

11/18/91  
Dennis Byrne  
Per our phone conversation,  
Here is a copy of our pro-  
posed Closure Work Plan  
for the Vapor Extraction  
System at 5800 Christie  
in Emeryville. We would  
like to discuss this on  
Tues 11/26 at 8:30 in your  
office. The Dick Herrings

# **SOIL VAPOR EXTRACTION SYSTEM**

## **CLOSURE WORK PLAN**

**5800 CHRISTIE AVENUE  
Emeryville, California**

**November 15, 1991**

91 NOV 22 10:11:05  
50-11101 00-10116

**Submitted To: MR. DENNIS BYRNE  
ALAMEDA COUNTY HEALTH CARE SERVICES  
HAZARDOUS MATERIALS DIVISION  
80 SWAN WAY, ROOM 200  
OAKLAND, CALIFORNIA 94621**

**Prepared For: MR. DICK HERRING  
CROLEY & HERRING INVESTMENT COMPANY  
448 THARP DRIVE  
MORAGA, CALIFORNIA 94556**

**Prepared By: Environment & Technology Services  
638 Blair Avenue, Piedmont, California 94611  
Telephone: 1-510-601-1263  
Facimile: 1-510-601-1793**

**ETS**  
**ENVIRONMENT & TECHNOLOGY SERVICES**

**638 BLAIR AVENUE, PIEDMONT, CALIFORNIA 94611**  
**PHONE 510-601-1263 FAX 510-601-1793**

November 15, 1991

Mr. Dick Herring  
President  
Croley & Herring Investment Company  
448 Tharp Avenue,  
Moraga, California 94556


Subject: **SOIL VAPOR EXTRACTION SYSTEM CLOSURE WORK PLAN**  
**5800 Christie Street, Emeryville, California**

Dear Mr. Herring:

Enclosed please find a copy of the subject work plan for your review and comment.

Please contact me if you have any question about this work plan.

Sincerely,



Walter W. Loo, RG CEG  
President

## **Table of Content**

- 1.0 Introduction**
- 2.0 Soil Vapor Extraction System Operation**
- 3.0 System Closure Approach**
- 4.0 Confirmatory Soil Sampling Plan**
- 5.0 Vapor Extraction Well System Decommission**
- 6.0 Spent Granular Activated Carbon Decommission**
- 7.0 Closure Report**
- 8.0 Schedule**

### **APPENDICES**

- A Alameda County Health Care Services Letter - Dated 7/28/1989**
- B Bay Area Air Quality Management Board Permit and Correspondence**
- C System Monitoring Record**

## **List of Figures**

- 1. Location Map**
- 2. Soil Vapor Extraction System Schematic**
- 3. Method of Approach**
- 4. Soil Sample Location Map**

## **List of Tables**

- 1. Summary of Excavation Pit Wall Soil Sample Analysis**

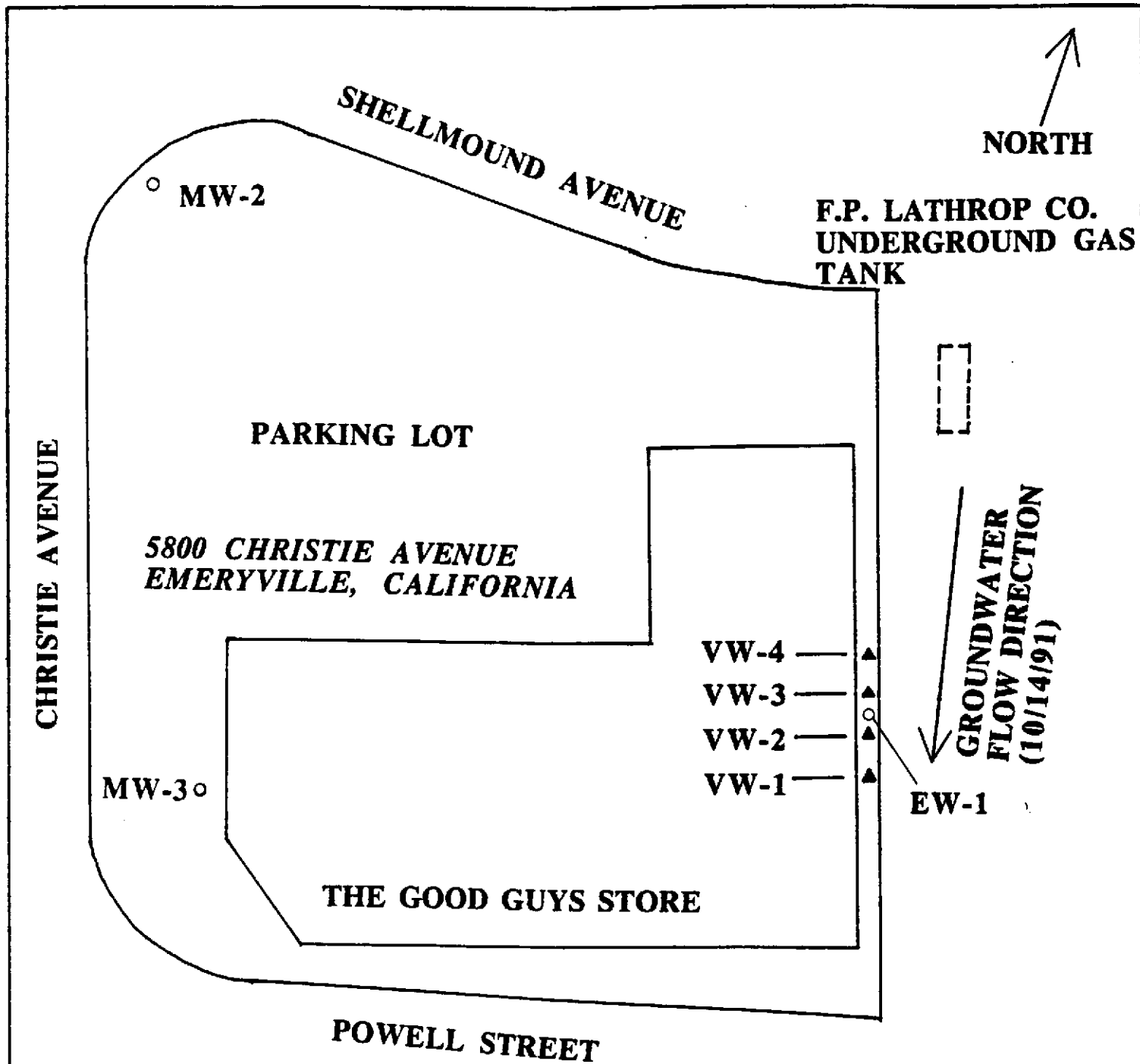
## **1.0 Introduction**

The site is a 0.82 acre property located on the southeast corner of Christie Avenue and Shellmound Street in Emeryville, California (Figure 1). The site is currently leased to The Good Guys Store from Croley and Herring Investment Company, who is the property owner.

