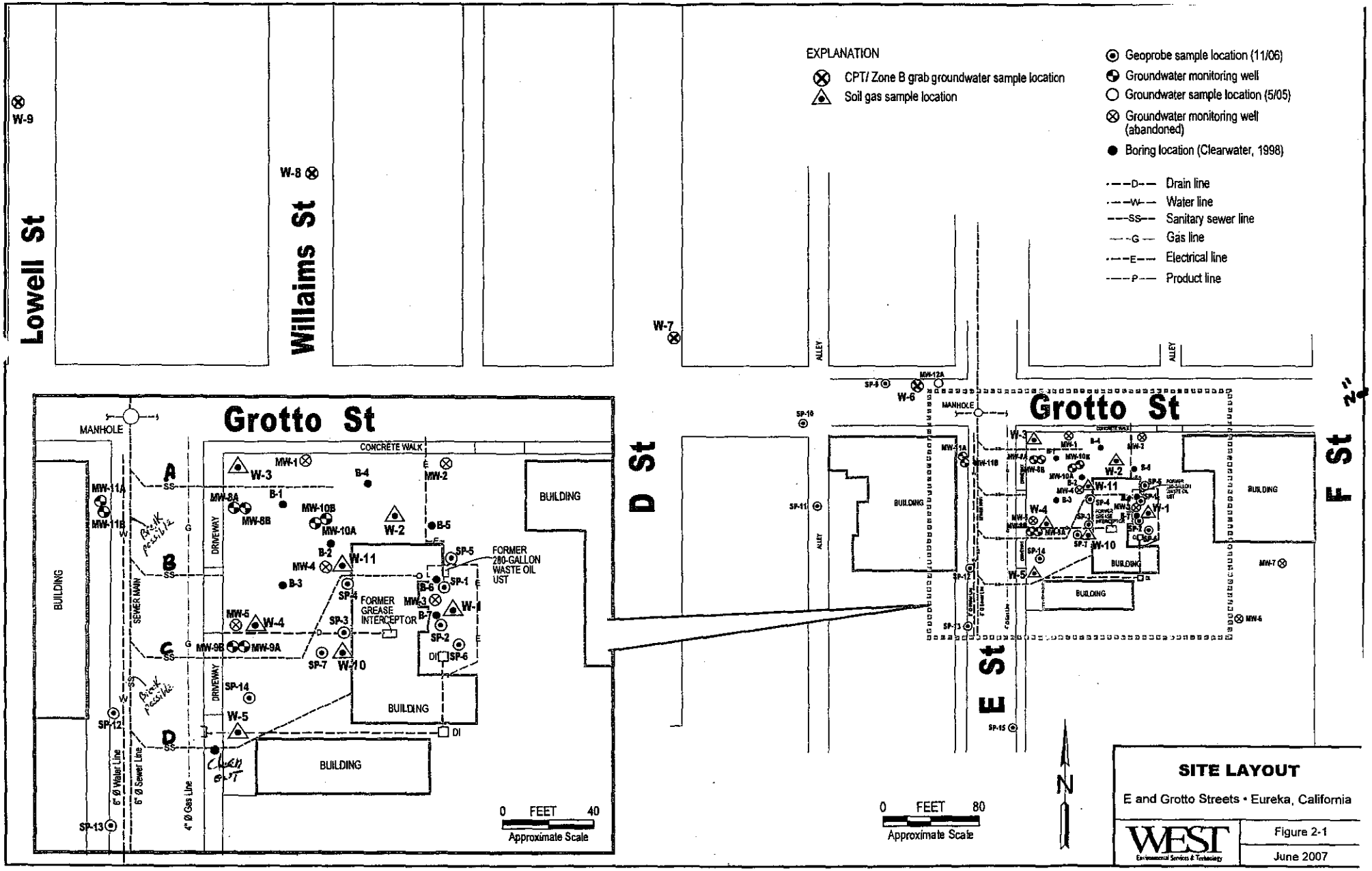
In the past there has been some discussion about other potential PCE sources that could have contributed to the high concentration of PCE identified in West's conceptual site model near the intersection of Grotto and E streets. A "Norge" dry cleaner was identified as a potential source. The building housing the "Norge" facility is on F Street where Grotto Street intersects F Street (see Figure 2-1). The building now houses the "Toy Box" and Pictures_1272007RBCaseNo.1NHU630_LookingeastonGrotto_oldNorge show this location. The lateral sewer line originating from this building runs to the mainline in F Street which runs to the north and is not connected to the mainline in front on the project site. It appears that if lateral sewer line discharges from the former "Norge" facility to the main sewer line system did occur, they did not enter the main sewer line system associated with the project site. In addition, based on the lateral direction of groundwater flow we presume that a potential leak into the groundwater from the former "Norge" site would not have contributed to the groundwater pollution originating from the Project Site.

There has also been some questions on how surface water runoff drains, and whether subsurface drainage also exist. Three photographs, Pictures_1272007RBCaseNo.1NHU630_NEcornerGrottoandE, Pictures_1272007RBCaseNo.1NHU630_SECornerGrottoandE and Pictures_1272007RBCaseNo.1NHU630_SWcornerGrottoandE, show street corners have both inlets and outlets to convey surface water runoff down the gutters and away from the Project Site. There does not appear to be any subsurface conveyance of surface water runoff other than beneath the sidewalks, and all surface water runoff appears to be collected and transported in the gutters.

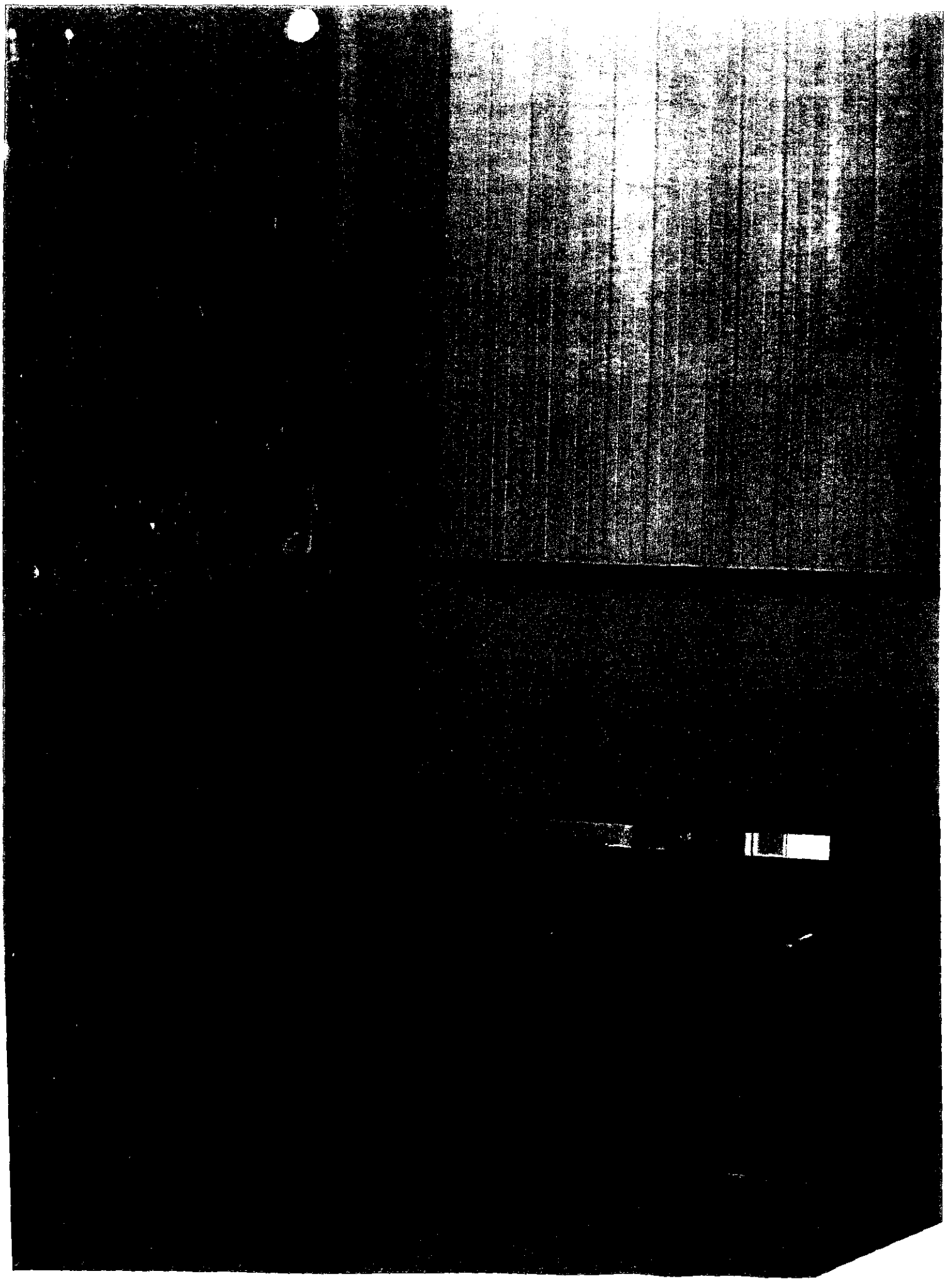
Shown on Figure 2-1 is the location of the former 280-gallon waste oil UST. Field observations suggest that the asphalt pavement was disturbed in this area, suggesting that the former UST was removed. In addition, we walked the inside of the building at the Project Site. Some of the former Unocal Service Station structure and hardware still exist. From my observations of the current operations at the Project Site I found that to implement indoor investigation work would be a major disruption to daily business activities and would likely require the business to temporarily close its doors.

