ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

SCWT
02-16-05

February 15, 2005

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

Mr. Odili Ojukwu
City of Oakland Public Works Agency
250 Frank H. Ogawa Plaza, Suite 5301
Oakland, CA 94612

Dear Mr. Ojukwu:

Subject: Fuel Leak Case RO0000293, Municipal Service Center, 7101 Edgewater Dr., Oakland, CA 94621

Alameda County Environmental staff has reviewed the case file for the subject site including the December 7, 2004 Semi-Annual Groundwater Monitoring Report by Levin Fricke and determined that additional information is needed at your site to progress toward case closure. We are concerned that you have failed to submit the work plan for enhanced bioremediation for Plume A and further investigation of conduits at this site and the conduit/plume site map, requested submitted by January 10, 2005 in our December 8, 2004 letter.

Technical Comments

- Separate phase hydrocarbons continue to be present in up to 10 wells. Our office fully expects the implementation of the approved work plan for DPE to begin no later than July 05 and to be fully operable by August 05. Any delays must be accompanied by a complete explanation. In the meanwhile, you were instructed to physically remove by absorbent pads free product from these wells. This information is to be reported in your monitoring reports.
- Due to the presence of utilities, which can act as preferential pathways, the threat to the nearby San Leandro Bay exists. The requested utilities maps overlaid upon the site and plume map is necessary to evaluate this risk.

Technical Report Request

- March 18, 2005- Work plan for enhanced bioremediation for Plume A, conduit/site/plume map and work plan for conduit investigation as appropriate.

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.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

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.

PERJURY STATEMENT AND PROFESSIONAL CERTIFICATION

All work plans, technical reports, or technical documents submitted to this office 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.

Additionally, to be considered a valid technical report you are to present site specific data, data interpretations, and recommendations prepared by the 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.

If you have any questions, please contact me at (510) 567-6765.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, D. Drogos
M. Gomez, 250 Frank H. Ogawa Plaza, Suite 5301, Oakland, CA 94612
Mr. Xinggang Tong, URS, 1333 Broadway, Suite 800, Oakland, CA 94612
Mr. Charles Pardini, Levine Fricke, 1900 Powell St., 12th Floor, Emeryville, CA 94608

2_15_05 7101Edgewater

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

SCWT
12-9-04

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

December 8, 2004

Mr. Odili Ojukwu
City of Oakland Public Works Agency
250 Frank H. Ogawa Plaza, Suite 5301
Oakland, CA 94612

Dear Mr. Ojukwu:

Subject: Fuel Leak Case RO0000293, Municipal Service Center, 7101 Edgewater Dr., Oakland, CA 94621

Alameda County Environmental staff has reviewed the case file for the subject site including the October 27, 2004 Dual-Phase Extraction Work Plan by URS. We approve of the work plan to treat plumes B, C and D at the site and request that you also address the following technical comments.

TECHNICAL COMMENTS

1. Semi-annual monitoring should continue to verify the free product onsite does not impact the nearby San Leandro Bay. Please adhere to the March/September sampling schedule noted in the July 2004 monitoring report.
2. According to the schedule in the URS work plan, DPE operations will not start until July 05 and not begin full operation until August 05. Please keep our office informed of any delays in this projected schedule. In the interim, we concur that absorbent socks should be placed in those wells with free product and routinely replaced as necessary.
3. Our office agrees that DPE should not be performed in Plume A where the soil type and contamination is not conducive. However, please investigate additional enhanced biodegradation materials besides the recommended hydrogen peroxide. Such additives might include specific microbes, additional nutrients, surfactants, etc.
4. Please expand on the November 16, 2004 Conduit Study submitted by Ninyo & Moore. The report identified conduits, which may be acting as preferential pathways for contamination. Please describe what has or will be done to investigate, isolate and remediate these areas. What affect will the DPE have on the conduits? Please identify the conduits on a site map and provide work plan responding to this request.

TECHNICAL REPORT REQUEST

Please submit the following technical reports according to the following schedule.

