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REGISTERED GEOLOGISTS

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ENVIRONMENTAL  
PROTECTION

96 OCT -1 PM 1:37

**SEPTEMBER 26, 1996**

**WORKPLAN TO FURTHER DELINEATE FREE PRODUCT SHEEN AND TO DEVELOP  
A CORRECTIVE ACTION PLAN FOR FREE PRODUCT RECOVERY  
DISCOVERED AT 4032 BRIGHTON AVENUE, NEAR MONITOR WELL RS-7  
ASSOCIATED WITH FORMER DESERT PETROLEUM STATION #793.**

**INTRODUCTION**

Desert Petroleum Inc., has been directed by Alameda County Health to further define and if necessary remediate the soil and ground water that may have been affected by the release from 4035 Park Blvd., Oakland, California. This release is suspected to have left the site at 4035 Park Blvd. and traveled via the sewer lateral to the sewer line on Brighton Avenue where gasoline type fluids were observed entering the sewer manway, see Levine-Fricke Report dated November 16, 1993 "REPORT OF THE SOIL AND GROUND-WATER INVESTIGATION AT 4003 PARK BOULEVARD/4006 BRIGHTON AVENUE, OAKLAND, CALIFORNIA.

Western Geo-Engineers (WEGE) performed the soil screening and documentation sampling of the over-excavation of gasoline tainted soils at 4035 Park Boulevard on September 18, through October 4, 1995, see DESERT PETROLEUM Station #793, OVER-EXCAVATION AND QUARTERLY GROUND WATER SAMPLE REPORT. LOCATED AT 4035 Park Boulevard, OAKLAND, CALIFORNIA NOVEMBER 24, 1995.

Western Geo-Engineers investigated the sewer lateral and neighboring backyards for the extent of hydrocarbons in the soil and ground water, see "SEWER LATERAL INVESTIGATION REPORT, DESERT PETROLEUM STATION #793, dated July 3, 1996. During this investigation free product sheen was discovered beneath the front yard of 4032 Brighton Avenue (see Figure 3).

Figure 3 represents the estimated extent of ~~soil~~ <sup>just gw</sup> and ground water tainted with gasoline range hydrocarbons as interpreted from the above mentioned studies along with investigations conducted by Remediation Services, Int'l (RSI), Levine-Fricke and Resna Industries Water Works Corporation.

**INTERIM REMEDIATION**

During a meeting on August 6, 1996 and a subsequent letter dated August 12, 1996, Alameda County Health Care Service Agency directed the interim product recovery from monitor well RS-7 and air monitoring of the sewer manways and residential basements and/or crawl spaces in the immediate area impacted by gasoline range hydrocarbons (see Appendix C).


### Product Recovery

Interim product recovery was initiated by purging (depleting) monitor well RS-7 of ground water. The purging was enhanced by also venting RS-7 during the purging operation which occurred for approximately 1.5 hours once a week. Purging/venting of RS-7 occurred from August 14, 1996 through September 9, 1996 and was found to be unsuccessful in pulling and removing floating product from 4032 Brighton Avenue to RS-7 (see Appendix A - Report of Findings Purging/Venting RS-7).


### Air Monitoring

Air monitoring of residential crawl spaces/basements and sewer manways occurred on September 20, 1996. Western Geo-Engineers performed the monitoring on only those residences that returned a written permission notification or contacted WEGE by telephone. No gasoline range hydrocarbons were discovered during this survey (see Appendix B - Air Monitoring Survey Report).

### Sewer Discharge

 Tentative plans for future ground water treatment along the sewer lateral will require discharge of recovered treated ground water. The City of Oakland owns the sewer laterals but treatment of discharge is provided by East Bay Municipal Utility District (EBMUD). WEGE has received the permit application and is currently evaluating the discharge parameters to be addressed.

### **OVERVIEW OF WEGE'S PROPOSAL TO FURTHER DEFINE THE LATERAL EXTENT OF FREE PRODUCT DISCOVERED AT 4032 BRIGHTON AVENUE, OAKLAND, CA**

 WEGE's proposed free product delineation plan has been divided into three successive tasks that will provide information to prepare the area of concern for the removal of free product. WEGE's Soil Probe Survey (SPS) will first be conducted along the City of Oakland's easement (east side of Brighton Avenue) and front yards of 4032 and 4026 Brighton Avenue. This will provide information necessary for determining the extent of free product and depth to top of ground water and free product. The second task will be performed concurrently with Task I. WEGE will analyze the recovered ground water samples for natural attenuation mechanisms i.e. Nitrate, Sulfate, Dissolved Oxygen and Ferrous Iron. These tests must be performed immediately after obtaining the water sample and will be performed in WEGE's portable laboratory. Since the results are immediate, it will be known whether more SPS holes will be needed to fully delineate the natural attenuation boundaries. These additional SPS test holes can be drilled before leaving the site. The third task will be to determine if and where more wells are to be sited and what is the appropriate means for recovering the free product that will be delineated by the SPS.

## TASK I: SOIL PROBE SURVEY

WEGE's Soil Probe Survey (SPS) is a cost effective method for determining the lateral and vertical extent of soil contamination resulting from the discharge of gasoline or diesel fuels. The general location of the proposed SPS test holes is shown in Figure 4. Actual test hole placement will be guided by the results of the on-site laboratory analysis and will be determined by the laboratory director as the SPS progresses. Prior to any site activity, permission will be obtained from the individual land owners and their tenants to gain entry to their yards. Also, all permits and permission will be obtained from the City of Oakland, Alameda County Zone 7 and County Health.

At least 48 hours prior to the placement of the Soil Probe Survey test holes, Underground Service Alert will be contacted so that the location of underground utilities at and near the areas to be probed can be delineated.

### Sampling Procedure

During the Soil Probe Survey (SPS) test holes will be drilled at selected locations within the areas that permits and permission have been granted.

Discrete soil, water, and free product samples will be collected from selected depths ranging from a few feet below ground surface (bgs) to approximately two feet below the top of ground water, formation refusal, or a maximum of 20 feet bgs. The actual number of test holes drilled, their location, and the depth intervals to be sampled will be determined by field conditions and the results generated by the on-site laboratory as the SPS progresses. The SPS will begin near previous test hole TP-9 located at 4032 Brighton Avenue and progress north and south along Brighton Avenue until no evidence of free product or high dissolved gasoline range hydrocarbons exist. Once the north-south delineation has been completed, test holes will be sited west, within Brighton Avenue and east within the front yards of 4032, 4026 and 4006 Brighton Avenue to fully delineate the floating "free product plume, see Figure 3.

The test holes are drilled by driving a 5/8" steel rod into the ground using an electric jack hammer. After the rod has been driven to the desired sample depth, the rod is removed using a hydraulic puller and soil samples are then collected. A steel sampler with an inner plunger (to prevent premature filling) and a 3/8" by 2" brass sleeve fitted to the end is used to gather a small (1 to 4 grams) soil plug of the relatively undisturbed soil from the base of the hole. The sample is placed into a septum top 40 ml VOA Vial and transported to the on-site mobile laboratory.

If water is encountered, it is sampled by lowering 1/4" tubing into the hole and pulling the sample to the surface using a vacuum. The sample is collected in a 40 ml VOA vial.

#### On-site Laboratory Analysis

The sealed soil sample is first examined under an Ultraviolet (U.V.) scope in order to determine if any petroleum fluorescence is visible in the sample. The sample vial is then weighed, placed into a hot water bath, and the contents allowed to come to equilibrium. After the sample has reached equilibrium, a headspace sample is obtained and injected into the FID analyzer where a Total Volatile Organics (TVO) value is obtained. Selected samples are also injected into the calibrated FID (flame ionizing detector) chromatograph which produces a chromatogram of the sample. The resulting chromatogram is compared with standard calibration chromatograms to determine the levels of the volatile organics present.

Water samples are first examined under the U.V. scope in order to determine if any petroleum fluorescence is visible in the sample. The sample vial is then placed into a hot water bath and the contents allowed to come to equilibrium. After the sample has reached equilibrium, a sample of the headspace is taken and injected into a calibrated FID chromatograph; the resulting chromatograms are examined for volatile organics.

#### Test Hole Destruction

After collecting samples from the test holes, each test hole will be backfilled on the same day it is drilled using powdered bentonite topped with cement grout.