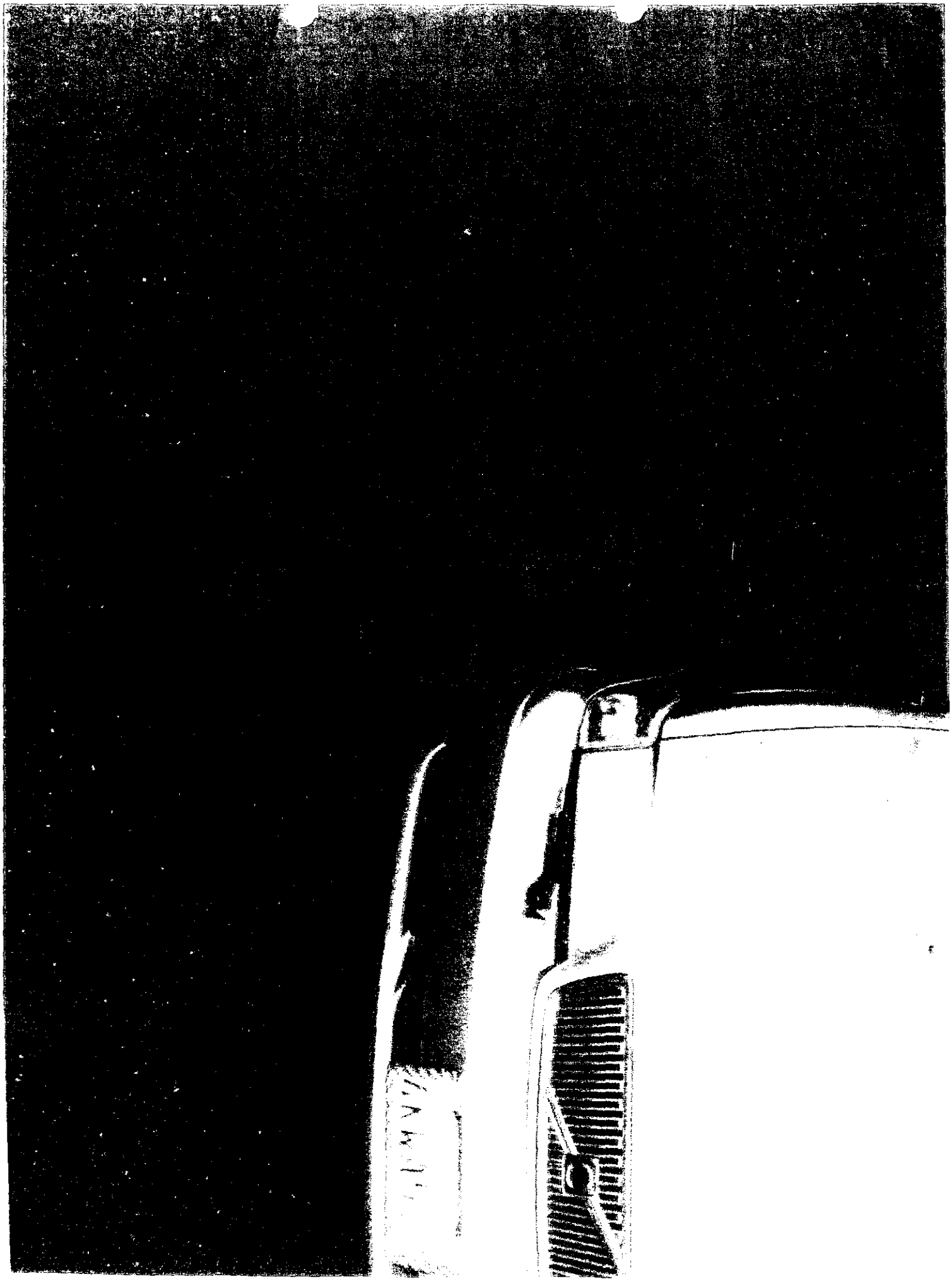
Following completion of on-site inspection activities, Mr. Krasnoff and I went to City Hall to meet Mike Knight and Bruce Young. We reviewed the video tapes, discussed findings of potential mainline leak locations, confirmed that no mainline connection from the former "Norge" site to the mainline serving the project site exists, discussed transport of PCE fluids in the mainlines and how leakage could occur, discussed mainline maintenance activities, and discussed upcoming sampling activities for dense non-aqueous phase liquids.

ATTACHMENT A
FIGURE 2-1 with modifications


EXPLANATION
CPT/ Zone B grab groundwater sample location
Soil gas sample location
Geoprobe sample location (11/06)
Groundwater monitoring well
Groundwater sample location (5/05)
Groundwater monitoring well (abandoned)
Boring location (Clearwater, 1998)
Drain line
Water line
Sanitary sewer line
Gas line
Electrical line
Product line
Lowell St
Willaims St
D St
E St
F St
Grotto St
W-9
W-8
W-7
W-6
ALLEY
MANHOLE
CONCRETE WALK
BUILDING
DRIVEWAY
SEWER MAIN
FORMER GREASE INTERCEPTOR
FORMER 280-GALLON WASTE OIL UST
6" Ø Water Line
6" Ø Sewer Line
4" Ø Gas Line
0 FEET 40
Approximate Scale
0 FEET 80
Approximate Scale
N
SITE LAYOUT
E and Grotto Streets • Eureka, California
WEST
Environmental Services & Technology
Figure 2-1
June 2007

ATTACHMENT B
PHOTOGRAPHS





_[illegible]CaseNo.INH0630_Looking east from gutter

Pictures_12/2007/RBCaseNo.INH0630_LookingNorthonEMW11AB

FOOTLONGS

Pictures_12/2007/RBCaseNo.1NHU630_SWcornerGrottoandE

EXHIBIT “M”

California Regional Water Quality Control Board
North Coast Region
Bob Anderson, Chairman

www.waterboards.ca.gov/northcoast
5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403
Phone: (877) 721-9203 (toll free) • Office: (707) 576-2220 • FAX: (707) 523-0135

Linda S. Adams
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

May 9, 2008

Charles Bolcom and Moris Davidovitz
Davidovitz & Bennett LLP
One Embarcadero Center, Suite 750
San Francisco, CA 94111-3650

Dear Mr. Bolcom and Mr. Davidovitz:

Subject: Response to Letters of March 14, and April 30, 2008

File: Norman's Dry Cleaners, 2907 E Street, Eureka, California 95501
Case Nos. 1NHU630 and 1THU694

Thank you for your letters of March 14th and April 30, 2008, identifying a number of concerns the City of Eureka has with the investigation and cleanup of the Norman's Dry Cleaners site (RB Case No. 1NHU630), and requesting that by May 12, 2008 the North Coast Regional Water Quality Control Board (Regional Water Board) issue written notice that it will not add the City as a responsible party and respond to the City's request to a hearing before the Regional Water Board. I apologize for not having had the opportunity to address your March 14, 2008 letter earlier.