- January 10, 2005- Semi-annual monitoring report, work plan for enhanced bioremediation for Plume A and further investigation of conduits.
- April 15, 2005- Semi-annual monitoring report
- October 15, 2005- Semi-annual monitoring report

If you have any questions, please contact me at (510) 567-6765.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, D. Drogos
M. Gomez, 250 Frank H. Ogawa Plaza, Suite 5301, Oakland, CA 94612
Mr. Xinggang Tong, URS, 1333 Broadway, Suite 800, Oakland, CA 94612

12_8_04 7101Edgewater

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

SENT 10-18-04

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

October 15, 2004

Mr. Odili Ojukwu
City of Oakland
250 Frank H. Ogawa Plaza, Suite 5301
Oakland, CA 94612-2034

Dear Mr. Ojukwu:

Subject: Fuel Leak Case RO0000293, Municipal Service Center, 7101 Edgewater Drive, Oakland, CA 94621

Alameda County Environmental Health staff has reviewed the case file for the subject site including the July 14, 2004 *Ninyo & Moore, Groundwater Monitoring Report Spring Semi-Annual 2004 Municipal Service Center 7101 Edgewater Drive* and determined that additional information is needed at this site to progress to case closure. Please address the following technical comments and submit the technical reports as requested.

TECHNICAL COMMENTS

1. It appears that no active remediation has occurred at this site since the dual phase extractions tests were performed by URS in 5/02 and by Cambria in 6/02. Both pilot tests indicated that this remediation technique would be successful in removing and reducing free product. However, URS recommended enhanced bio-remediation in the area of plume A while conducting DPE within plume B. The presence of free product was reported in the Semi-Annual 2004 report in the areas of all four identified plumes. The free product poses an imminent threat to the San Leandro Bay and the estuary, even though contaminant levels in perimeter wells have not yet exceeded Aquatic ESLs. Therefore, our office requests the implementation of DPE in those areas (plumes B-D) where free product is present. The plume A area is an exception, where soils are less permeable and less amenable to DPE. I understand that hydrogen peroxide addition has been introduced into wells in this area to enhance bioremediation.
2. Semi-annual groundwater monitoring should continue for the site. Monitoring wells MW-8 and MW-9, not located during the last monitoring event should be located and sampled. Subsequent monitoring reports should provide the amount of hydrocarbons removed from each plume during the prior two quarters and a cumulative total. Please also include the analysis of PAHs in wells MW-13, MW-14 and MW-17, since these compounds are typically presence in high boiling hydrocarbons, which have been observed at the site.
3. Ninyo & Moore proposed performing a conduit study to examine contaminant flow paths to San Leandro Bay. If this hasn't been done, our office concurs with this recommendation. We are aware that some of the former storm drain lines have been closed. Please determine if any active storm drains exist onsite. Please provide a copy of the most recent storm water runoff inspection for this site. Ninyo & Moore also recommends taking shoreline sediment samples if the conduit study indicates a preferential pathway exists. At this time, our office recommends not sampling sediment.

Instead, please include the applicable Aquatic ESL for each contaminant of concern in your monitoring results and report in **bold** all results exceeding the corresponding ESL.

TECHNICAL REPORT REQUEST

Please submit the following technical report according to the following schedule:

- November 1, 2004-Work plan to perform DPE
- November 15, 2004-Conduit/Preferential Pathway Study
- November 30, 2004- Second Semi-Annual 2004 Monitoring Report

If you have any questions, please contact me at (510) 567-6765.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, D. Drogos
Mr. M. Gomez, City of Oakland, 250 Frank H. Ogawa Plaza, Suite 5301, Oakland 94612
10_15_04 7101Edgewater

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

1-901

ENVIRONMENTAL HEALTH SERVICES
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1131 Harbor Bay Parkway, Suite 250
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FAX (510) 337-9335

November 8, 2001
StID3978/ RO0000293

Mr. Joseph Cotton
City of Oakland Public Works
250 Frank H. Ogawa Plaza, Suite 5301
Oakland CA 94612-2034

Re: Dual Phase Extraction Workplan for City of Oakland Municipal Service Center, 7101 Edgewater Drive, Oakland CA 94621

Dear Mr. Cotton:

Our office has received and reviewed the October 26, 2001 Dual Phase Extraction Workplan for the referenced site prepared by Cambria Environmental Technology, Inc. (Cambria). This work plan provides the specific details for the implementation of your DVE pilot test, the remediation choice determined by your previous feasibility study. Such remediation was required based upon the existence of free and dissolved petroleum product and its proximity to the San Leandro Bay.

The work plan is anticipated to be able to treat free product, dissolved product and vadose soil contamination and is applicable to volatile as well as non-volatiles. This work plan is approved. Please update our office on the progress of this pilot test/remediation in your monitoring report and include the amount of petroleum removed.