Prior to The Good Guys Store occupancy, soil contamination was detected in several soil borings located in the narrow alley way on the east side of the property adjacent to the F.P. Lathrop Company property. The area of concern is about four (4) feet wide and eighty (80) feet long. The contaminated soil was excavated to a depth of about 5 feet (groundwater table) and treated on site by a combination of ex-situ bioremediation and soil vapor extraction . A total of about 1600 cubic feet of soil was treated and disposed to the West Contra Costa Landfill. A soil and remediation and closure report was prepared on July 21, 1989 and accepted by the Alameda County Health Care Services on July 28, 1989 (see Appendix A).

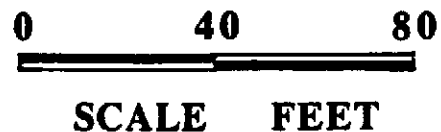
A soil vapor extraction system (VES) was proposed to remediate residual volatile organic chemicals in soil along the eastern property boundary. Table 1 presents a summary of the excavation pit wall soil sample analysis.

There is a groundwater monitoring program in effect with a quarterly groundwater report requirement since 1989.



**LEGEND**

- MONITORING WELLS
- ▲ VAPOR EXTRACTION WELLS



**ETS**  
 ENVIRONMENT & TECHNOLOGY SERVICES

**FIGURE 1**  
**LOCATION MAP**

TABLE 1

## SUMMARY OF EXCAVATION PIT WALL SOIL SAMPLE ANALYSIS

Sample Number	Sample Depth	Volatile Organic Compounds (VOC's) Detected	Concentration (PPM)	Total VOC's (PPM)
A-1	5'	Methylene Chloride	0.18	0.21
		Freon 113	0.011	
		TCE	0.019	
A-2	5'	1,2 DCE	0.12	0.33
		TCE	0.1	
		Toluene	0.11	
B	5'	TCA	130	491.8
		TCE	150	
		Toluene	180	
		Ethyl Benzene	3.8	
		Xylenes	28	
C	5'	TCA	23	442.3
		TCE	42	
		Toluene	320	
		Ethyl Benzene	9.3	
		Xylenes	48	
D	5'	TCA	1.0	20.8
		TCE	18	
		Toluene	1.8	
E-1	5'	TCA	0.5	4.4
		TCE	0.8	
		Benzene	0.7	
		Toluene	0.7	
		Ethyl Benzene	0.6	
		Xylenes	1.1	
E-2	5'	ND	-	ND
F	5'	TCA	280	4347
		TCE	1300	
		Toluene	2700	
		Chlorobenzene	18	
		Ethyl Benzene	14	
		Xylenes	35	