A. March 14, 2008 Letter

In addressing the concerns raised in your March 14, 2008 letter, it is important for you to understand the context in which the Regional Water Board staff conducts its cleanup and abatement procedures. The Regional Water Board has over 900 cleanup sites that it is currently handling. As you can imagine, this does not allow the Regional Water Board the opportunity to address each submittal. The information provided, however, does become part of the record, and will be considered during the development of the Cleanup and Abatement Order (CAO). Similarly, the Regional Water Board's focus during the development of the CAO is to identify the potential responsible parties, the nature and extent of the contamination, and appropriate remediation actions, and is less concerned with identifying which parties are responsible for which portions of the contamination. The parties typically work that out for themselves.

Given that context, I will address each of the issues raised in the March 14th letter in the order that you identify them.

I. Sub-Floor Sampling and Materials Management History Not Necessary for Cleanup

The Regional Water Board staff does not believe that it is necessary for purposes of identifying the extent of the contamination or deciding upon cleanup and abatement actions to conduct subfloor sampling at Norman's Dry Cleaners. The Regional Water

Board follows the requirements set forth in State Water Resources Control Board Resolution No. 92-49, which are similar to the U.S. EPA's guidance for superfund sites. The policies and procedures set forth in Resolution 92-49 for the investigation of the site require:

1) A preliminary site assessment (to confirm the discharge and the identity of the dischargers; to identify affected or threatened waters of the state and their beneficial uses; and to develop preliminary information on the nature, and vertical and horizontal extent, of the discharge);
2) Soil and water investigation (to determine the source, nature and extent of the discharge with sufficient detail to provide the basis for the decisions regarding the subsequent cleanup and abatement actions, if any are determined by the Regional Water Board to be necessary);
3) Proposal and selection of cleanup and abatement actions (to evaluate feasible and effective cleanup and abatement actions, and to develop preferred cleanup and abatement alternatives);
4) Implementation of cleanup and abatement action (to implement the selected alternative, and to monitor in order to verify progress);
5) Monitoring (to confirm short- and long-term effectiveness of cleanup and abatement)

Here, the Regional Water Board staff already named Norman's Dry Cleaners in Cleanup and Abatement Order (CAO) R1-2003-0088 because we know that there were discharges of Tetrachloroethene (PCE) from that site. There is, therefore, no need to investigate to confirm the discharge or whether it came from Norman's. Although the soil and water investigations required by 92-49 look into the source, nature and extent of the discharge, these investigations are not designed to gather as much information as possible, but rather have a specific function. The results of these investigations provide the basis for the decisions regarding what cleanup actions follow. Although the potential responsible parties may want the investigations to explore issues related to which parties should be responsible for what part of the contamination, the purpose of the Regional Water Board staff's investigation is much more limited. Nonetheless, the Regional Water Board staff is not against the City or any other party conducting additional investigations, and encourages the parties to coordinate activities so that investigations into the "forensics" of the contamination can occur as the Regional Water Board staff moves forward the investigation into the source, nature and extent of the discharge, as it relates to determining appropriate cleanup actions. The Regional Water Board staff would want a workplan for any additional testing, and the City would need to negotiate site access with Norman's Dry Cleaning for any proposed testing that would occur on Norman's property.

The Regional Water Board staff does not believe that the information that you are requesting we require Norman's Dry Cleaners to provide, fits within the policies and procedures established by 92-49, and is not necessary for the cleanup of the site. Because Norman's is already a responsible party, the Regional Water Board staff does not have any need to require it to submit information regarding its handling of hazardous materials and disposal practices. Similarly, the technologies proposed in the treatability studies prepared by West Science and Technology Inc. (West) demonstrate that cleanup of Dense Non-aqueous Phase Liquid (DNAPL) from under the building can effectively occur without having to go under the building. The Regional Water Board staff believes, therefore, that it has all the information it needs to name Norman's as a responsible party and to determine the appropriate cleanup methods. This is distinct from the investigation of the City's sewer lines. The Regional Water Board staff has not

named the City as a responsible party. To see if there is a sufficient basis on which to do so, investigation of the City's sewer lines was necessary.

II. Inspection of Norman's Dry Cleaners

The December inspection by Dave Parson did not include an inspection of the inside of the dry cleaners, and instead focused on surface water drainage at the site, and a description of that inspection was provided to all of the parties. In setting the date for the inspection, the Regional Water Board staff followed the procedure that had previously been set out on the Regional Water Board staff counsel's email of November 16, 2007. There, the procedure for additional testing, site visit, and meeting with the Regional Water Board staff was to provide at least ten days notice to other parties so that they could participate, if desired. Dave Parson gave the group ample notice of the December 6, 2007 inspection in emails sent out November 15, 19 and 28, 2007. Although the City expressed disappointment that it did not have anyone to view the videotapes of the City's sewer lines with Dave Parson and Peter Krasnoff of West, the City never mentioned in the December 6, 2007 email from its counsel that the City was interested in joining the site visit.

As explained above, the Regional Water Board staff does not believe that inspection of Norman's Dry Cleaners is necessary in order to name Norman's as a responsible party or assess cleanup actions. The Regional Water Board staff understands, however, that the City would like additional testing done at the site. We believe, however, that such additional testing is less focused on characterizing the extent of the contamination, but rather on the "forensics" of which party may be responsible for what part of the site. As noted above, the Regional Water Board staff is fine with additional testing by the parties on these issues, as long as the City proposes a workplan and negotiates site access with the owner of Norman's Dry Cleansers.

III. Website Upkeep

Regional Water Board staff will continue to update the site as appropriate. Please be informed that from now on documents need to be submitted in electronic form in order to be uploaded to the website.

IV. Videotape Will Not Be Excluded

The City has raised a number of concerns regarding the quality of the videotape that West Environmental provided of the City's sewer line, and those issues will be considered by Regional Water Board staff when it evaluates the evidence in making its determination whether to name the City as a responsible party. The Regional Water Board staff, however, is denying the City's request that the videotape be completely excluded from the record.

V. Comments Provided by West on the City's January 3, 2008 Letter Were Not Made on Behalf of the Board

As the Regional Water Board staff recently clarified in an April 16, 2008 letter sent to Peter Krasnoff that the comments provided by West on the City's January 3, 2008 letter were not made on behalf of the Regional Water Board or its staff. When Mr. Krasnoff asked the Regional Water Board's staff counsel, Kim Niemeyer, whether he should respond to the comments provided by Mr. Juncal, Ms. Niemeyer's affirmative response was intended to mean that West would be providing comments on its own behalf. It is

the practice of the Regional Water Board staff to encourage the parties to respond to one another's comments. Such an exercise assists the Regional Water Board staff in assessing the evidence and the conceptual site model. In this instance, because the comments provided by Mr. Juncal's January 3, 2008 letter dealt with the conceptual site model, a response by Mr. Krasnoff, creator of the conceptual site model, was appropriate. The Regional Water Board staff counsel, however, neither requested that the comments be provided nor intended that the comments would represent the Regional Water Board staff's position. While it is the procedure in 92-49 for the Regional Water Board to "require one or more persons identified as a discharger associated with a discharge to undertake an investigation," the Regional Water Board staff is not, in any manner, turning over its authority to West to respond to comments made to the Regional Water Board. When deciding whether to name the City as a responsible party in the CAO, the Regional Water Board staff will independently review and assess all of the evidence and exercise its own judgment.

