

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



SENT  
03-02-05

ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577  
(510) 567-6700  
Fax (510) 337-9335

RO0000289

February 28, 2005

Mr. Robert Neal  
Owens-Brockway  
P.O. Box 1019  
Oakland CA 94604

**Re: Workplan to complete a focused geoprobe investigation at Owens-Brockway,  
3600 Alameda Ave., Oakland 94601**

Dear Mr. Neal:

Alameda County Environmental Health has received and reviewed the "January 20, 2004, "Workplan to Complete a Focused Geoprobe Investigation", by Ms. Christina J. Kennedy of CKG Environmental, Inc., along with other documents in our files, regarding the above referenced site.

I have also had discussions with Ms. Kennedy of CKG Environmental during a meeting and over the phone regarding the above referenced site. We request that you address the following technical comments, perform the proposed work, and send us the technical reports requested below.

#### TECHNICAL COMMENTS

- The above report discusses the possibility of closure. This office does not concur with that assessment since there is still floating product around MW-2 and MW-6 wells. There is also concern regarding the plume migration into Fruitvale Ave.
- Provide a plan to remove and or address the floating product issue along with the required items before this case can proceed further. The previous report dated October 17, 2003 does not reveal the concentrations of constituent on the graph for MW-2 and MW-6, while it portrays in Plate 5 that there is in fact floating product in the vicinity of the above wells.
- Most graphs in the 2003 document show rapid reduction of CoC concentrations. There is also some possibility of improper screening of the wells at the site rather than actual reduction in CoC concentrations. This needs to be further investigated rather than accepted at face value

- Develop and submit a Site Conceptual Model (SCM). This must include geological cross sections, interpretive vertical and horizontal drawing of the plume (not just a plot of laboratory results), depth to groundwater, monitoring wells and screens, conduits, groundwater flow and locations of receptors, etc.
- Include a plot plan with all soil borings along with concentrations at different depths.
- Provide a table summarizing all monitoring well analysis along with groundwater depth to water as performed in the field.
- Provide all boring logs including the monitoring wells.
- Plot the concentrations of CoCs above ESL levels in soil and groundwater as discussed.

### **TECHNICAL REPORT REQUEST**

Please submit the following technical reports to Alameda County Department of Environmental Health (Attention: Amir K. Gholami):

**March 28, 2004** Work Plan

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

### **PERJURY STATEMENT**

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

### **UNDERGROUND STORAGE TANK CLEANUP FUND**

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

### **Professional Certification**

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration

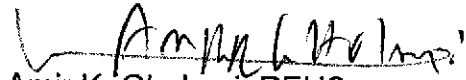
stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

## AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please do not hesitate to call me at 510-567-6876.

Sincerely,



Amir K. Gholami, REHS  
Hazardous Materials Specialist

C: Ms. Christina Kennedy, CKG Environmental, Inc., 808 Zinfandel Lane, St. Helena, CA  
94574

D. Drogos, A. Gholami

~~9/26/02~~ ~~Tabletop Exercise~~ RO 289

9/27/02 Mtg w/ Bob Neal, Chris Kennedy, AKG Env.

Get Chris info on CPT / PID, <sup>R. Hess</sup> ITSI  
(UVIF)

- Requested cross section diagrams including utilities w/ historic SW elevations

E-mail ckennedy@geologist.com

59 2700 7th St  
RO 10 2277 7th St

866 / R0289

# Fax

Date: 9/20/02  
 To: Barney Chan  
 Company: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 From: Chris Kennedy  
 No. Pages: 1

Re: Business Card per conversation with Owens Brockway

Urgent       For Review       Please Comment       Please Reply

Message: [Redacted]

### CKG Environmental Inc.

Christina J. Kennedy  
 Principal  
 808 Zinfandel Lane  
 St. Helena, CA 94574

Phone: (707) 967-8022  
 Fax: (707) 967-8080  
 Email: ckennedy@geologist.com



ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



November 9, 2001  
StID 866/RO0000289

Mr. Robert Neal  
Owens-Brockway  
P.O. Box 1019  
Oakland CA 94604

ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

**Re: Groundwater Monitoring at Owens-Brockway, 3600 Alameda Ave.,  
Oakland 94601**

Dear Mr. Neal:

Our office has received the October 22, 2001 groundwater sampling report for MW-20 provided by Kennedy/Jenks Consultants. Your cover letter also describes the status of those wells being monitored for the presence of free product. Please inform our office as to the status of the installation of MW-19, which was approved for installation along with MW-20 in my February 24, 2000 letter. Please expedite its installation. We anticipate receiving the annual monitoring report for all pertinent wells soon after your December 2001 sampling.

Your November 7, 2001 letter requests our office's approval to close MW-9 citing damage and likely surface spillage contributing to the product being found in this well. You note, and our office agrees, that the current focus at the site is to remove free product from wells where it exists and continue to monitor boundary wells. Unfortunately, if free product was introduced from the surface, which migrated into the well through damaged surface seals, there is no way to distinguish product originating from surface from that from the subsurface. MW-9 is located near former underground tanks and historically has exhibited free product or elevated dissolved product. I recommend that this well be repaired, better handling practices be observed when handling oily process water and that absorbent pads be changed within this well regularly. If this is done, you would expect this well to clean-up quickly unless there is still a subsurface petroleum source.

You may contact me at (510) 567-6765 if you have any comments or questions.

Sincerely,

Barney M. Chan  
Hazardous Materials Specialist

✓ C: B. Chan, files

Ms. M. Durant, Kennedy/Jenks Consultants, 622 Folsom St., SF, CA 94107

Stat3600 Alameda

**OWENS-BROCKWAY**GLASS CONTAINERS  
a unit of Owens-Illinois

# 866 / R0289



November 7, 2001

Mr. Barney M. Chan  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Subject: Monitoring Report / Product Recovery Summary

Dear Mr. Chan:

The attached report includes the third set of data from the new monitoring well #20. Use of Soakease pads to remove free product from seven specified wells continues. Following is a summary of recovery activity to date.

MW-2	Pads are oil laden and replaced after each observation.
MW-5	Rusty color observed. No hydrocarbon odor detected.
MW-6	Pads are oil laden and replaced after each observation.
MW-7	Pads accumulate a small amount of oil. Hydrocarbon odor is present. Pads are replaced after each observation.
MW-9	Pads are oil laden and replaced after each observation. The well head is damaged. Observed contamination is believed to be from spilled process water at the surface. Well closure is recommended. See below.
MW-16	No observed petroleum product present. No petroleum product odor.
MW-17	Pads accumulate a small amount of fuel. A fuel odor is present. Pads are replaced after each observation.

Monitoring well #9 is located in a confined forklift traffic area. The well head has been repeatedly damaged by the forklift traffic and accumulated glass which is packed onto the well head. Additionally, the well head is always wet with oil contaminated process water being hauled out of the basement. It is the opinion of Owens-Brockway and our consultant that the integrity of this monitoring well has been compromised, that data collected from it is not representative of the ground water and that the well should be closed to prevent further introduction of contaminants. Since the current focus of the monitoring program is: (1) to remove free product from wells where it continues to collect and (2) monitor boundary wells, we believe the closure of monitoring well #9 would not adversely effect the current objectives and request your endorsement of this well closure.

If you have questions regarding the report or the requested well closure, please give me a call at 510-436-2174.

Sincerely,

Robert C. Neal, P.E.  
Environmental Administrator

**OWENS-BROCKWAY**GLASS CONTAINERS  
a unit of Owens-Illinois

March 29, 2001

Mr. Barney M. Chan  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

#

866

Subject: Report on Well Installation and Ground Water Monitoring  
Owens-Brockway Glass Plant - Oakland

Dear Mr. Chan:

The attached report summarizes the installation of MW-20, destruction of MW-14 and results of the annual monitoring conducted December 6 and 11, 2000. We failed to analyze the first sample from MW-20 for MTBE. We will catch this in our next sample scheduled next week.

Recovery of free product from seven designated wells is progressing well. You requested that we summarize the amount of product removed. We're not aware of a reasonable way to quantify the small amounts recovered using the Soakease pads. Our monitoring to date has been based simply on visual observation and detectable odor. A significant amount of free product continues to be present on the pads from wells 2, 6 and 9. These are being checked and replaced weekly. MW-5 has always appeared rusty in color but without any petroleum being visibly present or detectable by characteristic odor. It is unclear what unique situation exists at this location. MW-7 has progressed from having visible product with significant odor to no visible product and no odor. It has maintained this improved state for about three months. MW-16 has had no visible product or odor on the pads since installation May 18, 2000. MW-17, the closest downgradient to the former underground fuel storage tanks, continues to produce visible light petroleum product with the characteristic odor.

Use of Soakease pads to remove the small amounts of free product present in these monitoring wells has proven to be the only effective recovery approach to date. Previous efforts with sophisticated recovery equipment were a complete failure because the amount of product present was not enough for the equipment to work. Use of the Petro-Trap, designed for use in wells of this type, was a total failure. Soakease pads have provided the first successful recovery of product from these wells. We believe the continued use of pads will result in additional improvements such as experienced with MW-7.

If you have questions regarding the report or our product recovery efforts, please give me or Steve Springer a call at 510-436-2174 or 510-436-2183 respectively.

Sincerely,

Robert C. Neal, P.E.

Environmental Administrator



cc: Mark Tussing  
Jerry Jamar  
Steve Springer  
Merideth Durant - Kennedy/Jenks

# 866

**Kennedy/Jenks Consultants**

622 Folsom Street  
San Francisco, California 94107  
415-243-2150; 415-896-0999 (Fax)

# Fax Transmittal

**To:** Barney Chan  
ACHA  
1131 Harbor Way Parkway  
Alameda CA 94502

**FROM:** Mike McLeod  
**DATE:** 11 December 2000  
**K/J JOB #:** 950007.30  
**SUBJECT:** Update

**Telephone:** 510-567-6765  
**Fax:** 510-337-9335

**Total Number Of Pages (including this cover)** 1

**REMARKS:** Barney,

An update on the Owens/Brockway site at 3600 Alameda Ave:

1. We drilled and installed MW-20 on 1 December.
2. We abandoned MW-14 on 1 December
3. We developed MW-20 and sampled wells MW-5, -7, -8, -9, -10, 13, -15, -16, -17 on 6 December. Wells MW-6 and MW-2 were not sampled because of the presence of free product.
4. We collected a sample from MW-20 on 11 December.
5. Owens/Brockway exchanged the SoakEase socks in MW-2, -5, -6, -7, -9, -16, and -17 early the week of 4 December, just before we did the sampling. We removed the newly-exchanged SoakEase socks on the morning of the 6<sup>th</sup>, prior to sampling.

We will brief you on the sample results as they arrive. We'll keep you updated on the progress of the report as we move forward.

My phone number is 415-243-2508. Please call me with any questions.

*Expect mon report?*

**Copies To:** Meredith Durant, K/J  
Bob Neal, Owens/Brockway

Signed: 

Mike McLeod

ALAMEDA COUNTY  
HEALTH CARE SERVICES



AGENCY  
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

November 3, 2000  
StID # 866

Mr. Robert Neal  
Owens-Brockway Glass Containers  
3600 Alameda Ave.  
Oakland CA 94601

**Re: Status of Subsurface Investigation at Owens-Brockway, 3600 Alameda Ave.,  
Oakland CA 94601**

Dear Mr. Neal:

Our office approved the February 16, 2000 Work Plan for the above referenced site and stated our conditional requirements in my February 24, 2000 letter. As you are aware, the work plan proposed the installation of two additional monitoring wells, MW-19 and MW-20, the institution of annual monitoring for the other site wells and the addition of free product removal equipment in wells MW-2, 5, 6, 7, 9, 16 and 17. The two newly installed wells were to be sampled quarterly. Site updates and site-wide gradient maps were to be included in the quarterly reports.

I understand that you may have already installed the free product removal equipment in these wells, however, the new monitoring wells have not been installed and no annual monitoring event has occurred. Our office requests the following:

- **Please install the two additional monitoring wells within the next 30 days. You are reminded to also analyze the groundwater sample from MW-19 for MTBE, TDS and conductivity in addition to the analytes tested on the other wells. As stated in your work plan, quarterly monitoring should continue on these two wells.**
- **Monitor the site wells (MW-2,5,6,7,8,9,10,13,15,16 &17) for TPPH, TEPH and BTEX.**
- **Provide your monitoring and well installation report to our office within 60 days or no later than January 3, 2001. Please include a summary of the amount of free product removal from those impacted wells and comment on the effectiveness of the equipment.**

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan  
Hazardous Materials Specialist

C. B. Chan, files

Ms. M. Durant, Kennedy/Jenks Consultants, 622 Folsom St., San Francisco, CA 94107

Wp3600 Alameda

Post-It™ brand fax transmittal memo 7671 # of pages ▶ 1

To	Mr Robert Neal	From	B. CHAN
Co.	Owens Brockway	Co.	ACEH
Dept.	Engineering	Phone #	SA-567-6765
Fax #	436-2181	Fax #	

Signed copy of my letter, BE

2000.11-06 17:34  
510 337 9335  
ALAMEDA CO EHS HAZ-OPS

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ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

November 3, 2000  
StID # 866

Mr. Robert Neal  
Owens-Brockway Glass Containers  
3600 Alameda Ave.  
Oakland CA 94601

**Re: Status of Subsurface Investigation at Owens-Brockway, 3600 Alameda Ave.,  
Oakland CA 94601**

Dear Mr. Neal:

Our office approved the February 16, 2000 Work Plan for the above referenced site and stated our conditional requirements in my February 24, 2000 letter. As you are aware, the work plan proposed the installation of two additional monitoring wells, MW-19 and MW-20, the institution of annual monitoring for the other site wells and the addition of free product removal equipment in wells MW-2, 5, 6, 7, 9, 16 and 17. The two newly installed wells were to be sampled quarterly. Site updates and site-wide gradient maps were to be included in the quarterly reports.

I understand that you may have already installed the free product removal equipment in these wells, however, the new monitoring wells have not been installed and no annual monitoring event has occurred. Our office requests the following:

- Please install the two additional monitoring wells within the next 30 days. You are reminded to also analyze the groundwater sample from MW-19 for MTBE, TDS and conductivity in addition to the analytes tested on the other wells. As stated in your work plan, quarterly monitoring should continue on these two wells.
- Monitor the site wells (MW-2,5,6,7,8,9,10,13,15,16 &17) for TPPH, TEPH and BTEX.
- Provide your monitoring and well installation report to our office within 60 days or no later than January 3, 2001. Please include a summary of the amount of free product removal from those impacted wells and comment on the effectiveness of the equipment.

You may contact me at (510) 567-6765 if you have any questions.

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



February 24, 2000  
StID # 866

ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION (LOP)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

Mr. Robert Neal  
Owens-Brockway Glass Containers  
P.O. Box 1019  
Oakland CA 94604

(510) 436-2174

**Re: Work Plan, Owens-Brockway Glass Containers, 3600 Alameda Ave., Oakland 94601**

Dear Mr. Neal:

Our office has received and reviewed the above referenced work plan provided by your consultant, Kennedy/Jenks Consultants. This work plan covers the following items:

- The installation of two additional monitoring wells to investigate the release from the underground tanks removed on 10/9/98 and to monitor potential off-site migration of high boiling hydrocarbons in the area of the former fuel oil UST.
- The institution of an annual monitoring schedule for the site. This assumes that groundwater conditions remain consistent.
- The addition of free product removal equipment into monitoring wells.

Our office approves of the work plan with the following conditions and observations:

- It was noted that the well adjacent to KB-5 was labeled as MW-29 instead of MW-19. In addition to TPPH, TEPH and BTEX, please also analyze this well for MTBE, TDS and conductivity. MTBE analysis is required by the Water Board. It may be eliminated if not initially detected. TDS and conductivity should be used to determine if MW-19 is groundwater or infiltrated estuary water.
- MW-17 should also be run, at least one time, for MTBE as required by the Water Board.
- Please provide our office with a list of the passive free removal devices evaluated and your rationale for the selection of the Soakease device. You are encouraged to explore other free product removal devices to optimize collection of product. Please update the progress made in free product removal in your quarterly monitoring reports. Please take groundwater elevation measurements on all wells and generate a gradient map during your quarterly and annual monitoring events.
- Please notify our office prior to your well installations.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan  
Hazardous Materials Specialist

C: B. Chan, files

Ms. S. Stehling, Kennedy/Jenks Consultants, 622 Folsom St., San Francisco, CA 94107  
Wpap3600

ALAMEDA COUNTY  
HEALTH CARE SERVICES



AGENCY  
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION (LOP)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

December 29, 1999  
StID # 866

Mr. Robert Neal  
Environmental Administrator  
Owens-Brockway Glass Containers  
6150 Stoneridge Mall Road, Suite 375  
Pleasanton, CA 94588-3242

**Re: Owens-Brockway Plant, 3600 Alameda Ave., Oakland CA 94601**

Dear Mr. Neal:

The last time our office spoke with you was during the May 19, 1999 meeting at the County offices. Accompanying you was Ms. Stephanie Stehling of Kennedy/Jenks Consultants. Among the items we discussed were:

- The results of the then recent off-site groundwater investigation
- The issue of the presence of free product in a number of the monitoring wells
- The results of the tank removals overseen by the City of Oakland
- Cleanup requirements for sites near surface water
- Remediation approaches
- A revised monitoring schedule and
- A site Risk Management Plan.

In regards to these items, our office had/has the following comments:

- One of the off-site borings, KB-5, exhibited both TPH as gasoline and as diesel, with the diesel concentration exceeding the recommended San Francisco International Airport clean-up level for near surface water sites. This indicates a real threat to the estuary and requires remediation of the on-site source(s). There is also a need to have at least one permanent off-site monitoring well to verify the concentration of TPH impacting the estuary.
- The November 1998 monitoring event reported free product in monitoring wells 2,5,6,7 & 9. Given the presence of TPH off-site, these wells require remediation, the removal of free product and reduction of dissolved product.
- The results of the underground gasoline and diesel tank removals overseen by the City of Oakland indicate a release of both these contaminants had occurred to the soil. The existing well, MW-17, may be down-gradient of these tanks and its monitoring results may be indicative of the release's impact to groundwater. You need to discuss the merits of the prior data and determine what additional investigation and monitoring is necessary to complete the characterization of the release from these tanks.

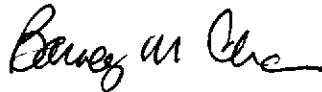
Mr. Robert Neal  
StID # 866  
3600 Alameda Ave., Oakland CA 94601  
December 29, 1999  
Page 2.

- It may not be sufficient to only treat the release through the existing wells. You must examine the available remediation alternatives and prepare a Corrective Action Plan (CAP).
- Although all wells may not be necessary for sampling and analysis, you are required to propose and implement a revised monitoring schedule for the site. Your monitoring proposal must justify the elimination of any well.
- A Risk Management Plan will be required to minimize hazards during future activities ie construction, subsurface work , soil and groundwater generation.

**Because of the apparent lack of attention to these matters, you are required to provide a written work plan response to this letter within 45 days or no later than February 15, 2000.**

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,



Barney M. Chan  
Hazardous Materials Specialist

C: B. Chan, files  
Ms. S. Stehling, Kennedy/Jenks Consultants, Marathon Plaza, 10<sup>th</sup> Floor, 303 Second St.,  
San Francisco, CA 94107  
Rq3600Alameda

5/19/99 Items for discussion, 3600 Alameda Ave., Owens Brockway

1. Results of the groundwater investigation.
2. Results of groundwater monitoring. ←
3. Presence of free product.
4. Results from tank removal overseen by City of Oakland
5. Cleanup levels at sites near the bay or surface waters
6. Requirements for "low risk" sites
7. Remedial approach(s) ←
8. Monitoring program.
9. Risk Management Plan, types for construction for closure, for monitoring only.

Consultant / R.P. will send a letter/report addressing the following:

- free product must be removed
- re-examine the monitoring program & recommend a monitoring program
- provide a <sup>remedial approach</sup> <sub>or</sub> up to control plan.

**OWENS-BROCKWAY**

GLASS CONTAINERS  
a unit of Owens-Illinois



**Robert C. Neal, P.E.**  
Environmental Administrator  
Western Region

3600 Alameda Avenue  
Oakland, CA 94601  
(510) 436-2174  
Fax: (510) 436-2036  
Email: robert.neal@owens-ill.com

Mailing Address:  
P.O. Box 1019  
Oakland, CA 94604



**OWENS-BROCKWAY**

GLASS CONTAINERS  
a unit of Owens-Illinois

ENVIRONMENTAL  
PROTECTION



*1066*

99 MAY -3 AM 8:43

April 30, 1999

Mr. Barney M. Chan  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Subject: Groundwater Investigation Report - Owens-Brockway Oakland Plant

Dear Mr. Chan:

Enclosed is the Groundwater Investigation Report for the subsurface investigation conducted January 26-27, 1999. Following your review of the report, I would like to meet with you and our consultant to discuss the requested risk management plan.

Sincerely,

*(510) 436-2174 Oakland office*

*Robert C. Neal*

Robert C. Neal, P.E.  
Environmental Administrator

- may need to run MTSB if not yet run
- at least one location, boring KBS-5 indicates diesel contamination is migrating offsite - poses a threat to estuary.
- RMP may not be called for yet, since FP still exists onsite  
need to remediate/remove FP  
need to continue on a monitoring schedule.

requires a <sup>USE</sup> NP.  
• need to address the gas + diesel removal also.

5/13/99. Left message for Mr. Neal to set up a meeting w/ his consultants & myself.

**UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT**

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		FOR LOCAL AGENCY USE ONLY I HEREBY CERTIFY THAT I HAVE DISTRIBUTED THIS INFORMATION ACCORDING TO THE DISTRIBUTION SHOWN ON THE INSTRUCTION SHEET ON THE BACK PAGE OF THIS FORM.		
REPORT DATE 01/20/99		CASE #		SIGNED: <i>Barney Chan</i> DATE: 1-21-99		
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT Robert C. Neal		PHONE (925) 734-6276		SIGNATURE <i>Robert C. Neal</i>	
	REPRESENTING <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER		COMPANY OR AGENCY NAME Owens-Brockway Glass Container			
	ADDRESS 6150 Stoveridge Mall Rd., Suite 375 Pleasanton CA 94588					
RESPONSIBLE PARTY	NAME Probably Fuel Suppliers <input checked="" type="checkbox"/> UNKNOWN		CONTACT PERSON		PHONE ( )	
	ADDRESS (Overfill)					
SITE LOCATION	FACILITY NAME (IF APPLICABLE) Owens-Brockway Glass Container		OPERATOR Same		PHONE ( )	
	ADDRESS 3600 Alameda Avenue Oakland Alameda 94601		CROSS STREET Fruitvale			
	LOCAL AGENCY AGENCY NAME Alameda County Health Agency					
IMPLEMENTING AGENCIES	CONTACT PERSON Barney Chan		PHONE (510) 567-6765		REGIONAL BOARD SF RWQCB	
	CONTACT PERSON Chuck Headlee		PHONE (510) 522-2433		REGIONAL BOARD SF RWQCB	
SUBSTANCES INVOLVED	(1) NAME Trace diesel components		QUANTITY LOST (GALLONS) minimal <input checked="" type="checkbox"/> UNKNOWN			
	(2) NAME Trace gasoline components		QUANTITY LOST (GALLONS) minimal <input checked="" type="checkbox"/> UNKNOWN			
DISCOVERY/ABATEMENT	DATE DISCOVERED Initial Date Unknown		HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input checked="" type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> TANK TEST <input checked="" type="checkbox"/> TANK REMOVAL <input type="checkbox"/> OTHER Previous tanks replaced in 80s		DATE DISCHARGE BEGAN <input checked="" type="checkbox"/> UNKNOWN	
	DATE DISCHARGE BEGAN <input checked="" type="checkbox"/> UNKNOWN		METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> REMOVE CONTENTS <input checked="" type="checkbox"/> CLOSE TANK & REMOVE <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> CLOSE TANK & FILL IN PLACE <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> REPLACE TANK <input type="checkbox"/> OTHER			
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE		SOURCE OF DISCHARGE <input type="checkbox"/> TANK LEAK <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER			
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE		CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> SPILL <input type="checkbox"/> CORROSION <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> OTHER			
CASE TYPE	CHECK ONE ONLY <input type="checkbox"/> UNDETERMINED <input type="checkbox"/> SOIL ONLY <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)					
	CHECK ONE ONLY <input type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED <input type="checkbox"/> POLLUTION CHARACTERIZATION <input type="checkbox"/> LEAK BEING CONFIRMED <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT UNDERWAY <input checked="" type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> REMEDIATION PLAN <input type="checkbox"/> CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> CLEANUP UNDERWAY					
REMEDIAL ACTION	CHECK APPROPRIATE ACTION(S) <input checked="" type="checkbox"/> EXCAVATE & DISPOSE (ED) <input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> ENHANCED BIO DEGRADATION (IT) <input type="checkbox"/> CAP SITE (CD) <input type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input checked="" type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> VENT SOIL (VS) <input type="checkbox"/> VACUUM EXTRACT (VE) <input type="checkbox"/> OTHER (OT) <i>Periodic monitoring continues</i>					
	COMMENTS It is believed that the remaining trace substances are residuals from the original tanks which were replaced in the late 80s with double walled tanks and secondary contained piping. With the removal of the double walled tanks and piping 10/9/98 there is no longer a remaining source of potential releases.					

## INSTRUCTIONS

### EMERGENCY

Indicate whether emergency response personnel and equipment were involved at any time. If so, a Hazardous Material Incident Report should be filed with the State Office of Emergency Services (OES) at 2860 Meadowview Road, Sacramento, CA 95832. Copies of the OES report form may be obtained at your local underground storage tank permitting agency. Indicate whether the OES report has been filed as of the date of this report.

### LOCAL AGENCY ONLY

To avoid duplicate notification pursuant to Health and Safety Code Section 25132.9, a government employee should sign and date the form in this block. A signature here does not mean that the leak has been determined to pose a significant threat to human health or safety, only that notification procedures have been followed if required.

### REPORTED BY

Enter your name, telephone number, and address. Indicate which party you represent and provide company or agency name.

### RESPONSIBLE PARTY

Enter name, telephone number, contact person, and address of the party responsible for the leak. The responsible party would normally be the Leak owner.

### SITE LOCATION

Enter information regarding the leak facility. At a minimum, you must provide the facility name and full address.

### IMPLEMENTING AGENCIES

Enter names of the local agency and Regional Water Quality Control Board involved.

### SUBSTANCES INVOLVED

Enter the name and quantity lost of the hazardous substance involved. Room is provided for information on the substance, if appropriate. If more than two substances leaked, list the two of most concern for cleanup.

### DISCOVERY/ABATEMENT

Provide information regarding the discovery and abatement of the leak.

### SOURCE/CAUSE

Indicate source(s) of leak. Check box(es) indicating cause of leak.

### CASE TYPE

Indicate the case type category for this leak. Check one box only. Case type is based on the most sensitive resource affected. For example, if both soil and ground water have been affected, case type will be "Ground Water". Indicate "Drinking Water" only if one or more municipal or domestic water wells have actually been affected. A "Ground Water" designation does not imply that the affected water cannot be, or is not, used for drinking water, but only that water wells have not yet been affected. It is understood that case type may change upon further investigation.

### CURRENT STATUS

Indicate the category which best describes the current status of the case. Check one box only. The response should be relative to the case type. For example, if case type is "Ground Water", then "Current Status" should refer to the status of the ground water investigation or cleanup, as opposed to that of soil. Descriptions of options follow:

No Action Taken - No action has been taken by responsible party beyond initial report of leak.

Leak Being Confirmed - Leak suspected at site, but has not been confirmed.  
Preliminary Site Assessment Workplan Submitted - workplan/proposal requested of/submitted by responsible party to determine whether ground water has been, or will be, impacted as a result of the release.  
Preliminary Site Assessment Underway - implementation of workplan.  
Pollution Characterization - responsible party is in the process of fully defining the extent of contamination in soil and ground water and assessing impacts on surface and/or ground water.  
Remediation Plan - remediation plan submitted evaluating long term remediation options. Proposal and implementation schedule for appropriate remediation options also submitted.  
Cleanup Underway - implementation of remediation plan.  
Post Cleanup Monitoring in Progress - periodic ground water or other monitoring at site, as necessary, to verify and/or evaluate effectiveness of remedial activities.  
Case Closed - regional board and local agency in concurrence that no further work is necessary at the site.

IMPORTANT: THE INFORMATION PROVIDED ON THIS FORM IS INTENDED FOR GENERAL STATISTICAL PURPOSES ONLY AND IS NOT TO BE CONSTRUED AS REPRESENTING THE OFFICIAL POSITION OF ANY GOVERNMENTAL AGENCY

### REMEDIAL ACTION

Indicate which action have been used to cleanup or remediate the leak. Descriptions of options follow:

Cap Site - install horizontal impermeable layer to reduce rainfall infiltration.  
Containment Barrier - install vertical dike to block horizontal movement of contaminant.  
Excavate and Dispose - remove contaminated soil and dispose in approved site.  
Excavate and Treat - remove contaminated soil and treat (includes spreading or land farming).  
Remove Free Product - remove floating product from water table.  
Pump and Treat Groundwater - generally employed to remove dissolved contaminants.  
Enhanced Biodegradation - use of any available technology to promote bacterial decomposition of contaminants.  
Replace Supply - provide alternative water supply to affected parties.  
Treatment at Hookup - install water treatment devices at each dwelling or other place of use.  
Vacuum Extract - use pumps or blowers to draw air through soil.  
Vent Soil - bore holes in soil to allow volatilization of contaminants.  
No Action Required - incident is minor, requiring no remedial action.

COMMENTS - Use this space to elaborate on any aspects of the incident.

SIGNATURE - Sign the form in the space provided.

### DISTRIBUTION

IF the form is completed by the tank owner or his agent, retain the last copy and forward the remaining copies intact to your local tank permitting agency for distribution.

1. Original - Local Tank Permitting Agency
2. Regional Water Quality Control Board
3. Local Health Officer and County Board of Supervisors or their designee to receive Proposition 65 notifications.
4. Owner/responsible party.

**OWENS-BROCKWAY**

GLASS CONTAINERS  
a unit of Owens-Illinois

Western Region Office

ENVIRONMENTAL  
PROTECTION

99 JAN 21 PM 2:18

January 20, 1999

Mr. Barney M. Chan  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Subject: Unauthorized Release Report - Oakland Plant

Dear Mr. Chan:

Thanks for your guidance regarding the regulatory requirement for the attached submittal via our telephone conversation today.

Also, as discussed, the proposed borings along Alameda Ave. are scheduled for Tuesday, January 26th. beginning about 8:00 a.m. unless an unforeseen change occurs.

Sincerely,



Robert C. Neal, P.E.  
Environmental Administrator

99 JAN -5 PM 3:13  
January 4, 1999

Mr. Barney M. Chan  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Subject: Groundwater Monitoring - Oakland Plant

Dear Mr. Chan:

Thank you for meeting with Stephanie Stahling and I at our Oakland plant Tuesday, December 29, 1998 to review our investigation plan and the proposed location of five borings along the Oakland Estuary. Now that we have a consensus regarding the desired locations, Stephanie will proceed with the underground utility survey and necessary permitting. As stated earlier, we hope to complete this investigation during the month of January.

As requested, a copy of the report documenting the recent removal of the last two USTs from our Oakland plant was presented to you when we met. If you have questions regarding the report or our progress toward the boring investigation, please give me a call at (925) 734-6276.

Sincerely,



Robert C. Neal, P.E.  
Environmental Administrator

HAZARDOUS WASTE GENERATOR INSPECTION REPORT

STID #: 866	FACILITY NAME: Owens <sup>Oak</sup> <del>Brookway</del> -3600 Alameda Ave 94601	PG. _____	OF _____
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SUPPLEMENTAL FORM

met w/ S. Stehling (Kennedy - jobs) & Mr Bob Neal (Owens)  
Discussed the need & location of brownie, decided  
that the locations originally proposed were OK.  
I requested a justification for any monitoring frequency  
change.

- I provided copies of:
- Dec 1997 SFIA order
  - July 1998 update on SFIA order
  - Ehotels order & site map

- Received a copy of the tank closure report  
10/98, 1-4k diesel & 1-1k gasoline
- Asked for their consideration of the addition of  
absorbent pads in wells where tp observed.

PRINT NAME:	INSPECTED BY: B Chan
SIGNATURE:	DATE: 12/29/98







ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



November 30, 1998  
StID # 866

Mr. Bob Neal  
Environmental Administrator  
Owens-Illinois Glass Container, Inc.  
6150 Stoneridge Mall Road, Suite 375  
Pleasanton, CA 94588-3242

ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION (LOP)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

**Re: Groundwater Investigation Work Plan for 3600 Alameda Ave., Oakland CA 94601**

Dear Mr. Neal:

Our office has received and reviewed the November 2, 1998 Groundwater Monitoring Report as well as the November 18, 1998 Groundwater Investigation Work Plan prepared by Kennedy/Jenks Consultants. I would like to comment on each of these reports individually starting with the monitoring report. It appears that no further work occurred between the January 20, 1998 meeting at the County offices with yourself and your consultants and the November 2, 1998 monitoring event. You are reminded that in my December 3, 1997 letter, I requested that groundwater monitoring be continued on a **quarterly** basis. It appears that monitoring proceeded well over one year after the last September 1997 event. Our office cannot agree to the recommended **annual** monitoring of this site given the consistent appearance of free product in the perimeter wells, MW-2, -5, -6, -7 and -9. Our office will require quarterly groundwater monitoring of the wells. You are reminded that our office requested that a sample of the free product found in the wells be analyzed for PCBs, via EPA Method 8080 or 8250. When the results of the off-site investigation are submitted, our office will consider a change in the monitoring schedule if warranted. If the proposed groundwater investigation is performed as soon as proposed, you may recommend a monitoring schedule change prior to the next quarterly event, however, semi-annual monitoring will be required prior to annual monitoring.

Because of the presence of free product and the lack of apparent decrease in groundwater contamination attenuation, you are requested to perform a feasibility study and submit a plan of correction to contain the petroleum on-site. The study should examine a number of remediation options, comparing the cost and benefit of each option. The goal should be to contain plume migration and meet the cleanup requirements for the nearby Alameda Harbor Channel. Draft cleanup standards were distributed and discussed during the January 1998 meeting. Please submit your feasibility study within 30 days of the submittal of the proposed off-site investigation.

In regards to the work plan for off-site investigation, our office requests that one of the five borings be located on-site. A location just east of the storm culvert, between MW-6 and MW-7 would be an appropriate location. You may eliminate one of the borings on Alameda Ave. to keep the same number of borings as proposed. For the on-site boring, it is recommended that a vadose soil sample be collected for chemical analysis. It is also recommended that soil samples be screened in the field for petroleum contamination. Any sample indicating contamination should be analyzed in the laboratory to verify a potential off-site source.

Mr. Bob Neal  
StID # 866  
3600 Alameda Ave., Oakland 94601  
November 30, 1998  
Page 2.

It was noted that two USTs were removed from the site on October 9, 1998 under the oversight of the Oakland Fire Department. Please submit a copy of the underground tank removal report to *ovr* office to complete our records.

Please contact this office 72 working hours prior to any field work. I may be reached at (510) 567-6765 if you have any questions.

Sincerely,



Barney M. Chan  
Hazardous Materials Specialist

C: B. Chan, files  
Ms. S. Stehling, Kennedy/Jenks Consultants, Marathon Plaza, 10<sup>th</sup> Floor, 303 Second St.,  
San Francisco, CA 94107

Mon&wp3600

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



October 15, 1998  
StID # 866

Mr. Bob Neal  
Environmental Administrator  
Owens-Illinois Glass Container, Inc.  
6150 Stoneridge Mall Road, Suite 375  
Pleasanton, CA 94588-3242

ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION (LOP)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

**Re: Request for Technical Reports and Additional Subsurface Investigation at Owens-Illinois Facility, 3600 Alameda Ave., Oakland CA 94601**

Dear Mr. Neal:

Our office last met with you and your consultant, Ms. Stephanie Stehling of Kennedy/Jenks, on January 20, 1998. During this meeting we discussed the County's concerns regarding the petroleum release which has occurred at the above site. Our office was particularly concerned with the free product found in monitoring wells MW-2 and MW-6. We were also concerned about potential preferential migration of contamination along the utilities near the site. A work plan to address this concern was to be submitted to our office by February 20, 1998.

A draft site map was provided to our office along with supplemental monitoring well data in a March 16, 1998 letter report from Ms. Stephanie Stehling of Kennedy/Jenks Consultants. To address the off-site migration concern, the draft report proposed five (5) temporary borings located along Alameda Ave. and Fruitvale Ave. These locations were to be discussed to confirm their appropriateness and reality of drilling at them. On March 24, 1998, I spoke with Ms. Stehling and confirmed the appropriateness of the location of the borings. We also discussed the following additional items:

- The proper screening of wells to detect free product
- A proposed monitoring schedule for the wells, tentatively quarterly until further notice
- The need to install passive skimmers into wells where free product was being found and
- The need to install an on-site boring to accurately determine free product thickness. There is a potential problem with the well screen interval in MW-6.

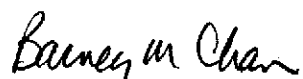
To date, we have not received any additional monitoring reports since the November 1997 report nor have we received a final work plan for the temporary borings. You are, therefore, requested to submit both a current quarterly groundwater monitoring report and a work plan for the installation of off-site borings and discussed the above bulleted items. Your reports are due by November 17, 1998.

This is a formal request for technical reports pursuant to the Water Code and the Health and Safety Code. The failure to submit the requested reports may result in civil liability.

Mr. Bob Neal  
StID # 866  
3600 Alameda Ave., Oakland CA  
October 15, 1998  
Page 2.

Please contact me at (510) 567-6765 if you have any questions.

Sincerely,



Barney M. Chan  
Hazardous Materials Specialist

C: B. Chan, files  
Ms. S. Stehling, Kennedy/Jenks Consultants, Marathon Plaza, 10<sup>th</sup> Floor, 303 Second St.,  
San Francisco, CA 94107

Req3600

1/20/98

Mtg w/ B. Neal + S. Stehling

- make copies of Echart's utility study
- " copy of extensive draft cleanup levels

and to R. Neal + S. Stehling  
of Kennedy - Johns

- provided info on possible offsite sources from aboveground tank & pipeline delivery system on Huntville
- extended up deadline date to Feb 20, 1998  
up should include:
  - temporary bounip
  - other items mentioned in my 12/3/97 letter.



Western Region Office

RO 289

December 15, 1997

Mr. Barney M. Chan  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Subject: Groundwater Monitoring - Oakland Plant

Dear Mr. Chan:

I received and reviewed your letter dated December 3, 1997 requesting additional monitoring and a work plan for offsite groundwater investigation. I have discussed the issues and timing with our consultant Stephanie Stehling of Kennedy/Jenks. Due to other scheduled work, vacations and the holidays, we will not be able to address your request until after the holidays. As a result, I am requesting February 5, 1998 as a revised target date for the submittal of a work plan. This should be sufficient time to review the alternatives and develop the plan.

If you have questions regarding this request, please give me a call at (510) 734-6276.

Sincerely,

A handwritten signature in cursive script that reads "Robert C. Neal".

Robert C. Neal, P.E.  
Environmental Administrator



December 3, 1997  
StID # 866

Mr. Bob Neal  
Environmental Administrator  
Owens-Illinois Glass Container, Inc.  
6150 Stoneridge Mall Road, Suite 375  
Pleasanton, CA 94588-3242

ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION LOP  
10000 Wilshire Blvd, Suite 200  
Beverly Hills, CA 90212-4811  
TEL: 310-376-3700  
FAX: 310-376-8300

**Re: Owens-Illinois Facility, 3600 Alameda Ave., Oakland CA 94601**

Dear Mr. Neal:

Our office has received and reviewed the November 19, 1997 Groundwater Monitoring report prepared by Kennedy/Jenks Consultants for the above referenced site. This report provides analytical results for groundwater sampling collected on September 16, 1997 in accordance to my April 28, 1997 letter. The conclusions from this report were:

- \* No HVOCs or PCBs were found in the groundwater samples collected.
- \* Separate phase hydrocarbons were present in wells, MW-2 and MW-6.
- \* The free product from MW-2 appears to be fuel oil.
- \* Petroleum hydrocarbons were found downgradient of the fueling area, consistent with former results.

Please include the following in all subsequent monitoring reports:

- \* surveyed TOC measurements on all wells sampled in addition to depth to water measurements
- \* Groundwater contour (gradient) map
- \* Table of former and current analytical data
- \* Recommendations for future actions; and
- \* Signature and stamp of a registered professional

Because of the absence of detectable HVOCs and PCBs in the groundwater samples, these parameters may be omitted in future monitoring events. However, because of the presence of free

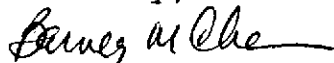
Mr. Bob Neal  
StID # 866  
3600 Alameda Ave.  
December 3, 1997  
Page 2.

product in at least two of the wells, our office requests that a sample of the free product be analyzed for PCBs. Because of the close proximity of this site to the Oakland-Alameda estuary, an additional offsite investigation is requested to determine the limits of petroleum plume. Our office suggests the advancement of temporary borings for groundwater sampling:

Please provide a work plan for <sup>ext. Feb 20, 1998</sup> offsite groundwater investigation **within 30 days or by January 5, 1998**. At this time, please continue to monitor the same wells on a quarterly basis for the analytes; TPHg, TPHd, TPHmo and BTEX.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,



Barney M. Chan  
Hazardous Materials Specialist

c: B. Chan, files  
Ms. S. Stehling, Kennedy/Jenks Consultants, Marathon Plaza,  
10th Floor, 303 Second St., S.F., CA 94107

3mon3600



**OWENS-BROCKWAY**

GLASS CONTAINERS  
a unit of Owens-Illinois

Western Region Office

ENVIRONMENTAL  
PROTECTION

97 DEC -2 PM 3:45

November 25, 1997

Mr. Barney M. Chan  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Subject: Groundwater Monitoring Report - Oakland Plant

Dear Mr. Chan:

Attached is the groundwater monitoring report for our Oakland plant dated November 19, 1997.  
If you have questions regarding the reported work, please give me a call at (510) 734-6276.

Sincerely,



Robert C. Neal, P.E.  
Environmental Administrator



Western Region Office

September 10, 1997

Mr. Barney M. Chan  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Subject: Groundwater Monitoring Oakland Plant - Status Report

Dear Mr. Chan:

We have completed Task 1 as outlined in my letter to you dated July 14, 1997. Sampling is now scheduled for Tuesday, September 16, 1997. You are invited to witness the sample collection if desired. We expect to begin sampling about 8:00 a.m. starting with the upgradient wells.

If you plan to visit the plant to witness the sampling activities, please call me in advance at 510-734-6276 so I can inform the security guards of your visit and where to look for us.

Sincerely,

A handwritten signature in cursive script that reads "Robert C. Neal".

Robert C. Neal, P.E.  
Environmental Administrator



Western Region Office

July 14, 1997

Mr. Barney M. Chan  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Subject: Groundwater Monitoring - Status Report

Dear Mr. Chan:

I have obtained and reviewed proposals for the required monitoring at our Oakland plant. Attached is the Scope of Work excerpted from the proposal of choice. Also attached for your review is a table summarizing the proposed analytical work.

We are working on a services contract with the selected contractor. Upon finalization of the contract, we will schedule the proposed work. Vacation schedules have slowed our progress to date but it now appears the work could begin in early August.

If you have questions or comments please give me a call at (510) 734-6276

Sincerely,

A handwritten signature in cursive script that reads "Robert C. Neal".

Robert C. Neal, P.E.  
Environmental Administrator

## **SCOPE OF WORK**

Based upon our discussions, we understand that you have agreed to ACDEH's sampling request. We have also discussed implementing a program to monitor the presence and thickness of separate-phase petroleum in Wells MW-2, 5, 6, 7, 8, 9, and 17. If feasible, an absorbent or disposable bailer/skimmer may be used to remove the accumulated petroleum from these wells.