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

Sincerely,

Barney M. Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Ms. D. Heinz, Port of Oakland, 530 Water St., Oakland, CA 94604
Mr. Bob Clark-Riddell, Cambria, 1144 65th St., Suite B, Oakland CA 94608

Wpap7101EdgewaterDr

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

07-02-01

ENVIRONMENTAL HEALTH SERVICES
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(510) 567-6700
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June 29, 2001
StID # 3978 RO0000293

Mr. Joseph Cotton
City of Oakland Public Works
Dalziel Bld.
250 Frank H. Ogawa Plaza, Suite 5301
Oakland CA 94612-2034

Re: Evaluation of Free-Product Removal Alternatives, City of Oakland Municipal Service Center, 7101 Edgewater Drive, Oakland CA 94621

Dear Mr. Cotton:

Our office has received and reviewed the June 2001 URS Corporation technical report referenced above. This specific report evaluates five (5) options for the treatment and removal of the four (4) free product/sheen areas identified at the referenced site. Using a semi-quantitative analysis of these methods scoring each alternative on effectivenss, implementability and cost, the alternative Dual-Phase Extraction was determined to the preferable remediation method. Our office concurs with this evaluation. Therefore, you may initiate this remediation as soon as possible. Your consultant states that the remediation can be started within 60 days of regulatory approval.

Please keep our office informed on the status of this remediation in you future monitoring reports.

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

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. Xinggang Tong, URS Corporation, 500 12th St., Suite 200, Oakland CA 94607-4014
FPrem7101Edgewater

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

04-27-01

R0293

ENVIRONMENTAL HEALTH SERVICES
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April 26, 2001
StID # 3978

Mr. Joseph Cotton
City of Oakland Public Works
250 Frank H. Ogawa Plaza, Suite 5301
Oakland, CA 94612-2034

Re: City of Oakland Municipal Service Center, 7101 Edgewater Ave., Oakland, CA 94621

Dear Mr. Cotton:

Our office has received and reviewed the March 30, 2001 Fourth Quarter 2000 Monitoring Report for the above referenced site as prepared by Cambria. This report details the results of monitoring, in accordance with the County's previously approved schedule. I have the following observations and concerns regarding this monitoring report:

- In the future, please conform with the analytical methods mentioned in my February 7, 2001 letter, item 9. Groundwater samples should be filtered through a 0.7 micron glass fiber filter, not a 0.45 micron filter.
- It was noticed that quality control data (spike recovery) was done on the water samples before and after silica gel treatment, however, there was no QC data performed on a filtered and non-filtered sample. Please insure that this is done in the future.
- Your consultant recommends silica gel treatment and filtering prior to TPHg analysis as well as on TEPH. This is not recommended by our office, nor is it common in analytical laboratories. This procedure involves steps, which would allow volatilization of this compound and compromise the results.
- Your consultant recommends using the concentrations of specific SVOCs to evaluate TPHmo risk in groundwater. Please note that SFRWQCB Order 99-045 states that the groundwater cleanup goal for total oil and grease is site specific, therefore, it should not be ignored.

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

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. Bob Clark-Riddell, Cambria Environmental, 1144 65th St., Suite C, Oakland CA 94608
Ms. D. Heinze, Port of Oakland, P.O. Box 2064, Oakland CA 94604-2064

4qtrmon7101Edgewater

04-25-01

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0295

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

April 24, 2001

STID 650

Mr. Randy Nahas
R.T. Nahas Company
20630 Patio Drive
Castro Valley, CA 94546

RE: (FORMER) TIEN'S UNOCAL, 20405 REDWOOD ROAD, CASTRO VALLEY

Dear Mr. Nahas:

I have completed review of the case file for the subject site. Such review included the most recent file entries: the April 5, 2000 Life Springs Environmental, Inc. ("Life Springs") soil remediation closure report and October 18, 2000 BSK & Associates 3rd quarter 2000 semi-annual groundwater monitoring report. The work documented in the cited Life Springs report reflects the final stages of soil excavation, treatment and disposal stemming from the November 1998 removals of three underground storage tanks (UST) from the site.

The body of work conducted to date demonstrates that the bulk of hydrocarbon-impacted soil has been identified and removed from the site following numerous phases of excavation that occurred in the wake of the 1998 removals of the UST, hydraulic lift, and grease trap. Approximately 36 tons of oil-impacted soil was transported to BFI's Vasco Road landfill in December 1999. Approximately 175 yds^3 of "treated" soil was reused at the site to restore of the former waste oil UST and grease trap excavations to final grade.