B. April 30, 2008 Letter

The Regional Water Board is unable to issue a written notice by May 12, 2008 that it will not add the City as a responsible party for cleanup and abatement of the Norman's Dry Cleaning site. The primary reason that we are declining your request is that we are still awaiting the results of testing from the site. Although we will consider the policy issues that you have raised in deciding whether to name the City in the CAO, we do not agree that the Regional Water Board should take any action prior to having all of the available information before it. As previously explained, the Regional Water Board staff is considering all of the comments and concerns raised by the City. All of the information that the City has provided, including the letters of March 14 and April 30, 2008, will be included in the record and considered by the Regional Water Board staff before the CAO is issued.

As explained in a number of previous emails and letters to the representatives of Unocal, Norman's Dry Cleaners, and the City, the process that the Regional Water Board follows consists of: 1) issuing a draft CAO to the parties; 2) providing the parties an opportunity to comment on the draft CAO; and 3) after reviewing and responding to those comments, issuing a final CAO. After the final CAO is issued, any party has the opportunity to petition the Regional Water Board for a rehearing, in addition to submitting a petition for review to the State Water Resources Control Board. We believe that this process provides the parties sufficient due process.

Sincerely,

Luis G. Rivera
Assistant Executive Officer

050908_response to Eurekaii.doc

cc: Mr. Mark Verhey, Humboldt County Department of Environmental Health, 100 H Street, Suite 100, Eureka, CA 95501
Mr. Bruce Young, Deputy Director, City of Eureka Public Works Department, 531 K Street, Eureka, CA 95501
Mr. Peter Krasnoff, PE, WEST Inc., 711 Grand Avenue, Suite 220, San Rafael, CA 94901
Mr. Peter Morris, PG, WEST Inc., 711 Grand Avenue, Suite 220, San Rafael, CA 94901
Mr. Jan Greben, Esquire, Greben & Associates, 1332 Anacapa Street, Suite 110, Santa Barbara, CA 93101
Mr. Aaron Costa, Chevron Environmental Management Company, 6001 Bollinger Canyon Road, K2256, San Ramon, CA 94583-2324
Mr. Sergio Borgiotti, Esquire, Chevron Environmental Practice Group, Law Department, 6001 Bollinger Canyon Road, T-3292, San Ramon, CA 94583
Mr. Andrew T. Mortl, Esquire, Glyn & Finley, LLP, One Walnut Creek Center, 100 Pringle Avenue, Suite 500, Wainut Creek, CA 94596
Mr. Kent Baugh, PE, ENSR, 300 Lakeside Drive, Suite 220, Oakland, CA 94612
Mr. Dave Peacock, ENSR, 300 Lakeside Drive, Suite 220, Oakland, CA 94612
Mr. Russell Juncal, PG, Ground Zero Analysis, Inc., 1714 Main Street, Escalon, CA 95320
Mr. Gary Hokkanen, Hokkanen Environmental LLC, 6125 Aspinwall Road, Oakland, CA 94611
Mr. Gabriel P. Sabadell, Ph.D., P.E., TSC Group, Inc., 5400 Ward Road, Suite V-100, Arvada, Colorado 80002
Ms. Sheryl Schaffner, Esquire, City of Eureka, 531 K Street, Eureka, CA 95501
Mr. Michael Knight, Assistant City Manager, City of Eureka, 531 K Street, Eureka, CA 95501-1146
Mr. Ken Daer, KFD Enterprises, 2907 E Street, Eureka, CA 95501

EXHIBIT "N"

CA Regional Water Quality Control Board
North Coast Region
Bob Anderson, Chairman

Linda S. Adams
Secretary for
Environmental Protection

www.waterboards.ca.gov/northcoast
5550 Skylane Boulevard, Suite A, Santa Rosa, CA 95403
Phone: (877) 721-9203 (toll free) • Office: (707) 576-2220 • FAX: (707) 523-0135

Arnold
Schwarzenegger
Governor

September 2, 2008

Mr. Ken Daer
KFD Enterprises, Incorporated
2907 E Street
Eureka, CA 95501

Dear Mr. Daer:

Subject: Action Items from August 13, 2008 Meeting

File: Norman's Dry Cleaners and Laundry, 2907 E Street, Eureka, California
Case No. 1NHU630

The California Regional Water Quality Control Board, North Coast Region, (Regional Water Board) staff wants to thank you and the other participants for your time and effort in participating in the August 13, 2008 meeting at our office in Santa Rosa, California. Our August 14, 2008 email identifies some data needed from WEST Science and Technology, Inc. (WEST) and ENSR by September 12, 2008.

In addition, four action items were identified during the meeting. As indicated at the end of the meeting, several of the items required internal discussions among Regional Water Board staff, which occurred this week.

- City of Eureka representatives requested some discussions with West staff regarding use of statistics in earlier reports. Regional Water Board staff encourages City representatives to have an open dialogue with representatives of WEST on this matter and to share the outcome of these discussions with the entire project team.
- Regional Water Board staff will begin preparing a groundwater Monitoring and Reporting Program (MRP) Order. The MRP Order will include the need for submission of data packages and chromatograms from the State-certified testing laboratory (ies).
- The City of Eureka representatives requested a complete history of the amount of dry cleaning materials used at the site. This information is to include, at a minimum, the information that WEST used to calculate mass estimates in the groundwater. This data and information is necessary to help verify the presented conceptual site model and therefore we request that these data be provided for

the time period when solvents were used at the project site. The information is to be supplied to the entire project team.

- Kasey Ashley and I are working on defining what should or should not be loaded onto Geotracker versus the project website. Our August 14, 2008 email provides some definition in this regard but more details will follow.

If you have any questions, please call me at (707) 576-2556 or email me at dparson@waterboards.ca.gov.

Sincerely,

Kasey Ashley for

David W. Parson, PG 6037, CEG 1889
Engineering Geologist

090208_DWP_ActionitemsfrmAug1308meeting_1NHU630.doc

cc: Ms. Kim Neimeyer, OCC, SWRCB
Ms. Kasey Ashley, NCRWQCB
Mr. David Evans, NCRWQCB
Mr. Mark Verhey, Humboldt County Health Department, 100 H Street, Suite 100, Eureka, CA 95501.
Mr. Bruce Young, City of Eureka Public Works Department, 531 K Street, Eureka, CA 95501.
Mr. Michael Knight, City of Eureka Public Works Department, 531 K Street, Eureka, CA 95501-1146.
Ms. Sheryl Schaffner, City of Eureka, 531 K Street, Eureka, CA 95501-1146.
Ms. Lee Henig-Elona, Firemans Fund Insurance Corporation,
Mr. Peter Krausnoff, WEST Inc., 711 Grand Avenue, Suite 220, San Rafael, CA 94901.
Mr. Peter Morris, WEST Inc., 711 Grand Avenue, Suite 220, San Rafael, CA 94901.
Mr. Jan Greben, Greben & Associates, 1332 Anacapa Street, Suite 110, Santa Barbara, CA 93101.
Mr. Aaron Costa, Chevron Environmental Management Company, 6111 Bollinger Canyon Road, San Ramon, CA 94583-5186.
Mr. Morris Davidovitz, Davidovitz & Bennett, LLP, One Embarcadero Center, Suite 750, San Francisco, CA 94111-3650.
Mr. Charles Bolcom, Esquire, Davidovitz & Bennett, LLP, 1 Embarcadero Center, Suite 750, San Francisco, CA 94111
Mr. James Lenzen, ENSR, 300 Lakeside Drive, Suite 220, Oakland, CA 94612.
Mr. Russell Juncal, Ground Zero Analysis, Inc., 1714 Main Street, Escalon, CA 95320.
Mr. Sergio Borgiotti, Chevron Environmental Practice Group, Law Department, 6001 Bollinger Canyon Road, T-3292, San Ramon, CA 94583.