### TASK II: NATURAL ATTENUATION DOCUMENTATION

*gw*  
*vapor*  
Selected water samples obtained from Task I of the SPS will be analyzed for Dissolved Oxygen, Nitrate, Sulfate and Ferrous Iron. Depletion of Dissolved Oxygen, Nitrate and Sulfate and the presence of Ferrous Iron indicate a reducing condition that suggests natural attenuation or biodegradation is occurring. Soil gas samples will also be obtained from above the top of water for analysis of gasoline range hydrocarbons, carbon dioxide and methane. Methane is an indicator of reduced conditions, i.e. anaerobic conditions and CO<sub>2</sub> is an indicator of aerobic conditions.

Preliminary results from the above tests may direct the SPS to define areas extending outside the original test holes.

### TASK III: SPS REPORT AND DETAILS FOR FREE PRODUCT REMOVAL

The SPS and the laboratory results will be documented by a report that includes a description of sample collection and laboratory analysis, a table of the sample results, and maps of the sample locations and a revised extent of the soil and ground water contamination. This report will be the basis for the generation of a Corrective Action Plan (CAP) and design for free product recovery.

#### TIME FRAME

Within one week after approval of workplan, the land owners and tenants permission process will commence and all necessary permit applications started.

The SPS will be scheduled within two weeks after tenant/landlord permission is granted and encroachment and permit applications are approved. USA will be notified at least 48 hours before starting the SPS.

Within two weeks of permit approval - Soil Probe Survey (SPS).

One month after completion of SPS - Investigation and Evaluation Report.

One month after Investigation and Evaluation Report - Corrective Action Plan (CAP) for free product removal with a Risk Based Corrective Action (RBCA Tier II) will be submitted for review. The CAP will discuss the need and siting of future wells, if found to be necessary, and the most appropriate means of removing the free product.


#### HEALTH AND SAFETY

A site safety plan covering the potential job hazards, special precautions, and emergency medical contingencies related to the site investigation is included as Appendix D of this workplan.

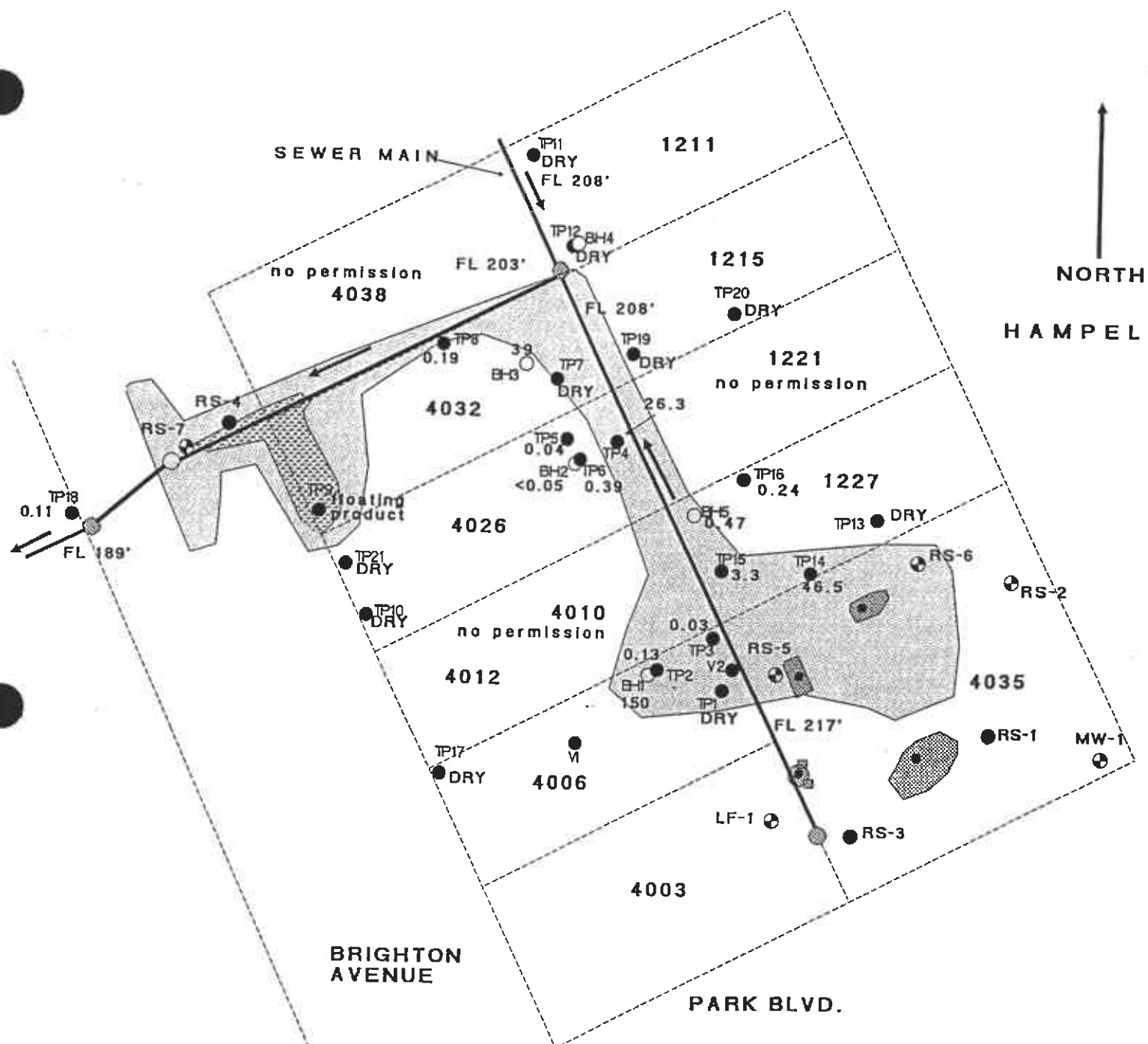
#### LIMITATIONS







The services performed by Western Geo-Engineers will be conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the State of California and Alameda County. Our work and/or supervision of remediation and/or abatement operations, active or preliminary at this site is no way meant to imply that we are owners or operators of this site. Please note that the known contamination of soil and/or ground water must be reported to the appropriate agencies in a timely manner. No other warranty expressed or implied, is made.

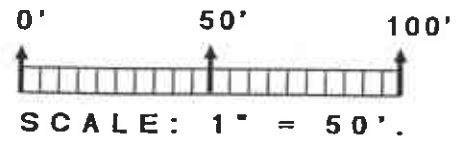
If you have any questions concerning this workplan if we can be of further assistance, please do not hesitate to contact us at (916) 668-5300.

A handwritten signature in cursive script that reads "George L. Converse". The signature is written in dark ink and is positioned above the typed name.

George L. Converse  
Project Geologist



-  INJECTION/RECOVERY TRENCHES.
- FL 217' FLOW LEVEL OF SEWER
-  SEWER MANHOLE
- MW-1  MONITOR WELL LOCATION WITH ID\*
- TP1  SOIL PROBE SURVEY TEST PROBE LOCATIONS FROM APRIL 1&2, 1996
- BH1  HAND AUGERED BOREHOLES, DRILLED MAY 1&2, 1996
- V1  VAPOR TEST HOLE LOCATION FROM SOIL PROBE SURVEY