### **Task 1 - Product Thickness Monitoring**

We will measure the petroleum product thickness in Wells MW-2, 5, 6, 7, 8, 9 and 17 twice the first week and then once per week for three consecutive weeks. Following the thickness measurement in each well, we will bail the recoverable product from the well and contain it in a 55-gallon drum for Owens-Brockway's later disposal to the plant's oil-water separator. We understand that Owens-Brockway personnel may monitor the product thickness and bail product from these wells at more frequent intervals. At the end of the four week period, we will discuss with you whether further monitoring and bailing will be conducted.

As part of Task 1, we will prepare a focused Site Health and Safety Plan prior to the start of field activities.

### **Task 2 - Groundwater Sampling and Analysis**

We will collect groundwater or petroleum product samples from the twelve monitoring wells specified by ACDEH. Table 1 summarizes the analytical program requested by ACDEH. The table also notes those wells with separate-phase petroleum present during our February 1997 Site visit.

The sampling will be conducted in accordance with the procedures outlined in Appendix A. The wells that contain separate-phase petroleum will not be purged. The product thickness will be measured and a sample of the petroleum product collected for laboratory analysis.

For quality control purposes, one duplicate sample and one field blank will be collected and analyzed for all constituents and one travel blank will be prepared and transported with the samples and analyzed for BTEX and HVOCS. The samples will be transported under chain-of-custody to a California-certified laboratory for analysis. The samples will be analyzed by the methods listed in Table 1 on a standard turnaround schedule.

Following evaluation of the field and analytical data, we will discuss the results with you and recommend an appropriate future groundwater sampling schedule and modifications to the analytical program, if any. The sampling schedule and any modifications to the analytical program will be presented to ACDEH for their review in the report discussed in Task 3 below.

### **Task 3 - Monitoring Report Preparation**

A draft monitoring report will be prepared for your review within two weeks of receipt of the laboratory results. The report will summarize the field activities, observations and measurements. The groundwater elevation, product thickness and analytical results will be tabulated. Following your approval of the draft report, we will transmit the report to the ACDEH.

**TABLE 1**  
**Groundwater Monitoring Program Analytical Requirements**  
**Owens-Brockway Oakland Plant**

Well Number	Petroleum <sup>(a)</sup> Present	Constituents to be Monitored <sup>(b)</sup>			
		TPH	BTEX	HVOCs	PCBs
MW-1	N	X	X	X	X
MW-2	Y	X	X	X	X
MW-3	N	X	X	X	X
MW-5	Y	X	X	X	X
MW-6	Y	X	X	X	X
MW-7	Y	X	X	X	X
MW-8	Y	X	X	X	X
MW-9	Y	X	X	X	X
MW-10	N	X	X	X	X
MW-13	N	X	X	—	—
MW-15	N	X	X	—	—
MW-17	Y	X	X	—	—

**Notes:**

- (a) Y = separate-phase petroleum product observed in well during February 1997
- (b) TPH = total petroleum hydrocarbons as gasoline, diesel, and motor oil (Modified EPA Method 8015)  
 BTEX = benzene, toluene, ethylbenzene, and total xylenes (EPA Method 8020)  
 HVOCs = halogenated volatile organic compounds (EPA Method 8080)  
 PCBs = polychlorinated biphenyls (EPA Method 8080)



Western Region Office

May 16, 1997

Mr. Barney M. Chan  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Subject: Groundwater Monitoring

Dear Mr. Chan:

This letter is to update you on actions initiated in response to your April 28, 1997 letter. I met with prospective consultants this week to review our sample procurement and analytical needs. I expect to have proposals and costs within two weeks. Following a review of the proposals, a purchase order will be issued for the necessary work.

Your April 28th. letter asked for some clarification regarding several tanks shown on a sketch previously provided. First, tank number 8 was not registered because it did not fit the criteria specified on the registration form. As indicated on the sketch, the tank was "out of service". It did not contain hazardous substance at the time registration was required and there was no plan for it to again store hazardous substance. This "out-of-service" tank was removed in August of 1986. Tank number 3 was an above ground storage tank removed prior to the construction of a new warehouse. Tank number 4 was at an off-site leased warehouse. Tank number 5 was at another off-site warehouse. Neither of the two warehouses are owned or used by Owens-Brockway.

Requested data regarding the amount of soil removed from each tank excavation was not found during our records review. Copies of the manifested soil shipments to off-site disposal facilities were previously provided. There was no on site reuse of excavated soil. I do not know how to answer your request for an estimate of the levels of contamination still in place.

I will contact you following my receipt and review of the monitoring proposals.

Sincerely,

Robert C. Neal, P.E.  
Environmental Administrator

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION (LOP)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

April 28, 1997  
StID # 866

Mr. Bob Neal  
Environmental Administrator  
Owens-Illinois Glass Container, Inc.  
6150 Stoneridge Mall Road, Suite 375  
Pleasanton, CA 94588-3242

**Re: Owens-Illinois Facility, 3600 Alameda Ave., Oakland CA 94601**

Dear Mr. Neal:

Our office has received and reviewed your submittal of information attached to the March 14, 1997 cover letter. Thank you for the report on the current status of the monitoring wells at the site. In regards to groundwater monitoring, I agree that MW-15 is an appropriate replacement well for MW-3, which no longer exists. Therefore, wells MW-1,2,5,6,7,8,9,10,13,17 and 15 should be the well network for monitoring this site. The wells downgradient to the former 4-USTs (MW-17, 13 and 15) should be analyzed for TPH as mo, diesel, gasoline and BTEX as recommended in your letter. The others should be analyzed for these same analytes in addition to chlorinated solvents and PCBs.

This recommendation is based upon analytical data found in Enclosure 6, the February 20, 1987 Exceltech Soil and Groundwater Contamination Investigation report. Recall, in the investigation of the contamination found during the ramp excavation, chlorinated hydrocarbons were detected in soil and groundwater in borings B-1 and B-2 and PCBs were detected in the free product/water samples taken from the same borings. Please initiate groundwater monitoring ASAP. After receiving the results of the initial monitoring event, we can discuss if any change in monitoring is reasonable. At this time, our office does not concur that a risk-based closure is reasonable.

Please keep in mind the requirements for a "low risk groundwater case" stated in my January 15, 1997 letter. In light of the presence of petroleum in monitoring wells reported in your well survey, I question whether the source and free product has been removed and whether the site has been adequately characterized. Groundwater monitoring is not sufficient to demonstrate a stable petroleum plume. If the Oakland-Alameda estuary has been impacted, cleanup levels protective of estuarine life must also be met in addition to meeting those protective of human health.

Mr. Bob Neal  
StID # 866  
3600 Alameda Ave., Oakland 94601  
April 28, 1997  
Page 2.

At this point, the source (s) of soil and groundwater contamination has not been determined. It appears that both underground tank and non-UST releases may have occurred. We will consider this site a UST petroleum release site, thus in the LOP, until there is enough evidence of non-UST releases. Nevertheless, our office will oversee all chemical releases at the site. Therefore, in addition to the fuel type analytes, PCBs and solvents warrant analysis.

Please clarify the following items:

Enclosed, please find a map and a list of 18 tanks or collection containers. Please verify the status and locations of these 18 containers. Of importance is the proper documentation of the removal or closure of all non-permitted underground tanks formerly containing hazardous materials. As I recall, submitted in Enclosure 1 were eleven (11) tank registration copies. "Tanks" 15,16,17 and 18 were not actually USTs and did not need registration as is the case for aboveground tanks. Missing was the registration for tank number 8, the fuel oil tank. What about the registration forms for tanks number 3,4 and 5 ?

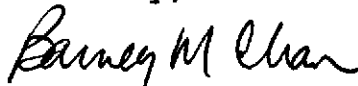
Please clarify the amounts of soil generated from each of the tank and area excavations and their final disposition. Was the excavated soil disposed or reused onsite?

Please provide an estimate as to the levels of contamination still left in-place.

The above items are necessary when compiling the case summary for site closure. Your co-operation in providing the requested information will expedite future site closure.

Please inform me prior to groundwater monitoring. You may contact me at (510) 567-6765 if you have any questions.

Sincerely,



Barney M. Chan  
Hazardous Materials Specialist

enclosure

c: B. Chan, files  
2mon3600





Western Region Office

March 14, 1997

Mr. Barney M. Chan  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Subject: Groundwater Monitoring at the Owens-Brockway Oakland Plant

Dear Mr. Chan:

As discussed earlier, reports, letters and memos related to this subject from our files at the plant, my office and corporate environmental files in Toledo were presented to you in my submittal dated December 12, 1996. Drawings of groundwater contours, bore hole and well cross sections and an additional site plan were available but not considered pertinent when the initial submittal was prepared. Copies of the additional drawings are enclosed today. Regarding your request for an estimate of residual soil contamination, we have no additional information addressing that request.

Since meeting with you earlier, I have located, labeled, cleaned and visually observed a grab sample from the wells of interest specified in your January 15, 1997 letter. A summary of my findings is detailed in the enclosed memo dated February 27, 1997. You will note that two wells no longer exist. Well #18 was destroyed during the installation of a substation for the plant's new electrical supply. Well #3 was destroyed during the installation of a fire water line several years ago. Each remaining well appears serviceable but redevelopment is necessary before meaningful groundwater sampling is conducted. I am currently seeking quotes to repair and secure the Christy box well covers and provide well redevelopment services.

A history of recovery well installations, operation and results is enclosed (see memo dated February 28, 1997). The historic summary has been reviewed and certified by the four individuals responsible for installation and operation of the wells. **Since the latest aggressive recovery effort produced no free product, we plan to close the wells to better accommodate activities in the area.**

The wells you proposed for further study (1, 2, 5, 6, 7, 8, 9, 10, 13, and 17) are acceptable. As stated previously, well #3 no longer exists. Well #15, located near the plant property line, would be a suitable replacement for Well #3 as a boundary well if desired. As stated previously, selected wells must be redeveloped before sampling and analysis.

**Proposed analyses for total petroleum hydrocarbons as diesel, motor oil, gasoline and BTEX as related to the respective wells is appropriate.** The need to analyze for gasoline components in areas where only diesel was stored and detected previously is not justified. The analysis of chlorinated solvents and PCBs is not justified. These materials were not stored in underground tanks and should not be part of this monitoring.

ENVIRONMENTAL  
INDUSTRIAL  
97 MAR 17 PM 2:15

# MEMO

To: Ground Water File - Oakland  
From: Bob Neal  
Date: Friday, February 28, 1997  
Subject: Recovery Well History - Oakland Plant

Page 1 of 2

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An oil recovery well was installed in 1987 near the former plant maintenance building. The well is located in the backfill where a 15,000 gal. diesel fuel tank had been located. Records indicate that approximately 200-300 gals. of oil/water were recovered while the well operated. Recovery operations were terminated in 1988 due to the diminished amount of material being recovered and maintenance problems experienced with the recovery equipment.

In 1989 the acting consultant recommended that the recovery well be redeveloped and recovery efforts resumed utilizing more sophisticated continuous drawdown recovery equipment. The consultant also recommended that a second recovery well be installed near monitoring well number two. Proposals were obtained and the two wells were installed as recommended in 1989.

International Technology Corp. (I.T.) selected the recovery equipment and installed it with assistance from the plant maintenance staff. I.T. operated the systems under contract for several months following installation. Water was continuously pumped from the recovery wells to create a cone of depression in the aquifer and flow toward the wells thus encouraging free oil products to move to the recovery wells. Secondary pumps were designed to skim recovered oil from the wells and transfer it to individual receiver tanks where gravity separated water could be drawn off and the recovered oil quantified.

After several months of operation, one of the primary drawdown pumps failed. No oil had been recovered from either of the two wells. Given the failure to recover any oil after months of operation and the high cost to replace a specialized stainless steel pump, further attempts to recover oil were terminated. The recovery wells still exist but they are inoperable.

A review of related files found no report documenting the unsuccessful oil recovery effort in 1989. This summary of recovery well operations is signed by the four individuals most familiar with the project in order to verify the actions taken.

Robert C. Neal, P. E. Robert C. Neal Date: 3/7/97  
Environmental Administrator, Owens-Brockway Glass Container, Inc.

Walt Long Walt Long Date: 3/6/97  
Environmental Manager, Owens-Brockway Glass Container, Inc.

Robert Barber Robert Barber Date: 3/7/97  
Plant Engineer, Owens-Brockway Glass Container, Inc.

Larry Hudson Larry Hudson Date: 3-9-97  
Project Manager, International Technology Inc.

# MEMO

To: Dick Schieder, Bob Barber

cc: Walt Long

From: Bob Neal

Date: Thursday, February 27, 1997

Subject: Status of Ground Water Monitoring Wells - Oakland Plant

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Eighteen groundwater monitoring wells were installed at the Oakland plant in the late 1980s. The wells were last sampled in December of 1988. A survey was just completed to determine the current status of each monitoring well. Each well was located, labeled and the well head cleaned to remove accumulated dirt, water and debris. **All located wells appear to be serviceable for monitoring.** Wells identified for possible sampling were opened and checked for the presence of accumulated petroleum product. Working drawings of the surveyed wells are attached. Results of the survey are tabulated in the following table.

<u>Well #</u>	<u>Christy Box &amp; Lid Condition</u>	<u>Petroleum Product</u>	<u>Comments</u>
1	Cover Missing, Lid Damage	None	Usually covered with glass.
10	Good	None	Easy access - back gate.
8	Good	Possible Trace	Beside tin slurry tank.
9	Cover Missing, Lid Damage	Yes	Middle of basement ramp.
2	Lid Damage	Yes	Easy access by bunkers.
5	Lid Damage	Trace	Easy access by Fruitvale.
6	Good	Yes	Easy access on the corner.
7	Good	Yes	Easy access by Alameda.
3	Destroyed during the installation of a fire water line several years ago.		
15	Good	None	Easy access by scale.
13	Good	None	Easy access by cooling twr
16	Good	None	Caution - High Traffic Area
17	Top destroyed, Lid Damage	Yes	Caution - High Traffic Area
18	Destroyed during the installation of underground power cables.		

The above listed wells are not secured with locks at this time.

The following wells are locked. They appear to be in good condition. They were not opened because they are not being considered for sampling .

<u>Well #</u>	<u>Christy Box &amp; Lid Condition</u>	<u>Petroleum Product</u>	<u>Comments</u>
4	Good	Unlikely	Beside compactor.
14	Good	Unlikely	Teledyne bldg. back door
12	Good	Unlikely	At K-Mart / O-B back gates.
11	Needs Cover	Unlikely	Inside gate at Alameda.

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



January 15, 1997  
StID # 866

Mr. Bob Neal  
Environmental Administrator  
Owens-Illinois Glass Container, Inc.  
6150 Stoneridge Mall Road  
Pleasanton, CA 94566-8093

ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION (LOP)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

**Re: Status of Site Remediation at Owens-Illinois Facility,  
3600 Alameda Ave., Oakland CA 94601**

Dear Mr. Neal:

Thank you for meeting with our office on January 13, 1997 and providing a site visit to familiarize myself with this site. This letter serves to recount the items discussed during our meeting and provide recommendation for a continued groundwater monitoring program.

It was apparent that the reports previously provided by you were not complete. In order to adequately assess this site, it would be beneficial to have as much of the previous reports as possible. To this end, you are requested to provide all other reports and technical information which was not already provided. This may include, but is not limited to, any drawings or plates missing from previous reports, any descriptions of tank closure activities, any analytical reports, site maps and any manifests or receipts for hazardous and non-hazardous waste disposed throughout the investigation. Additionally, you stated that you would provide a written summary of the installation and results from the installation of the additional recovery wells.

As part of one recommended remedial approach for this site, it would be advisable to determine if this site meets the criteria of a "low risk groundwater case". This requires:

1. The leak has been stopped and ongoing sources, including free product, has been removed. To this end, your monitoring should include inspection and removal of any free product.
2. The site must be adequately characterized. To this end, our office requests that you provide an estimate as to the residual soil contamination at the site. The results of the February 20, 1987 Soil and Groundwater Investigation Report currently represents the best estimate of residual soil concentrations.

In regards to the excavation in the ramp area, please estimate what levels of contamination still exist in this area.

Mr. Bob Neal  
StID # 866  
3600 Alameda Ave.  
January 15, 1997  
Page 2.

Obviously, some soil contamination was removed during the excavation, however to what depths were soil removed and how much contamination still remains?

3. The plume is not moving. This will be verified through groundwater monitoring.

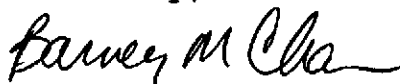
4. The site presents no significant risk to human health or the environment. Based on residual soil and groundwater contamination a Tier 1 Risk Assessment using ASTM Risk Based Corrective Action format (RBCA) can be done. Additionally, since the Oakland-Alameda estuary is immediately downgradient and potentially affected by this release, cleanup levels protective of estuarine life must be considered.

During our site visit, it appeared that not all of the former monitoring wells could be found. Please provide an inventory and status of all existing monitoring and recovery wells. At our meeting, I offered to provide a recommended monitoring schedule to reinstitute. This recommendation assumes the existence and viability of all wells. Please review this schedule and comment as to what, if any, changes you would recommend.

Monitoring wells 1,2,3,5,6,7,8,9,10,13 and 17 are recommended for reinstating of groundwater monitoring. These wells either mark the extent of the petroleum plume or allow for free product removal. The other wells may not require monitoring because of past low levels or non-detectable levels of contamination. A number of the upgradient wells indicate that offsite contamination is not a threat. The specific analytes for the above wells should include Total Petroleum Hydrocarbons as gasoline, as diesel, as motor oil, BTEX and selective wells should be analyzed for PCBs and chlorinated hydrocarbons additionally based on past detection of these analytes.

Please provide comment to the above proposed monitoring schedule and provide the requested documents **within 30 days or by February 18, 1997**. You may contact me at (510) 567-6765 if you have any questions.

Sincerely,



Barney M. Chan  
Hazardous Materials Specialist

c: B. Chan, files            mon3600



Western Region Office

December 12, 1996

Mr. Barney Chan  
Alameda County Health Agency  
Division of Environmental Protection  
1131 Harbor Bay Parkway, 2nd. Floor  
Alameda, CA 94502

**Subject: Underground Tank Removals and Groundwater Monitoring - Oakland Plant**

In a letter dated November 7, 1996, you requested information regarding the former underground storage tanks, their removal, monitoring and the status of remaining underground tanks at our Oakland plant. After collecting all available records and meeting with you Friday, December 6, 1996, I copied the material we agreed was appropriate for your review.

The following material is enclosed as requested.

- Enclosure 1: Letter dated June 29, 1984 with eleven storage tank registrations.
- Enclosure 2: Memo dated June 18, 1986 specifying tank removal and reinstallation work to be done by contractor.
- Enclosure 3: Letter dated July 18, 1986 from W. Long to RWQCB re: potential leak.
- Enclosure 4: Lab report dated July 25, 1986 of soil and water sample analyses.
- Enclosure 5: Hazardous Waste Manifests (17) dated 1/7, 2/18, 2/26, 2/27 and 5/6/87 for the shipment and disposal of soil and debris contaminated with diesel fuel.
- Enclosure 6: Letter dated February 20, 1987 and report entitled Soil and Groundwater Contamination Investigation.
- Enclosure 7: Site plan drawing with boring and monitoring well locations.
- Enclosure 8: Letter dated March 4, 1987 reporting the removal of two 24,000 gal. tanks.
- Enclosure 9: Letter dated March 5, 1987 from W. Long to the RWQCB regarding tank removals, disposal of contaminated soil, exploratory borings and the installation of monitoring and recovery wells.





- Enclosure 10: Letter dated May 5, 1987 - Quarterly groundwater report.
- Enclosure 11: Letter dated May 26, 1987 regarding the status of the subsurface tanks and pipeline closure.
- Enclosure 12: Letter dated October 16, 1987 - Quarterly groundwater report.
- Enclosure 13: Letter dated January 27, 1988 - Quarterly groundwater report.
- Enclosure 14: Letter dated April 19, 1988 - Quarterly groundwater report.
- Enclosure 15: Memo dated August 10, 1988 - Storage Tank List  
(Details of the four new tanks - two underground and two above ground)
- Enclosure 16: Letter dated November 8, 1988 - Quarterly groundwater report.
- Enclosure 17: Letter dated February 2, 1989 - Quarterly groundwater report.
- Enclosure 18: Letter dated February 9, 1989 - Status of remediation and monitoring.
- Enclosure 19: Memo dated April 28, 1989 regarding the installation of recovery wells.
- Enclosure 20: MSDS sheets for gasoline, diesel, machine lube oil and kleenmold.

I trust this information will satisfy your request. If you have questions about the material or would like to discuss the related activities, give me a call at 510-734-6276.

Very truly yours,



Robert C. Neal, P.E.  
Environmental Administrator

12/6/96

Meeting w/ Mr Robert Neal  
Environmental Administrator

Owens-Illinois

11-UST's were "registered" 12 currently exist  
18 mws, 1 RW

9<sup>00</sup> Friday Dec 13, 1996  
next meeting set for.

will provide reports discussed in meeting

F.P. was removed from Recovery well, F.P. taken  
to oil/water separator for disposal

I.T. installed 2 additional R.W.'s in @ 1988  
no further monitoring since 1989.

gave Mr Neal copy of RWQCB "Recommendations  
for low soil + GW cases".

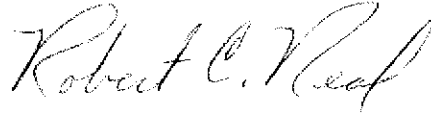
OWENS-BROCKWAY  
GLASS CONTAINERS  
a unit of Owens-Illinois



Robert C. Neal, P.E.  
Environmental Administrator  
Western Area  
6150 Stoneridge Mall Road  
Suite 375  
Pleasanton, CA 94588-3242  
(510) 734-6276  
Fax: (510) 463-8399

Following your review of the materials submitted, I would like to discuss the next appropriate steps. Please give me a call at (510) 734-6276. We believe a risk-based closure will be possible following the collection of current monitoring data.

Very truly yours,

A handwritten signature in cursive script that reads "Robert C. Neal". The signature is written in black ink and is positioned above the typed name.