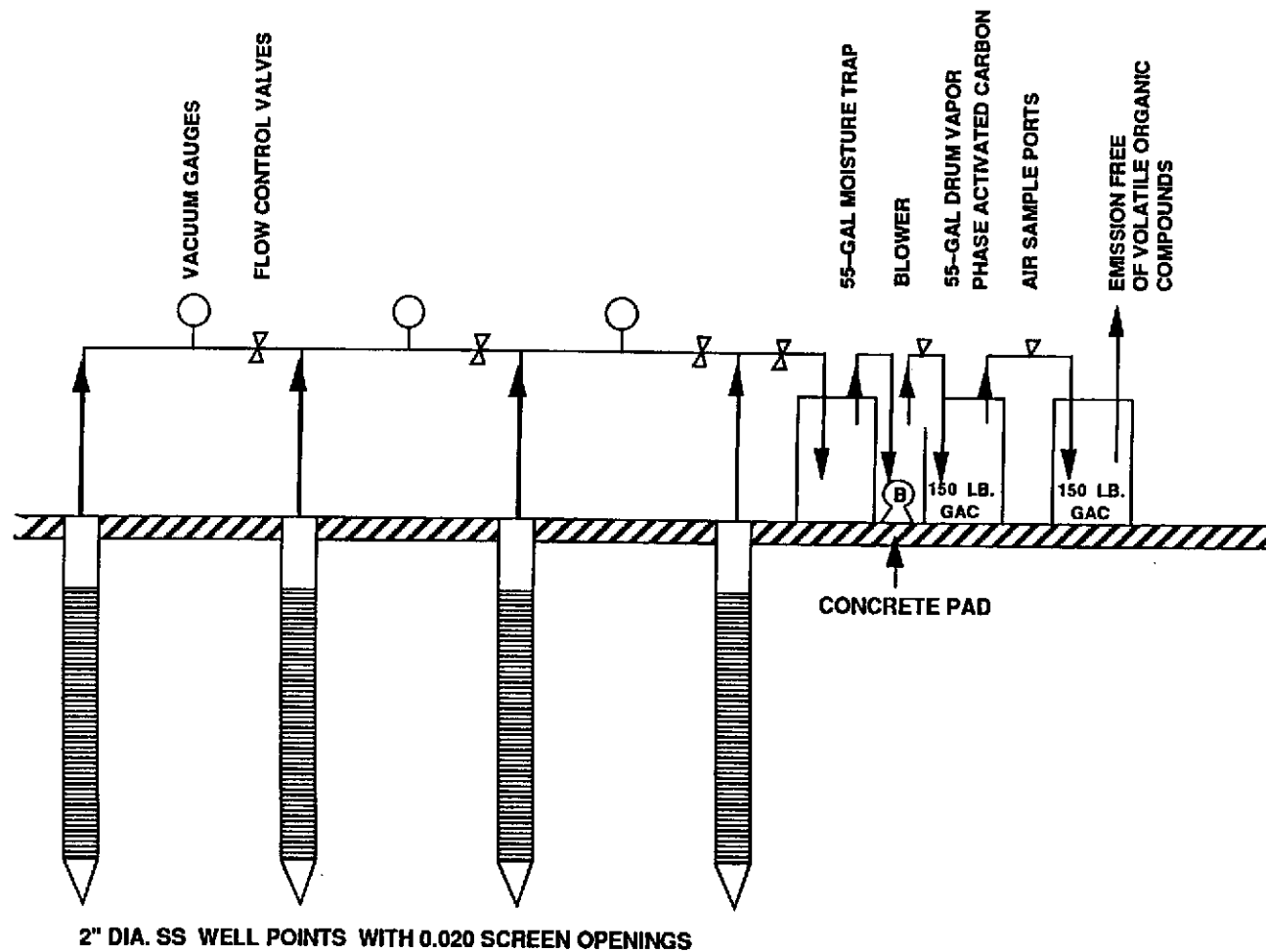


## **2.0 Soil Vapor Extraction System Operation**

An application of the soil vapor extraction system was filed with the Bay Area Air Quality Management District (BAAQMD) on August 2, 1989. The application was accepted and approved on September 22, 1989 by BAAQMD. (Appendix B)

Figure 2 is a schematic diagram of the VES which consists of four (4) vapor extraction wells to a depth of five (5) feet. The VES was constructed in late 1989 and has been in operation since. BAAQMD representative, Mr. Alex Saschin inspected the system on April 26, 1991. The BAAQMD permit to operate was granted on May 7, 1991. Subsequently, a reduction in monitoring frequency was granted by BAAQMD on September 17, 1991. The initial organic vapor concentration was in hundreds of parts per million, and decreased to less than 10 parts per million. Appendix C is the VES monitoring record. The VES system was operating between 60 to 100 cubic feet per minute (CFM) throughout the period with the exception of testing and maintenance down time.

It is believed that the residual VOCs left in the soil are removed by the VES operation.



**ETS**

**ENVIRONMENT & TECHNOLOGY SERVICES**

**FIGURE 2**

**SOIL VAPOR EXTRACTION SYSTEM**

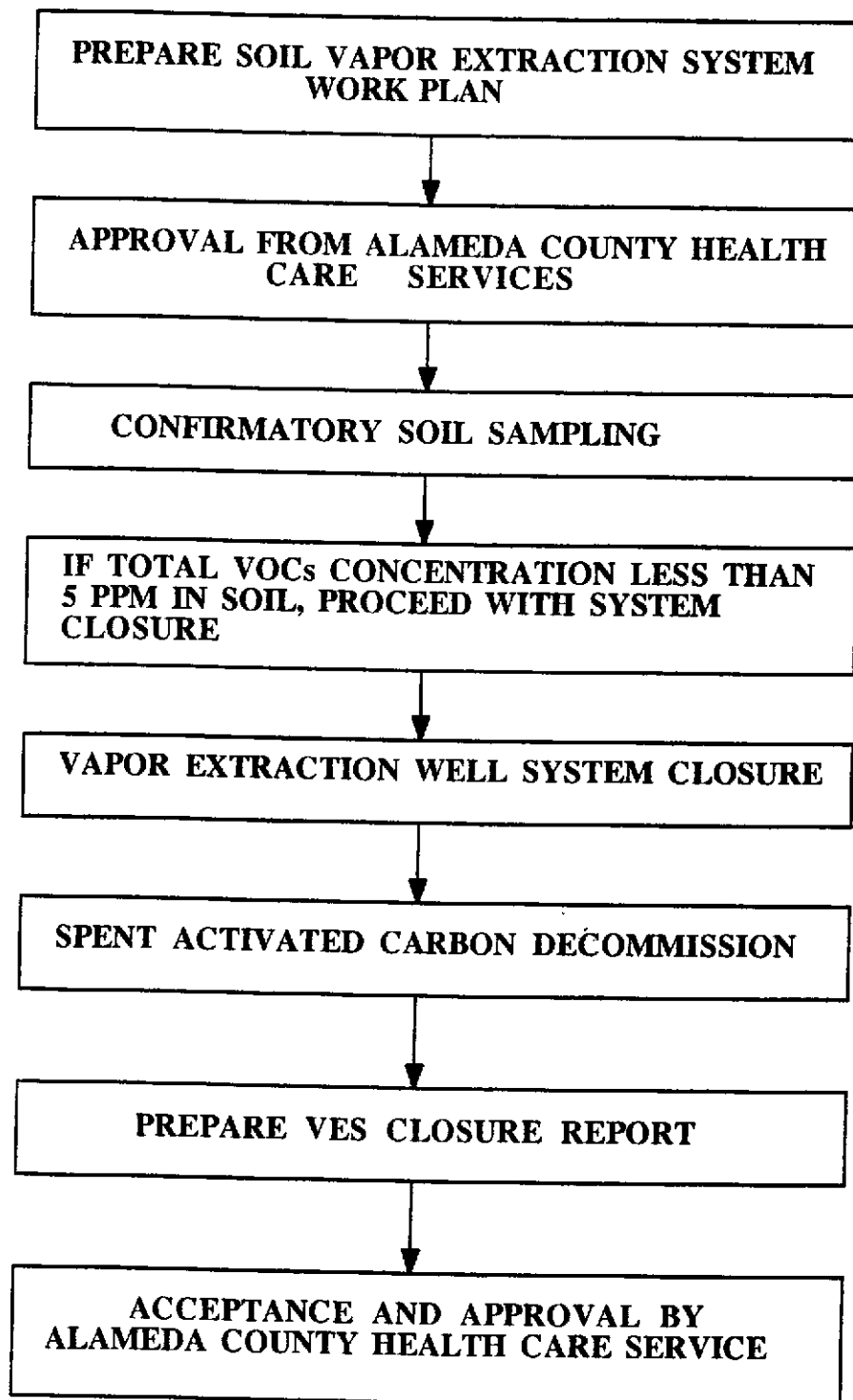
### **3.0 System Closure Approach**

Figure 3 depicts the steps of VES closure.