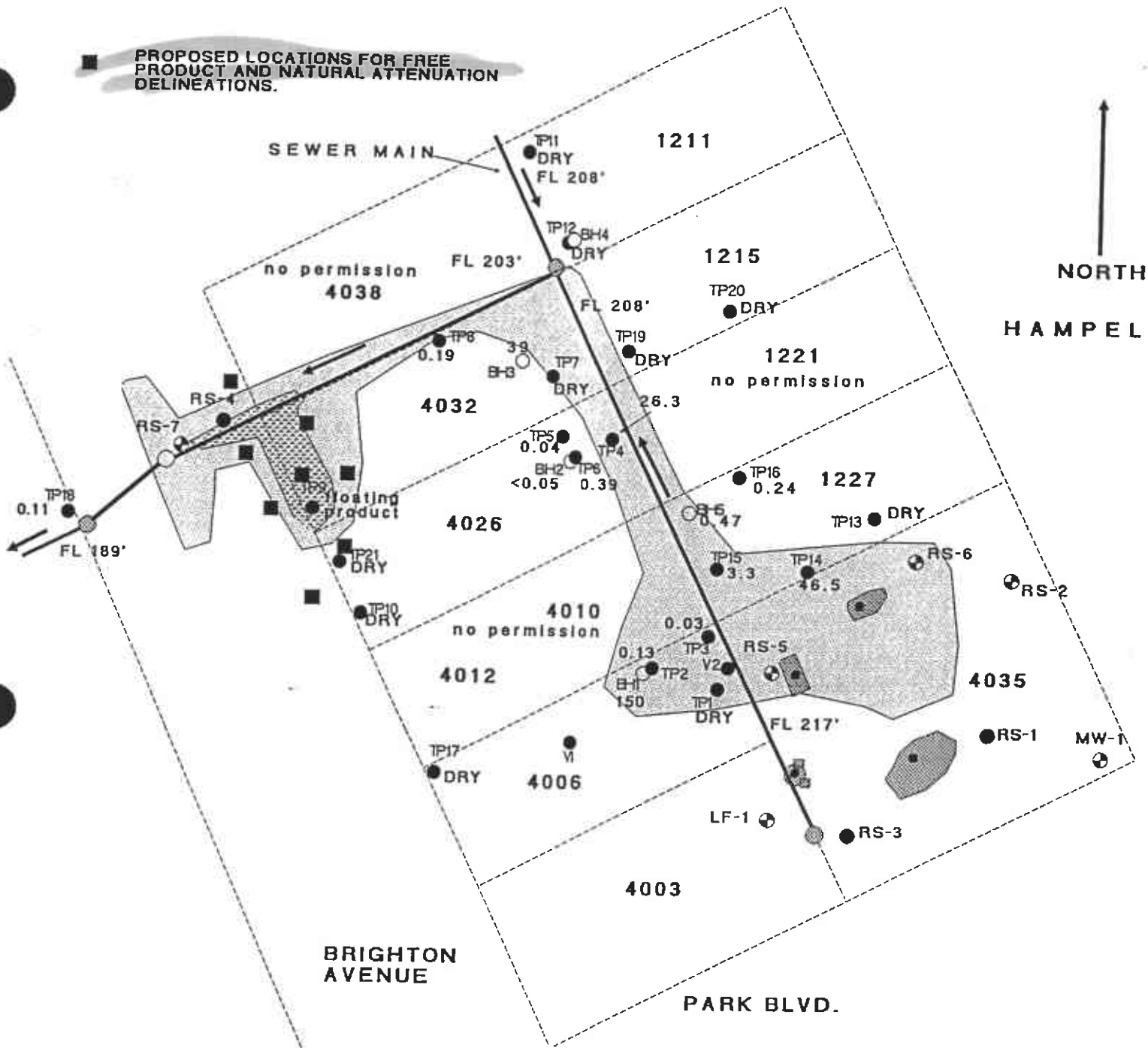








DESERT PETROLEUM STATION #793  
 4035 PARK BLVD..  
 OAKLAND, CALIFORNIA 94602

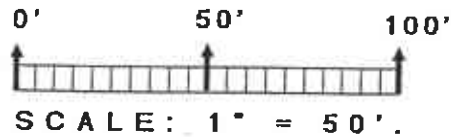
**FIGURE 3**  
**SEWER LATERAL**  
**INVESTIGATION**  
**MAY 3, 1996**

**WEGE laboratory results, TPHg in ground water.**

**PROPOSED LOCATIONS FOR FREE PRODUCT AND NATURAL ATTENUATION DELINEATIONS.**



-  INJECTION/RECOVERY TRENCHES.
- FL 217' FLOW LEVEL OF SEWER
-  SEWER MANHOLE
- MW-1  MONITOR WELL LOCATION WITH ID#
- TP1  SOIL PROBE SURVEY TEST PROBE LOCATIONS FROM APRIL 1&2, 1996
- BH1  HAND AUGERED BOREHOLES, DRILLED MAY 1&2, 1996
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DESERT PETROLEUM STATION #793  
4035 PARK BLVD..  
OAKLAND, CALIFORNIA 94602

**FIGURE 4**  
**FREE PRODUCT**  
**INVESTIGATION**  
**SEPTEMBER 26, 1996**



**APPENDIX B**



**WESTERN  
GEO-ENGINEERS**

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**AIR MONITORING SURVEY REPORT  
FOR PROPERTIES IN THE VICINITY OF  
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA  
SEPTEMBER 25, 1996**

**OVERVIEW OF THE AIR MONITORING SURVEY**

Western Geo-Engineers conducted an air monitoring survey of the basements and/or crawl spaces of the residences in the vicinity of 4035 Park Boulevard, Oakland, California on September 22, 1996. The air monitoring survey was conducted at the request of the Alameda County Health Care Services Agency and the City of Oakland Fire Department (meeting held August 6, 1996, see Appendix C).

Written permission to collect the air samples was obtained from the owners of properties located at 4032, 4026, and 4006 Brighton Avenue; 4003 Park Boulevard; and 1211, 1215, 1221, and 1227 Hampel Street (Attachment A). The owner of the property located at 4010 and 4012 Brighton Avenue did not respond to WEGE's written request and WEGE was unable to reach the property owner by telephone. The owner of the property located at 4038 Brighton Avenue declined to be included in the air monitoring survey.

Air samples were also collected from the sewer manway located near monitor well RS-7, the sewer manway located at the rear of the 1215 Hampel Street property, and the sewer cleanout located at the western edge of the 4035 Park Boulevard property.

Western Geo-Engineers (WEGE) collected the air samples using 1/4 inch polyethylene tubing that was inserted through the exterior vent screens of the basement/crawl spaces of the residences. One air sample was collected from beneath each building in 1.0 liter tedlar air sample bags. The air samples were analyzed for concentrations of Total Petroleum Hydrocarbons as Gasoline (TPH-G) and the constituents Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) in the WEGE mobile laboratory in Woodland, California on September 23, 1996. The methods and procedures used to collect and analyze the air samples are described in greater detail below.

**METHODS AND PROCEDURES**

**Collection of Air Samples**

Air samples were collected from the basement and/or crawl spaces in areas with exposed dirt floors. Air samples were collected at ground level from the lowest elevation point in the basement or crawl space that was accessible from a screened vent connecting the basement/crawl space with the exterior of the residence.

Twenty feet of 1/4 inch diameter polyethylene tubing was inserted through the screened vent to the basement/crawl space. New polyethylene tubing was used for each air sample. A 60 cc syringe was used to displace the 90 cc of ambient air contained in the tubing with air from the basement/crawl space. The tubing was crimped with surgical forceps between each withdrawal of 60 cc of air to prevent downward movement in the tubing by a potentially heavier (contaminated with hydrocarbons) air sample from the basement/crawl space. At least 240 cc of air was removed from the tubing with the syringe prior to collecting the air sample.

Following withdrawal of ambient air from the polyethylene tubing, the tubing was connected to a SKC one liter tedlar air sample bag and the tedlar bag placed in a sealed plastic container. Air was withdrawn from the sealed plastic container with a small foot pump. The resulting vacuum in the sealed plastic container caused the air sample contained in the twenty feet of polyethylene tubing and an additional 900 cc of sample air located near the distal (intake) end of the tubing to be drawn into the tedlar air sample bag. The sample bag was labeled with location, date, and time and preserved in a light proof container.

#### Laboratory Analysis

Air samples were analyzed in WEGE's mobile laboratory using a research grade Shimadzu FID chromatograph. A 0.2 cc sample of air was collected from the tedlar sample bag with a disposable syringe and injected into the calibrated FID chromatograph. The resulting chromatograms were examined for concentrations of Total Petroleum Hydrocarbons as Gasoline (TPH-G), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and Methane (Attachment B). Concentrations were determined by comparing sample chromatograms with chromatograms produced by gasoline and BTEX, and methane standards of known concentration.

### RESULTS FROM AIR MONITORING

#### TPH-G and BTEX

None of the eight air samples collected from the basement/crawl spaces or three air samples collected from the sewer manways contained TPH-G or BTEX concentrations above the laboratory detection limits (Table 1). WEGE's mobile laboratory detection limits are as follows:

Total Petroleum Hydrocarbons as Gasoline - 50 ug/l  
Benzene - 0.5 ug/l  
Toluene - 0.6 ug/l  
Ethylbenzene - 0.5 ug/l  
Xylenes - 1.2 ug/l

The WEGE laboratory detection limit for gasoline is significantly less than the Lower Explosion Limit (LEL) for gasoline vapors in standard air (52,000 ug/l). The LEL is the minimum concentration of a combustible gas or vapor that is necessary for that substance to burn or explode at ambient temperatures if an ignition source is present.