Mr. Andrew T. Mortl, Glyn & Finley, LLP, One Walnut Creek Center, 100 Pringle Avenue, Suite 500, Walnut Creek, CA 94596.
Mr. Kent Baugh, ENSR, 300 Lakeside Drive, Suite 220, Oakland, CA 94612.
Mr. Dave Peacock, ENSR, 300 Lakeside Drive, Suite 220, Oakland, CA 94612
Mr. Gary Hokkanen, Hokkanen Environmental LLC, 6125 Aspinwall Road, Oakland, CA 94611.
Mr. Gabriel P. Sabadell, TSC Group, Inc., 5400 Ward Road, Suite V-100, Arvada, CO 80002.

EXHIBIT “O”

STATE WATER RESOURCES CONTROL BOARD

RESOLUTION NO. 92-49

(As Amended on April 21, 1994 and October 2, 1996)

POLICIES AND PROCEDURES FOR INVESTIGATION AND CLEANUP AND ABATEMENT OF DISCHARGES UNDER WATER CODE SECTION 13304

WHEREAS:

1. California Water Code (WC) Section 13001 provides that it is the intent of the Legislature that the State Water Resources Control Board (State Water Board) and each Regional Water Quality Control Board (Regional Water Board) shall be the principal state agencies with primary responsibility for the coordination and control of water quality. The State and Regional Water Boards shall conform to and implement the policies of the Porter-Cologne Water Quality Control Act (Division 7, commencing with WC Section 13000) and shall coordinate their respective activities so as to achieve a unified and effective water quality control program in the state;

2. WC Section 13140 provides that the State Water Board shall formulate and adopt State Policy for Water Quality Control;

3. WC Section 13240 provides that Water Quality Control Plans shall conform to any State Policy for Water Quality Control;

4. WC Section 13304 requires that any person who has discharged or discharges waste into waters of the state in violation of any waste discharge requirement or other order or prohibition issued by a Regional Water Board or the State Water 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 may be required to clean up the discharge and abate the effects thereof. This section authorizes Regional Water Boards to require complete cleanup of all waste discharged and restoration of affected water to background conditions (i.e., the water quality that existed before the discharge). The term waste discharge requirements includes those which implement the National Pollutant Discharge Elimination System;

5. WC Section 13307 provides that the State Water Board shall establish policies and procedures that its representatives and the representatives of the Regional Water Boards shall follow for the oversight of investigations and cleanup and abatement activities resulting from discharges of hazardous substances, including:

a. The procedures the State Water Board and the Regional Water Boards will follow in making decisions as to when a person may be required to undertake an investigation to determine if an unauthorized hazardous substance discharge has occurred;

b. Policies for carrying out a phased, step-by-step investigation to determine the nature and extent of possible soil and ground water contamination or pollution at a site;

c. Procedures for identifying and utilizing the most cost-effective methods for detecting contamination or pollution and cleaning up or abating the effects of contamination or pollution;

d. Policies for determining reasonable schedules for investigation and cleanup, abatement, or other remedial action at a site. The policies shall recognize the danger to public health and the waters of the state posed by an unauthorized discharge and the need to mitigate those dangers while at the same time taking into account, to the extent possible, the resources, both financial and technical, available to the person responsible for the discharge;

6. "Waters of the state" include both ground water and surface water;

7. Regardless of the type of discharge, procedures and policies applicable to investigations, and cleanup and abatement activities are similar. It is in the best interest of the people of the state for the State Water Board to provide consistent guidance for Regional Water Boards to apply to investigation, and cleanup and abatement;

8. WC Section 13260 requires any person discharging or proposing to discharge waste that could affect waters of the state, or proposing to change the character, location, or volume of a discharge to file a report with and receive requirements from the Regional Water Board;

9. WC Section 13267 provides that the Regional Water Board may require dischargers, past dischargers, or suspected dischargers to furnish those technical or monitoring reports as the Regional Water Board may specify, provided that the burden, including costs, of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports;

10. WC Section 13300 states that the Regional Water Board may require a discharger to submit a time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements prescribed by the Regional Water Board or the State Water Board;

11. California Health and Safety Code (HSC) Section 25356.1 requires the Department of Toxic Substances Control (DTSC) or, if appropriate, the Regional Water Board to prepare or approve remedial action plans for sites where hazardous substances were released to the environment if the sites have been listed pursuant to HSC Section 25356 (state "Superfund" priority list for cleanup of sites);

12. Coordination with the U.S. Environmental Protection Agency (USEPA), state agencies within the California Environmental Protection Agency (Cal/EPA) (e.g., DTSC, Air Resources Control Board), air pollution control districts, local environmental health agencies, and other responsible federal, state, and local agencies: (l) promotes effective protection of water quality, human health, and the environment and (2) is in the best interest of the people of the state. The principles of coordination are embodied in many statutes, regulations, and interagency memoranda of understanding (MOU) or agreement which affect the State and Regional Water Boards and these agencies;

13. In order to clean up and abate the effects of a discharge or threat of a discharge, a discharger may be required to perform an investigation to define the nature and extent of the discharge or threatened discharge and to develop appropriate cleanup and abatement measures;

14. Investigations that were not properly planned have resulted in increases in overall costs and, in some cases, environmental damage. Overall costs have increased when original corrective actions were later found to have had no positive effect or to have exacerbated the pollution. Environmental damage may increase when a poorly conceived investigation or cleanup and abatement program allows pollutants to spread to previously unaffected waters of the state;

15. A phased approach to site investigation should facilitate adequate delineation of the nature and

extent of the pollution, and may reduce overall costs and environmental damage, because: (1) investigations inherently build on information previously gained; (2) often data are dependent on seasonal and other temporal variations; and (3) adverse consequences of greater cost or increased environmental damage can result from improperly planned investigations and the lack of consultation and coordination with the Regional Water Board. However, there are circumstances under which a phased, iterative approach may not be necessary to protect water quality, and there are other circumstances under which phases may need to be compressed or combined to expedite cleanup and abatement;

16. Preparation of written workplans prior to initiation of significant elements or phases of investigation, and cleanup and abatement generally saves Regional Water Board and discharger resources. Results are superior, and the overall cost-effectiveness is enhanced;

17. Discharger reliance on qualified professionals promotes proper planning, implementation, and long-term cost-effectiveness of investigation, and cleanup and abatement activities. Professionals should be qualified, licensed where applicable, and competent and proficient in the fields pertinent to the required activities. California Business and Professions Code Sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgements be performed by or under the direction of registered professionals;

18. WC Section 13360 prohibits the Regional Water Boards from specifying, but not from suggesting, methods that a discharger may use to achieve compliance with requirements or orders. It is the responsibility of the discharger to propose methods for Regional Water Board review and concurrence to achieve compliance with requirements or orders;

19. The USEPA, California state agencies, the American Society for Testing and Materials, and similar organizations have developed or identified methods successful in particular applications. Reliance on established, appropriate methods can reduce costs of investigation, and cleanup and abatement;

20. The basis for Regional Water Board decisions regarding investigation, and cleanup and abatement includes: (1) site-specific characteristics; (2) applicable state and federal statutes and regulations; (3) applicable water quality control plans adopted by the State Water Board and Regional Water Boards, including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board and Regional Water Board policies, including State Water Board Resolutions No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) and No. 88-63 (Sources of Drinking Water); and (5) relevant standards, criteria, and advisories adopted by other state and federal agencies;

21. Discharges subject to WC Section 13304 may include discharges of waste to land; such discharges may cause, or threaten to cause, conditions of soil or water pollution or nuisance that are analogous to conditions associated with migration of waste or fluid from a waste management unit;