A VES closure plan will be prepared and submitted to ACHCS for approval. Confirmatory soil sample and analysis will be performed. If the total VOC in soil is less than five (5) ppm, the VES will be shut down and begin decommissioning procedure. The decommissioning items will include all of the following:

- \* Surface piping, valve, gauges
- \* Ves well abandonment
- \* Spent granular activated carbon disposal

A closure and decommission report will be prepared and submitted to ACHCS for acceptance and approval.

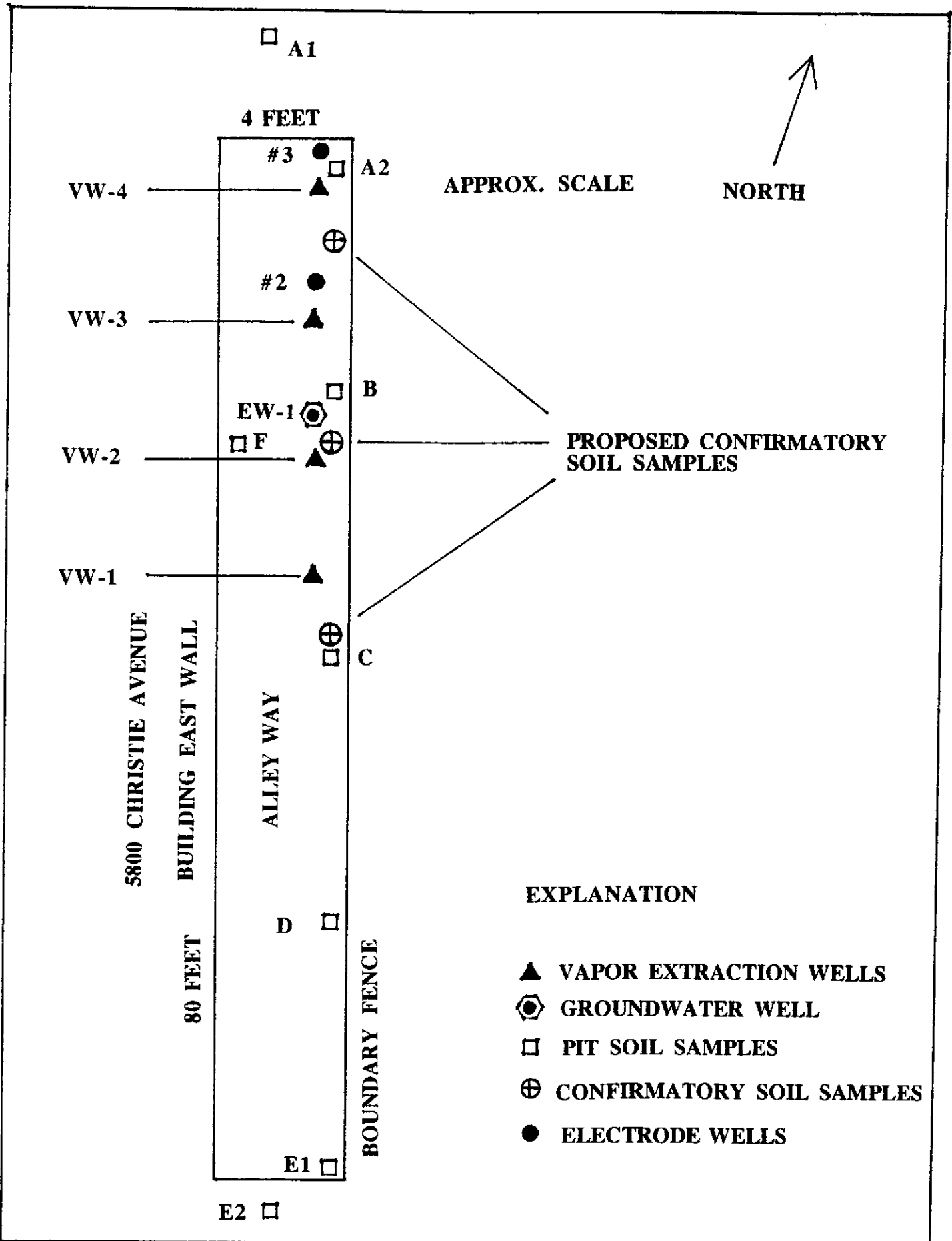


**FIGURE 3 SOIL VAPOR EXTRACTION SYSTEM CLOSURE METHOD OF APPROACH**

#### **4.0 Confirmatory Soil Sampling and Analysis Plan**

Figure 4 depicts the proposed soil sampling locations along the eastern boundary of the site. The soil sample will be taken between three (3) to five (5) feet depth. A tube sampler will be used to obtain the side wall soil samples. A total of three (3) soil samples are proposed. The soil sample will be analysed for EPA 8240(or EPA 8010 and 8020) volatile organic chemicals.

If the total VOCs detected is less than 5 ppm, the VES system will be shut down and ready for decommission upon approval from ACHCS.



## **5.0 Vapor Extraction Well System Decommission**

The four (4) VES wells will be pulled and backfilled with bentonite pellets. The recovered well points will be reclaimed for reuse for other purposes. The surface piping, valve and gauges will either be reclaimed or scrapped. The moisture condensation drum will be reclaimed or disposed with the packing material to a sanitary landfill.

## **6.0 Spent Activated Carbon Drum Decommission**

There are a total of ten (10) drums of spent activated carbon ready for decommission. These spent activated carbon will be detoxified by electrolysis treatment or steam regeneration.

A composite sample of the treated activated carbon will be analysed for EPA 8240 volatile organic chemicals. If the total VOCs is less the five (5) ppm, approval will be sought for disposal to a sanitary landfill. The clean steel drums will either be reclaimed or disposed at a sanitary landfill.



## **7.0 Closure Report**

A report of all closure and decommission activities documentation will be prepared and submitted to ACHCS for review and approval. This will include all the items and activities mentioned in the previous sections.

## **8.0 Schedule**

Upon approval of this work plan by ACHCS, the duration of the entire decommission and closure activities is estimated at sixty (60) to ninety (90) days.