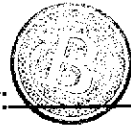
Robert C. Neal, P.E.  
Environmental Administrator

11/7/96 Norma - PLS transfer to LOP

ALAMEDA COUNTY - ENVIRONMENTAL HEALTH

# Transfer of Eligible Local Oversight Case

Owens. Illinois Glass Container Inc.  
One Seagate #1200  
Toledo. OH 43604

STID 866 Date of input/By:  NOV 07/96

Date: 11-7-96 From: B. CHAN

Site Name: Owens Brockway

Address: 3600 Alameda Ave City: Oak Zip: 94601

### To be eligible for LOP, case must meet 3 qualifications:

1.  Y  N Tanks Removed? # of removed? 7 Date removed: 11/86 + 2/26/87
2.  Y  N Samples received? Contamination level: \_\_\_\_\_ ppm  
Type of test \_\_\_\_\_  
Contamination should be over 100 ppm TPH to qualify for LOP
3.  Y  N Petroleum? Circle Type(s): • Avgas • leaded • unleaded • fuel oil • jet  
• diesel • waste oil • kerosene • solvents

### Procedure to follow should your site meet all the above qualifications:

1.
  - a. \_\_\_\_\_ Close the deposit refund case.
  - b. \_\_\_\_\_ Account for **ALL** time you have spent on the case.
  - c. \_\_\_\_\_ Turn in account sheet to Leslie.  
If there are funds still remaining it is still better to transfer the case to LOP as the rate for LOP allows more overhead. **DO NOT** attempt to continue to oversee the site simply because there are funds remaining!

Remaining DepRef \$'s: \_\_\_\_\_  
DepRef Case Closed with Candyce/Leslie?  Y  N (If no, explain why below.)

2. Submit the completed **A** and **B** permit application forms to **NORMA**.
3. Give the entire case to the proper LOP staff.

## ALAMEDA COUNTY HAZARDOUS MATERIALS DIVISION

08/19/96

## UNDERGROUND STORAGE TANK CLEANUP SITE

AGENCY#: 10000 SOURCE OF FUNDS: F-FEDERAL INSPECTOR: CL  
StID: 686 SUBSTANCE: 8006619 -Gasoline  
SITE NAME: Lake Chabot Shell DATE REPORTED : 10/31/91  
ADDRESS : 2724 Castro Valley Blv DATE CONFIRMED: 02/16/87  
CITY/ZIP : Castro Valley, CA 94546 MULTIPLE RP's : N

CASE TYPE: G CONTRACT STATUS: 9 PRIOR:1C3 EMERGENCY RESPONSE:

RP SEARCH	: S	DATE END:	03/27/92
PRELIM ASSESSMENT	: U	DATE BEGIN:	01/19/90
REMEDIAL INVESTIG	:	DATE END:	
REMEDIAL ACTION	:	DATE BEGIN:	
POST REMED MONITOR:		DATE END:	

TYPE ENFORCEMENT ACTION TAKEN: 2 DATE OF ENFORC. ACTION: 03/27/92

## UNDERGROUND STORAGE TANK CLEANUP SITE - SCREEN #2

LUFT FIELD MANUAL CONSIDERATION: 3HSCAWG CASE CLOSED: Y on: 02/05/96

DT EXC START: 02/16/89 REMEDIAL ACTIONS TAKEN: ED

RP #1: CONTACT: R. Jeff Granberry RP COST:  
RP COMPANY NAME: Shell Oil Products Company Ph: 510-675-6168  
ADDRESS: P. O. Box 4023  
CITY/STATE: Concord, C A 94524

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES

ENVIRONMENTAL PROTECTION (LOP)

1131 Harbor Bay Parkway, Suite 250

Alameda, CA 94502-6577

(510) 567-6700

FAX (510) 337-9335

November 7, 1996  
StID # 866

Mr. Bob Barber  
Plant Engineer  
Owens-Illinois Glass Container Inc.  
3600 Alameda Ave.  
Oakland CA 94601

**Re: Request for Technical Reports for Underground Tank Removals  
and Groundwater Monitoring at 3600 Alameda Ave., Oakland CA  
94601**

Dear Mr. Barber:

Our office has received limited information regarding the removal of underground storage tanks at the above site. We have received a May 29, 1987 letter from you to Mr. Rafat Shahid, former Chief of the Alameda County Hazardous Materials Division. In this letter, you state that a 500 gallon, 4000 gallon and 24,000 gallon diesel tank were removed from this site in November of 1986. In addition, a 4,000 gallon gasoline and a 12,000 gallon Kleenmold tank were also removed. A 8,300 gallon lubricating oil tank was scheduled for removal in July 1987. We also have a copy of a March 4, 1987 letter from Mr. Christopher Palmer of Exceltech which describes the results of the removal of two 24,000 diesel tanks. The letter states that although there did not appear to be any visual tank leakage, some apparently contaminated soil from the tank excavation was removed for disposal offsite. This soil was stated to have come from an older leak source and not the 24,000 gallon tanks. Groundwater monitoring wells were installed to monitor the older leak and reports were forwarded to the Regional Water Quality Control Board (RWQCB). The apparent leak report date to the RWQCB was 3/12/87. An Exceltech site map, Figure 1, depicts ten monitoring wells located in the northwest corner of this property in the vicinity of the 2-24,000 gallon tanks.

Please be advised that Alameda County Environmental Health was delegated the lead responsibility for overseeing underground fuel tank investigations and cleanups by the RWQCB on December 7, 1988. Final site closure and sign-off remains the responsibility of the Water Board. Our office oversees these sites on a routine basis and defers to the Water Board when the site is ready for closure and seeks their concurrence. Our office recognizes case closure by issuing a Remedial Action Completion Certificate (RACC).

Mr. Bob Barber  
Owens Brockway  
StID # 866  
3600 Alameda Ave.  
November 7, 1996  
Page 2.

In order to expedite the closure of the subsurface investigation at your site, our office requests the following information:

1. The tank closure reports for all tanks removed from this site;
2. Copies of all technical including groundwater monitoring reports;
3. MSDS for all chemicals stored in these tanks;
4. Copies of disposal records of all liquid, solid, soil or other waste material generated from the tank removals; and
5. The current status and location of all remaining underground tanks at the site which contain or may have contained hazardous materials.

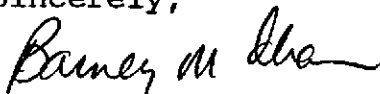
Please submit the requested technical documents to our office **within 30 days or by December 12, 1996.**

This should be considered a formal request for technical reports pursuant to the Water Code Section 13267 (b) and the California Health and Safety Code sections 25299.37 and 25299.78. Failure to submit the requested documents may subject Owens Brockway to civil liability.

In addition, this site has been transferred to the Local Oversight Program (LOP). A letter explaining the significance and requirements of this action is being sent to you under a separate cover.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,



Barney M. Chan  
Hazardous Materials Specialist

c: Mr. K. Tinsley, ACEH  
B. Chan, files

rep3600A

white -env.health  
yellow -facility  
pink -files

# ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

1131 Harbor Bay Pkwy  
Alameda CA 94502  
510/567-6700

## Hazardous Materials Inspection Form

II, III

Site ID # 866 Site Name Owens Brockway Today's Date 10-31-96 written 11/5/96  
Site Address 3600 Alameda Ave  
City Oakland Zip 94601 Phone 436-2058

MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

### Inspection Categories:

- I. Haz. Mat/Waste GENERATOR/TRANSPORTER  
 II. Hazardous Materials Business Plan, Acutely Hazardous Materials  
 III. Under ground Storage Tanks

Benny 11/5

You may want to pursue the closure report on the TK removals at this bus. KEVIN

\* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments: Jerry Hewitt - 800-660-9443 (Champion)

Follow-up UST inspection was conducted following receipt of A and B forms, monitoring, spill plan and the financial responsibility forms. A check was enclosed for \$112.00. Retained the check and A and B forms.

- 1) The A form needs a State Board of Equalization number. Obtain the number and resubmit your forms.

Received a copy of a letter and partial soil remediation report dated August 7, 1986 and March 4, 1987 respectively with information about the removal of 7, underground tanks. Also on file is a letter dated May 29, 1987 stating 7 tanks will be removed and two installed under their tank program.

Mr. Bob Barber states there are only two tanks on site. A gasoline tank and diesel tank, both located in the center driveway area off Alameda Ave. This is actually one tank divided into 2 compartments. It has single wall piping and interstitial monitoring. Received line test results dated 10-8-96 for 2 lines, one to dispense diesel and the other for gasoline.

- 2) To qualify for a permit you must demonstrate the interstitial monitoring system is operational. Schedule an appointment so this office can witness the test.  
3) Also check for flow restrictor monitoring on pipelines.

Contact Bob Barber  
Title Engineer  
Signature U.S. Mail

Inspector Kevin Tinsley  
Signature Kevin Tinsley

II, III



# BILLING ADJUSTMENT FORM

Billing Acct.#  
 Generator...H \_\_\_\_\_  
 HMMP.....L \_\_\_\_\_  
 UST.....T \_\_\_\_\_

Date: 11-5-96

HazMat StID#: 866

Caller: \_\_\_\_\_ Phone: \_\_\_\_\_

Company Name: Owens Brockway

Site Address: 3600 Alameda Ave Oakland 94604

Requested Changes: Change the number of USTs from 7 to 2  
(This is one tank divided into two compartments. It appears that  
Removals occurred in 1986 and Feb. 1987. Initials: KB

Rescind Bill with explanation and date (if available):

- Generator \_\_\_\_\_
- HMMP (AB2185) \_\_\_\_\_
- UST \_\_\_\_\_

Continue Billing With Following Changes:

From: \_\_\_\_\_ To: \_\_\_\_\_

- Change number of EMPLOYEES \_\_\_\_\_
- Change number of TANKS 7 to 2
- HMMP (AB2185) \_\_\_\_\_
- Updated information \_\_\_\_\_

Business Name Same Phone: \_\_\_\_\_

SITE Address \_\_\_\_\_ City \_\_\_\_\_ Zip \_\_\_\_\_

BILLING Address \_\_\_\_\_ City \_\_\_\_\_ Zip \_\_\_\_\_

Inspector: Kevia Twisley Date: 11-5-96

Sent to Billing  
on 1/1/96  
Rev 12/91 Mac-BillAdj-2



a subsidiary of environmental system company

February 9, 1989

Owens-Illinois Glass Container, Inc.  
6150 Stoneridge Mall Road  
Pleasanton, California 94566-8093

Attention: Mr. Bob Neal  
Environmental Administrator, West

Re: Status of Site Remediation and Monitoring  
Owens-Illinois Oakland Facility, Oakland, California  
EES project number 1467G

Dear Mr. Neal,

This letter summarizes our meeting of February 8, 1989 between yourself, Bob Barber and Walt Long of Owens-Illinois (OI) and Chris Palmer of Ensco Environmental Services, Inc. (EES). As you know, we discussed the current site status and the planned future product recovery operation. The topics discussed are summarized below for your information.

#### CURRENT CONTAMINANT PLUMES

Two contaminant plumes exist on-site; one located in the vicinity of the former No. 2 Bunker fuel tank location, and the second slightly down gradient of the former subsurface vehicle fuel tank locations. The plume near the No. 2 tank contains dissolved heavy hydrocarbons, and a floating product lense present in the locale of existing monitoring wells MW-2, 9, 3 and the R-well. The thickness lense of floating product has consistantly been observed in MW-2. Floating product is sporadically observed in the wells 5, 6 and 7. The plume near the former vehicle storage tanks shows only dissolved gasoline and diesel fuel constituents, and is centered in the vicinity of MW-17. Monitoring data collected from existing wells has been compiled into quarterly monitoring reports sent to OI.

#### EXISTING RECOVERY WELL

The existing recovery well was installed at the time of leak discovery, and consists of a casing located in the backfilled former tank location. This well was equipped with an oil skimmer system, which recovered product sporadically from about October, 1986 to February, 1987. The skimming system developed problems which are attributed to tidal influence upon ground water and entrained fine particles contained in the product which clogged skimming filters. The well was taken out of service due to the extensive OI plant construction program.

A brief discussion with Mr. Eric Kieselbach of EES indicates that a different system could be installed in the existing R-well which could recovery product more efficiently. Mr. Kieselbach will pursue details of that system and may be contacted directly at our office for information.

#### PLANNED RECOVERY WELL

A second recovery well has been planned to be installed adjacent to existing well MW-2 for product capture. A bid has been submitted by EES to OI for the installation of the well and equipment, and related subsurface line installation. Any questions regarding the bid may be directed to Mr. Kieselbach.

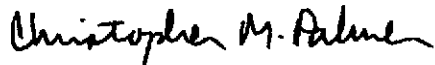
The currently envisioned system will utilize a four (4) inch diameter well equipped with an Ejector product recovery system. The system would be plumbed to the surface recovery tank, which will be reconnected to the existing R-well and new recovery well upon completion of OI's construction program. It is our understanding the OI plans to start up the existing R-well as soon as possible, probably June 1, 1989. If circumstances allow, the new recovery well would be installed at about the same time as the R-well restart, and the entire system connected at one time.

#### GROUND WATER MONITORING

Ground water monitoring currently proceeds at quarterly intervals in accordance with verbal guidance supplied by the San Francisco Bay Area Regional Water Quality Control Board (RWQCB). EES will continue to sample existing monitoring wells and submit reports to OI for submittal to RWQCB.

If you have any questions, please call.

Sincerely,  
Ensco Environmental Services, Inc.



Christopher M. Palmer, CEG 1262, REA 285  
Senior Program Manager

cc. Eric Kieselbach, EES

**OWENS-ILLINOIS**  
Glass Container Division  
Western Area

Enclosure 15

**Intra-Company**

August 10, 1988

to Walt Long - Levis Park cc: Jim Loutzenhiser - PLS  
subject Joe Batistic

Storage Tank List

Oakland Plant

The Oakland Plant has removed the old underground storage tanks and replaced with the following:

Tank #1

- Underground
- Gasoline, 1000 gallons
- 1986
- Fiberglass (double wall)
- Fiberglass for corrosion
- Electronic monitoring

Tank #2


- Underground
- Diesel, 4000 gallons
- 1986
- Fiberglass (double wall)
- Fiberglass for corrosion
- Electronic monitoring

Tank #3

- Above ground
- Lubricating oil, 4000 gallons
- 1986
- Containment area for full capacity of tank
- Visual monitoring
- Primed and painted for corrosion

Tank #4

- Above ground
- Waste oil, 4000 gallons
- 1986
- Containment area for full capacity of tank
- Visual monitoring
- Primed and painted for corrosion

  
Bob Barber  
Plant Engineer  
BB/cm

2



May 29, 1987

Mr. Rafat Shahid, Chief  
Hazardous Waste Management Division  
470-27th Street Room 322  
Oakland, Ca 94612

Mr. Shahid,

Reference letter dated 5/30/87 for underground storage tanks.

In 1986 OWENS-ILLINOIS GLASS CONTAINER INC., started a program at the Oakland Plant to replace the existing underground storage tanks. This program is substantially complete with ~~(1) 8,300 gallon lubricating oil tank to be removed in July 1987~~ **TANK # 9**

Attached are amended permit applications for the (2) new fiberglass underground tanks, also tanks removed from service.

Status of underground tanks:

- 1.) 500 gallon (diesel) - removed November '86 not replaced **TANK # 2**
- 2.) 4,000 gallon (diesel) - removed November '86 \* replaced with double wall fiberglass tank with electronic monitoring **TANK # 1**
- 3.) 4,000 gallon (gasoline) - removed November '86 \* replaced with a 1000 gallon, double wall fiberglass tank with electronic monitoring. **TANK # 11**
- 4.) 12,000 gallon (Kleenmold) removed November '86 not replaced **TANK #**
- 5.) (2) 24,000 gallon (diesel) - removed November '86 not replaced **TANK # 6 & 7**

If you have any questions please advise.

Bob Barber  
Plant Engineer  
OWENS-ILLINOIS  
GLASS CONTAINER INC.  
3600 ALAMEDA AVENUE  
OAKLAND, CA 94601

**RECEIVED**  
JUN 03 1987  
HAZARDOUS MATERIALS/  
WASTE PROGRAM  
(Huels)  
**TANK #**



**EXCELTECH**

41638 CHRISTY STREET • FREMONT, CA 94538  
PHONE (415) 659-0404 • CONTR. LIC. NO. 464324

*glen  
(1)*

Enclosure 11

O. I. Glass Container Division, S. T. S.  
3600 Alameda Avenue  
Oakland, California 94601

May 26, 1987  
Project 1467G

Attention: Mr. Robert Barber  
Plant Engineer

RE: Status of Subsurface Tanks and Pipeline Closures  
O. I. Glass Container Facility  
Oakland, California

Dear Mr. Barber,

As you know, Exceltech, Inc. has conducted a soil and ground water investigation, as well as assisting you with subsurface tank and pipeline closure and removal at the above referenced facility.

To date, our firm has assisted in the removal of seven subsurface tanks which had been used to store the following: motor fuel (two eight thousand gallon and one five hundred gallon), machine oil (one twelve thousand gallon) and fuel oil (two twenty four thousand gallon) and one (sixteen thousand gallon) for the kiln furnace. The sixteen thousand gallon tank had been connected to a pipeline feed from off-site (which evidently ran down Fruitvale Avenue to the facility), and fuel oil was sent on demand to the tank. The pipeline, which has been out of service for years, has been partially removed on-site and is capped at the O. I. property line on Fruitvale Avenue.

One unleaded fuel subsurface tank has been replaced in the vicinity of where the two eight thousand gallon tanks had previously been. The replacement tank which was installed possesses the required monitoring and containment. It is our understanding that with the above exception, all other subsurface fuel storage tanks have been removed from the site.

The facility is currently being monitored by eighteen ground water wells, and a water quality monitoring program is ongoing.

If you have any questions please call.

Sincerely,  
Exceltech, Inc.

Christopher M. Palmer  
Manager, Geotechnical services

Press [ESC] for the menu

ENV. UPDATED

UNDERGROUND STORAGE TANK CLEANUP SITE

-LOP:A-TRemov:--SLIC:--

SITE ID: 866	SOURCE OF FUNDS: F	SUBSTANCE :12034
SITE NAME: Owens Brockway Glass		DATE REPORTED :03/12/1987
SITE ADDRESS: 3600 -0 Alameda Ave		DATE CONFIRMED:03/12/1987
CITY: Oakland	ZIP CODE: 94601	MULTIPLE RPs : N

CASE TYPE: U CONTRACT STAT: 4 PRIORITY: 3A3 DATE ER:-0-

RP SEARCH : S	DATE END: 11/08/1996
PRELIM ASSESSMENT : -	DATE BEGIN: -0- DATE END: -0-
REMEDIAL INVEST : -	DATE BEGIN: -0- DATE END: -0-
REMEDIAL ACTION : -	DATE BEGIN: -0- DATE END: -0-
POST REMED MONITOR: -	DATE BEGIN: -0- DATE END: -0-

ENFORCEMENT TYPE: 1	DATE ENFORCEMENT ACTION TAKEN: 11/08/1996
LUFT CATEGORY: 2	CASE CLOSED: - DATE CASE CLOSED: -0-
DT EXC START : 11/01/1986	REMEDIAL ACTIONS TAKEN: ED

PgDn for Screen #2

[ESC] Done [F2] Clear field [Shift-F2] Clear to end [Shift-F10] More  
 Form: SITE Table: SITE Field: Source Page: 1

STID: 866

UNDERGROUND STORAGE TANK CLEANUP SITE - SCREEN #2

IN-HOUSE MANAGEMENT:

RISK ASSESSMENT :-0-	LOC-CleanUp Fund? -0-
DATE LAST CORSP :01/06/1999	INSPECTOR INIT: BC

CONTACT/RESPONSIBLE PARTY INFORMATION:

RP #1: CONTACT: Mr. Robert Neil	RP COST: \$0.00
RP COMPANY NAME: Owens-brockway Glass Container	Ph: -0-
ADDRESS: P. O. Box 1019	
CITY/ST/ZIP: Oakland C A 94604	

COMMENT: MTBE has been requested but has not yet been run (4/00)

PgUp For Screen #1;PgDn For More RP'S

[ESC] Done [F2] Clear field [Shift-F2] Clear to end [Shift-F10] More  
 Form: SITE Table: SITE Field: FlagDate Page: 2



Enclosure 9

March 5, 1987

Bay Area Regional Water Quality Control Board  
1111 Jackson Street  
6th Floor  
Oakland, California 94607

OWENS-ILLINOIS, INC. GCD #20  
3600 ALAMEDA AVENUE  
OAKLAND, CA 94601

Attention: Mr. Dale Boyer

Dear Mr. Boyer:

As reported in my letter of July 18, 1986 to your attention, our Oakland facility discovered a fuel oil leak of undetermined origin while excavating a new ramp to their basement.

The plant had contracted Exceltech to prepare a site investigation and determine the soil and groundwater contamination from this leak.

During this investigation, the plant was proceeding with the planned removal or replacement of underground tanks in other locations at the plant. In another location where four underground tanks were removed an additional area of soil contamination was observed. The contaminated soils from these removals was properly submitted for disposal. This contamination was minor and appeared to be localized and not related to the original incident.

The site evaluation was initiated with the drilling of sixteen (16) exploratory borings. Subsequent to this initial investigation, a total of eighteen (18) ground water monitoring wells were installed. In addition, one recovery well was installed in the pit from the excavation of the suspected leaking 16,600 gallon underground fuel oil tank. (It should be noted that upon removal the tank did not show obvious evidence of having leaked.)

Exceltech has finalized the findings of their extensive investigation in their report dated Feb. 20, 1987. We are submitting this report to your agency.

The plant is prepared to install a second recovery well in the area where the fuel leak apparently occurred. Since this area has the highest product concentration which appears to be localized, this system would enhance the product recovery efforts. After installation and operation of the second recovery well, we would resample and analyze the ground water from select wells to demonstrate progress. The recovery well would continue to be operated and maintained as long as product was being recovered.

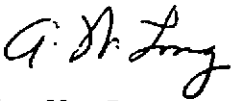




Owens-Illinois will proceed as above with the recovery program and periodically advise your agency of our progress.

If you have questions or comments, please contact the undersigned.