22. The State Water Board has adopted regulations governing discharges of waste to land (California Code of Regulations (CCR), Title 23, Division 3, Chapter 15);

23. State Water Board regulations governing site investigation and corrective action at underground storage tank unauthorized release sites are found in 23 CCR Division 3, Chapter 16, in particular Article 11 commencing with Section 2720;

24. It is the responsibility of the Regional Water Board to make decisions regarding cleanup and

abatement goals and objectives for the protection of water quality and the beneficial uses of waters of the state within each Region;

25. Cleanup and abatement alternatives that entail discharge of residual wastes to waters of the state, discharges to regulated waste management units, or leaving wastes in place, create additional regulatory constraints and long-term liability, which must be considered in any evaluation of cost-effectiveness;

26. It is not the intent of the State or Regional Water Boards to allow dischargers, whose actions have caused, permitted, or threaten to cause or permit conditions of pollution, to avoid responsibilities for cleanup. However, in some cases, attainment of applicable water quality objectives for ground water cannot reasonably be achieved. In these cases, the State Water Board determines that establishment of a containment zone is appropriate and consistent with the maximum benefit to the people of the State if applicable requirements contained in the Policy are satisfied. The establishment of a containment zone does not limit or supersede obligations or liabilities that may arise under other laws;

27. The Porter-Cologne Water Quality Control Act allows Regional Water Boards to impose more stringent requirements on discharges of waste than any statewide requirements promulgated by the State Water Board (e.g., in this Policy) or than water quality objectives established in statewide or regional water quality control plans as needed to protect water quality and to reflect regional and site-specific conditions; and

28. Pursuant to Section 13320 of the Water Code, aggrieved persons may petition the State Water Board to review any decisions made under this policy.

THEREFORE BE IT RESOLVED:

These policies and procedures apply to all investigations, and cleanup and abatement activities, for all types of discharges subject to Section 13304 of the WC.

I. The Regional Water Board shall apply the following procedures in determining whether a person shall be required to investigate a discharge under WC Section 13267, or to clean up waste and abate the effects of a discharge or a threat of a discharge under WC Section 13304. The Regional Water Board shall:

A. Use any relevant evidence, whether direct or circumstantial, including, but not limited to, evidence in the following categories:

1. Documentation of historical or current activities, waste characteristics, chemical use, storage or disposal information, as documented by public records, responses to questionnaires, or other sources of information;

2. Site characteristics and location in relation to other potential sources of a discharge;

3. Hydrologic and hydrogeologic information, such as differences in upgradient and downgradient water quality;

4. Industry-wide operational practices that historically have led to discharges, such as leakage of pollutants from wastewater collection and conveyance systems, sumps, storage tanks, landfills, and clarifiers;

5. Evidence of poor management of materials or wastes, such as improper storage practices or inability to reconcile inventories;

6. Lack of documentation of responsible management of materials or wastes, such as lack of manifests or lack of documentation of proper disposal;

7. Physical evidence, such as analytical data, soil or pavement staining, distressed vegetation, or unusual odor or appearance;

8. Reports and complaints;

9. Other agencies' records of possible or known discharge; and

10. Refusal or failure to respond to Regional Water Board inquiries;

B. Make a reasonable effort to identify the dischargers associated with the discharge. It is not necessary to identify all dischargers for the Regional Water Board to proceed with requirements for a discharger to investigate and clean up;

C. Require one or more persons identified as a discharger associated with a discharge or threatened discharge subject to WC Section 13304 to undertake an investigation, based on findings of I.A and I.B above;

D. Notify appropriate federal, state, and local agencies regarding discharges subject to WC Section 13304 and coordinate with these agencies on investigation, and cleanup and abatement activities.

II. The Regional Water Board shall apply the following policies in overseeing: (a) investigations to determine the nature and horizontal and vertical extent of a discharge and (b) appropriate cleanup and abatement measures.

A. The Regional Water Board shall:

1. Require the discharger to conduct investigation, and cleanup and abatement, in a progressive sequence ordinarily consisting of the following phases, provided that the sequence shall be adjusted to accommodate site-specific circumstances, if necessary:

a. Preliminary site assessment (to confirm the discharge and the identity of the discharg- ers; to identify affected or threatened waters of the state and their beneficial uses; and to develop preliminary information on the nature, and vertical and horizontal extent, of the discharge);

b. Soil and water investigation (to determine the source, nature and extent of the discharge with sufficient detail to provide the basis for decisions regarding subsequent cleanup and abatement actions, if any are determined by the Regional Water Board to be necessary);

c. Proposal and selection of cleanup and abatement action (to evaluate feasible and effective cleanup and abatement actions, and to develop preferred cleanup and abatement alternatives);

d. Implementation of cleanup and abatement action (to implement the selected alternative, and to monitor in order to verify progress);

e. Monitoring (to confirm short- and long-term effectiveness of cleanup and abatement);

2. Consider, where necessary to protect water quality, approval of plans for investigation, or cleanup and abatement, that proceed concurrently rather than sequentially, provided that overall cleanup and abatement goals and objectives are not compromised, under the following conditions:

a. Emergency situations involving acute pollution or contamination affecting present uses of waters of the state;

b. Imminent threat of pollution;

c. Protracted investigations resulting in unreasonable delay of cleanup and abatement; or

d. Discharges of limited extent which can be effectively investigated and cleaned up within a short time;

3. Require the discharger to extend the investigation, and cleanup and abatement, to any location affected by the discharge or threatened discharge;

4. Where necessary to protect water quality, name other persons as dischargers, to the extent permitted by law;

5. Require the discharger to submit written workplans for elements and phases of the investigation, and cleanup and abatement, whenever practicable;

6. Review and concur with adequate workplans prior to initiation of investigations, to the extent practicable. The Regional Water Board may give verbal concurrence for investigations to proceed, with written follow-up. An adequate workplan should include or reference, at least, a comprehensive description of proposed investigative, cleanup, and abatement activities, a sampling and analysis plan, a quality assurance project plan, a health and safety plan, and a commitment to implement the workplan;

7. Require the discharger to submit reports on results of all phases of investigations, and cleanup and abatement actions, regardless of degree of oversight by the Regional Water Board;

8. Require the discharger to provide documentation that plans and reports are prepared by professionals qualified to prepare such reports, and that each component of investigative and cleanup and abatement actions is conducted under the direction of appropriately qualified professionals. A statement of qualifications of the responsible lead professionals shall be included in all plans and reports submitted by the discharger;

9. Prescribe cleanup levels which are consistent with appropriate levels set by the Regional Water Board for analogous discharges that involve similar wastes, site characteristics, and water quality considerations;

B. The Regional Water Board may identify investigative and cleanup and abatement activities that the discharger could undertake without Regional Water Board oversight, provided that these investigations and cleanup and abatement activities shall be consistent with the policies and procedures established herein.

III. The Regional Water Board shall implement the following procedures to ensure that dischargers shall have the opportunity to select cost-effective methods for detecting discharges or threatened discharges

and methods for cleaning up or abating the effects thereof. The Regional Water Board shall:

A. Concur with any investigative and cleanup and abatement proposal which the discharger demonstrates and the Regional Water Board finds to have a substantial likelihood to achieve compliance, within a reasonable time frame, with cleanup goals and objectives that implement the applicable Water Quality Control Plans and Policies adopted by the State Water Board and Regional Water Boards, and which implement permanent cleanup and abatement solutions which do not require ongoing maintenance, wherever feasible;

B. Consider whether the burden, including costs, of reports required of the discharger during the investigation and cleanup and abatement of a discharge bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports;

C. Require the discharger to consider the effectiveness, feasibility, and relative costs of applicable alternative methods for investigation, and cleanup and abatement. Such comparison may rely on previous analysis of analogous sites, and shall include supporting rationale for the selected methods;

D. Ensure that the discharger is aware of and considers techniques which provide a cost-effective basis for initial assessment of a discharge.