At this time, please continue to adhere to a semi-annual schedule of post-remediation monitoring, sampling, and reporting. However, well MW-5 need not be sampled any longer, as samples collected from this well have shown no impacts from gasoline compounds since 1994. We would recommend that water levels still be measured in this well to aid in determining groundwater gradients. Target analytes shall continue to be the entire gasoline suite – TPH-gas, BTEX, and MtBE. Any "tentative" detection of MtBE shall be followed by confirmation using EPA Method 8260 on the sample showing the highest concentration.

Please call me at (510) 567-6783 should you have any questions about the content of this letter.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

c: Chuck Headlee, RWQCB
Dave Deaner, SWRCB (UST Fund)
Alex Eskandari, BSK & Associates, 1181 Quarry Lane, Bldg. 300, Pleasanton, CA 94566

02-08-01

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

P0293

ENVIRONMENTAL HEALTH SERVICES
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1131 Harbor Bay Parkway, Suite 250
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February 7, 2001
StID # 3978

Mr. Joseph Cotton
City of Oakland Public Works
250 Frank H. Ogawa Plaza, Suite 5301
Oakland, CA 94612-2034

Re: City of Oakland Municipal Service Center, 7101 Edgewater Ave., Oakland CA 94621

Dear Mr. Cotton:

Thank you for the site inspection provided to me on January 31, 2001. It allowed me to have a greater appreciation of the site. As you are aware, I have reviewed the Baseline 1/2001 Site History and Characterization Report and have exchanged with you my observations and comments. I have also reviewed your responses, many of which were addressed during the site inspection and follow-up conversations. The following incorporates my initial comment/questions and a proposed resolution based on your response.

1.
The two interior linear track drains within Bld. 5 were described as concrete-lined trenches without any bottom other than a layer of gravel. Doesn't this allow for contamination to move both towards the collection pits and down-gradient within the building? There is a lack of information of subsurface conditions beneath Bld. 5.

Our office agrees that perimeter data suggests that any releases which occurred from the interior track drains has not contributed to groundwater contamination down-gradient beyond Building 5. However, because the potential of contamination within Building 5 has not been completely explored, future workers must be notified of the potential of encountering contaminants within this area. Without further investigation, the potential for contamination should be noted in a Risk Management Plan or some other means of notification.

2.
Most of the contaminants of concern are assumed to have come from the former USTs (except that from the drains in Bld. 5). Are there any historic surface releases, which could contribute to the contaminants, being found in soil and GW?

Because of the lack of control over those wrecked City vehicles placed in the "boneyard", there remains a potential that oil and other automotive fluids may have been released from these vehicles that could impact soil and groundwater. This issue is important since this might represent a source from some of the high boiling hydrocarbons being detected both on and off-site.

3.
The fill material seems to be discounted as a preferential pathway because it is not reasonable to expect a large continuous layer of coarse-grained material in the fill, however, the fill material itself is likely more permeable than the native soils and therefore acts as a preferential zone ie the area beyond the original site boundary.

The on-site filled areas and the native soils are likely less permeable than the fill material brought in to make the present shoreline boundary. The City's releases are on-site, however, should their releases be able to migrate to the fill material of the current shoreline, their migration rate from the site would likely be faster than was onsite.

4.
Both diesel and gasoline ranged hydrocarbons are found near former UST 6, gasoline and jet fuel ranged hydrocarbons were found in both TBW-5 and MW-16 and gasoline, diesel and motor oil found in soil samples down-gradient of MW-6. The point is that these mixtures of hydrocarbons, though unexplainable by historic records, represents on-site mixture of contaminants. Therefore, the argument for different sources of contaminants due to differences in contamination or no history of use is not strong.

It appears that we made never be able to determine with certainty where the on-site contamination and the contaminated fill areas begin and end. The former contents of the USTs do not account for all identified chemicals of concern found both on and off-site. Hopefully, the new off-site monitoring data precludes the need to do substantial or any off-site remediation.

5.
What is the likely source of the SVOCs found in soil samples 10S-10W, collected in the vicinity of former UST 6?

It may not serve any purpose to determine sources of SVOCs if their concentrations do no pose a human health or environmental risk, as is expected.

6.
The storm drainpipe appears up-gradient not down-gradient of the former UST 6 location. Does the free product plume extend this far east of the former tank?