Very truly yours,



A. W. Long  
Manager  
GCD Environmental Administration  
las

cc: J. J. Batistic - Oakland  
bcc: J. L. Hodges - 25-OSG  
K. H. Lemke - 1-NTC  
H. G. Bruss - 25-OSG  
J. A. Loutzenhiser - Pleasanton  
R. Barber - Oakland  
L. A. Callahan - Pleasanton

10/15/98

3600 Alameda Ave : Owens Broadway plant

• Last monitoring event was 9/16/97  
MW-2 & MW6 had - measured amt of seepage

• MW-1, 5, 7, 8, 9, 10, 12, 15 + 17 sampled  
for TPH d, g, 100, BTEX

MW 1, 5, 7, 8, 9, 10 also analyzed for  
HVOCS + PCB's

no HVOCS or PCB's found

- Traces of PHE found in MW 5, 9 + 17 in past.

disolved  
TPH is weathered & doesn't resemble std.  
The boiling range is  $C_{12}-C_{22}+$  ∴  
TPH mo ( $C_{22}-C_{50}$ ) is reported

The SP hydrocarbon is more in the diesel range  
although some overlaps in the TPH g range

1/20/98 Mtg w/ B. Neal + S. Stelling

concerns:

- utilities
- ecological ~~at~~ risk + cleanup stds.

10

### MSDS Summary Sheet

**Manufacturer:**

Name: TOSCO  
Address 1: CORPORATE HEADQUARTERS  
Address 2: 72 CUMMINGS POINT ROAD  
Address 3:  
CSZ: STAMFORD State: CT Zipcode: 06901  
Emergency phone: 510-228-1220  
Business phone: 360-384-1011

**Product:**

MSDS#: 1354 Version: 1  
Name:  
**NO. 2 DIESEL and LOW SULFUR NO. 2 DIESEL**  
Synonyms:  
Crude column 3rd IR  
Crude column 3rd side cut  
Atmospheric tower 3rd side cut  
Finished Diesel  
DHT Reactor Feed  
Straight Run Diesel  
Middle Distillate  
MSDS Date: 05/13/96 (received: 05/14/96)

**HMIS codes:**

Health: 1 Flammability: 2 Reactivity: 0

**NFPA codes:**

Health: 0 Flammability: 2 Reactivity: 0

Possible carcinogen: Y Benzene: N LEL: 0.3

**Product hazards:**

SOLVENT EFFECTS.

**RCRA waste numbers:**

D001

**Chemical components:**

<u>CAS #</u>	<u>Chemical name</u>
68476-34-6	Diesel Fuel No. 2
TLV: NE (TWA), NE (STEL)	
OSHA PEL: NE (TWA), NE (STEL)	
SARA Threshold Planning Quantity: TPQ, low: NE high: NE	
SARA 313 Form R? N	
RCRA Waste Numbers: NE	
RCRA Extremely Hazardous Substance? N	
DeMinimus: NE CERCLA RQ: NE	

\*Information in brackets is provided by Schumacher and Associates, Inc. as a suggested correction to the information presented by the manufacturer.

**Manufacturer's MSDS Report:**

TOSCO MSDS Number: 1354  
01 ---- Section 01 Chemical Product and Company Identification ----

24-HOUR EMERGENCY ASSISTANCE: (510)-228-1220  
GENERAL ASSISTANCE : (360)-384-1011  
CHEMTREC ASSISTANCE : (800)-424-9300

MSDS Number 1354 Version # : 1

MANUFACTURER/SUPPLIER:  
Tosco Corporation  
72 Cummings Point Road  
Stamford, CT 06901

TRADE NAME: NO. 2 DIESEL AND LOW SULFUR NO. 2 DIESEL

REVISION DATE : 05/13/96  
REPLACES SHEET DATED: 03/07/96

CAS NUMBER : 68334-30-5  
SYNONYM(S) : NO. 2 FUEL OIL, MIDDLE DISTILLATE, CARB  
DIESEL  
CHEMICAL FAMILY : PETROLEUM HYDROCARBONS  
MOLECULAR FORMULA : C10-C20 HYDROCARBONS  
MOLECULAR WEIGHT : MIXTURE

COMPLETED BY: SCHUMACHER & ASSOCIATES, INC.  
2200 6th Ave., Suite 250  
Seattle, WA 98121

02 ---- Section 02 Composition, Information on Ingredients ----

COMPONENT	CAS NO.	%	EXPOSURE LIMITS - REF.
Diesel Fuel No. 2	68334-30-5	99.8-100	None established

Health Hazards: Inhalation causes drowsiness. Central nervous system depressant. Repeated or prolonged contact may result in dermatitis and possible secondary infection. Possible skin cancer hazard, based on tests with animals.

Remaining components not determined hazardous and/or hazardous components present at less than 1.0% (0.1% for carcinogens).

Diesel No. 2 contains no more than 0.5% sulfur. Low Sulfur Diesel No. 2 contains no more than 0.05% sulfur.

03 ---- Section 03 Hazards Identification ----

NFPA FIRE HAZARD	HMIS INFORMATION
Flammability: 2	Flammability: 2
Health : 0	Health : 1
Reactivity : 0	Reactivity : 0
Special Hazards : None Established.	

HEALTH:  
DANGER!  
ASPIRATION HAZARD IF SWALLOWED--CAN ENTER LUNGS AND CAUSE DAMAGE.  
VAPORS MAY BE HARMFUL.  
MAY BE IRRITATING TO THE SKIN, EYES AND RESPIRATORY TRACT.  
POSSIBLE SKIN CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA.

INGESTION:  
Aspiration into the lungs may cause pneumonitis. May be irritating to the

gastrointestinal system. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause central nervous system symptoms similar to those listed under Inhalation (this section).

**SKIN:**

Repeated or prolonged contact may result in dermatitis and possible secondary infection. Products of similar composition have produced skin cancer in laboratory animals. High pressure skin injections are **SERIOUS MEDICAL EMERGENCIES**. Injections may show no serious symptoms at first but require **IMMEDIATE MEDICAL ATTENTION** to treat possible serious delayed tissue damage.

**EYE:**

Exposure to vapors, fumes or mist may cause irritation.

**INHALATION:**

May cause respiratory tract irritation. May cause harmful central nervous system effects. Effects may include excitation, euphoria, headache, dizziness, drowsiness, blurred vision, fatigue, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death. Degenerative changes in the liver, kidneys and bone marrow may occur with prolonged high concentrations. Repeated or prolonged exposures may cause behavioral changes.

**HEALTH EFFECTS (WHMIS):**

Exposure Limits	:Yes, see Section 02		
Irritant	:Yes		
Sensitization	:No		
Teratogen	:No		
Reproductive Hazard	:No		
Mutagen	:No		
Synergistic Effects	:None reported		
Carcinogenicity: - NTP: No	IARC: Yes (Class 2A)	OSHA: No	

Warning: The use of hydrocarbon fuel in an area without adequate ventilation may result in hazardous levels of combustion products and/or dangerously low oxygen levels.

**04 ---- Section 04 First Aid Measures ----**

**INGESTION:**

If liquid is ingested (swallowed), not induce vomiting. If vomiting occurs, keep victim's head lower than the stomach to prevent aspiration into the lungs. Seek immediate medical attention.

**SKIN CONTACT:**

Remove contaminated clothing immediately. Wash the skin with soap and warm water. If irritation persists, seek medical attention. High pressure injections are **SERIOUS** medical emergencies requiring immediate medical attention.

**EYE CONTACT:**

Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.

**INHALATION:**

Remove affected person from source of exposure. If not breathing, ensure clear airway and institute cardiopulmonary resuscitation (CPR). If breathing is difficult, administer oxygen if available. Get immediate medical attention.

**NOTE TO PHYSICIAN:**

Diesel fuel is a mixture of C10-C20 hydrocarbons. There are no significant toxicological distinctions between this formulation and others with regard to additives. Exposure can occur via inhalation, ingestion or dermal

absorption. Typically, the smaller hydrocarbon chain components are more rapidly absorbed. In general, there is no specific treatment for hydrocarbon exposure. Treatment is supportive.

Diesel components have both irritant and anesthetic properties. Their relatively low volatility compared to other fuels may reduce inhalational toxicity. Generally, individuals acutely exposed to anasthetizing levels of vapor will rapidly recover with removal from further exposure. Patients with severe exposure can require resuscitation and respiratory support.

Ingestion (accidental in children or secondary to siphonage in adults) rarely results in significant ingestion due to diesel's unpalatable taste. Diesel fuel is a low level GI toxin. The principle risk relates to aspiration. Aspiration of relatively small quantities can result in an aspiration pneumonitis. Emesis should not be induced. If lavage is felt to be necessary the airway should be protected with a cuffed endotracheal tube. There may be some value to the use of an activated charcoal slurry and cathartics. The treatment of aspiration pneumonitis follows current accepted therapy.

Simple skin contact can be treated with thorough cleaning with soap and water. Protracted immersions can result in chemical burns that should be treated as thermal burns. Chronic or recurrent dermal exposures can cause an irritant contact dermatitis. Eye exposure generally results in irritation that can be treated by copious irrigation. Much less frequently, a more severe inflammatory response may require a short course of topical steroids.

Chronic exposures may potentially be associated with adverse health effects. Questions may best be referred to a toxicologist or physician experienced in chronic toxicological issues.

#### 05 ---- Section 05 Fire Fighting Measures ----

##### FLAMMABILITY:

##### CAUTION!

COMBUSTIBLE LIQUID AND VAPORS.

FLASH POINT: >51.67 C (>125 F)

AUTOIGNITION TEMPERATURE: 260 C (500 F)

FLAMMABILITY LIMITS IN AIR (% BY VOL.) LOWER: 0.3

FLAMMABILITY LIMITS IN AIR (% BY VOL.) UPPER: 10.0

##### BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all purpose AFFF, alcohol foam or carbon dioxide to extinguish fire. Water may be ineffective for extinguishing fire but may be used to cool fire-impinged or expanded containers and structures. Water may be used to protect personnel and keep material away from sources of ignition. If leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak. Foam blankets may also be used to reduce vapors and protect responding personnel. Keep material out of public sewers and waterways.

##### UNUSUAL FIRE AND EXPLOSION HAZARDS:

Dangerous when exposed to heat or flame. Runoff to sewer may cause fire or explosion hazard. Containers may explode in heat of fire. Protect exposed personnel with NIOSH/NFPA approved positive pressure self-contained breathing apparatus with full face mask and flame protective equipment.

#### 06 ---- Section 06 Accidental Release Measures ----

##### PROCEDURES:

If your facility or operation has an "Oil or Hazardous Substance Contingency Plan", activate its procedures.

Take immediate steps to stop the leak or release. Caution should be exercised regarding personnel safety and exposure to the released material.

For technical advice and assistance related to chemical spills, contact CHEMTREC (800/424-9300) and your local fire department.

For transportation or other large spills, follow U.S. Dept. of Transportation "Emergency Action Guide #27".

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, keep out of low areas, and ventilate closed spaces before entering. (Also see Personal Protection Information section.)

Notify personnel downwind of the leak/release and evacuate the area. Isolate for 1/2 mile in all directions if tank, rail car or tank truck is involved in fire.

Shut off ignition sources; no flares, smoking or flames in hazard area. Use water spray to disperse vapors. Fire suppression foam may be used to cover the spill area and reduce vapors.

#### NOTIFICATIONS:

This material contains one or more constituents regulated as hazardous substances under U.S. Federal Law. Any spill or other release, or substantial threat of release, of this material to the air, waters or land (unless contained entirely in the workplace) equal to or in excess of the reportable quantity must be reported immediately to the National Response Center (800-424-8802).

Contact the appropriate state and local regulatory authorities. Contact the Coast Guard if spilled into navigable waterways (most surface waters).

There is no reportable quantity of this material under CERCLA/SARA.

07 ---- Section 07 Handling and Storage ----

#### HANDLING/STORAGE:

Store diesel only in NFPA approved, clearly labeled containers that are tightly closed. Never store in glass or unapproved plastic containers. The storage location must be cool, dry, isolated, well-ventilated and away from heat, sources of ignition and incompatible materials.

Use grounding wires and equipment during product transfer to reduce the possibility of static spark caused fire or explosion.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Remove contaminated clothing and clean before reuse. Shower after work using soap and water. Do not siphon this product by mouth. Do not use for cleaning, pressure appliance fuel, or any other use except as a motor fuel. Keep out of reach of children.

#### EMPTY CONTAINERS:

Empty containers may contain flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld or reuse containers unless adequate precautions are taken against these hazards.

08 ---- Section 08 Exposure Controls, Personal Protection ----

#### EYE PROTECTION:

Avoid eye contact with this material. Wear safety glasses or chemical goggles. Provide an eyewash station in the work area.

#### SKIN PROTECTION:

Avoid skin contact. When working with this substance, wear appropriate chemical protective gloves. Depending upon conditions of use, additional

protection may be necessary such as face shield, apron, armcovers, etc. Wash work clothing regularly. Do not wear contaminated clothing near sources of ignition such as sparks or open flames. Launder contaminated clothing before reuse.

**RESPIRATORY PROTECTION:**

If exposure limits are exceeded or if irritation is experienced, NIOSH approved respiratory protection should be worn. Ventilation and other forms of engineering controls are the preferred means for controlling chemical exposures.

09 ---- Section 09 Physical and Chemical Properties ----

BOILING POINT: ..... 160 C - 350 C (320 F - 650 F)  
SPECIFIC GRAVITY: ..... 0.81 - 0.88 @ 60 F  
MELTING POINT: ..... NE  
% VOLATILE: ..... NEGLIGIBLE  
VAPOR PRESSURE: ..... 0.4 MM HG @ 68 F  
EVAPORATION RATE (WATER=1): ..... <1  
VAPOR DENSITY (AIR=1): ..... >3  
VISCOSITY: ..... 32.6 - 40 0 SUS @ 100 F  
% SOLUBILITY IN WATER: ..... NEGLIGIBLE  
OCTANOL/WATER PARTITION COEFFICIENT: .. NE  
POUR POINT: ..... + (see below)  
pH: ..... NEUTRAL  
APPEARANCE/ODOR: ..... HIGHWAY DIESEL IS A STRAW-COLORED  
LIQUID WITH A HYDROCARBON ODOR.  
NON-HIGHWAY DIESEL IS DYED RED.

**\*POUR POINTS:**

Low Sulfur Diesel is seasonally dependent:

Dec. - Feb. : < 0 deg. F

Mar. - Oct. : < 10 deg. F

Low Cloud Diesel: < 0 deg. F

All other grades: < 10 deg. F

10 ---- Section 10 Stability and Reactivity ----

**REACTIVITY:**  
Stable.

**STABILITY/INCOMPATIBILITY:**  
Stable. Avoid contact with strong oxidizers.

**HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS:**  
Combustion may produce CO, CO2 and reactive hydrocarbons.

11 ---- Section 11 Toxicological Information ----

**ACUTE TOXICITY:**

Oral:

Human LDLo = approximately 10 ml.

Rat LD50 = 9 g/kg.

Dermal:

Human LD50 = >5 ml/kg.

Rabbit LD50 = 5 g/kg.

**REPRODUCTIVE TOXICITY:**  
No information available.

**GENETIC EFFECTS:**  
No information available.



**CARCINOGENICITY:**

Products of similar composition have given positive results in mutagenic testing. IARC has determined that diesel engine exhaust is probably carcinogenic to humans (IARC Class 2A). Lifetime exposure to whole diesel exhaust has been shown to cause cancer in laboratory animals. NIOSH recommends treating whole diesel exhaust as a potential occupational carcinogen.

**SPECIAL TOXIC EFFECTS:**

No information available.

12 ---- Section 12 Ecological Information ----

Not applicable.

13 ---- Section 13 Disposal Considerations ----

**WASTE DISPOSAL:**

This substance, when discarded or disposed of, is not specifically listed

as a hazardous waste in Federal regulations; however it may be considered a characteristically hazardous ignitable waste according to Federal definitions (40 CFR 261) when in free liquid form. Federal regulations in 40 CFR 262, 263, 264, 268 and 270 apply. Additionally, it could be designated as hazardous according to state regulations. This substance could also become a hazardous waste if it is mixed with or comes in contact with a hazardous waste. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate.

The transportation, storage, treatment, and disposal of this waste material must be conducted in compliance with all applicable federal, state, and local regulations.

14 ---- Section 14 Transport Information ----

D.O.T. PROPER SHIPPING NAME (49 CFR 172.101): Diesel Fuel  
D.O.T. HAZARD CLASS (49 CFR 172.101) : 3  
UN/NA CODE (49 CFR 172.101) : NA1993  
BILL OF LADING DESCRIPTION (49 CFR 172.202) : Diesel Fuel, 3, NA1993, PG  
III (No. 2 Diesel Fuel) or,  
if applicable, Diesel Fuel,  
3, NA1993, PG III (Low  
Sulfur No. 2 Diesel Fuel)  
D.O.T. LABELS REQUIRED (49 CFR 172.101) : None  
D.O.T. PLACARDS REQUIRED (49 CFR 172.504) : Combustible

15 ---- Section 15 Regulatory Information ----

**SARA TITLE III INFORMATION:**

Listed below are the hazard categories for the Superfund Amendments and Reauthorization Act (SARA) Section 311/312 (40 CFR 370):

Immediate Hazard: X  
Delayed Hazard: X  
Fire Hazard: X  
Pressure Hazard: -  
Reactivity Hazard: -

**SARA 313 REPORTABLE CHEMICALS:**

This material contains no SARA 313 reportable chemicals.

**ADDITIONAL ENVIRONMENTAL REGULATORY INFORMATION:**

This material contains a chemical known to the State of California to cause cancer, birth defects or reproductive harm. Whole diesel engine exhaust is listed as a carcinogen in the State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Prop. 65).

This product contains chemicals which are listed on the Pennsylvania Hazardous Substance List.

There may be additional specific regulations at the local, regional or state level that pertain to this material.

16 ---- Section 16 Other Information ----

**Symbols, Abbreviations and Notations:**

ACGIH = American Conference of Governmental Industrial Hygienists  
DOT = US Department of Transportation  
g/kg = Grams per kilogram of body weight  
IARC = International Agency for Research on Cancer Monographs  
IDLH = Immediately Dangerous to Life and Health  
INA = Information Not Available  
LEL = Lower Explosive Limit  
mg/kg = Milligrams per kilogram  
mg/m<sup>3</sup> = Milligrams per cubic meter of air  
mm Hg = Millimeters of mercury  
N = No, Y = Yes  
NA = Not Applicable  
NE = Not Established  
NRG = Not Regulated  
NTP = National Toxicology Program  
OSHA = Occupational Safety and Health Administration  
PEL = Permissible Exposure Limit  
REL = Recommended Exposure Limit  
ppm = Parts per million  
RTECS = Registry of Toxic Effects of Chemical Substances  
SARA = Superfund Amendments and Reauthorization Act  
STEL = Short-Term Exposure Limit  
TLV = Threshold Limit Value  
TWA = Time-Weighted Average  
UEL = Upper Explosive Limit  
WHMIS = Workplace Hazardous Materials Information Systems

**NOTICE:**

The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.



# Material Safety Data Sheet

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**CHEVRON Utility Oil LVI ISO 100**

1841

PRODUCT NUMBER(S): CPS231210

### COMPANY IDENTIFICATION

Chevron USA Products Company  
Environmental, Safety, and Health  
575 Market St., Room 2900  
San Francisco, CA 94105-2856

### EMERGENCY TELEPHONE NUMBERS

HEALTH (24 hr): (800)231-0623 or  
(510)231-0623 (International)  
TRANSPORTATION (24 hr): CHEMTREC  
(800)424-9300 or (202)483-7616

PRODUCT INFORMATION: (800)582-3835  
(800)228-3500 MSDS Requests

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### COMPOSITION COMMENT:

All the components of this material are on the Toxic Substances Control Act Chemical Substances Inventory.

This product fits the ACGIH definition for mineral oil mist. The ACGIH TLV is 5 mg/m<sup>3</sup>, the OSHA PEL is 5 mg/m<sup>3</sup>.

The proportion compositions are given to allow for the various ranges of the components present in the whole product and may not equal 100%.

100.0 % CHEVRON Utility Oil LVI ISO 100

### CONTAINING

COMPONENTS	AMOUNT	LIMIT/QTY	AGENCY/TYPE
LUBRICATING BASE OIL			
SEVERELY REFINED PETROLEUM DISTILLATE	100.0%	5 mg/m <sup>3</sup> (mist)	ACGIH TWA
		10 mg/m <sup>3</sup> (mist)	ACGIH STEL

Revision Number: 1      Revision Date: 07/14/93      MSDS Number: 004488  
NDA - No Data Available      NA - Not Applicable

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by the Toxicology and Health Risk Assessment Unit, CRTG, P.O. Box 4054, Richmond, CA 94804

5 mg/m3 (mist) OSHA PEL

The BASE OIL may be a mixture of any of the following: CAS 64741884, CAS 64741895, CAS 64741964, CAS 64741975, CAS 64742014, CAS 64742525, CAS 64742536, CAS 64742547, CAS 64742627, CAS 64742650, or CAS 72623837.

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	TPQ - Threshold Planning Quantity
RQ - Reportable Quantity	PEL - Permissible Exposure Limit
C - Ceiling Limit	CAS - Chemical Abstract Service Number
Al-5 - Appendix A Categories	( ) - Change Has Been Proposed

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### 3. HAZARDS IDENTIFICATION

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#### POTENTIAL HEALTH EFFECTS

##### EYE:

This substance is not expected to cause prolonged or significant eye irritation. This hazard evaluation is based on the data from similar materials.

##### SKIN:

This substance is not expected to cause prolonged or significant skin irritation. If absorbed through the skin, this substance is considered practically non-toxic to internal organs. This hazard evaluation is based on data from similar materials.

##### INGESTION:

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if swallowed. This hazard evaluation is based on data from similar materials.

##### INHALATION:

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if inhaled. This hazard evaluation is based on data from similar materials.

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### 4. FIRST AID MEASURES

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##### EYE:

No first aid procedures are required. However, as a precaution flush eyes with fresh water for 15 minutes. Remove contact lenses if worn.

##### SKIN:

No first aid procedures are required. As a precaution, wash skin thoroughly with soap and water. Remove and wash contaminated clothing.