### Methane

Methane was detected in all 11 air samples. The methane concentrations in the eight air samples collected from the basement/crawl spaces ranged from a maximum of 11.3 ug/l at 4003 Park Boulevard to 0.4 ug/l at 1227 Hampel Street. The methane concentrations in the three air samples collected from the sewer manways ranged from a maximum of 0.7 ug/l at 1215 Hampel Street to 0.3 ug/l at 4035 Park Boulevard (Table 1). The lower explosion limit concentration for methane in standard air is 35,700 ug/l.

Possible methane sources include decaying plant material, degradation of petroleum hydrocarbons, natural gas pipeline leaks, or migration of sewer gases.

TABLE 1  
 WEGE ANALYTICAL LABORATORY RESULTS FROM AIR MONITORING SAMPLES  
 PROPERTIES IN THE VICINITY OF DESERT PETROLEUM STATION #793  
 4035 PARK BOULEVARD, OAKLAND, CA

SAMPLE LOCATION	DATE SAMPLED	SAMPLED BY	TPH GASOLINE (UG/L)	BENZENE (UG/L)	TOLUENE (UG/L)	E. BENZENE (UG/L)	XYLENES (UG/L)	METHANE (UG/L)
RESIDENCES								
1211 HAMPEL STREET	09/20/96	WEGE	< 50	< 0.5	< 0.6	< 0.5	< 1.2	0.4
1215 HAMPEL STREET	09/20/96	WEGE	< 50	< 0.5	< 0.6	< 0.5	< 1.2	1.5
1221 HAMPEL STREET	09/20/96	WEGE	< 50	< 0.5	< 0.6	< 0.5	< 1.2	3.8
1227 HAMPEL STREET	09/20/96	WEGE	< 50	< 0.5	< 0.6	< 0.5	< 1.2	0.4
4006 BRIGHTON AVENUE	09/20/96	WEGE	< 50	< 0.5	< 0.6	< 0.5	< 1.2	0.7
4026 BRIGHTON AVENUE	09/20/96	WEGE	< 50	< 0.5	< 0.6	< 0.5	< 1.2	0.6
4032 BRIGHTON AVENUE	09/20/96	WEGE	< 50	< 0.5	< 0.6	< 0.5	< 1.2	1.1
4003 PARK BOULEVARD	09/20/96	WEGE	< 50	< 0.5	< 0.6	< 0.5	< 1.2	11.3
SEWER MANWAYS								
1215 HAMPEL STREET	09/20/96	WEGE	< 50	< 0.5	< 0.6	< 0.5	< 1.2	0.7
BRIGHTON AVENUE	09/20/96	WEGE	< 50	< 0.5	< 0.6	< 0.5	< 1.2	0.4
4035 PARK BOULEVARD	09/20/96	WEGE	< 50	< 0.5	< 0.6	< 0.5	< 1.2	0.3

< LESS THAN SYMBOL INDICATES THAT VALUES ARE BELOW STATED LABORATORY DETECTION LIMITS

WEGE = WESTERN GEO-ENGINEERS

TPH-G = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE



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CALIF CONTRACTOR # 513857 A CORPORATION  
REGISTERED GEOLOGISTS

August 30, 1996

Dear Homeowner or Resident:

Western Geo-Engineers, on behalf of Desert Petroleum Inc., is requesting your permission to perform an air monitoring survey of the basement or crawl space under your home. The air monitoring program was suggested by the Oakland Fire Department and the Environmental Protection Division of the Alameda County Health Care Services Agency. It is a precautionary measure to insure that petroleum vapors are not entering your home from the gasoline contamination present in portions of the sewer lateral trenches that service your neighborhood. The air monitoring program is part of Desert Petroleum's ongoing remediation of the former service station site located at 4035 Park Boulevard, Oakland, California.

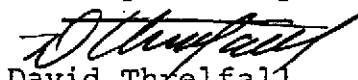
The collection of an air sample from the basement or crawl space beneath your home can be accomplished in less than ten minutes. We would like to collect the samples with the least possible intrusion on your privacy. We propose to collect the air samples from the outside of your home by inserting a small diameter plastic tube through an existing vent screen or similar access point to the crawl space or basement. We do not expect to encounter petroleum vapors, but will of course notify you as soon as possible if significant petroleum vapor concentrations are detected. Depending on the results from the initial air monitoring survey of the neighborhood, the Oakland Fire Department and Alameda County Health Services will determine whether to recommend further air monitoring.

As with the previous Soil Probe Survey that we performed in your neighborhood in May 1996, we would like to obtain your permission to collect the air samples from beneath your home whether or not someone is present in the home at the time. This would allow us to schedule a specific date to conduct the air monitoring for the entire neighborhood.

If you are agreeable to our plan for air monitoring, please sign and return the enclosed form in the self addressed envelope along with any additional requirements or suggestions.

I have enclosed a letter from the Alameda County Health Services Agency to Desert Petroleum Inc. that acknowledges Western Geo-Engineers plan to conduct air monitoring in your neighborhood.

Thank you for your help,

  
David Threlfall  
Western Geo-Engineers

gasoline

1.214  
3.349  
4.907  
7.023  
7.475  
9.453

BTEP standard 9/22/46  
1st.

CHROMATOGRAM 1 MEMORIZED

CR501 CHROMATOPAC  
CHANNEL NO 1  
SAMPLE NO 0  
REPORT NO 7

FILE 0  
METHOD 44  
SAMPLE WT 100

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.214	126				
2	3.349	10718		1	0.0385	BENZEN
3	4.907	7781		2	0.036	TOLUEN
4	7.023	5756		3	0.0335	ETHYL-
5	7.475	2953	Y	4	0.0341	M/PPYL
6	9.453	618		5	0.0072	M-XLYL
TOTAL		27952			0.1493	

std:

Benzene = 0.044 mg/L  
Toluene 0.043  
Ethyl 0.046  
M/PPYL 0.049  
M-XLYL

DL Benz = 0.41 ug/l  
DL T = 0.57 ug/l  
Add'l Ethyl = 0.747  
Add'l X = 1.2

diesel range (nothing)

2.008  
2.533  
3.318  
5.132  
6.242  
7.108  
7.822  
9.442  
9.789  
10.543

Area

x .0041 = ug/l Benzene  
x .0055 = ug/l Toluene  
x .00777 = ug/l Ethyl Benzene  
x .0120 = ug/l Xylene

CR501 CHROMATOPAC  
CHANNEL NO 2  
SAMPLE NO 0  
REPORT NO 8

FILE 9  
METHOD 41

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	2.008	306			1.494	
2	2.533	2412	Y		11.7939	
3	3.318	6444	Y		31.5067	
4	5.132	6641	Y		32.4688	
5	6.242	1285	Y		6.2813	
6	7.108	2431	Y		11.8872	
7	7.822	388	Y		1.8951	
8	9.442	121			0.5918	
9	9.789	318	Y		1.5528	
10	10.543	108	Y		0.5284	
TOTAL		20453			100	

area is millivolts of response

Blank 9/20/96

CHROMATOGRAM 1 MEMORIZED  
WARNING NO PEAK

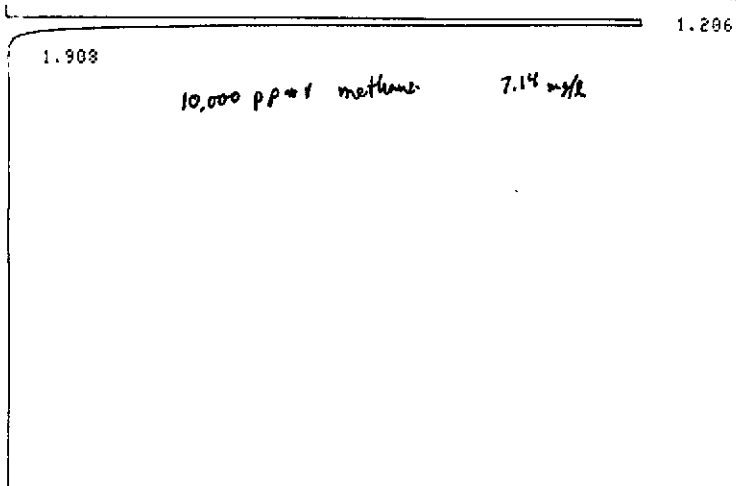
2.028  
2.542  
3.467

CR501 CHROMATOPAC  
CHANNEL NO 2  
SAMPLE NO 0  
REPORT NO 9

FILE 9  
METHOD 41

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.927	17			0.3735	
2	2.016	293			6.4239	
3	2.542	1552	V		34.0087	
4	3.467	2702	V		59.1939	
TOTAL		4565			100	