If soil and groundwater contamination is not entering the storm drain piping trench north of UST 6, no further investigation of the trench is warranted. Can this be shown without trench sampling? What does current data indicate?

7.
To account for not testing samples for VOCs, metals and semi-VOCs from the removal of USTs 12 and 13, these analytes should be tested in a down-gradient well at least once.

Please attempt to sample MW-6 for these analytes, if possible. This well is the closest down gradient well from these former USTs. Can groundwater be sampled in the presence of free product/sheen without potential contamination? Can this be done with a discrete sampler?

8.
I understand that the sanitary and storm drains may have been modified to prevent them acting as preferential pathways. Please describe where and what modifications have been done.

I understand a liner has been placed within the storm drain shown in Figure 15 in this report. Please indicate on Figure 15, the location of the product recovery well and future check dam mentioned during our site visit.

9.
Instead of testing water samples for turbidity and selectively filtering and silica gel treating these samples, you should filter and treat all TPH extractable water samples. The broad "humps" and lack of discrete peaks in chromatograms is not indicative of sediments or emulsions. It is a result of volatilization and degradation of specific compounds.

You stated you will filter and treat with silica gel all TPH extractable water samples at the site from now on. Please observe the following procedures during this procedure:

- Filter the water sample through a glass fiber filter (0.7 micron). The 0.45 micron filter is made of organic material that may have absorptive properties.
- Treat the extract of the water sample with silica gel. This should be done in a flask and agitated using an ultrasonic bath. The extract should then be sampled/diluted for analysis. Column silica gel treatment is subject to incomplete elution of the chemicals of concern.
- Please run a spiked method blank through the same procedure. Any deviation from typical percent recovery must be evaluated and explained. The acceptable recovery range for this test method should be stated by the laboratory.
- Any deviation from this procedure should be shown to be equivalent to this method.

10.
The report states that generally the wells furthest from the shore are least impacted while those on the shore are greater impacted. While this may be true, really those areas down-gradient of releases are the most impacted (free product). In addition to this, the near shoreline wells are impacted with high boiling hydrocarbons.

The above statement was made to counter the generalization that the most impacted areas (wells) are those on the shoreline versus those on-site. Impacted wells and areas exist near onsite releases.

11.
The Water Board's RBSLs would be applicable, specifically the eco RBSLs.

Either Water Boards eco-risks numbers or site-specific eco RBSLs will be used at this site.

12.
Some confusion appears to exist as to when the interim measures proposed to treat free product areas will be done. The report states that if the free product plume is expanding, these measures will be done. This is not acceptable. Free product must be remediated regardless of its migration.

During our site inspection, you clarified that your consultant will be providing a feasibility study and making a recommendation for a more aggressive remediation approach. You also mentioned methods for free product removal and enhanced bio-remediation. Our office agrees with this approach. Please provide your feasibility study and recommended remediation to our office as soon as possible. I understand, your remediation system may be operative by July 2001.

13.
The report states that the City may request the County to discontinue monitoring the shoreline wells except MW16 & MW17. This is not acceptable as long as contaminant sources are immediately up-gradient of the other perimeter wells.

New monitoring data indicates that the existing perimeter wells may still be used in lieu of installing onsite perimeter wells.

14.
Although you have stated that you are working on a feasibility study and risk assessment, the report does not mention this. Clean-up levels should also be discussed in either of these reports. Please clarify when these reports will be prepared.

This has already been addressed. See question 12.

I look forward to your comments, the recent groundwater monitoring report and your feasibility study and remediation plan. Please contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. B. Abelli-Amen, Baseline Environmental Consulting, 5900 Hollis St., Suite D, Emeryville, CA 94608
Mr. Bob Clark-Riddell, Cambria Environmental, 1144 65th St., Suite C, Oakland CA 94608
Ms. D. Heinze, Port of Oakland, P.O. Box 2064, Oakland CA 94604-2064

Com7101Edgewater

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

10-31-00

RO# 293

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
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FAX (510) 337-9335

October 26, 2000
StID # 3978

Mr. Joseph Cotton
City of Oakland, Public Works
Environmental Services Division
250 Frank H. Ogawa Plaza, Ste. 5301
Oakland CA 94612-2034

Re: Recommendations of Third Quarter 2000 Monitoring Report for Municipal Services Center, 7101 Edgewater Dr., Oakland CA 94621

Dear Mr. Cotton:

Our office has received and reviewed the **September 26, 2000 Third Quarter 2000 Monitoring Report** for the above referenced site prepared by Cambria, your consultant. We are aware that a number of additional reports are forthcoming, which will evaluate remedial actions and make conclusions regarding the existence of off-site contaminant sources. We look forward to these reports. This letter responds specifically to the recommendations made in the referenced monitoring report.