##### INGESTION:

If swallowed, give water or milk to drink and telephone for medical advice. Consult medical personnel before inducing vomiting. If medical advice cannot be obtained, then take the person and product container to the nearest medical emergency treatment center or hospital.

##### INHALATION:

Since this material is not expected to be an immediate inhalation problem, no first aid procedures are required.

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Revision Number: 1

Revision Date: 07/14/93

MSDS Number: 004488

NDA - No Data Available

NA - Not Applicable

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## 5. FIRE FIGHTING MEASURES

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### FLAMMABLE PROPERTIES

FLASH POINT: (COC) 374F (190C) Min.

AUTOIGNITION: NDA

FLAMMABILITY LIMITS (% by volume in air): Lower: NDA Upper: NDA

EXTINGUISHING MEDIA:

CO2, Dry Chemical, Foam, Water Fog.

NFPA RATINGS: Health 0; Flammability 1; Reactivity 0.

### FIRE FIGHTING INSTRUCTIONS:

For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

### COMBUSTION PRODUCTS:

Normal combustion forms carbon dioxide and water vapor; incomplete combustion can produce carbon monoxide.

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## 6. ACCIDENTAL RELEASE MEASURES

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CHEMTREC EMERGENCY NUMBER (24 hr): (800)424-9300 or (202)483-7616

### ACCIDENTAL RELEASE MEASURES:

Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

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## 7. HANDLING AND STORAGE

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### HANDLING AND STORAGE:

DO NOT weld, heat or drill container. Replace cap or bung. Emptied container still contains hazardous material which may ignite with explosive violence if heated sufficiently. CAUTION! Do not use pressure to empty drum or drum may rupture with explosive force.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### PERSONAL PROTECTIVE EQUIPMENT

#### EYE/FACE PROTECTION:

No special eye protection is usually necessary.

#### SKIN PROTECTION:

No special skin protection is usually necessary. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing protective clothing.

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Revision Number: 1

Revision Date: 07/14/93

MSDS Number: 004488

NDA - No Data Available

NA - Not Applicable

**RESPIRATORY PROTECTION:**

No special respiratory protection is normally required. However, if operating conditions create airborne concentrations which exceed the recommended exposure standards, the use of an approved respirator is required.

**ENGINEERING CONTROLS:**

Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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**PHYSICAL DESCRIPTION:**

Amber liquid.

pH: NDA  
VAPOR PRESSURE: NDA  
VAPOR DENSITY  
(AIR=1): NDA  
BOILING POINT: NDA  
FREEZING POINT: NDA  
MELTING POINT: NDA  
SOLUBILITY: Soluble in hydrocarbon solvents; insoluble in water.  
SPECIFIC GRAVITY: 0.91 @ 15.6/15.6C  
DENSITY: NDA  
EVAPORATION RATE: NDA  
VISCOSITY: 90.0 cSt @ 40C (Min.)  
PERCENT VOLATILE  
(VOL): NDA

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**10. STABILITY AND REACTIVITY**

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**HAZARDOUS DECOMPOSITION PRODUCTS:**

NDA

**CHEMICAL STABILITY:**

Stable.

**CONDITIONS TO AVOID:**

No data available.

**INCOMPATIBILITY WITH OTHER MATERIALS:**

May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**HAZARDOUS POLYMERIZATION:**

Polymerization will not occur.

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**11. TOXICOLOGICAL INFORMATION**

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**EYE EFFECTS:**

No product toxicology data available. The hazard evaluation was based on data from similar materials.

**SKIN EFFECTS:**

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Revision Number: 1      Revision Date: 07/14/93      MSDS Number: 004488  
NDA - No Data Available      NA - Not Applicable

No product toxicology data available. The hazard evaluation was based on data from similar materials.

**ACUTE ORAL EFFECTS:**

No product toxicology data available. The hazard evaluation was based on data from similar materials.

**ACUTE INHALATION EFFECTS:**

No product toxicology data available. The hazard evaluation was based on data from similar materials.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

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**12. ECOLOGICAL INFORMATION**

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**ECOTOXICITY:**

No data available.

**ENVIRONMENTAL FATE:**

This material is not expected to present any environmental problems other than those associated with oil spills.

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**13. DISPOSAL CONSIDERATIONS**

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**DISPOSAL CONSIDERATIONS:**

Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

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**14. TRANSPORT INFORMATION**

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The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT SHIPPING NAME: NOT DESIGNATED AS A HAZARDOUS MATERIAL BY THE  
FEDERAL DOT

DOT HAZARD CLASS: NOT APPLICABLE

DOT IDENTIFICATION NUMBER: NOT APPLICABLE

DOT PACKING GROUP: NOT APPLICABLE

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Revision Number: 1

Revision Date: 07/14/93

MSDS Number: 004488

NDA - No Data Available

NA - Not Applicable

**15. REGULATORY INFORMATION**

SARA 311 CATEGORIES:

1. Immediate (Acute) Health Effects:	NO
2. Delayed (Chronic) Health Effects:	NO
3. Fire Hazard:	NO
4. Sudden Release of Pressure Hazard:	NO
5. Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

01=SARA 313	11=NJ RTK	21=TSCA Sect 4(e)
02=MASS RTK	12=CERCLA 302.4	22=TSCA Sect 5(a)(e)(f)
03=NTP Carcinogen	13=MN RTK	23=TSCA Sect 6
04=CA Prop 65-Carcin	14=ACGIH TWA	24=TSCA Sect 12(b)
05=CA Prop 65-Repro Tox	15=ACGIH STEL	25=TSCA Sect 8(a)
06=IARC Group 1	16=ACGIH Calc TLV	26=TSCA Sect 8(d)
07=IARC Group 2A	17=OSHA PEL	28=Canadian WHMIS
08=IARC Group 2B	19=Chevron TWA	29=OSHA CEILING
09=SARA 302/304	20=EPA Carcinogen	30=Chevron STEL
10=PA RTK		

The following components of this material are found on the regulatory lists indicated.

SEVERELY REFINED PETROLEUM DISTILLATE  
is found on lists: 14,15,17,

**16. OTHER INFORMATION**

**NFPA RATINGS: Health 0; Flammability 1; Reactivity 0;**  
(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**REVISION STATEMENT:**

This Material Safety Data Sheet has been revised to comply with the ANSI Z400.1 Standard.

\*\*\*\*\*

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon

Revision Number: 1	Revision Date: 07/14/93	MSDS Number: 004488
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condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

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Revision Number: 1      Revision Date: 07/14/93      MSDS Number: 004488  
NDA - No Data Available      NA - Not Applicable

# MATERIAL SAFETY DATA SHEET

Page 1



**Specialty Products Company**

75 Montgomery Street • P.O. Box 306 • Jersey City, NJ 07303 • (201) 434-4700

REVISION DATE  
06-MAR-87

DATE ISSUED  
12-MAR-87

## IDENTIFICATION AND EMERGENCY INFORMATION

PRODUCT NAME:

Kleenmold 

CHEMICAL NAME:  
Petroleum-based mold release agent

CAS #'S:  
Mixture

PRODUCT APPEARANCE AND ODOR:  
Grey/black viscous liquid,  
petroleum odor.

CHEMICAL FAMILY:  
Petroleum hydrocarbon

SYNONYMS:  
Petroleum-based swabbing compound

EMERGENCY TELEPHONE:  
(201) 434-4700

## COMPONENTS AND HAZARD INFORMATION

COMPONENTS:	W/W	HAZARD DATA (TLV, LD50, LC50, ETC.):
Petroleum-based lubricating oil CAS #'S 64742-53-6 or 64742-52-5		TLV 5 mg/meter cubed (as an oil mist)
Sulfur CAS # 7704-34-9		PEL 15 Mg/M3
Graphite CAS # 7782-42-5		PEL 15 MPPCF
Proprietary additives		n/a

## HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS):

Health	Flammability	Reactivity	Basis
1	1	0	Recommended by Exxon

## TRANSPORTATION INFORMATION

### TRANSPORTATION INCIDENT INFORMATION:

ICC: Compound or lubricant. Metal cutting, drawing or drilling.  
Dry, liquid or paste. NOI

## EMERGENCY FIRST AID

### EYE CONTACT:

splashed into the eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

### SKIN CONTACT:

**EMERGENCY FIRST AID**

In case of skin contact, remove contaminated clothing and wash skin thoroughly with soap and water.

**INHALATION:**

Vapor pressure is very low. Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor from hot product, immediately remove from exposure and call a physician. If breathing is irregular or has stopped, start resuscitation; administer oxygen if available. If overexposure to oil mist, remove from further exposure until excessive oil mist condition subsides.

**INGESTION:**

If ingested, call a physician immediately.

**FIRE AND EXPLOSION HAZARD INFORMATION****FLASH POINT (MINIMUM):**

168°C (328°F) Test method: COC

**AUTOIGNITION TEMPERATURE:**

N/E

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION:**

Health	Flammability	Reactivity	Basis
1	1	0	Recommended by Exxon

**FLAMMABLE OR EXPLOSIVE LIMITS (approximate percent by volume in air):**

Estimated values: lower 1% upper 6%

**EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES:**

Foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this type product, depending on size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialist.

The following procedures for this type of product are based on the recommendations in the National Fire Protection Association's "Fire Protection Guide on Hazardous Materials", Eighth Edition (1984):

Use water spray, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to keep fire-exposed containers cool. Water froth may be used to flush spills away from exposure. Minimize breathing gases, vapor, fumes, or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

n/a

**"EMPTY" CONTAINER WARNING:**

Empty containers retain residue (liquid or vapor) and can be dangerous. DO NOT PRESSURIZE, WELD, CUT BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged, and returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with government regulations. For work on tanks refer to Occupational Safety and Health Administration regulations, ANSI Z49.1, and other governmental and

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**FIRE AND EXPLOSION HAZARD INFORMATION**


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industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

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**HEALTH AND HAZARD INFORMATION**


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EXPOSURE LIMIT FOR TOTAL PRODUCT:  
5 mg/cubic meter for oil mist in air

BASIS:  
OSHA Regulation 29 CFR 1910.1000

**VARIABILITY AMONG INDIVIDUALS:**

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which vary from person to person. As a precaution, exposure to liquids, vapors, mists, or fumes should be minimized.

**EFFECTS OF OVEREXPOSURE (Signs and symptoms of exposure):**

Prolonged or repeated skin contact with this product tends to remove skin oil possibly leading to irritation and dermatitis; however, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria.

Product contacting the eye may cause irritation.

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**PHYSICAL DATA**


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The following data are approximate or typical values and should not be used for precise design purposes.

BOILING RANGE:  
Wide range

VAPOR PRESSURE:  
< 0.1 @ 38°C/100°F

SPECIFIC GRAVITY (25°C/25°C):  
(WATER = 1)  
< 1.0

VAPOR DENSITY (AIR = 1):  
> 8

MOLECULAR WEIGHT:  
Wide range

PERCENT VOLATILE BY VOLUME:  
Negligible

EVAPORATION RATE @ 1 ATM. AND 25°C  
(77°F) (n-BUTYL ACETATE = 1):  
< 1.0

SOLUBILITY IN WATER @ 1 ATM. and 25°C  
(77°F):  
Negligible

POUR, CONGEALING OR MELTING POINT:  
n/e

FREEZING POINT:  
n/e

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**REACTIVITY**


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This product is stable and will NOT react violently with water. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite.

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**REACTIVITY**


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**DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS:**

Fumes, smoke, carbon monoxide, oxides of sulfur and other decomposition products, in case of incomplete combustion.

**CONDITIONS TO AVOID:**

Open flames.

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**TOXICITY**


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ORAL (Acute)	LD 50 > 5 g/kg (total body weight)
DERMAL (Acute)	LD 50 > 3.16 g/kg (total body weight)
EYE	N/E
INHALATION (Acute)	N/E
CHRONIC, SUBCHRONIC, ETC.	N/E

This product does NOT contain any ingredients listed on IRAC, NTP, or the OSHA Z list.

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**SPILL OR LEAK PROCEDURES**


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**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

Keep product out of sewers and watercourses by diking or impounding. Absorb with sand or inert material. Sweep or scoop up and remove. Prevent spread of spill. Advise authorities if product has entered or may enter sewers, watercourses or extensive land areas. Assure conformity with local regulations.

**WASTE DISPOSAL METHOD:** (Consult federal, state, or local authorities for proper disposal procedures.)

Assure conformity with applicable disposal regulations. Dispose of absorbed material at an approved waste site or facility.

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**PROTECTION AND PRECAUTIONS**


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**VENTILATION:** (Always maintain below permissible exposure limits.)

Use local exhaust to capture vapor, mist or fumes, if necessary. Provide greater than 60 feet per minute hood face velocity for confined spaces. Provide ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air.

**RESPIRATORY PROTECTION:** (Use only NIOSH approved equipment.)

Normally not needed at ambient temperatures. Use supplied air respiratory protection in confined or enclosed spaces, if needed. Use filter, dust, fume or mist respirator type under misting conditions. Use can or cartridge gas or vapor respirator type under conditions exceeding TWA standard.

**PROTECTIVE GLOVES:**

The use of gloves is recommended to avoid prolonged or repeated skin contact.

**FACE PROTECTION:**

Use splash goggles or face shield or safety glasses with side shields when eye contact may occur.

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**PROTECTION AND PRECAUTIONS**

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**OTHER PROTECTIVE EQUIPMENT:**

Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing which could result in prolonged or repeated skin contact.

**WORK PRACTICES/ENGINEERING CONTROLS:**

Keep containers closed when not in use. Do not handle near heat, sparks, flames or strong oxidants.

**PERSONAL HYGIENE:**

Minimize breathing vapor, mist, or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before reuse. Remove contaminated shoes and thoroughly clean before reuse; discard if oil-soaked. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

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PREPARED BY: Raul D. Hernandez

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THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE, TO THE BEST OF THE SELLER'S KNOWLEDGE AND BELIEF, ACCURATE AND RELIABLE AS OF THE DATE ISSUED. THE SELLER DOES NOT WARRANT OR GUARANTEE THE ACCURACY OR RELIABILITY, AND THE SELLER SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE ARISING OUT OF THE USE THEREOF.

THE INFORMATION AND RECOMMENDATIONS ARE OFFERED FOR THE USER'S CONSIDERATION AND EXAMINATION, AND IT IS THE USER'S RESPONSIBILITY TO SATISFY ITSELF THAT THEY ARE SUITABLE AND COMPLETE FOR ITS PARTICULAR USE.

Owners - Brockway - 3600 Alameda Ave #866

11 USTS registered 1984

	Tank #	Description	material
Act 7 USTS	2	500 gallon diesel - suction	unk
	<del>1</del>	4000 gallon diesel - suction	unk
	6	24,000 gallon <sup>#2</sup> furnace fuel oil - suction	unk
	7	24,000 gallon #2 fuel oil - suction	unk
	9	8,300 gallon lube oil - suction	unk.
	11	4,000 gallon UL gasoline - suction	unk
	12	12,000 gallon mold swab dope (Sulfur, graphite + oil)	
SUMP	15	4000 concrete sump west cullet water sump	
Actually not UST	16	250 waste oil west skim oil - pressure	
SUMP	17	4000 waste water east cullet water sump	
Actually not UST	18	250 waste oil east skim oil	

To be removed per 6/18/86 letter

Tanks # 12., 11., 1., 2., 9., #8 15k diesel (?), (6), 7

which leaves tanks, # 16, 18 plus the Sumps

# 15 + 17 — not UST's by definition can inspect visually

? What about tanks 16 + 18, sumps still there? — yes

7/18/86 Notice to RWGB of a fuel oil leak discovered when repairing a fuel oil pump.

Excel tech drilled 13 soil borings on 7/23 + 7/24/86

Results: Soil : up to 18,000 mg/kg volatile HC  
56,000 " " O + G

Water up to 26 mg/l volatile HC

150 mg/l O + G

0.64 B 0.79 T 1.3 X mg/l

• Where's the report on the borings - analytical, map, logs etc

Manifest for:		manifest #
1/7/87	.18 Yards - diesel contaminated soil	865 36434
1/7/87	.18 yards - " " " , misc concrete + pipe	865 364 37
2/18/87	.18 yards - " " " , crushed cans, <sup>paper</sup> sacks	861 69633
2/26/87	~8 yard - " " " , Concrete pipe	865 36462
2/26/87	- 16 " - " " " " "	865 36463
2/26/87	- 16 " - " " " " "	865 36464
2/26/87	~ 14 " - " " " " "	865 36465
2/26/87	~ 14 cy - " " " " "	86 536 466
2/27/87	- 16 yd - " " " " "	865 36467
2/27/87	~ 18 cy - " " " " "	865 36468
2/27/87	~ 18 cy - " " " " "	865 36469
2/27/87	~ 18 y - " " " " "	865 36470
2/27/87	- 17 y - " " " " "	865 36471
2/27/87	- 17 y - " " " " "	865 36472
2/27/87	~ 18 y - " " " " "	865 36473
2/27/87	~ 18 y - " " " " "	865 36474
5/7/87	1/4 y - " " " (soil <sup>diesel cont</sup> )	8700 9234
262(1/4) y	- likely from the tank removals	

Where are receipts for the tanks? , how many were removed? Tank closure report? , tank locations sampling results?



Excel tech

P 3.

MW installations:

Contamination of furnace fuel (Diesel #2) adjacent to maintenance bld is the most contaminated region

- near ramp excavation + SW side of maintenance bld
- F.P. in MW-2.

Soil cont. observed when 4 UST's removed adjacent to power + forming bldg. ~ 350 cy soil removed

(manifests provided)  
Is this the 262 y disposed @ Kettleman (CWM)?

A recovery well was installed in tank excavation adjacent to the maintenance bld

15K diesel (#8)  
Assume the 16.6k tank is the ~~24k tank~~.

Report says 4 USTs were removed (1-350, 2-8k (diesel + UL gas) + 1-12k. ~~the other~~ which tanks are these?

The 2-8k are likely #11 (4k UL gas) + #14k diesel

What about the other 2? #2 - 500 diesel + 12k = ?

Soil contamination noted beneath the 2-8k tank

No Tank closure report, no soil sampling?

18 MW's installed 7/24-25, 9/29-30, 10/22 + 11/24-25 + 12/11-12 & 15, 1986.

Pet. Odors noted in every borehole except MW-4, 11, 12, 13, 14, 15, 16 & 18  $\therefore$  found in ~~the~~ 1, 2, 3, 5, 6, 7, 8, 9, 10.

- Estimated areas of high product contamination between MW 2 + R well and Ramp Exc & R well

VHC  $\geq 1000$  ppm BH-2, 5, 8, 11, 15 + MW-1  
 BH-7 -  $\geq 10,000$  ppm

TOC  $> 1000$  ppm BH-2, 5, 6, 8, 9, 13, 15 & MW-3  
 $> 10000$  ppm BH-6, 7, 15 & MW-2

\* ~~The report is missing: drawings + plates referenced but~~  
~~∴ gradient, wells - <sup>locations</sup> missing.~~

Is the 148 cy ref in p4. (Encl. 6) included in the 350 cy?

To date 2/2/87 ~ 270 gallons product recovered  
 any way to estimate how much to date (present)  
has been removed? - probably no more product removed.

Were PEs ever run on water splis?

Note Enclosure 7 has 2 - BH-8, explain this.

Q: What is volatile Hc. besides gasoline?

If nothing else, why wasn't BTEX run on all splis?

2-24k fuel oil tanks removed, on 2/26/87

- The 2/87 report Excelsior says approx 350 cy spil  
 generated, then the March 4, 1987 Excelsior  
 letter says ~10

Enclosure 10 1st QWR

MW-6 says FP is 70.005' <sup>what's</sup> this really?

Q - Need to locate + repair/redevelop wells,  
 remove any F.P.

- Have release been adequately characterized?

- Which wells are necessary for monitoring +  
 FP removal

- Are recovery wells viable.

P5

- May want to consider (ORC) additions
- do you need to check conduits?
- need to look for (at least once) PCB's, ~~PAH's~~ & PAH's. (Combined analytes can be detected in 8270)

— Need an isocorelocation map w/ soil + GW

— Need to setup a monitoring plan.

— Go over location of former tanks + analyte justification

Analytes should be in wells for:

TPH<sub>g,d</sub>, BTEX, TOC (hydrocarbon)

at least one time: RB's, MTBE, Chlorinated He

Monitoring occurred from 4/9/87 —

— Need to do a site visit

Any report for the installation of the recovery wells, old ones?

Assume none work currently - <sup>likely</sup> need to reactivate.

## 5.0 RESULTS OF ADDITIONAL OFF-SITE GROUNDWATER INVESTIGATION

The results of the additional off-site groundwater investigation corroborate previous investigative findings. No significant migration of petroleum hydrocarbons or other chemicals in groundwater has occurred from the 4200 Alameda Avenue site.

### 5.1 Evaluation of Preferential Groundwater Flow Paths

As part of the additional off-site investigation, the RWQCB requested that EKI review available utility drawings to evaluate if chemical-containing groundwater might be moving preferentially in bedding sands surrounding pipes or conduits. Underground pipes and conduits that might serve as preferential groundwater flow paths are located along Alameda Avenue. These underground utilities generally run in an east to west direction that is perpendicular to the southerly bulk groundwater movement towards San Leandro Bay. Underground utilities present along Alameda Avenue include East Bay Municipal Utility District ("EBMUD") storm drains and sanitary sewers, and Pacific Gas and Electrical Company ("PG&E") electrical lines and natural gas mains.

Review of EBMUD drawings indicates that the inverts of the storm drains and sanitary sewers are between 4 and 5 feet, bgs in the vicinity of the site. PG&E representatives stated that PG&E buries all electrical lines and natural gas mains between 2 and 4 feet, bgs. On the basis of information obtained, all underground utilities appear to be at least 5 feet above the first permeable unit that contains groundwater and is encountered at a depth of approximately 10 feet, bgs. Groundwater flow in bedding sands is unlikely because no hydraulic connection exists between underground utilities and the first permeable unit.

Should they preferential flow?

Two cross-sections have been prepared to illustrate the stratigraphy along Alameda Avenue. The locations of these cross-sections are shown on Figure 2. Presented on Figure 3 are a south to north cross section (A-A') and a west to east cross-section (B-B'). These cross-sections were compiled from lithologic logs of borings completed on the site and logs obtained from CPT and Enviro-Core® borings completed off-site.