CHROMATOGRAM 1 MEMORIZED

CR501 CHROMATOPAC  
 CHANNEL NO 1  
 SAMPLE NO 0  
 REPORT NO 3

FILE 0  
 METHOD 44  
 SAMPLE WT 100

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.206	1524520	S			
2	1.908	48	T			

TOTAL 1524568

0.305

1.686

2.005

2.527

3.446

6.719

$\times 0.0066 = \text{ppm}$

$0.0047 = \text{ug/l}$

CR501 CHROMATOPAC  
 CHANNEL NO 2  
 SAMPLE NO 0  
 REPORT NO 4

FILE 9  
 METHOD 41

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	0.305	28			0.3014	
2	0.779	59			0.634	
3	1.686	12			0.1272	
4	1.905	37			0.4833	
5	2.005	237			2.5574	
6	2.527	2456	V		26.4883	
7	3.446	4251	V		45.8419	
8	6.719	2193			23.6463	

TOTAL 9274

100

223-0203

*sewer man way* 1219 Hampden St. 9-20-96  
 1.167  
 2.396  
 PID = 0.0 ppmv  
 0.94 ppm CH<sub>4</sub>

CHROMATOGRAM 1 MEMORIZED

CR501 CHROMATOPAC  
 CHANNEL NO 1  
 SAMPLE NO 0  
 REPORT NO 22

FILE 0  
 METHOD 44  
 SAMPLE WT 100

PKNO	TIME	AREA	MK	IDNO	COND	NAME
1	1.167	143				
2	2.396	40				
TOTAL		183			0	

CHROMATOGRAM 101 MEMORIZED

1.962  
 2.333  
 3.35

CR501 CHROMATOPAC  
 CHANNEL NO 2  
 SAMPLE NO 0  
 REPORT NO 23

FILE 9  
 METHOD 41

PKNO	TIME	AREA	MK	IDNO	COND	NAME
1	1.962	245			9.3292	
2	2.333	429	V		16.3654	
3	2.49	333	V		12.7142	
4	3.35	1615	V		61.5912	
TOTAL		2623			100	

1227 Hempel St  
 1.115  
 PTO = 0.9  
 0.5 ppm City  
 9/20/96 D2793 Oakland.

CHROMATOGRAM 1 MEMORIZED

CR501 CHROMATOPAC  
 CHANNEL NO 1  
 SAMPLE NO 0  
 REPORT NO 24

FILE 0  
 METHOD 44  
 SAMPLE WT 100

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.115	71				
TOTAL		71			0	

CHROMATOGRAM 101 MEMORIZED

2.421  
 3.287

CR501 CHROMATOPAC  
 CHANNEL NO 2  
 SAMPLE NO 0  
 REPORT NO 25

FILE 9  
 METHOD 41

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	2.421	461			24.3246	
2	3.287	1434	V		75.6753	
TOTAL		1894			100	



4036 Park 9/20/95 PID=0.0 ppm.  
 1.167  
 2.394 0.4 ppm CH<sub>4</sub>

CHROMATOGRAM 1 MEMORIZED

CR501 CHROMATOPAC  
 CHANNEL NO 1  
 SAMPLE NO 0  
 REPORT NO 14  
 FILE 0  
 METHOD 44  
 SAMPLE WT 100

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.167	67				
2	2.394	42				
TOTAL		109			0	

CHROMATOGRAM 101 MEMORIZED

2.484  
 3.494  
 4.601

CR501 CHROMATOPAC  
 CHANNEL NO 2  
 SAMPLE NO 0  
 REPORT NO 15  
 FILE 9  
 METHOD 41

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	2.484	130			19.9188	
2	3.494	432			66.141	
3	4.601	91			13.9402	
TOTAL		653			100	

Sewer man hole near 4072 Brighton  
PID = 0.6 ppm

1.327

CHROMATOGRAM 1 MEMORIZED

CR501 CHROMATOPAC  
CHANNEL NO 1  
SAMPLE NO 0  
REPORT NO 18

FILE B  
METHDD 44  
SAMPLE WT 100

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.227	2762				
2	1.366	96	V			
TOTAL		2858			0	

CHROMATOGRAM 101 MEMORIZED

1.925  
2.546  
3.421

CR501 CHROMATOPAC  
CHANNEL NO 2  
SAMPLE NO 0  
REPORT NO 11

FILE 9  
METHDD 41

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.925	55			0.7993	
2	2.02	276			3.9944	
3	2.546	2287	V		33.0498	
4	3.421	4301	V		62.1565	
TOTAL		6919			100	

1

1211 Sample 9/20/46  
1.167

PID = 0 ppm

0.6 ppm CH<sub>4</sub>

CHROMATOGRAM 1 MEMORIZED

CR501 CHROMATOPAC  
CHANNEL NO 1  
SAMPLE NO 0  
REPORT NO 30

FILE 0  
METHOD 44  
SAMPLE WT 100

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.167	92				
TOTAL		92			0	

CHROMATOGRAM 101 MEMORIZED

1.942  
2.471  
3.267

CR501 CHROMATOPAC  
CHANNEL NO 2  
SAMPLE NO 0  
REPORT NO 31

FILE 9  
METHOD 41

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.942	227			4.9447	
2	2.471	1074	V		23.3634	
3	3.267	3294	V		71.6919	
TOTAL		4595			100	

1219 Hempel st. 9/20/96

1.158

2.395

2.6 ppm  
methanol

CHROMATOGRAM 1 MEMORIZED

CR501 CHROMATOPAC  
CHANNEL NO 1  
SAMPLE NO 0  
REPORT NO 20

FILE 0  
METHDD 44  
SAMPLE WT 100

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.158	321				
2	2.395	44				

TOTAL 365 0

CHROMATOGRAM 101 MEMORIZED

1.872

2.486

3.391

CR501 CHROMATOPAC  
CHANNEL NO 2  
SAMPLE NO 0  
REPORT NO 21

FILE 9  
METHOD 41

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.872	12			0.2966	
2	1.962	295			7.5532	
3	2.486	1237	V		31.6261	
4	3.391	2367	V		60.5241	

TOTAL 3911 100



4006 Brighton Ave. 9-20-96 DID = 0 ppm  
 1.169  
 1. ppm CH<sub>3</sub>

CHROMATOGRAM 1 MEMORIZED

CR501 CHROMATOPAC  
 CHANNEL NO 1  
 SAMPLE NO 0  
 REPORT NO 28

FILE 0  
 METHOD 44  
 SAMPLE WT 100

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.169	156				
TOTAL		156			0	

CHROMATOGRAM 101 MEMORIZED

1.947  
 2.475  
 3.364  
 4.315  
 4.697  
 6.73

CR501 CHROMATOPAC  
 CHANNEL NO 2  
 SAMPLE NO 0  
 REPORT NO 29

FILE 9  
 METHOD 41

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.947	228			5.1246	
2	2.475	978	V		22.0112	
3	3.364	1804	V		40.6204	
4	4.315	45			1.0101	
5	4.697	88	V		1.9893	
6	6.73	1299	V		29.2444	
TOTAL		4442			100	

4026 Brighton Ave 4/20/96  
 1.175  
 PIP = 0.0 ppn  
 2.404  
 0.9 ppm CH<sub>4</sub>

CHROMATOGRAM 1 MEMORIZED

CR501 CHROMATOPAC  
 CHANNEL NO 1  
 SAMPLE NO 0  
 REPORT NO 12  
 FILE 0  
 METHOD 44  
 SAMPLE WT 180

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.175	138				

2	2.484	41				
---	-------	----	--	--	--	--

TOTAL 179  
 CHROMATOGRAM 101 MEMORIZED 0

1.97  
 2.494  
 3.4

CR501 CHROMATOPAC  
 CHANNEL NO 2  
 SAMPLE NO 0  
 REPORT NO 13  
 FILE 9  
 METHOD 41

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.97	278			8.2072	
2	2.494	1165	V		34.4804	
3	3.4	1944	V		57.3924	
TOTAL		3387			100	