**APPENDIX A**

**Alameda County Health Care Services Letter - Dated 7/28/89**

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



AUG 2 1989

28 July 1989

DEPARTMENT OF ENVIRONMENTAL HEALTH  
Hazardous Materials Program  
80 Swan Way, Rm. 200  
Oakland, CA 94621  
(415) 271-4320

S.G. Crowley and R.D. Herring  
Crowley and Herring Investment Company  
1311 63rd Street  
Emeryville, CA 94608

Subject: Proposed Remedial Project at 5800 Christie Avenue,  
Emeryville.

Dear Sirs:

This office has received and reviewed a soil remediation proposal and closure report prepared by Walter Loo of AWD Technologies, in regards to the address listed above. This proposal is acceptable to the Alameda County Department of Environmental Health, Hazardous Materials Division, and approval is granted for it's implementation upon the acquisition of the pertinent discharge permit from the East Bay Municipal Utility District.

If you have any questions concerning this matter, please contact, Dennis Byrne, Hazardous Materials Specialist, at (415) 271-4320.

Sincerely,

*Rafat A. Shahid*  
Rafat A. Shahid, Chief,  
Hazardous Materials Division

RAS:DB

cc: Scott Huegenberger, SFBRWQCB  
Walter Loo, AWD Technologies, Inc.  
10 West Orange Ave.  
South San Francisco, CA 94080

**APPENDIX B**

**Bay Area Air Quality Management Board  
Permits and Correspondence**



# BAY AREA AIR QUALITY MANAGEMENT DISTRICT

ALAMEDA COUNTY  
Edward R. Campbell  
Shirley J. Campbell  
(Vice-Chairperson)  
Chuck Corica  
Frank H. Ogawa

September 22, 1989

CONTRA COSTA COUNTY  
Paul L. Cooper  
Sunne Wright McPeak

Walter Loo  
Croley and Herring Investment Company  
1311 63rd Street  
Emeryville, CA 94608

MARIN COUNTY  
Al Aramburu

NAPA COUNTY  
Bob White

Application Number: 3548  
Equipment Location:  
5800 Christie Avenue  
Emeryville, CA

SAN FRANCISCO COUNTY  
Harry G. Britt  
Jim Gonzalez

SAN MATEO COUNTY  
Gus J. Nicolopoulos  
Anna Eshoo

Gentlemen:

SANTA CLARA COUNTY  
Martha Clevenger  
Rod Diridon  
Roberta H. Hughan  
Susanne Wilson  
(Chairperson)

This is your Authority to Construct the following:

SOLANO COUNTY  
Osby Davis  
(Secretary)

- S-1 Soil venting system Rotron EG&G 112 CFM blower; abated by A-1 and A-2 Activated Carbon, "Contamination Control" 150 lbs. granular activated carbon per vessel (minimum of two vessels arranged in series), carbon recharged by Cameron Yakima.

SONOMA COUNTY  
Jim Harberson

Operation of this equipment will be subject to the following specific conditions:

1. This source shall be vented at all times to both A-1, Activated carbon vessel abatement, 150 lb of carbon and A-2, Activated carbon vessel abatement 150 lb of carbon. The carbon vessels shall be operated in series.
2. The last carbon vessel in series (A-2) shall be kept at a non-detectable reading of organics as measured with an FID-OVA monitor.
3. The primary carbon vessel A-1 (first in series) shall be changed out with unspent carbon upon the detection of 10 ppmv organics as measured with an FID-OVA. The monitoring of the primary carbon vessel exhaust shall be taken at the midpoint between the connection of the two carbon vessels (A-1 AND A-2 placed in series).
4. The operator of this source shall monitor with a FID-OVA at at the following locations:
  1. At the exhaust of S-1; the inlet to carbon bed, A-1
  2. At the midpoint between the connection of the two carbon vessels A-1 and A-2 (connected in series); at the inlet to carbon vessel A-2.
  3. At the outlet of carbon vessel A-2; the carbon vessel that is second in series prior to venting to the atmosphere.

These monitor readings shall be recorded in a monitoring log at the time they are taken. The monitoring results shall be used to:

- a. Calculate the time of predicted breakthrough of organics as carbon on a dry basis after carbon adsorption to maintain compliance with condition number 3.
  - b. Determine the frequency of carbon change out necessary to maintain compliance with condition number 2.
  - c. To maintain compliance with conditions number 2 and 3 the monitoring shall be conducted on a daily basis. The operator of this source may propose for District review, based on actual measurements taken at the site during operation of the source, that the monitoring schedule be changed based on a decline in organic emissions and /or the demonstrated breakthrough rates of the carbon vessels. Written approval by the District must be received by the applicant prior to a change to the monitoring schedule.
5. The operator of this source shall maintain the following information in a District approved log for each month of operation of the source.
    - a. The hours and time of operation.
    - b. Each monitor reading or analysis result logged in for the day of operation they are taken.
    - c. The calculation of organic breakthrough from the carbon beds.
  6. The log shall be submitted to the District Permit Services Division on a monthly basis. Any violation of condition numbers 2 and/or 3 shall be reported under separate cover letter with the logs as well as the corrective action taken. In addition, any violation of condition number 2 and /or 3 shall be submitted to the District Enforcement Section at the time it occurs. This submittal shall detail corrective action taken and shall include the data showing the violation as well as the time of occurrence.
  7. The operator shall maintain a file containing all measurements, records and other data that are required to be collected pursuant to the various provisions of this conditional Authority to Construct/Permit to Operate. All measurements, records and data required to be maintained by the applicant shall be retained for at least two years following the date the data is recorded.

Application # 3546  
September 22, 1989  
Page 3

Notification

Please notify the District by letter at least three days before the initial operation of the equipment is to take place so that we may observe the equipment in operation and verify conformance with the Authority to Construct. Operation includes any start-up of the source for testing or other purposes. Operation of equipment without prior written notification to the District or beyond the start-up period without a Permit to Operate may result in enforcement action.

Start-Up Period

After receipt of the start-up letter required above, this Authority to Construct authorizes operation during the start-up period from the date of initial operation noted in your start-up letter until the Permit to Operate is issued, up to a maximum of 60 days. All conditions (specific or implied) of the Authority to Construct are in effect during the start-up period.