### 5.2 No Evidence of Significant Migration of Chemicals in Groundwater

Summarized in Table 1 and shown on Figure 4 are total petroleum hydrocarbon ("TPH") analytical results of groundwater samples collected as part of the additional off-site groundwater investigation. Groundwater samples were also analyzed for BTEX and halogenated VOCs. Analytical results for these compounds are summarized in Tables 2 and 3 and shown on Figures 4 and 5.

COM No.	REMOTE STATION	START TIME	DURATION	PAGES	RESULT	USER ID	REMARKS
801	415 896 0999	01-21 10:44	00' 36	01/01	OK		

7499402046

S. Stehling 1/21

Fax (415) 896-0999

This is all Investigative

at Alameda, E. Chen

ACEH

50-57-5765

Nov 10, 1997 Report.

Erler & Kalinowski, Inc.

## 5.0 RESULTS OF ADDITIONAL OFF-SITE GROUNDWATER INVESTIGATION

The results of the additional off-site groundwater investigation corroborate previous investigative findings. No significant migration of petroleum hydrocarbons or other chemicals in groundwater has occurred from the 4200 Alameda Avenue site.

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Should  
 How  
 ...

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COM No.	REMOTE STATION	START TIME	DURATION	PAGES	RESULT	USER ID	REMARKS
800	510 463 8399	01-21 10:43	00' 39	01/01	OK		

7499402046

R. Neal 1/21  
fax (510)463-8399  
This is all I've got re:  
utilities. B Chan  
ACE 14

Nov 10, 1997 Report.

Erler &  
Kalinowski, Inc.

**5.0 RESULTS OF ADDITIONAL OFF-SITE GROUNDWATER INVESTIGATION**

The results of the additional off-site groundwater investigation corroborate previous investigative findings. No significant migration of petroleum hydrocarbons or other chemicals in groundwater has occurred from the 4200 Alameda Avenue site.

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Should they permeate?

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Owens Illinois  
 3600 Alameda Ave  
 dx rep 3/12/87, RT  
 Regional Board Inactive

8 | 15000 \* 7 | 24000

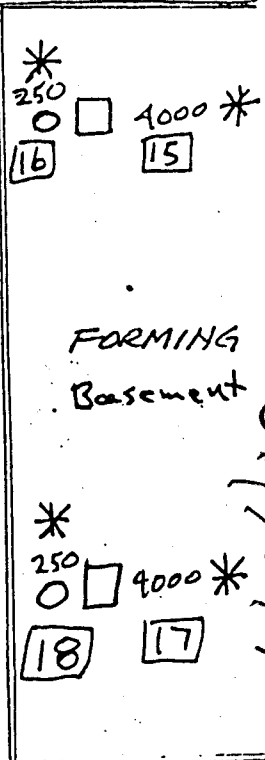
\* Indicates Hazardous Tank Regis

- \* 1 Diesel Truck Fuel
- \* 2 Diesel Generator Fuel
- ? 3 Thinner (out of service)
- ✓ 4 No longer lease this warehouse
- ? 5 Diesel Truck Fuel (out of service)
- \* 6 Fuel Oil (Furnace standby)
- \* 7 Fuel Oil (Furnace standby)
- \* 8 Fuel Oil (Furnace standby - out of service)
- \* 9 Machine Lube oil
- ✓ 10 Propane (AST)
- \* 11 Gasoline (No-Load)
- \* 12 Mold Dope
- ✓ 13 Silicate Glue (out of service) non-haz
- ✓ 14 Butane - 4 tanks (out of service) AST
- ✓ \* 15 Cullet water sump
- ✓ \* 16 Skim oil - cullet
- ✓ \* 17 Cullet water sump
- ✓ \* 18 Skim oil - cullet

25000 GAL  
 OR 100,000 LBS.

13

SILICATE



TRUCK DE WAREHOUSE	A	B
	4	4000

WAREHOUSE	C
	5 4000

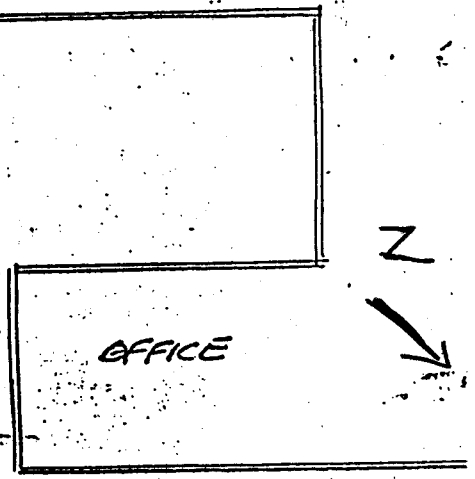
\* 9 | 8300  
 C-OIL GBX

DEISEL  
 \* 2 | 500

Kleen mold-9  
 12000 GA 12 \*

\* 1 | 4000  
 DEISEL

4000 11 \*  
 GASOLINE



PROpane  
 10 | 30,000  
 AST

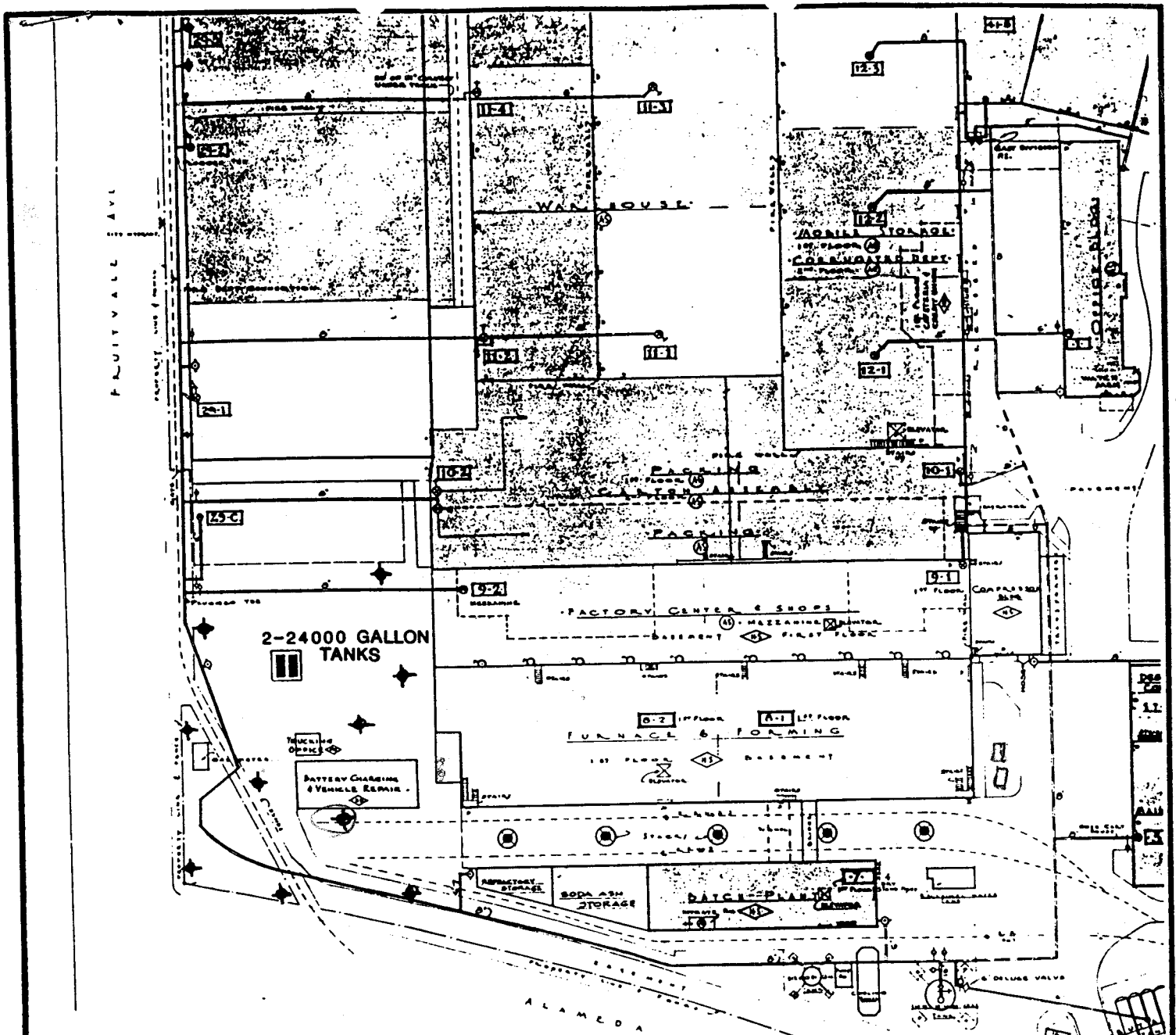
BUTANE  
 14

Was this a thinner UST

\* Indicates on Report of Hazardous mtr Under ground Containers

STREPPM


3 | 1000



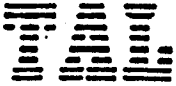
**LEGEND:**

- CI SUPPLY MAINS
- CONTROL (OS&V) VALVES
- CONTROL (POST INDICATOR) VALVE
- SWING CHECK VALVES
- FIRE HYDRANTS
- CITY HYDRANTS
- FIRE DEPT CONNECTION
- AUTOMATIC SPRINKLER RISERS
- VARIABLE PRESSURE ALARM DEVICES
- KEY TO CORRESPONDING TO ALARM INDICATOR
- BUILDING SPRINKLERED MARKED TRV
- BUILDING HOT SPRINKLERED MARKED TRV
- MANUAL ALARM BOX
- FOG HEAD SYSTEM CONTROL VALVES
- Monitoring Well Location

SCALE - 1" = 80'

	<b>24000 GALLON TANK LOCATION</b>	
	OWENS-ILLINOIS GLASS CONTAINER DIVISION	#1467G
	3600 ALAMEDA AVENUE	
	OAKLAND, CALIFORNIA	
	SCALE: 1"=80'	DRAWN BY K.S.
	DATE 3-5-87	DRAWING No FIG. 1





DATE: 7/23/86

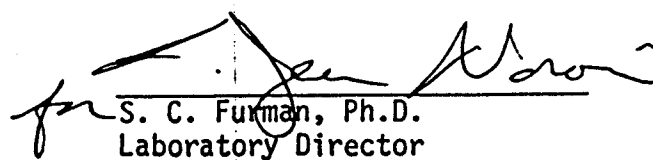
LOG NO.: 3869

CUSTOMER: Exceltech Inc.

REQUESTER: Mike Hansen

PROJECT: No. 1467, Owens Illinois

<u>Sample Type</u>	<u>Sample</u>	<u>PCB Concentration</u> <u>mg/kg</u>	<u>Aroclor</u>
<u>Oil</u>	B-1	60	1260
	B-2	23	1260

  
S. C. Furman, Ph.D.  
Laboratory Director

SF:m1n

April 25, 1997

Mr. Philip Briggs  
Chevron Products Company  
P.O. Box 6004  
San Ramon, CA 94583-0904

STID 1185

Re: Investigations at Former Chevron Service Station #9-3676, located at 4300 MacArthur Blvd., Oakland, California

Dear Mr. Briggs,

This office has reviewed the third and fourth 1996 Quarterly Groundwater Monitoring Reports, dated October 31, 1996 and January 15, 1997. Based on the fluctuating contaminant concentrations in Wells MW-2A, MW-3A, and MW-4A, this office is requesting that you submit a report discussing the rate of natural plume attenuation at the site. As part of this request, the next round of groundwater samples collected from all the wells should be analyzed for bio-indicator parameters (including, but not limited to, dissolved oxygen, oxidation-reduction potential, nitrates, sulfates, ferrous iron, pH, conductivity, temperature, and alkalinity). The natural attenuation study should also include regression analysis using plots of concentrations and log of concentrations versus time.

Additionally, soil samples collected from beneath the former underground storage tanks during the tank removals in 1988 identified up to 1.5 parts per million (ppm) benzene at 12 feet below ground surface (bgs). This soil concentration exceeds the  $10^{-4}$  excess cancer risk threshold value for vapor intrusion into commercial buildings, provided in the Tier 1 table of the American Society for Testing and Materials' Risk-Based Corrective Action Guidelines (E1739-95). Therefore, this office is requesting that you submit a risk assessment discussing the potential for residual soil concentration vapors to infiltrate the building and impact users of the Mini Mall. Soil concentrations from below the former underground storage tanks as well as from Well MW-1A and MW-4A, which are closest to the current building, should be incorporated into this assessment.

Furthermore, a risk assessment addressing the potential impacts of observed soil and groundwater contamination on construction workers should be included in the above risk assessment. This assessment should incorporate contaminant concentrations from throughout the whole site and realistic construction work scenarios. If the site is zoned as something other than commercial, further scenarios may need to be discussed in the risk assessment.

**TMA**  
Thermo Analytical Inc.

TMA/ERG

1400 West 53rd Street

Suite 460

Emeryville, CA 94608-2946

(415) 652-2300

July 23, 1986

Exceltech  
41628 Christy St.  
Fremont, CA 94538

Attention: Mike Hansen

Report #8180

P.O. #3899

Project Name: Owens Project #1467.

Subject: Two (2) oil-water samples submitted for rush PCB analysis on July 21, 1986.

Procedure: The oil layer of the sample is analyzed for PCB by following EPA Method 600/4-81-045. The samples are diluted directly with hexane and cleaned up with a sulfuric acid treatment prior to injection into a gas chromatograph equipped with a Ni63 electron capture detector. Quantitation is performed against standards made from known concentrations of Aroclors. The limit of detection for this method of analysis is one part per million (mg/L).

Results: The results are shown in the table below:

<u>ERG #</u>	<u>CLIENT ID</u>	<u>PCB CONCENTRATION (mg/L)</u>
8180-1	Boring 1	8.5
8180-2	Boring 2	ND(1)

ND = None detected. The limit of detection is in ( ).

Submitted by:



Robert B. Flay  
Manager, Organics Department

RBF:sm1

April 25, 1997

Mr. Philip Briggs  
Chevron Products Company  
P.O. Box 6004  
San Ramon, CA 94583-0904

STID 775

Re: Investigations at Former Chevron Service Station #9-5630, located at 997 Grant Avenue,  
San Lorenzo, California

Dear Mr. Briggs,

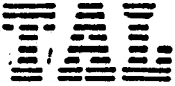
This office has reviewed the First Quarter Groundwater Monitoring Report for 1997, dated April 9, 1997, and the attached cover letter, dated April 10, 1997. Based on our review of the monitoring results, this office feels that the site is eligible for case closure, and will begin preparing the case closure recommendations for the Regional Water Quality Control Board's review and concurrence.

If you have any questions or comments, please contact me at (510) 567-6763.

Sincerely,

Juliet Shin  
Senior Hazardous Materials Specialist

cc: Chief, ACDEH



DATE: 7/21/86

LOG NO.: 3858

CUSTOMER: Exceltech Inc.

REQUESTER: Mike Hansen

PROJECT: No 1467, Owens

<u>Sample Type</u>	<u>Sample</u>	<u>PCB Concentration</u>	<u>Aroclor</u>
<u>Oil</u>		<u>mg/kg</u>	
	B-1	9.1	1260

*S. C. Furman*  
for S. C. Furman, Ph.D.  
Laboratory Director

SF:mln

April 25, 1997

Mr. Philip Briggs  
Chevron Products Company  
P.O. Box 6004  
San Ramon, CA 94583-0904

STID 3565

Re: Investigations at Former Chevron Service Station #9-1153, located at 3126 Fernside Blvd., Alameda, California

Dear Mr. Briggs,

This office has reviewed the First Quarter Groundwater Monitoring Report for 1997. Per the request made in your attached February 26, 1997 cover letter, removal of the separate-phase hydrocarbons may be switched to a once-a-month basis. In order to try and determine the stability of the contaminant plume resulting from the site, this office is requesting that future quarterly groundwater monitoring events include the analysis for bio-indicator parameters (including, but not limited to, dissolved oxygen, oxidation-reduction potential, nitrates, sulfates, ferrous iron, and alkalinity).

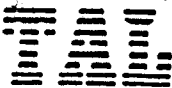
Quarterly groundwater monitoring should continue at the site. At some point in the future, after the bulk of separate-phase hydrocarbons, which is an on-going contaminant source, has been removed, and regular removal of this separate-phase is halted, subsequent quarterly groundwater monitoring report data should be collected and a groundwater transport evaluation, incorporating the bio-indicator parameter information, conducted to determine the potential migratory extent of the contaminant plume and the concentrations that may eventually reach the residences and/or the Bay.

If you have any questions or comments, please contact me at (510) 567-6763.

Sincerely,

Juliet Shin  
Senior Hazardous Materials Specialist

cc: Chief, ACDEH



DATE: 7/15/86

LOG NO.: 3833

CUSTOMER: Exceltech Inc.

REQUESTER: Mike Hansen

PROJECT: #1467, Owens

Sample Type: Soil

<u>Constituent</u>	<u>Units</u>	<u>#1</u>
Volatile Aromatic Organics (EPA 8020):		
Benzene	mg/kg	470
Toluene	mg/kg	720
Xylenes (Dimethyl benzenes)	mg/kg	460
All Others	mg/kg	< 1
Chlorinated Volatile Organics (EPA 8010):		
Chloroethane	mg/kg	0.88
Trichloroethylene	mg/kg	0.024
All Others	mg/kg	< 0.01
Total Volatile Hydrocarbons	mg/kg	5600
Oil and Grease	mg/kg	2600

*S. C. Furman*  
for S. C. Furman, Ph.D.  
Laboratory Director

SF:mln

# CHROMALAB, INC.

Environmental Laboratory (1094)

March 9, 1993

JONAS & ASSOCIATES, INC.

Attn: Mark Jonas

RE: One soil sample for Dionized STIC Lead analysis

Project Name: 845 PACO PUMPS

Project Number: PCO-218-02

Date Sampled: Feb. 24, 1993

Date Analyzed: Mar. 4, 1993

## RESULTS:

Sample I.D. \_\_\_\_\_  
Lead (mg/L)

B6(C) 2.5'

N.D.

BLANK

N.D.

DETECTION LIMIT

0.1

METHOD OF ANALYSIS

WET/3010/6010

Chromalab, Inc.

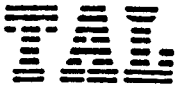
Refaat A. Mankarious  
Inorganic Supervisor



Eric Tam  
Laboratory Director

cc





DATE: 7/15/86

LOG NO.: 3838

CUSTOMER: Exceltech Inc.

REQUESTER: Brad McCardell

PROJECT: No. 1467, Owens

Constituent	Units	Sample Type: Water		
		B-1	B-2	Open Pit
Chlorinated Volatile Organics (EPA 601):				
Bromodichloromethane	mg/l		0.0036	
Bromoform	mg/l		0.011	0.00049
Carbon tetrachloride	mg/l		0.0012	
Chlorobenzene	mg/l		0.0044	0.00020
Chloroethane	mg/l	0.0012		
Chloroform	mg/l			0.00011
2-Chloroethyl vinyl ether	mg/l		0.0020	
Chloromethane	mg/l	0.011		
1,2-Dichlorobenzene	mg/l		0.00068	0.0010
1,3-Dichlorobenzene	mg/l		0.0072	0.00092
1,4-Dichlorobenzene	mg/l		0.00056	
1,1-Dichloroethane	mg/l	0.0010		
1,1-Dichloroethylene	mg/l	0.00043		
Dichloromethane	mg/l	0.0029	0.00026	0.00061
1,3-Dichloropropylenes	mg/l		0.0012	
1,1,2,2-Tetrachloro- ethane and tetra- chloroethylene	mg/l		0.0019	0.00014
All others	mg/l	<0.0001	<0.0001	<0.0001
Aromatic Volatile Organics (EPA 602):				
Benzene	mg/l	1.8	3.1	0.14
Ethyl benzene	mg/l	2.6	0.55	0.070
Toluene	mg/l	2.0	0.76	0.14
Xylenes	mg/l	5.6	0.32	0.13
All others	mg/l	<0.02	<0.02	<0.02
Volatile hydrocarbons	mg/l	75	11	1.5
Oil and grease	mg/l	60	90	43

April 25, 1997

Richard Sykes  
EBMUD  
P.O. Box 24055  
Oakland, CA 94623-1055

Re: Addendum 2 to the Materials Management Plan for Phase II and Phase III of the EBMUD Adeline Maintenance Facility construction sites.

Dear Mr. Sykes,

This office has reviewed over GeoPlexus, Inc.'s (Geoplexus) Subsurface Investigation Report and Response to Agency Comments on Addendum No. 2 to Materials Management Plan, dated January 22, 1997, for the above site. The responses to the County's comments in this report are acceptable.

Per the report, soil excavation will be conducted in the areas of the former petroleum underground storage tanks (sample locations 114, 133, 134, 135, 136, and 138), the area around the former auto shop (samples EB-3-3, B-12, B-13), and the area around the waste oil underground storage tank (sample B-9 and B-10), where sample concentrations exceeded the agreed upon cleanup threshold values. Please be reminded that confirmatory soil samples will need to be collected subsequent to the excavation in order to assure that the bulk of concentrations exceeding these threshold values have been removed. Also, please be reminded that the waste oil underground storage tank will be removed in Phase III under permit from this office and the Oakland Fire Department.

Excavated soils will need to be properly aerated through permit or disposed of off site to a certified facility. Although Geoplexus states that the 16ppm benzene identified in soil adjacent to the former underground storage tanks is limited, additional off-site delineation work of this contaminated soil will be required during the planned groundwater monitoring well installations, scheduled to take place after the implementation of Phase II and Phase III construction activities.

Lead and chromium concentrations identified from Borings B-12 and B-13 exceeded ten times the Title 22 CCR STLC values. If metal concentrations exceeding ten times the STLCs are identified after the proposed excavation, leachability tests using Method 1312 will need to be conducted, per the County's October 10, 1996 letter.

Please submit the anticipated schedule of work for the excavation and sampling activities, waste oil tank removal, soil disposal, and groundwater well installations. If you have any questions or comments, please contact me at (510) 567-6763.