203-00037-02

4032 Brighton Avenue.  
 1.214  
 1.57 ppm Methane

9-21-96

CHROMATOGRAM 1 MEMORIZED  
 CRS01 CHROMATOPAC  
 CHANNEL NO 1

FILE 0

SAMPLE NO 0  
 REPORT NO 5

METHOD 44  
 SAMPLE WT 100

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.214	232				
TOTAL		232			0	

8.905  
 2.538  
 2.735  
 3.403  
 4.46  
 6.019  
 7.14  
 8.708  
 9.642

CRS01 CHROMATOPAC  
 CHANNEL NO 2  
 SAMPLE NO 0  
 REPORT NO 6

FILE 9  
 METHOD 41

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.925	26			0.1029	
2	2.014	214			0.8462	
3	2.538	2420	V		9.5823	
4	2.735	1308	V		5.1808	
5	3.403	7225	V		28.6063	
6	4.46	1496	V		5.922	
7	6.019	6817	V		26.9918	
8	7.14	2048	V		8.0775	
9	8.708	3243	V		12.8413	
10	9.642	467	V		1.849	
TOTAL		25256				

100

121 Hempell St.  
 1.165  
 10 = 0 ppm  
 5.3 ppm

CHROMATOGRAM 1 MEMORIZED

CR501 CHROMATOPAC  
 CHANNEL NO 1  
 SAMPLE NO 0  
 REPORT NO 26

FILE 0  
 METHOD 44  
 SAMPLE WT 100

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.165	801				
TOTAL		801			0	

CHROMATOGRAM 101 MEMORIZED

1.954  
 2.479  
 2.707  
 3.333  
  
 5.3  
  
 6.581  
 7.776

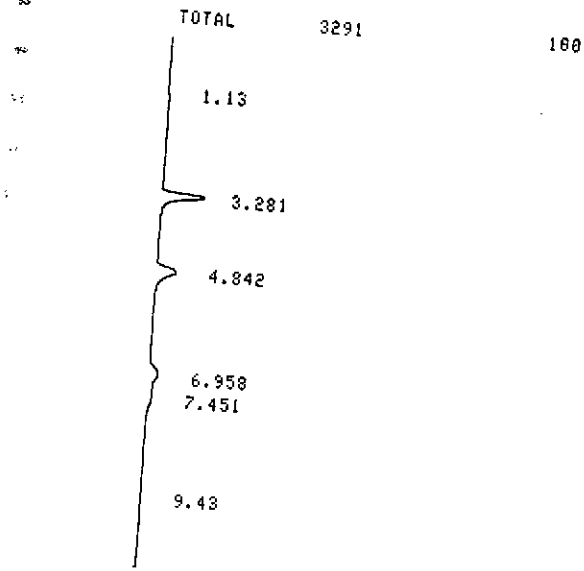
CR501 CHROMATOPAC  
 CHANNEL NO 2  
 SAMPLE NO 0  
 REPORT NO 27

FILE 9  
 METHOD 41

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
------	------	------	----	------	------	------

1	1.954	259			4.6838	
2	2.479	1317	V		23.8168	
3	2.707	599	V		10.8324	
4	3.333	2624	V		47.453	
5	5.3	74			1.3456	
6	6.581	502	V		9.0788	
7	7.22	110	V		1.9885	
8	7.776	44			0.8012	

CR501 0



CHROMATOGRAM 1 MEMORIZED

CR581 CHROMATOPAC  
 CHANNEL NO 1  
 SAMPLE NO 8  
 REPORT NO 18

FILE 0  
 METHOD 44  
 SAMPLE WT 180

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.13	74				
2	3.281	18394				
3	4.842	7427		1	0.0373	BENZEN 97
4	6.958	5256		2	0.0343	TOLUEN 95
5	7.451	2720	Y	3	0.0306	ETHYL- 91
6	9.43	532		4	0.0314	M/PXYL > 91
				5	0.0062	M-XLYL
TOTAL		26402			0.1399	

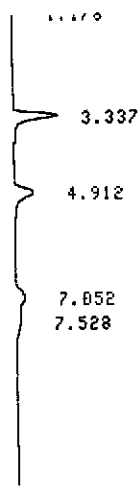
CHROMATOGRAM 181 MEMORIZED



CR581 CHROMATOPAC  
 CHANNEL NO 2  
 SAMPLE NO 8  
 REPORT NO 19

FILE 9  
 METHOD 41

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	1.985	294			1.6959	
2	2.431	1555	Y		8.982	
3	3.224	6349	Y		36.6741	
4	7.85	9114	Y		52.648	
TOTAL		17212				



*Standard*

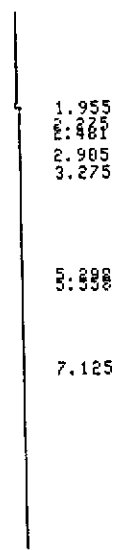
CHROMATOGRAM 1 MEMORIZED

CR501 CHROMATOPAC  
CHANNEL NO 1  
SAMPLE NO 0  
REPORT NO 32

FILE 0  
METHOD 44  
SAMPLE WT 100

PKNO	TIME	AREA	HK	IDNO	CONC	NAME
1	1.178	90				
2	3.337	10469		1	0.0376	BENZEN <i>0.4%</i>
3	4.912	7396		2	0.0342	TOLUEN <i>0.75%</i>
4	7.052	5172		3	0.0301	ETHYL <i>0.8%</i>
5	7.528	2552	V	4	0.0295	N/PXYL <i>0.71%</i>
TOTAL		25680			0.1314	

CHROMATOGRAM 101 MEMORIZED



CR501 CHROMATOPAC  
CHANNEL NO 2  
SAMPLE NO 0  
REPORT NO 33

FILE 9  
METHOD 41

PKNO	TIME	AREA	HK	IDNO	CONC	NAME
1	1.955	224			11.4356	
2	2.275	139	V		7.1128	
3	2.481	106	V		5.4026	
4	2.905	77			3.9154	
5	3.275	1316	V		67.2831	
6	5.298	25			1.2869	
7	5.558	42	V		2.1676	
8	7.125	27			1.3961	
TOTAL		1955			100	

Please complete and sign the following form and then return it to  
Western Geo-Engineers in the enclosed envelope.

Western Geo-Engineers has my permission to collect and analyze  
air samples from the basement or crawl space beneath my home  
located at 1227 Humpal Street, Oakland, California.

My home is underlain by a basement.  
 My home is underlain by a service crawl space.

The basement or crawl space does  or does not  contain  
screened vents that are accessible from the outside of the home.

Collect samples only when someone is present in the home.  
 Collect samples whether or not someone is present in the home.

Richard D. Campbell  
Signature of Homeowner or Resident

9/6/96  
Date

Please complete and sign the following form and then return it to Western Geo-Engineers in the enclosed envelope.


Western Geo-Engineers has my permission to collect and analyze air samples from the basement or crawl space beneath my home located at 1221 Hengel St, Oakland, California.

My home is underlain by a basement.  
 My home is underlain by a service crawl space.

The basement or crawl space does  or does not  contain screened vents that are accessible from the outside of the home.

Collect samples only when someone is present in the home.

Collect samples whether or not someone is present in the home.



9/8/96

Signature of Homeowner or Resident

Date

Please call ahead so I can set up time to let you in.



Please complete and sign the following form and then return it to  
Western Geo-Engineers in the enclosed envelope.

Western Geo-Engineers has my permission to collect and analyze  
air samples from the basement or crawl space beneath my home  
located at 4003 PARK BLVD, Oakland, California.

*See MR. HERBST MGR 531-1056*

- My home is underlain by a basement.  
 My home is underlain by a service crawl space.

The basement or crawl space does  or does not  contain  
screened vents that are accessible from the outside of the home.

- Collect samples only when someone is present in the home.  
 Collect samples whether or not someone is present in the home.

*Paul J. Smith*

Signature of Homeowner or Resident

9/6/96  
Date

Please complete and sign the following form and then return it to  
Western Geo-Engineers in the enclosed envelope.

Western Geo-Engineers has my permission to collect and analyze  
air samples from the basement or crawl space beneath my home  
located at 1215 CAMPBELL ST, Oakland, California.

My home is underlain by a basement.  
 My home is underlain by a service crawl space.

The basement or crawl space does  or does not  contain  
screened vents that are accessible from the outside of the home.

Collect samples only when someone is present in the home.