Fees

District Regulation 3 requires a fee for each new Permit to Operate. You will be invoiced upon receipt of your start-up letter. No permits will be issued until all outstanding fees are paid.

Implied Conditions

In the absence of specific permit conditions to the contrary, the throughputs, fuel and material consumptions, capacities, and hours of operation described in your permit application will be considered maximum allowable limits. A new permit will be required before any increase in these parameters, or change in raw material handled, may be made.

Expiration

In accordance with Regulation 2-1-407, this Authority to Construct expires two years from the date of issuance unless substantial use of the authority has begun.





A Subsidiary of  
The Dow Chemical Company

April 3, 1991  
2010-003

Mr. Alexander V. Saschin  
Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, CA 94109

Subject: Start-Up of the Soil Venting System at  
Croley and Herring Investment Company Facility  
5800 Christie Avenue  
Emeryville, California  
APPLICATION NO. 3546

Dear Mr. Saschin:

A soil venting system has been constructed at the above-referenced site. The system was constructed in accordance with the specification (Item S-1) provided in Authority to Construct issued by the District. The system is tested and ready to operate upon your approval. This letter is to notify the District that the start-up of the venting system will commence on April 12, 1991.

If you have any questions or need any further information regarding the subject matter, please contact me or Mr. I-Sen Wang.

Sincerely,

  
Walter Loo  
Director of Remediation

WL:hlw

cc: Mr. Steve Croley - CHIC  
Mr. Dick Herring - CHIC



# BAY AREA AIR QUALITY MANAGEMENT DISTRICT

ALAMEDA COUNTY  
Edward R. Campbell  
Shirley J. Campbell  
Loni Hancock  
Frank H. Ogawa

CONTRA COSTA COUNTY  
Paul L. Cooper  
(Vice Chairperson)  
Sunne Wright McPeak  
Tom Powers

MARIN COUNTY  
Al Aramburu

NAPA COUNTY  
Bob White

SAN FRANCISCO COUNTY  
Harry G. Britt  
Jim Gonzalez

SAN MATEO COUNTY  
Gus J. Nicolopoulos  
Anna Eshoo  
(Secretary)

SANTA CLARA COUNTY  
Martha Clevenger  
Rod Diridon  
Roberta H. Hughan  
Susanne Wilson

SOLANO COUNTY  
Osby Davis  
(Chairperson)

SONOMA COUNTY  
Jim Harberson  
Patricia Hilligoss

May 7, 1991

**Croley and Herring Investment Company**  
1311-63rd Street  
Emeryville, CA 94608

Attention: Walter Loo

**Application Number: 3546**  
**Equipment Location:**  
5800 Christie Avenue  
Emeryville, CA 94608

Gentlemen:

Attached is your Permit to Operate the following:

- S-1 Soil venting system Rotron EG&G 112 CFM blower; abated by A-1 and A-2 Activated Carbon, "Contamination Control", 150 lbs. granular activated carbon per vessel (minimum of two vessels arranged in series), carbon recharged by Cameron Yakima.**

All Permits should be posted in a clearly visible and accessible place on or near the equipment to be operated, or kept available for inspection at any time.

Operation of this equipment in violation of District Regulations or any permit conditions is subject to penalty action.

In the absence of specific permit conditions to the contrary, the throughputs, fuel and material consumptions, capacities and hours of operation described in your permit application will be considered maximum allowable limits. A new permit will be required before any increase in these parameters, or change in raw material handled may be made.

Please include your permit number with any correspondence with the District. If you have any questions on this matter, please call **Alex Saschin, Air Quality Engineer II** at **(415) 771-6000, extension 190.**

Very truly yours,

Milton Feldstein  
Air Pollution Control Officer

by *John A. Swanson*  
Permit Services Division

JAS:AVS:me  
Attachments

Croley and Herring Investment Company  
5800 Christie Avenue  
Emeryville, CA 94608  
Application #3546  
May 7, 1991

Conditions:

1. This source shall be vented at all times to both A-1, Activated carbon vessel abatement, 150 lb of carbon and A-2, Activated carbon vessel abatement 150 lb of carbon. The carbon vessels shall be operated in series.
2. The last carbon vessel in series (A-2) shall be kept at a non-detectable reading of organics as measured with an FID-OVA monitor.
3. The primary carbon vessel A-1 (first in series) shall be changed out with unspent carbon upon the detection of 10 ppmv organics as measured with an FID-OVA. The monitoring of the primary carbon vessel exhaust shall be taken at the midpoint between the connection of the two carbon vessels (A-1 and A-2 placed in series).
4. The operator of this source shall monitor with a FID-OVA at the following locations:
  1. At the exhaust of S-1; the inlet to carbon bed, A-1.
  2. At the midpoint between the connection of the two carbon vessels A-1 and A-2 (connected in series); at the inlet to carbon vessel A-2.
  3. At the outlet of carbon vessel A-2; the carbon vessel that is second in series prior to venting to the atmosphere.

These monitor readings shall be recorded in a monitoring log at the time they are taken. The monitoring results shall be used to:

- a. Calculate the time of predicted breakthrough of organics as carbon on a dry basis after carbon adsorption to maintain compliance with condition number 3.
- b. Determine the frequency of carbon change out necessary to maintain compliance with condition number 2.
- c. To maintain compliance with conditions number 2 and 3 the monitoring shall be conducted on a daily basis. The operator of this source may propose for District review, based on actual measurements taken at the site during operation of the source, that the monitoring schedule be changed based on a decline in organic emissions and/or the demonstrated breakthrough rates of the carbon vessels. Written approval by the District must be received by the applicant prior to a change to the monitoring schedule.

The operator of this source shall maintain the following information in a District approved log for each month of operation of the source:

- a. The hours and time of operation.
  - b. Each monitor reading or analysis result logged in for the day or operation they are taken.
  - c. The calculation of organic breakthrough from the carbon beds.
  - d. The number of carbon beds removed from service.
5. The log shall be submitted to the District Permit Services Division on a monthly basis. Any exceedance of condition numbers 2 and /or 3 shall be reported under separate cover letter with the log as well as the corrective action taken. In addition, an exceedance of condition number 2 and/or 3 shall be submitted to the District Enforcement Section at the time it occurs. This submittal shall detail corrective action taken and shall include the data showing the exceedance as well as the time of occurrence.
  6. The operator shall maintain a file containing all measurements, records and other data that are required to be collected pursuant to the various provisions of this conditional Authority to Construct/Permit to Operate. All measurements, records and data required to be maintained by the applicant shall be retained for at least two years following the date the data is recorded.