1. The following techniques may be applicable:

a. Use of available current and historical photographs and site records to focus investigative activities on locations and wastes or materials handled at the site;

b. Soil gas surveys;

c. Shallow geophysical surveys;

d. Remote sensing techniques;

2. The above techniques are in addition to the standard site assessment techniques, which include:

a. Inventory and sampling and analysis of materials or wastes;

b. Sampling and analysis of surface water;

c. Sampling and analysis of sediment and aquatic biota;

d. Sampling and analysis of ground water;

e. Sampling and analysis of soil and soil pore moisture;

f. Hydrogeologic investigation;

E. Ensure that the discharger is aware of and considers the following cleanup and abatement methods or combinations thereof, to the extent that they may be applicable to the discharge or threat thereof:

1. Source removal and/or isolation;

2. In-place treatment of soil or water:

a. Bioremediation;

b. Aeration;

c. Fixation;

3. Excavation or extraction of soil, water, or gas for on-site or off-site treatment by the following techniques:

a. Bioremediation;

b. Thermal destruction;

c. Aeration;

d. Sorption;

e. Precipitation, flocculation, and sedimentation;

f. Filtration;

g. Fixation;

h. Evaporation;

4. Excavation or extraction of soil, water, or gas for appropriate recycling, re-use, or disposal;

F. Require actions for cleanup and abatement to:

1. Conform to the provisions of Resolution No. 68-16 of the State Water Board, and the Water Quality Control Plans of the State and Regional Water Boards, provided that under no circumstances shall these provisions be interpreted to require cleanup and abatement which achieves water quality conditions that are better than background conditions;

2. Implement the provisions of Chapter 15 that are applicable to cleanup and abatement, as follows:

a. If cleanup and abatement involves corrective action at a waste management unit regulated by waste discharge requirements issued under Chapter 15, the Regional Water Board shall implement the provisions of that chapter;

b. If cleanup and abatement involves removal of waste from the immediate place of release and discharge of the waste to land for treatment, storage, or disposal, the Regional Water Board shall regulate the discharge of the waste through waste discharge requirements issued under Chapter 15, provided that the Regional Water Board may waive waste discharge requirements under WC Section 13269 if the waiver is not against the public interest (e.g., if the discharge is for short-term treatment or storage, and if the temporary waste management unit is equipped with features that will ensure full and complete containment of the waste for the treatment or storage period); and

c. If cleanup and abatement involves actions other than removal of the waste, such as containment of waste in soil or ground water by physical or hydrological barriers to migration (natural or engineered), or in-situ treatment (e.g., chemical or thermal fixation, or bioremediation), the Regional Water Board shall apply the applicable provisions of Chapter 15, to the extent that it is technologically and economically feasible to do so; and

3. Implement the applicable provisions of Chapter 16 for investigations and cleanup and abatement of discharges of hazardous substances from underground storage tanks;

G. Ensure that dischargers are required to clean up and abate the effects of discharges in a manner that promotes attainment of either background water quality, or the best water quality which is reasonable if background levels of water quality cannot be restored, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible; in approving any alternative cleanup levels less stringent than background, apply Section 2550.4 of Chapter 15, or, for cleanup and abatement associated with underground storage tanks, apply Section 2725 of Chapter 16, provided that the Regional Water Board considers the conditions set forth in Section 2550.4 of Chapter 15 in setting alternative cleanup levels pursuant to Section 2725 of Chapter 16; any such alternative cleanup level shall:

1. Be consistent with maximum benefit to the people of the state;

2. Not unreasonably affect present and anticipated beneficial use of such water; and

3. Not result in water quality less than that prescribed in the Water Quality Control Plans and Policies adopted by the State and Regional Water Boards; and

H. Consider the designation of containment zones notwithstanding any other provision of this or other policies or regulations which require cleanup to water quality objectives. A containment zone is defined as a specific portion of a water bearing unit where the Regional Water Board finds, pursuant to Section III.H. of this policy, it is unreasonable to remediate to the level that achieves water quality objectives. The discharger is required to take all actions necessary to prevent the migration of pollutants beyond the boundaries of the containment zone in concentrations which exceed water quality objectives. The discharger must verify containment with an approved monitoring program and must provide reasonable mitigation measures to compensate for any significant adverse environmental impacts attributable to the discharge. Examples of sites which may qualify for containment zone designation include, but are not limited to, sites where either strong sorption of pollutants on soils, pollutant entrapment (e.g. dense non-aqueous phase liquids [DNAPLS]), or complex geology due to heterogeneity or fractures indicate that cleanup to applicable water quality objectives cannot reasonably be achieved. In establishing a containment zone, the following procedures, conditions, and restrictions must be met:

1. The Regional Water Board shall determine whether water quality objectives can reasonably be achieved within a reasonable period by considering what is technologically and economically feasible and shall take into account environmental characteristics of the hydrogeologic unit under consideration and the degree of impact of any remaining pollutants pursuant to Section III.H.3. The Regional Water Board shall evaluate information provided by the discharger and any other information available to it:

a. Technological feasibility is determined by assessing available technologies, which have been shown to be effective under similar hydrogeologic conditions in reducing the concentration of the constituents of concern. Bench-scale or pilot-scale studies may be necessary to make this feasibility assessment;

b. Economic feasibility is an objective balancing of the incremental benefit of attaining further reductions in the concentrations of constituents of concern as compared with the incremental cost of achieving those reductions. The evaluation of economic feasibility will include consideration of current, planned, or future land use, social, and economic impacts to the surrounding community including property owners other than the discharger. Economic feasibility, in this Policy, does not refer to the discharger's ability to finance cleanup. Availability of financial resources should be considered in the establishment of reasonable compliance schedules;

c. The Regional Water Board may make determinations of technological or economic infeasibility after a discharger either implements a cleanup program pursuant to III.G. which cannot reasonably attain cleanup objectives, or demonstrates that it is unreasonable to cleanup to water quality objectives, and may make determinations on the basis of projection, modeling, or other analysis of site-specific data without necessarily requiring that remedial measures be first constructed or installed and operated and their performance reviewed over time unless such projection, modeling, or other analysis is insufficient or inadequate to make such determinations;

2. The following conditions shall be met for all containment zone designations:

a. The discharger or a group of dischargers is responsible for submitting an application for designation of a containment zone. Where the application does not have sufficient information for the Regional Water Board to make the requisite findings, the Regional Water Board shall request the discharger(s) to develop and submit the necessary information. Information requirements are listed in the Appendix to this section;

b. Containment and storage vessels that have caused, are causing, or are likely to cause ground water degradation must be removed or repaired, or closed in accordance with applicable regulations. Floating free product must be removed to the extent practicable. If necessary, as determined by the Regional Water Board, to prevent further water degradation, other sources (e.g., soils, nonfloating free product) must be either removed, isolated, or managed. The significance and approach to be taken regarding these sources must be addressed in the management plan developed under H.2.d.;

c. Where reasonable, removal of pollutant mass from ground water within the containment zone may be required, if it will significantly reduce the concentration of pollutants within the containment zone, the volume of the containment zone, or the level of maintenance required for containment. The degree of removal which may be required will be determined by the Regional Water Board in the process of evaluating the proposal for designation of a containment zone. The determination of the extent of mass removal required will include consideration of the incremental cost of mass removal, the incremental benefit of mass removal, and the availability of funds to implement the provisions in the management plan for as long as water quality objectives are exceeded within the containment zone;

d. The discharger or a group of dischargers must propose and agree to implement a management plan to assess, cleanup, abate, manage, monitor, and mitigate the remaining significant human health, water quality, and environmental impacts to the satisfaction of the Regional Water Board. Impacts will be evaluated in accordance with Section III.H.3. The management plan may include management measures, such as land use controls(footnote 1), engineering controls(footnote 2), and agreements with other landowners or agreements with the landlord or lessor where the discharger is a tenant or lessee(footnote 3). The contents of the management plan shall be dependent upon the specific characteristics of the proposed containment zone and must include a requirement that the Regional Water Board be notified of any transfer of affected property to a new owner(s);

e. The proposed management plan must provide reasonable mitigation measures to substantially lessen or avoid any significant adverse environmental impacts attributable to he discharge. At a minimum, the plan must provide for control of pollutants within the containment zone such that water quality objectives are not exceeded outside the containment zone as a result of the discharge. The plan must also provide, if appropriate, for equivalent alternative water supplies, reimbursement for increased water treatment costs to affected users, and increased costs associated with well modifications. Additional mitigation measures may be proposed by the discharger based on the specific characteristics of the proposed containment zone. Such measures must assist in water quality improvement efforts within the ground water basin and may include participating in regional ground water monitoring, contributing to ground water basin cleanup or management programs, or contributing to research projects which are publicly accessible (i.e., not protected by patents and licenses) and aimed at developing remedial technologies that would be used in the ground water basin. Proposals for off-site cleanup projects may be considered by the Regional Water Board as a mitigation measure under the following criteria:

1. Off-site cleanup projects must be located in the same ground water basin as the proposed containment zone, and

2. Implementation of an off-site project must result in an improvement in the basin's water quality or protect the basin's water quality from pollution, and

3. Off-site projects must include source removal or other elements for which water quality benefits or water quality protection can be easily demonstrated, and

4. Off-site projects may be proposed independently by the discharger or taken from projects identified as acceptable by the Regional Water Board through a clearinghouse process, or

5. In lieu of choosing to finance a specific off-site project, the discharger may contribute moneys to the SWRCB's Cleanup and Abatement Account (Account) or other funding source. Use of such contributions to the Account or other source will be limited to cleanup projects or water quality protection projects for the basin in which the containment zone is designated. Contributions are not to exceed ten percent of the savings in continued active remediation that discharger will accrue over a ten-year period due to designation of a containment zone (less any additional costs of containment zone designation during this period, e.g., additional monitoring requirements, Regional Water Board application costs, etc.). Contributions of less than ten percent must be accompanied by a detailed justification as to why a lesser contribution would provide adequate mitigation.

Except where prohibited by Federal law, Federal agencies may be required, based on specific site conditions, to implement mitigation measures;

f. The proposed management plan must include a detailed description of the proposed monitoring program, including the location and construction of monitoring points, a list of proposed monitoring parameters, a detailed description of sampling protocols, the monitoring frequency, and the reporting requirements and frequency. The monitoring points must be at or as close as reasonable to the boundary of the containment zone so as to clearly demonstrate containment such that water quality objectives outside the containment zone are not violated as the result of the discharge. Specific monitoring points must be defined on a case-by-case basis by determining what is necessary to demonstrate containment, horizontally and vertically. All technical or monitoring program requirements and requirements for access shall be designated pursuant to WC Section 13267. The monitoring program may be modified with the approval of the Regional Water Board s Executive Officer based on an evaluation of monitoring data;

g. The management plan must include a detailed description of the method to be used by the discharger to evaluate monitoring data and a specific protocol for actions to be taken in response to evidence that water quality objectives have been exceeded outside the containment zone as a result of the migration of pollutants from within the containment zone;

3. In order for a containment zone to be designated, it shall be limited in vertical and lateral extent; as protective as reasonably possible of human health and safety and the environment; and should not result in violation of water quality objectives outside the containment zone. The following factors must be considered by the Regional Water Board in making such findings:

a. The size of a containment zone shall be no larger than necessary based on the facts of the individual designation. In no event shall the size of a containment zone or the cumulative effect of containment zones cause a substantial decline in the overall yield, storage, or transport capacity of a ground water basin;

b. Evaluation of potentially significant impacts to water quality, human health, and the environment, shall take into consideration the following, as applicable to the specific factual situation:

1. The physical and chemical characteristics of the discharge, including its potential for migration;

2. The hydrogeological characteristics of the site and surrounding land;

3. The quantity of ground water and surface water and the direction of ground water flow;

4. The proximity and withdrawal rates of ground water users;

5. The patterns of rainfall in the region and the proximity of the site to surface waters;

6. The present and probable future uses of ground water and surface water in the area;

7. The existing quality of ground water and surface water, including other sources of pollution and their cumulative impact on water quality;

8. The potential for health impacts caused by human exposure to waste constituents;

9. The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

10. The persistence and permanence of any potential adverse effects;

11. Exposure to human or other biological receptors from the aggregate of hazardous constituents in the environment;

12. The potential for the pollutants to attenuate or degrade and the nature of the breakdown products; and

13. Potential adverse effects on approved local development plans, including plans approved by redevelopment agencies or the California Coastal Commission.

c. No provision of this Policy shall be interpreted to allow exposure levels of constituents of concern

that could have a significant adverse effect on human health or the environment;

d. A containment zone shall not be designated in a critical recharge area. A critical recharge area is an artificial recharge area or an area determined by the Regional Water Board to be a critical recharge area after the consultation process required by Section III.H.9. Further, a containment zone shall not be designated if it would be inconsistent with a local ground water management plan developed pursuant to Part 2.75 of Division 6 of the WC (commencing at Section 10750) or other provisions of law or court order, judgment or decree;

4. After designation, no further action to reduce pollutant levels, beyond that which is specified in the management plan, will be required within a containment zone unless the Regional Water Board finds that the discharger(s) has failed to fully implement the required management plan or that violation of water quality objectives has occurred beyond the containment zone, as a result of migration of chemicals from inside the containment zone. If the required tasks contained in the approved management plan are not implemented, or appropriate access is not granted by the discharger to the Regional Water Board for purposes of compliance inspection, or violation of water quality objectives occurs outside the containment zone and that violation is attributable to the discharge in the containment zone, the Regional Water Board, after 45 days public notice, shall promptly revoke the zone's containment status and shall take appropriate enforcement action against the discharger;

5. The designation of a containment zone shall be accomplished through the adoption of a cleanup and abatement order as authorized by WC Section 13304. The Regional Water Board shall make a finding of fact with regard to each of the conditions which serve as a prerequisite for containment zone designation in the cleanup and abatement order. All applicable criteria of Section III.H. must be met as a prerequisite to designation. The Regional Water Board may reject an application for designation of a containment zone for failure to meet any applicable criteria without having to make findings with regard to each prerequisite. Such orders shall be adopted by the Regional Water Boards themselves and not issued by the Executive Officers of the Regional Water Boards. These orders shall ensure compliance with all procedures, conditions, and restrictions set forth in Section III.H. As authorized by WC Section 13308, time schedules issued as part of the establishment of a containment zone may prescribe a civil penalty which shall become due if compliance is not achieved in accordance with that time schedule;

6. A containment zone shall be implemented only with the written agreement of all fee interest owners of the parcel(s) of property containing the containment zone. Exceptions may be allowed by the Regional Water Board where opposition is found to be unreasonable. In such cases, the Regional Water Board may use the authority of WC Section 13267 to assure access to property overlying the containment zone;

7. Local agencies which are supervising cleanup under contract with the State Water Board or by agreement with the Regional Water Board pursuant to provisions of the Underground Storage Tank Program may propose containment zones for consideration by the Regional Water Board. The local agency will forward its files and proposal to the Regional Water Board for consideration. Regional Water Boards shall use the same procedures, processes, public notice, and criteria that are noted elsewhere in this policy. Approval of Technical Impracticability Waivers by the Department of Toxic Substances Control or the United States Environmental Protection Agency under the requirements of the Federal Resource Conservation and Recovery Act or the Comprehensive Environmental Response, Compensation, and Liability Act are deemed to be equivalent to the actions outlined in Section H. of this Policy if :

a. the substantive provisions of Sections III.H.2.b., e., f., and g. are met;