Collect samples whether or not someone is present in the home.

E. J. Stiller

9-6-96

Signature of Homeowner or Resident

Date

Please complete and sign the following form and then return it to  
Western Geo-Engineers in the enclosed envelope.

Western Geo-Engineers has my permission to collect and analyze  
air samples from the basement or crawl space beneath my home  
located at 4026 BRIGHTON AVE, Oakland, California.

My home is underlain by a basement.  
 My home is underlain by a service crawl space.

The basement or crawl space does  or does not  contain  
screened vents that are accessible from the outside of the home.

Collect samples only when someone is present in the home.

Collect samples whether or not someone is present in the home.

*Saula Daulton Day*  
Signature of Homeowner or Resident

9/5/96  
Date

Please complete and sign the following form and then return it to  
Western Geo-Engineers in the enclosed envelope.

Western Geo-Engineers has my permission to collect and analyze  
air samples from the basement or crawl space beneath my home  
located at 4010 Brighton Ave., Oakland, California.

My home is underlain by a basement.  
 My home is underlain by a service crawl space.

The basement or crawl space does  or does not  contain  
screened vents that are accessible from the outside of the home.

Collect samples only when someone is present in the home.  
 Collect samples whether or not someone is present in the home.

Jason Hitter  
Signature of Homeowner or Resident

9/10/96  
Date

Please complete and sign the following form and then return it to Western Geo-Engineers in the enclosed envelope.

Western Geo-Engineers has my permission to collect and analyze air samples from the basement or crawl space beneath my home located at 4032 BRIGHTON AVE, Oakland, California.

My home is underlain by a basement.  
 My home is underlain by a service crawl space.

The basement or crawl space does  or does not  contain screened vents that are accessible from the outside of the home.

Collect samples only when someone is present in the home.

Collect samples whether or not someone is present in the home.

[Handwritten Signature]  
Signature of Homeowner or Resident

9-10-96  
Date

Please complete and sign the following form and then return it to Western Geo-Engineers in the enclosed envelope.

Western Geo-Engineers has my permission to collect and analyze air samples from the basement or crawl space beneath my home located at 4006 Brighton Avenue, Oakland, California.

My home is underlain by a basement.

My home is underlain by a service crawl space.

The basement or crawl space does  or does not  contain screened vents that are accessible from the outside of the home.

Collect samples only when someone is present in the home.

Collect samples whether or not someone is present in the home.

Gerald Starnett G

Signature of Homeowner or Resident

Date

Jane Weibach his  
atly

9/14/96

Please clear with  
tenants before entry

Harby

APPENDIX C

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director

Alameda County CC4580  
Environmental Health Services  
1131 Harbor Bay Pkwy., #250  
Alameda CA 94502-6577  
(510)567-6700 FAX(510)337-9335

August 12, 1996

STID 1248

page 1 of 3

John Rutherford  
Desert Petroleum Inc.  
PO Box 1601  
Oxnard CA 93032

RE: Desert Petroleum site #793, 4035 Park Blvd., Oakland CA 94602

Dear Mr. Rutherford,

Since my last letter to you, dated 1/23/96, the following documents have been received in this office:

- 1) fax from Western Geo-Engineers (WEGE), dated 5/9/96: laboratory results from the quarterly groundwater sampling event on 3/27/96 as well as 12/21/95;
- 2) fax from WEGE dated 5/22/96: preliminary results from sewer lateral investigation;
- 3) quarterly report from WEGE dated 2/13/96, received in this office on 5/20/96: documenting groundwater sampled on 12/21/95;
- 4) letter from Glenview Neighborhood Association dated 6/14/96, addressed to Oakland City Planning Dept, regarding the proposed new gasoline service station;
- 5) "Sewer Lateral Investigation Report, 4006 Brighton Ave., Oakland CA," prepared by WEGE, dated 7/12/96, received in this office on 7/23/96; and
- 6) "Sewer Lateral Investigation Report, Desert Petroleum Station #793, 4035 Park Boulevard, Oakland CA," prepared by WEGE, dated 7/3/96, received in this office on 7/23/96.

WEGE generated two separate reports for the sewer lateral investigation because there is arbitration pending between the owner of 4006 Brighton Ave. and Desert Petroleum (DP). The report listed as item #6 documents the entire sewer lateral investigation, including 4006 Brighton Ave. The data presented in this report indicate that soil and groundwater contamination remains below the residential area immediately downgradient of the former DP station. The most significant contamination is located at the topographic low point, in the vicinity of 4032 Brighton Ave. and the well RS7 in Brighton Ave. WEGE identified product sheen on groundwater in this area.

8-13-96

Post-It™ brand fax transmittal memo 7671		# of pages ▶ 3
To Dave Threlfall	From J. Eberle	
Co.	Co.	
Dept.	Phone #	
Fax #	Fax #	



August 12, 1996  
STID 1248  
John Rutherford  
page 2 of 3

The first priority is to remediate the free product. It must be removed "to the maximum extent practicable" and "in a manner that minimizes the spread of contamination," as per state law {23 California Code of Regulations, Division 3, Chapter 16, Sections 2722 (b), and 2655 (a) and (b)}. To this effect, you are required to submit a workplan for free product remediation within 30 days, or by September 12, 1996.

As per our meeting on 8/6/96, you will begin interim free product remediation by extracting groundwater from well RS7, located in the street in front of the residence at 4032 Brighton Ave. This work is slated to begin on or around August 15th, and continue on a weekly basis on a temporary or interim basis. It is hoped that free product will enter this well and be removed by extraction. If this approach is not effective, this office recommends the installation of a recovery well in the area of boring TP-9. This would allow the free product to collect, enabling us to determine the thickness of the free product, and make recovery easier.

The 8/6/96 meeting was held in this office and attended by yourself, myself, George Converse of WEGE, Britt Johnson of Oakland Fire Dept (OFD), Shawn Stark of Councilmember Dick Spees' office, and Nicole Brown of Councilmember John Russo's office. We discussed the need for further air monitoring in the sewers and homes, how the residences will be notified, and corrective action.

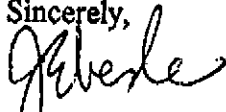
As you now know, Britt Johnson of OFD accompanied OFD's Haz Mat team to the area on 7/29/96. They asked residents if they had any hydrocarbon (gasoline) odors in their homes, and everyone indicated they did not. The residents who were home and answered their doors were located at 1221, 1215, and 1227 Hampel St., and 4032 Brighton Ave. In addition, the sewer manholes in Brighton Ave. and the backyard of 1221 Hampel were checked for the presence of detectable fuel vapors. No explosive vapors were found during this survey. WEGE plans to conduct further air monitoring on or around August 15th, while onsite for groundwater extraction as mentioned above. The City of Oakland agreed to write a letter stating their knowledge that WEGE will be conducting air monitoring in the residential area, including crawl spaces.

You agreed to draft a document for the homeowners in this area, which gives some background information and indicates the current status of the investigation and cleanup. Please submit this draft to this office within 30 days, or by September 12, 1996. I would like to review this document before it is sent to the homeowners in order to provide endorsement.

August 12, 1996  
STID 1248  
John Rutherford  
page 3 of 3

If you have any questions or comments, please contact me directly at 510-567-6761.

Sincerely,



Jennifer Eberle  
Hazardous Materials Specialist

cc: Kevin Graves, RWQCB  
Cheryl Gordon, SWRCB, UST CleanUp Fund  
George Converse, WEGE, 1386 E. Beamer St., Woodland CA 95776  
Mimi Liem, City of Oakland, Office of Planning and Building, 1330 Broadway, 2nd Floor,  
Oakland CA 94612  
Michael Gabriel, Glenview Neighborhood Association, 4200 Park Blvd., Box 111,  
Oakland CA 94602  
Attn: Shawn Stark, Councilmember Dick Spees' office, City of Oakland, One City Hall  
Plaza, 2nd Floor, Oakland CA 94612  
Attn: Nicole Brown, Councilmember John Russo's office, City of Oakland, One City Hall  
Plaza, 2nd Floor, Oakland CA 94612  
Britt Johnson, Oakland Fire Dept., OES, Haz Mat Mgmt Program, 1605 Martin Luther  
King Jr Dr., Oakland CA 94612  
Acting Chief/file

je.1248-C

ALAMEDA COUNTY  
HEALTH CARE SERVICES



AGENCY  
DAVID J. KEARS, Agency Director

Alameda County  
Environmental Protection Division  
1131 Harbor Bay Parkway, Room 250  
Alameda CA 94502-6577

CC4580

August 27, 1996  
STID 1248

John Rutherford  
Desert Petroleum Inc.  
PO Box 1601  
Oxnard CA 93032

RE: Desert Petroleum site #793, 4035 Park Blvd., Oakland CA 94602

Dear Mr. Rutherford,

This letter is being written to confirm the presence of your contractor, Western Geo-Engineers (WEGE), in the residential area between Hampel St. and Brighton Ave., Park Blvd. and Greenwood Ave. WEGE will be in this area from mid August to mid September in order to conduct air monitoring in the sewer laterals and crawl spaces of homes. This work is being done to confirm that there are no hazardous levels of vapors in this area.