# BAY AREA AIR QUALITY MANAGEMENT DISTRICT

PERMIT TO OPERATE NO. 3546

PLANT NO. 4805

## Croley and Herring Investment Company

IS HEREBY GRANTED A PERMIT TO OPERATE THE FOLLOWING EQUIPMENT: SOURCE NO. 1

Soil venting system Rotron EG&G blower; abated by A-1 and A-2 Activated Carbon, "Contamination Control", 150 lbs. granular activated carbon per vessel (minimum of two vessels arranged in series), carbon recharged by Cameron Yakima.

LOCATED AT: 5800 Christie Avenue  
Emeryville, CA 94608

CONDITIONS:  YES  NO

**CONDITIONS SEE ATTACHED**

MILTON FELDSTEIN  
AIR POLLUTION CONTROL OFFICER

DATE May 7, 1991

BY John A. Swanson  
PERMIT SERVICES DIVISION

EXPIRATION DATE: May 7, 1992

THIS PERMIT DOES NOT AUTHORIZE ANY VIOLATION OF THE RULES AND REGULATIONS OF THE BAAQMD OR THE HEALTH & SAFETY CODE OF THE STATE OF CALIFORNIA.

PERMIT SERVICE DIVISION DIVISION OF ENVIRONMENTAL  
BAY AREA AIR QUALITY MANAGEMENT DISTRICT

939 ELLIS STREET  
SAN FRANCISCO, CA 94109  
(415) 771-6000

REFUND REQUEST FORM

YOU ARE POSSIBLY ENTITLED TO A REFUND FOR PERMIT FEES YOU RECENTLY PAID.  
IF YOU BELIEVE YOU ARE ENTITLED TO A REFUND, THIS COMPLETED FORM WILL BE  
CONSIDERED A REQUEST FOR A REFUND WHEN YOU SIGN AND RETURN IT.

- o WAS PERMIT FOR  NEW/MODIFIED EQUIPMENT  
 ANNUAL RENEWAL (RETROACTIVE)
- o PERMIT NUMBER 3546
- o PLANT IDENTIFICATION NUMBER 4805
- o COMPANY NAME Croley & Herring Investment
- o MAILING ADDRESS 1311 63rd St. Emeryville, CA 94608
- o PLANT ADDRESS 5800 Christie Ave. Emeryville, CA 94608
- o AMOUNT PAID \$ 360
- o DATE PAID 8/3/89
- o AMOUNT OF REFUND YOU ARE CLAIMING \$ \$30
- o WHY DO YOU THINK THAT YOU ARE DUE A REFUND? Overpayment  
of fees

I HEREBY REQUEST A REFUND OF ANY OVERPAYMENT OF FEES FOR  
THE PERMIT APPLICATION IDENTIFIED ABOVE.  
PLEASE MAKE ANY REFUND CHECK PAYABLE TO:

Croley and Herring Investment Co.

\*\*\*\*\*  
1311 63rd Street

Emeryville, California 94608

SIGNATURE R. D. Herring

NAME PRINTED R. D. HERRING

PHONE 415-652-1276

TITLE Partner

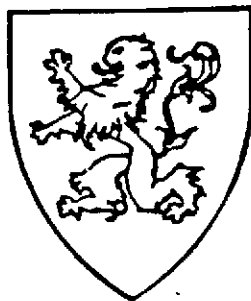
DATE 5/20/91

THIS PORTION FOR DISTRICT USE ONLY:

REFUND DUE \$ \_\_\_\_\_

REVIEWED BY \_\_\_\_\_

APPROVED BY \_\_\_\_\_



1-800-792-0836

## *Croley and Herring Investment Company*

September 14, 1991  
Mr. Alex Saschin  
Air Quality Engineer II  
Bay Area Air Quality Management District  
939 Ellis Street,  
San Francisco, CA 94109

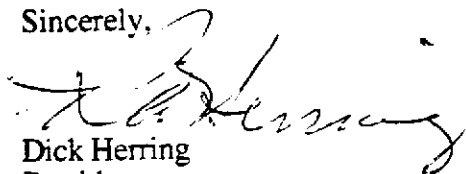
Subject: Application Number 3546  
5800 Christie Avenue  
Emeryville, CA 94608

Dear Mr. Saschin,

As per your site inspection on April 26, 1991, we have been operating and monitoring daily the vapor extraction system located at the subject property. Table 1 present the monitoring records to date. As you can see, we have not seen any significant changes in the daily readings for this period of time. We hereby request for a reduction of monitoring frequency from daily to biweekly. We will contact you for your verbal approval if you have no objection.

Thank you for your co-operation on this matter.

Sincerely,



Dick Herring  
President



# BAY AREA AIR QUALITY MANAGEMENT DISTRICT

ALAMEDA COUNTY  
Edward R. Campbell  
Loni Hancock  
Greg Harper  
Frank H. Ogawa

September 17, 1991

CONTRA COSTA COUNTY  
Paul L. Cooper  
(Chairperson)  
Sunne Wright McPeak  
Tom Powers

MARIN COUNTY  
Al Aramburu

NAPA COUNTY  
Paul Battisti

SAN FRANCISCO COUNTY  
Roberta Achtenberg  
Harry G. Britt

SAN MATEO COUNTY  
Gus J. Nicolopoulos  
Anna Eshoo  
(Vice Chairperson)

SANTA CLARA COUNTY  
Martha Clevenger  
Rod Diridon  
Roberta H. Hughan  
Dianne McKenna

SOLANO COUNTY  
Osby Davis

SONOMA COUNTY  
Jim Harberson  
Patricia Hilligoss  
(Secretary)

Dick Herring  
**Croley and Herring Investment Co.**  
448 Tharp Dr.  
Moraga, CA 94556

Dear Mr. Herring:

The District has reviewed and granted your request, dated September 14, 1991, to change the monitoring frequency from daily to biweekly.