Sincerely,

Juliet Shin  
Senior Hazardous Materials Specialist

cc: Eileen M. Fanelli, EBMUD, P.O. Box 24055, Oakland, CA 94623-1055  
David Glick, Geoplexus, Inc., 1900 Wyatt Drive, Suite 1, Santa Clara, CA 95054  
Chief

<u>Constituent</u>	<u>Units</u>	<u>Sample Type: Soil</u>		
		<u>B 1-1</u>	<u>B 1-2</u>	<u>B 1-3</u>
Chlorinated Volatile Organics (EPA 8010):				
Chloroform	mg/kg	0.026		
1,2-Dichlorobenzene	mg/kg			0.096
1,4-Dichlorobenzene	mg/kg			0.082
Dichloromethane	mg/kg	0.053		0.058
1,2-Dichloropropane	mg/kg			0.050
Tetrachlorethylene	mg/kg			0.025
All others	mg/kg	<0.01	<0.01	<0.01
Aromatic Volatile Organics (EPA 8020):				
Benzene	mg/kg	2.2	2.2	5.3
Toluene	mg/kg	0.85	14	4.4
Xylenes	mg/kg	2.7	30	1.1
All others	mg/kg	<0.1	<0.1	<0.1
Volatile hydrocarbons	mg/kg	830	20	380
Oil and grease	mg/kg	470	40	20

<u>Constituent</u>	<u>Units</u>	<u>Sample Type: Soil</u>		
		<u>B 2-1</u>	<u>B 2-2</u>	<u>B 2-3</u>
Chlorinated Volatile Organics (EPA 8010):				
Chlorobenzene	mg/kg	0.023		
Chloroethane	mg/kg	0.015		
Chloroform	mg/kg	0.040	0.023	
1,4-Dichlorobenzene	mg/kg	0.026		
Dichloromethane	mg/kg	0.052	0.033	
All Others	mg/kg	<0.01	<0.01	<0.01
Aromatic Volatile Organics (EPA 8020):				
Benzene	mg/kg	3.4	1.7	2.6
Toluene	mg/kg	6.1	2.8	6.9
Xylenes	mg/kg	11	2.1	1.6
All others	mg/kg	<0.1	<0.1	<0.1
Volatile hydrocarbons	mg/kg	1500	1700	160
Oil and grease	mg/kg	3600	30	<10

*Louis DuPuis*  
 for S. C. Furman, Ph.D.  
 Laboratory Director

# CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

February 2, 1993

ChromaLab File No.: 0193184

JONAS & ASSOCIATES, INC.

Attn: M. Jonas

RE: Seven soil samples for STLC Lead analysis

Project Name: 845 PACO PUMPS

Project Number: PCO-218-02

Date Sampled: Jan. 25, 1993

Date Submitted: Jan. 26, 1993

Date Analyzed: Feb. 1, 1993

## RESULTS:

<u>Sample I.D.</u>	<u>Lead (mg/L)</u>
--------------------	--------------------

B2(C) 2.5	N.D.
-----------	------

B3(C) 2.5	N.D.
-----------	------

B6-0.5 / B6-1.5 Comp	7.5
----------------------	-----

B7-0.5 / B7-1.5 Comp	3.8
----------------------	-----

B9(C) 2.5	N.D.
-----------	------

B13(C) 1.8	0.32
------------	------

B16-0.5 / B16-1.5 Comp	1.2
------------------------	-----

BLANK	N.D.
-------	------

DETECTION LIMIT	0.10
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METHOD OF ANALYSIS	3010/6010
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ChromaLab, Inc.

*Refaat A. Mankarious*

Refaat A. Mankarious  
Inorganic Supervisor



Eric Tam  
Laboratory Director

cc

Section 25163. \* \* \* and Section

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To	Mr. Bob Neal	From	B. Chan
Co.	Owens Broadway	Co.	ACEH · LOP
Dept.		Phone #	510-567-6765
Fax #	925-463-8399	Fax #	

The CLR is meant to comply with these requirements

complete a training program which is equivalent to that required by the department for local officers and agencies authorized to enforce this chapter pursuant to subdivision (a).

(c) Notwithstanding any limitations in subdivision (b), a member of the California Highway Patrol may enforce Sections 25185, 25189, 25189.2, 25189.5, 25191, and 25195, and Article 6 (commencing with Section 25160) and Article 6.5 (commencing with Section 25167.1), as those provisions relate to the transportation of hazardous waste.

(d) In enforcing this chapter, including, but not limited to, the issuance of orders imposing administrative penalties, the referral of violations to prosecutors for civil or criminal prosecution, the settlement of cases, and the adoption of enforcement policies and standards related to those matters, the department and the local officers and agencies authorized to enforce this chapter pursuant to subdivision (a) shall exercise their enforcement authority in such a manner that generators, transporters, and operators of storage, treatment, transfer, and disposal facilities are treated equally and consistently with regard to the same types of violations. (Added by Stats.1972, c. 1236, p. 2388, § 1, operative July 1, 1973. Amended by Stats.1982, c. 89, § 23, eff. March 2, 1982; Stats.1983, c. 798, § 1; Stats.1984, c. 144, § 155; Stats.1984, c. 1230, § 5; Stats.1985, c. 583, § 1; Stats.1987, c. 398, § 1; Stats.1988, c. 101, § 1; Stats.1990, c. 1686 (A.B.2834), § 8; Stats.1992, c. 1231 (A.B.3631), § 1; Stats.1994, c. 1160 (S.B.1747), § 1; Stats.1995, c. 639 (S.B.1191), § 18; Stats.1996, c. 539 (A.B.2201), § 18.)

§ 25180.1. "Permit" H+S Code

For purposes of this chapter, "permit" includes matters deemed to be permits pursuant to subdivision (c) of Section 25198.6. (Added by Stats.1991, c. 805 (A.B.240), § 2. Amended by Stats.1992, c. 427 (A.B.3355), § 100; Stats.1992, c. 113 (A.B.2618), § 1, eff. July 2, 1992.)

§ 25180.5. Notice of unlawful hazardous waste disposal and of department and board action; coordination with unified program agencies

(a) The department, the State Water Resources Control Board, and the California regional water quality control boards shall notify the local health officer and director of environmental health of a county, city, or district, and the CUPA for the jurisdiction as specified in subdivision (b), within 15 days after any of the following occur:

(1) The department's or board's employees are informed or discover that a disposal of hazardous waste has occurred within that county, city, or district and that the disposal violates a state or local law, ordinance, regulation, rule, license, or permit or that the disposal is potentially hazardous to the public health or the environment.

(2) The department or board proposes to issue an abatement order or a cease and desist order, to file a civil or criminal action, or to settle a civil or criminal action, concerning a disposal of hazardous waste within that county, city, or district.

(b) The notice given by the department or board pursuant to subdivision (a) shall include all test results and any relevant information which the department or board has obtained and which do not contain trade secrets, as defined by Section 25173,

as determined by the department or board. If the department or board determines that the test results or information cannot be disseminated because of current or potential litigation, the department or board shall inform the local health officer \* \* \* the director of environmental health, and the CUPA for the jurisdiction that the test results and information shall be used by the local health officer, the director of environmental health, and the unified program agencies, only in connection with their statutory responsibilities and shall not otherwise be released to the public.

(c) The department, the State Water Resources Control Board, and the California regional water quality control boards shall coordinate with the unified program agencies regarding violations of this chapter, or violations of regulations adopted pursuant to this chapter, at a unified program facility. (Added by Stats.1984, c. 719, § 1. Amended by Stats.1995, c. 639 (S.B.1191), § 19.)

§ 25180.7. Designated government employee; disclosure of information; failure to disclose; punishment

(a) Within the meaning of this section, a "designated government employee" is any person defined as a "designated employee" by Government Code Section 82019, as amended.

(b) Any designated government employee who obtains information in the course of his official duties revealing the illegal discharge or threatened illegal discharge of a hazardous waste within the geographical area of his jurisdiction and who knows that such discharge or threatened discharge is likely to cause substantial injury to the public health or safety must, within seventy-two hours, disclose such information to the local Board of Supervisors and to the local health officer. No disclosure of information is required under this subdivision when otherwise prohibited by law, or when law enforcement personnel have determined that such disclosure would adversely affect an ongoing criminal investigation, or when the information is already general public knowledge within the locality affected by the discharge or threatened discharge.

(c) Any designated government employee who knowingly and intentionally fails to disclose information required to be disclosed under subdivision (b) shall, upon conviction, be punished by imprisonment in the county jail for not more than one year or by imprisonment in state prison for not more than three years. The court may also impose upon the person a fine of not less than five thousand dollars (\$5,000) or more than twenty-five thousand dollars (\$25,000). The felony conviction for violation of this section shall require forfeiture of government employment within thirty days of conviction.

(d) Any local health officer who receives information pursuant to subdivision (b) shall take appropriate action to notify local news media and shall make such information available to the public without delay. (Added by Initiative Measure, Nov. 4, 1986.)

§ 25181. Violations; injunctive relief

(a) When the department determines that any person has engaged in, is engaged in, or is about to engage in any acts or practices which constitute or will constitute a violation of \* \* \* this chapter, or any rule, regulation, permit, covenant, standard, requirement, or order issued, promulgated, or executed thereunder, and when requested by the department, the city attorney of the city in which those acts or practices occur, occurred, or will occur, the district attorney of the county in which those acts or practices occur, occurred, or will occur, or the Attorney General may \* \* \* apply to the superior court for an order enjoining those acts or practices, or for an order directing compliance, and upon a showing by the department that the person has engaged in or is about to engage in \* \* \* those acts or practices, a permanent or temporary injunction, restraining order, or other order may be granted.

(b) When the unified program agency determines that any person has engaged in, is engaged in, or is about to engage in any

**ARTICLE 5. RELEASE REPORTING AND INITIAL ABATEMENT REQUIREMENTS**

**2650. Reporting and Recording Applicability**

- (a) The requirements of this article apply to all owners or operators of one or more underground storage tanks storing hazardous substances.
- (b) The owner or operator shall record or report any unauthorized release from the underground storage tank, and any spill or overflow, in accordance with the appropriate sections of Chapter 6.7 of Division 20 of the Health and Safety Code and this article.
- (c) The owner or operator of an underground storage tank with secondary containment shall record any unauthorized release described in section 25294 of the Health and Safety Code in accordance with section 2651.
- (d) Owners or operators subject to the requirements of this article shall report all spills and overfills in accordance with section 2652.
- (e) The owner or operator of an underground storage tank shall report to the local agency any unauthorized release described in sections 25295 and 25295.5 of the Health and Safety Code, and shall also record and report any of the following conditions in accordance with section 2652:
  - (1) Any unauthorized release recorded or reported under subsections (c) or (d) which the owner or operator is unable to clean up or which is still under investigation within eight hours of detection;
  - (2) The discovery by the owner or operator, local agency, or others, of released hazardous substances at the site of the underground storage tanks or in the surrounding area. This includes the presence of free product or vapors in soils, basements, sewer and utility lines, and nearby surface or drinking waters;
  - (3) Unusual operating conditions observed by the owner or operator including erratic behavior of product-dispensing equipment, the sudden loss of product from the underground storage tank, or an unexplained presence of water in the tank, unless system equipment is found to be defective, but has not leaked, and is immediately repaired or replaced; and
  - (4) Monitoring results from a release detection method required under Article 3 or Article 4 that indicate a release may have occurred, unless the monitoring device is found to be defective, and is immediately repaired, recalibrated or replaced, and additional monitoring does not confirm the initial results.

- (f) The reporting requirements of this article are in addition to any reporting requirements in section 13271 of Division 7 of the California Water Code and other laws and regulations.

Authority: Health and Safety Code 25299.3, 25299.7

Reference: Health and Safety Code 25294, 25295, 25295.5; 40 CFR 280.52

### **2651. Recording Requirements for Unauthorized Releases**

- (a) Owners or operators required by section 2650 to record a release or condition shall comply with the requirements of this section.
- (b) The operator's monitoring records, as required under section 2712 of Article 10 shall include:
- (1) The operator's name and telephone number;
  - (2) A list of the types, quantities, and concentrations of hazardous substances released;
  - (3) A description of the actions taken to control and clean up the release;
  - (4) The method and location of disposal of the released hazardous substances (the monitoring record shall indicate whether a hazardous waste manifest was or will be used);
  - (5) A description of the actions taken to repair the underground storage tank and to prevent future releases. If this involves a change as described in section 25286 of the Health and Safety Code, notification pursuant to that section shall be made.
  - (6) A description of the method used to reactivate the interstitial monitoring system after replacement or repair of the primary containment.
- (c) The integrity of the secondary containment shall be reviewed for possible deterioration under the following conditions:
- (1) Hazardous substance in contact with the secondary containment is not compatible with the material used for secondary containment;
  - (2) The secondary containment is prone to mechanical damage from the mechanical equipment used to remove or clean up the hazardous

substance collected in the secondary containment; or

- (3) Hazardous substances, other than those stored in the primary containment system, are added to the secondary containment to treat or neutralize the released hazardous substance and the added substance or resulting substance from such a combination is not compatible with the secondary containment.
- (d) If a recordable unauthorized release becomes a reportable unauthorized release due to initially unanticipated facts (e.g., secondary containment is breached due to deterioration), the release shall be reported pursuant to section 2652.
- (e) Whenever the local agency reviews the operator's monitoring reports and finds that one or more recordable unauthorized releases have occurred, the local agency shall review the information included in the monitoring records pursuant to subsection (a), shall review the permit, and may inspect the underground storage tank pursuant to sections 2712(e) and (f) of Article 10. If the local agency finds that the containment and monitoring requirements of Articles 3 or 4 can no longer be met, the local agency shall require the owner or operator to cease operation of the underground storage tank system until appropriate modifications are made to comply with the requirements of Articles 3 or 4, as appropriate.

Authority: Health and Safety Code 25299.3, 25299.7

Reference: Health and Safety Code 25291, 25292, 25294, 25295; 40 C.F.R. 280.52

#### **2652. Reporting, Investigation, and Initial Response Requirements for Unauthorized Releases**

- (a) Owners or operators required under section 2650 to report a release or condition, shall comply with the requirements of this section.
- (b) Within 24 hours after an unauthorized release or condition has been detected, or should have been detected, the owner or operator shall notify the local agency and shall investigate the condition, and take immediate measures to stop the release. If necessary, or if required by the local agency, the owner or operator shall remove the remaining stored substance from the tank to prevent further releases to the environment or to facilitate corrective action. If an emergency exists, the owner or operator shall also notify the State Office of Emergency Services.
- (c) Within five working days of detecting an unauthorized release, the owner or operator shall submit to the local agency a full written report which shall include but not be limited to all of the following information to the extent that the information is known at the time of filing the report:



- (1) Owner's or operator's name and telephone number;
  - (2) A list of the types, quantities, and concentrations of hazardous substances released;
  - (3) The approximate date of the release;
  - (4) The date on which the release was discovered;
  - (5) The date on which the release was stopped;
  - (6) A description of the actions taken to control and/or stop the release;
  - (7) A description of the corrective and remedial actions, including investigations which were undertaken and will be conducted to determine the nature and extent of soil, ground water, or surface water contamination due to the release;
  - (8) The method(s) of cleanup implemented to date, proposed cleanup actions, and a time schedule for implementing the proposed actions;
  - (9) The method and location of disposal of the released hazardous substance and any contaminated soils or ground water or surface water. Copies of any completed hazardous waste manifests for off-site transport of these media shall be attached to the report;
  - (10) A description of the proposed method(s) of repair or replacement of the primary and secondary containment. If this involves a change described in section 25286 of the Health and Safety Code, notification pursuant to that section shall be made; and.
  - (11) A description of additional actions taken to prevent future releases.
- (d) Until investigation and cleanup are complete, the owner or operator shall submit reports to the local agency or Regional Water Quality Board, whichever agency is overseeing the cleanup, every three months or more frequently as specified by the agency. Reports shall include but not be limited to, an update of the required information in subsection (c), and the results of all investigation monitoring or other corrective actions which have occurred during the reporting period. Information required by sections 2653 and 2654 shall be submitted as part of the periodic report to the agency.
- (e) The owner or operator shall conduct all necessary initial abatement and site characterization actions as required by sections 2653 and 2654 and shall take additional corrective action as required by Article 11.

Trigger wells: MW 13, 15, 3, 7, 6, 5, 10

CORRESPONDENCE ROUTING SLIP

DATE: \_\_\_\_\_

TO: TPH, TPHd, TOG

FROM: MTBE, BTEX, PCB, 8010

DISCUSS WITH ME

FOR YOUR APPROVAL

PLEASE NOTE & FILE

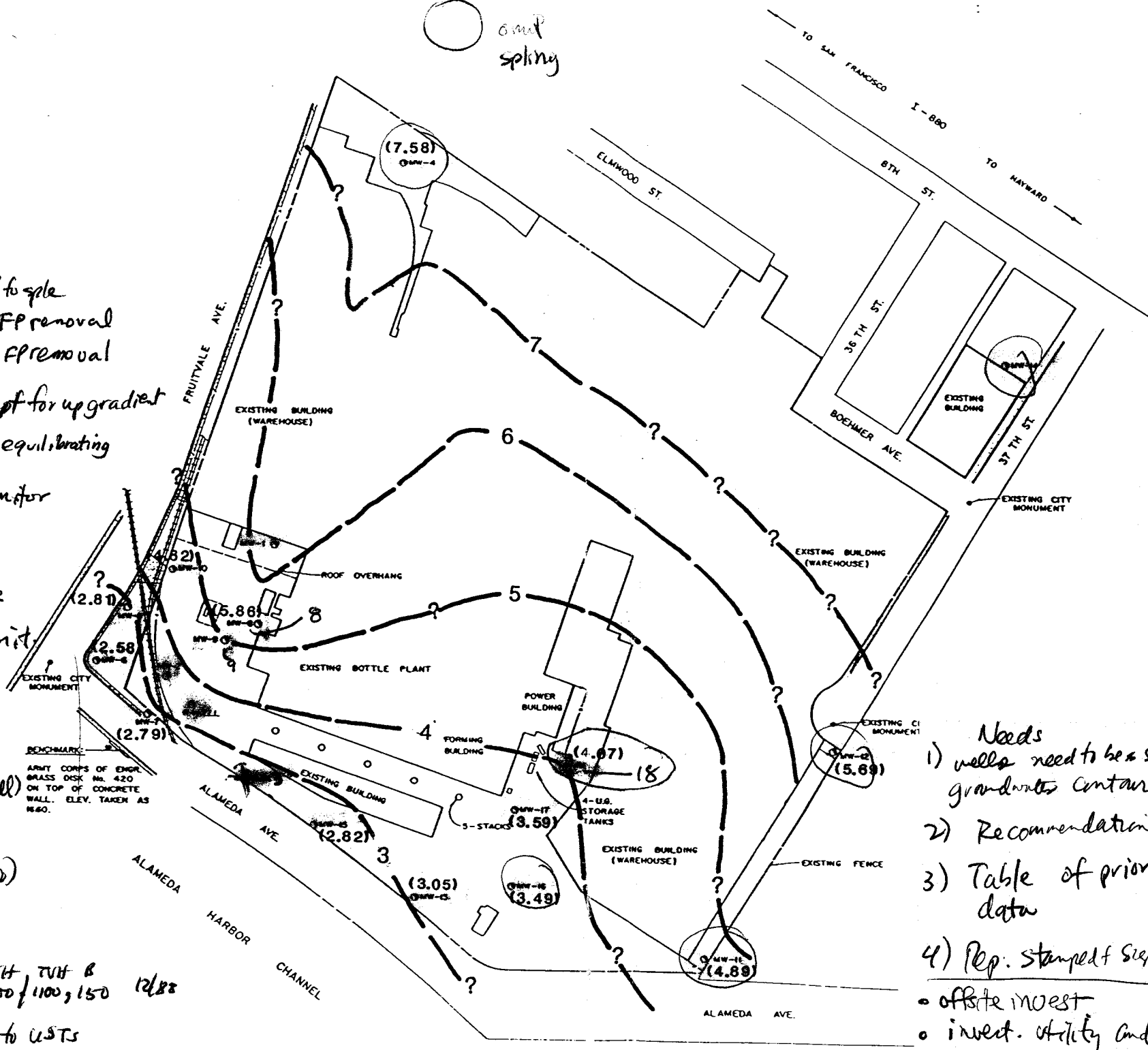
PLEASE NOTE & RETURN

FOR YOUR INFO

FOR YOUR COMMENTS

PLEASE HANDLE

- 1) MW 1 Spl once w/seen: need to spl
- 2) FP, prob reactivate for FP removal
- 3) FP 12/29/88 - mon or FP removal
- 4) may not need to spl except for up gradient
- 5) 12/88 ~5,000 pph TEH - possibly equilibrating
- 6) 12/88 42,000 pph TEH, need to monitor
- 7) 12/88 6,000 TEH, poss. equil.
- 8) may not need, spl once more
- 9) w/ ramp area, for UST area monit.
- 10) poss. equil., Δ mon freq.
- 11) may not need except for up gradient
- 12) " " " " " "
- 13) " " " " " " to monitor (trigger well)
- 14) " " " " " "
- 15) " " " " " " to monitor (trigger well)
- 16) " " " " " " to monitor
- 17) down gradient to USTs, 4,700 TEH, 1100, 150 12/88
- 18) may not need up gradient to USTs



DATE: \_\_\_\_\_

TO: \_\_\_\_\_

FROM: \_\_\_\_\_

1) Complete 2/20/87 w/ drawings + figure plates

2) check for more manifests for soil disposal

3) What is the status of USTs?

4) What depth's bgs was rempex to?

5) Need to estimate residual soil conc.

- Needs
- 1) wells need to be surveyed + ground-water contour map provided
  - 2) Recommendation
  - 3) Table of prior analytical data
  - 4) Rep. stamped & signed
    - o offsite invest
    - o invest. utility audits

RB's

MW 8, 1, 19, 10, 5, 7

2+6 F.P.

VOCS

MW 9, 8, 1, 10, 5, 7

What about

ensco  
environmental  
services, Inc.

**SITE PLAN**

GROUND-WATER CONTOUR MAP

OWENS-ILLINOIS GLASS CONTAINER DIVISION

OAKLAND, CALIFORNIA

REVIEWED BY:	APPROVED BY:
JOB #: 1467G	DRAWN BY: J.C.
DATE: 6-30-88	DRAWING #: FIG. 1