The Oakland Fire Dept (OFD) Haz Mat team surveyed the residential area on 7/29/96. They asked residents if they had any hydrocarbon (gasoline) odors in their homes, and everyone indicated they did not. The residents who were home and answered their doors were reportedly located at 1221, 1215, and 1227 Hampel St., and 4032 Brighton Ave. In addition, the sewer manholes in Brighton Ave. and the backyard of 1221 Hampel were checked for the presence of detectable fuel vapors. No explosive vapors were found during this survey.

WEGE will also be extracting groundwater from well RS7, located in the street in front of the residence at 4032 Brighton Ave. This work is slated to begin in mid August, and continue on a weekly basis for the interim.

A meeting was held in this office on 8/6/96, and attended by yourself, myself, George Converse of WEGE, Britt Johnson of Oakland Fire Dept (OFD), Shawn Stark of Councilmember Dick Spees' office, and Nicole Brown of Councilmember John Russo's office. We discussed the need for further air monitoring in the sewers and homes, how the residences will be notified, and corrective action.

If you have any questions or comments, please contact me directly at 510-567-6761.

Sincerely,

Jennifer Eberle  
Hazardous Materials Specialist

# Bay Area Air Quality Management District

## ENFORCEMENT DIVISION

Fax: (415) 928-0338

*Fax  
Cover  
Sheet*

Company Name: <i>Western Geo-Engineers</i>
Contact Name: <i>David Threlfell</i>
Fax Number: <i>916 662-0273</i>

Sender: <i>Janet Simon</i>
Message:

Number of pages to follow: <i>3</i>
Date Sent: <i>8/7/96</i>
If there are any problems with this transmission, please call: <i>Janet</i> at (415) 749- <i>4780</i> immediately

Soldering. This section does not exclude fluxing and finger cleaning (see Section 2-1-118.4).

(Adopted October 19, 1983; Amended July 17, 1991; June 7, 1995)

**2-1-126 Exemption, Testing Equipment:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

- 126.1 Equipment used for hydraulic or hydrostatic testing.
- 126.2 Bench scale laboratory equipment or processes used exclusively for chemical or physical analyses or experimentation, quality assurance and quality control testing, research and development, or similar bench scale equipment, excluding pilot plants.
- 126.3 Equipment used for inspection of metal products.

(Adopted October 19, 1983; Amended July 17, 1991; June 7, 1995)

**2-1-127 Exemption, Chemical Processing Equipment:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

- 127.1 Equipment used exclusively for the dyeing or stripping (bleaching) of textiles provided that only solutions containing less than one percent VOC (wt) are used.
- 127.2 Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy.
- 127.3 Containers, reservoirs, or tanks used exclusively for electrolytic plating with, or electrolytic polishing of, or electrolytic stripping of the following metals: brass, bronze, cadmium, copper, iron, nickel, tin, zinc and precious metals.
- 127.4 Containers, reservoirs, or tanks used exclusively for etching (not chemical milling), except where ammonia or ammonium-based etchants are used.

(Adopted October 19, 1983; Amended July 17, 1991; June 7, 1995)

**2-1-128 Exemption, Miscellaneous Equipment:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

- 128.1 Comfort air conditioning or comfort ventilating systems which are not designed to remove air contaminants generated by or released from specific units of equipment.
- 128.2 Refrigeration units except those used as, or in conjunction with, air pollution control equipment.
- 128.3 Vacuum producing devices in laboratory operations which are used exclusively in connection with other equipment which is exempted by this Rule, and vacuum producing devices which do not remove or convey air contaminants from another source.
- 128.4 Water cooling towers and water cooling ponds not used for evaporative cooling of process water, or not used for evaporative cooling of water from barometric jets or from barometric condensers.
- 128.5 Natural draft hoods, natural draft stacks or natural draft ventilators.
- 128.6 Vacuum cleaning system used exclusively for industrial commercial or residential housekeeping purposes.
- 128.7 Equipment used to liquefy or separate oxygen, nitrogen or the rare gases from the air.
- 128.8 Equipment used exclusively to compress or hold dry natural gas, excluding drivers.
- 128.9 Equipment used exclusively for bonding lining to brake shoes.
- 128.10 Equipment used exclusively for the manufacture of water emulsions of waxes, greases or oils.
- 128.11 Brazing, soldering or welding equipment.
- 128.12 Pharmaceutical manufacturing equipment with annual VOC emissions less than 150 pounds per source. Material working and handling equipment such as mills, grinders, blenders, granulators, tablet presses, capsule fillers,

packagers, and conveyors are only exempt if the source also processes less than 100 tons per year of pharmaceutical products.

- 128.13 Equipment used exclusively to blend or package cosmetics.
- 128.14 Any wastewater (oil-water) separator, as defined in Regulation 8, Rule 8, which processes less than 200 gallons per day of waste water containing organic liquids.
- 128.15 Exploratory drilling activities for methane recovery at waste disposal sites, for natural gas or for oil. Production wells for the above operations are not exempt.
- 128.16 Aeration of soil, provided that duration of aeration does not exceed three months.
- 128.17 Ozone generators which produce less than 1 pound per day of ozone.
- 128.18 Any source or operation which exclusively uses consumer products regulated by the California Air Resources Board (California Code of Regulations Title 17, Article 2, Sections 94507-94517).
- 128.19 Any source or operation deemed by the APCO to be equivalent to a source or operation which is expressly exempted by Sections 2-1-113 through 128.
- 128.20 Wastewater pumping stations where no treatment is performed, excluding any drivers.
- 128.21 Modification or addition of fugitive components (valves, flanges, pumps, compressors, relief valves, process drains) at existing permitted process units at petroleum refineries, chemical plants, bulk terminals or bulk plants, provided that the cumulative emissions from all additional components installed at a given process unit during any consecutive twelve month period do not exceed the Best Available Control Technology trigger level in Reg. 2-2-301, and that the components meet applicable requirements of Regulation 8 rules.
- 128.22 Fuel cells which use phosphoric acid, molten carbonate, proton exchange membrane, solid oxide or equivalent technologies. (Adopted June 7, 1995)  
(Adopted 10/19/83; Amended 7/16/86; 7/17/91; 6/7/95)
- 2-1-129 Major Facility Review: Notwithstanding the exemptions listed in this section, every source exempted by this Rule shall be included in any application for a major facility review permit required by Regulation 2, Rule 6.  
(Adopted November 3, 1993; Amended February 1, 1995)

## 2-1-200 DEFINITIONS

2-1-201 Emission Reduction Credits: An emission reduction, calculated in accordance with Regulation 2-2-605, which exceeds the emission reductions required by measures in the Air Quality Management Plan or the Clean Air Plan approved by the BAAQMD or required by federal, state, or District laws, rules, and regulations. To qualify as an emission reduction credit the emission reduction must be in excess of the reductions achieved by, the source using Reasonably Available Control Technology (ACT), and must also be real, permanent, quantifiable, and enforceable.

(Amended June 15, 1994)

- 201.1 Unless calculated in accordance with the procedures of Regulation 2-2-605, that portion of an NSR emission cap, which was part of an APCO approved alternative baseline, shall not qualify as an emission reduction credit.
- 201.2 All emission reduction credits shall be enforceable by permit conditions in the authority to construct and permit to operate, except that in the case of source closures where no permit is required for the source being shut down, the emission reduction credit shall be enforceable through appropriate contractual provisions in a legally binding and irrevocable written agreement which provisions will be made expressly for the benefit of the District. The permanence of a closure shall be identified in a letter from the source and/or in a Banking Certificate.

(Amended July 17, 1991; June 15, 1994)