Please keep a copy of this letter as verification that a biweekly monitoring schedule has been approved for the 5800 Christie Ave, Emeryville, CA site by the District.

If you have any questions regarding this matter, please call me at (415) 749-4713.

Very truly yours,

Alex V. Saschin  
Air Quality Engineer II  
Permit Services Division

AVS:all

**APPENDIX C**  
**System Monitoring Record**



**VAPOR EXTRACTION SYSTEM MONITORING RECORD  
ORGANIC VAPOR CONCENTRATION IN PPMV**

<u>DATE</u>	<u>GAC INFLUENT</u>	<u>GAC EFFLUENT</u>	<u>COMMENTS</u>
4/2/90	300	120	
4/3/90	240	100	
4/4/90	160	20	
4/5/90	160	20	
4/6/90	160	20	
4/9/90	150	10	
4/10/90	180	80	
4/11/90	140	60	
4/12/90	180	60	
4/13/90	180	20	
4/16/90	160	20	
4/17/90	150	10	
4/18/90	110	10	
4/19/90	90	10	
4/20/90	80	10	END OF TESTS. GAC CHANGED 4 TIMES
SYSTEM DOWN FOR ADJUSTMENT IN DESIGN AND MAINTENANCE			
2/5/91	13	15	SUSPECTED METHANE BREAK THROUGH
2/8/91	13	15	
2/12/91	9	10	
2/15/91	8.6	8	
2/21/91	6.6	6.6	
3/4/91	3.2	4.5	
3/6/91	7.6	6.4	
4/22/91	5.6	6.0	
4/23/91	6.9	5.6	
4/24/91	8.5	6.6	
4/25/91	22	23	
4/26/91	28	16	BAAQMD INSPECTION
4/29/91	4.4	5.6	
4/30/91	14	5	
5/1/91	12	8	
5/2/91	11	10	
5/3/91	10	9	
5/6/91	2.5	3	
5/7/91	1.2	2	
5/8/91	4.3	6.2	
5/9/91	7.4	7.8	
5/10/91	5.2	6	
5/13/91	9.6	9.7	
5/14/91	12	11	
5/15/91	10	10	
5/17/91	10	8	
5/20/91	11	12	
5/21/91	5	8	
5/22/91	7	12	
5/23/91	3.6	5	

**VAPOR EXTRACTION SYSTEM MONITORING RECORD  
ORGANIC VAPOR CONCENTRATION IN PPMV**

<u>DATE</u>	<u>GAC INFLUENT</u>	<u>GAC EFFLUENT</u>	<u>COMMENTS</u>
5/24/91	5.8	9.6	
5/28/91	4.8	6.1	
5/29/91	6.4	8.2	
5/30/91	5.4	6.0	
5/31/91	8.9	7	
6/3/91	10	10	
6/4/91	6.2	7	
6/5/91	12	12	
6/6/91	4	4.6	
6/7/91	11	19	
6/10/91	8	8	
6/11/91	6	6	
6/12/91	4	5.5	
6/13/91	0.3	2	CONFIRM PRESENCE OF METHANE. READINGS REDUCED BY ACTIVATED CARBON FILTER TUBE
6/14/91	2.1	3.6	
6/17/91	0.9	3.8	AMBIENT AIR READINGS
6/18/91	1	2	4
6/20/91	0	0	
6/21/91	2	2	
6/24/91	2	3	3
6/25/91	2	2	3
6/26/91	4	3	3
7/4/91	2	2	2 TO 5
7/5/91	1	1	4
7/8/91	2	2	3
7/9/91	3	3	3
7/10/91	3	2	3
7/11/91	1	0	3
7/12/91	1	1	3
7/15/91	0	2	3
7/16/91	2	2	3
7/17/91	2	1	4
7/18/91	0	1	4
7/19/91	1	2	4
7/22/91	1	5	3
7/23/91	0	2	3
7/24/91	1	3	3
7/25/91	0	2	4
7/26/91	2	2	2
7/29/91	1	0	2
7/30/91	0	0	4
7/31/91	0	1	2
8/1/91	1	2	3
8/2/91	1	0	2

**VAPOR EXTRACTION SYSTEM MONITORING RECORD  
ORGANIC VAPOR CONCENTRATION IN PPMV**

<u>DATE</u>	<u>GAC INFLUENT</u>	<u>GAC EFFLUENT</u>	<u>COMMENTS</u> AMBIENT AIR READINGS
8/5/91	0	0	3
8/6/91	1	0	1
8/7/91	1	1	3
8/8/91	1	1	2
8/9/91	1	0	3
8/12/91	1	1	2
8/13/91	1	1	2
8/14/91	1	1	2
8/15/91	1	0	3
8/16/91	1	2	3
8/19/91	1	0	3
8/20/91	0.6	0.8	5
8/21/91	1.1	1.1	1.5
8/22/91	1.2	1	3.8
8/23/91	0.8	0.8	4
8/26/91	1	0.9	3.8
8/27/91	0.5	0.8	3.8
8/28/91	0.6	0.6	3.8
8/29/91	0.7	1.3	3.5
8/30/91	0.3	0.7	4
9/2/91	1.6	1	4.4
9/3/91	0.7	0.9	3.5
9/4/91	0.8	0.6	3.7
9/5/91	0.5	0.5	3.6
9/6/91	0	0.7	3.9
9/9/91	0.6	0.5	3.6
9/10/91	0.9	0.5	3.8
9/11/91	0.6	1	3.7
9/12/91	0.6	0.8	3.6
9/13/91	0.6	0.8	3.3
9/16/91	0.6	0.7	3.8
9/18/91	3.1	2.2	3.7
9/19/91	2	1	3.3
9/20/91	0.7	0.7	1.7
9/23/91	0.3	0.3	3.6
9/25/91	0.9	1.2	3.7
10/1/91	0.4	0.3	3.1
10/10/91	0.6	0.6	3.9
10/17/91	1.1	1.1	3.4
10/22/91	1.3	0.9	3.3
10/28/91	3	2	4
11/11/91	0	3	3.3

ALL READINGS TAKEN BY OWNERS OF PROPERTY USING A FOXBORO OVA MODEL 128.