Two recommendations area made in this report. Cambria recommends discontinuing bioparameter analyses based upon the amount of existing data. **Please provide a summary of the bioparameter data and cite those results where the observed trends noted in Table B were shown.** Cambria recommends collecting dissolved oxygen readings from all wells annually. Our office believes that these readings should be collected each time a well is sampled. This test may be done in the field along with the other common field parameters ie pH, temperature and conductivity. In the event that remediation is performed that does not rely on natural attenuation, dissolved oxygen readings may be omitted.

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

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr.Bob Clark-Riddell, Cambria, 1144 65th St., Suite B, Oakland CA 94608

Rec7101Edgewater

SENT 6-29-2000

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0293

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
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June 29, 2000
StID # 3978

Mr. Joseph Cotton
City of Oakland
250 Frank H. Ogawa Plaza, Suite 5301
Oakland CA 94612-2034

Re: Work Plan for Additional Subsurface Investigation, City of Oakland Municipal Service Center, 7101 Edgewater Drive, Oakland CA 94621

Dear Mr. Cotton:

Our office has received and reviewed the following technical reports from your consultants:

- Well Installation and Destruction Report, March 1, 2000, Cambria
- First Quarter 2000 Monitoring and Recommendation Report, May 16, 2000, Cambria and
- Work Plan for Additional Subsurface Investigation, June 16, 2000, Baseline.

This letter serves to comment on these reports and to specifically comment on the Baseline work plan. The first two reports provide information on soil and groundwater contamination in the area between the municipal service center and the San Leandro Bay and Damon Slough, which is leased from the Port of Oakland by the East Bay Regional Parks District. Based on a review of the chemical analysis of the contaminants, your consultant concludes that the motor oil contamination found off-site is not from the service center's operations. It is believed that this contamination is the result of contaminated imported fill material. The soil in this strip of land is noticeably more permeable than that beneath the service center.

Free product is present in both on and off-site wells. The on-site wells with free product are located either near former underground tanks or near the former remote dispenser line. Free product has also been observed in excavations and storm drains near Building 5 and in the storm drain east of TBW-1. Baseline's work plan intends to find the lateral extent of the free product found on-site. A series of direct push borings are proposed around the source areas to make this assessment. Additional borings are proposed for analysis of polynuclear aromatic hydrocarbons and physical parameters with the intent of using this information in a site specific health risk assessment. This information will be used to determine an appropriate remediation plan. Note, your remediation plan should minimally address the removal of the free product.

Our office conditionally approves this work plan, however, you are requested to respond to the following additional concerns:

- Prior to concurring on the origin of the off-site free product, please provide our office with copies of the gas chromatograms of all free products found on and off-site. These results should also include samples from the free product found near Building 5 and that found in storm drains.
- Because of the uncertainty of the source of the off-site free product, you may also want to include borings near MW-16, or between MW-6 and MW-16 as suggested by Cambria.
- The proposed borings surrounding the free product source areas should be sampled for both soil and groundwater and analyzed for the proposed suite of analytes. In addition, a shallow soil sample, (less than or equal to three feet), from each source area should also be run for potential use in your health risk assessment. This assumes this soil area will not be excavated. This sample should be the taken at the point of the highest apparent contamination based on field screening.
- The soil samples proposed for the analysis of physical parameters should represent a typical background sample within the vadose zone. Please insure that samples are not located within a contaminated area.

Please provide your response to these items prior to initiating this work plan.

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

Sincerely,

Barney M. Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Ms. Y. Nordhav, Baseline Environmental Consulting, 5900 Hollis St., Suite D, Emeryville, CA 94608
Ms. D. Heinze, Port of Oakland, P.O. Box 2064, Oakland CA 94604-2064

Wp7101Edgewater

Sent 12/3/99
Including cc's

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0293

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9432

December 3, 1999
StID # 3978

Mr. Joseph Cotton
City of Oakland Public Works
250 Frank H. Ogawa Plaza, Ste. 5301
Oakland CA 94612-2034

Re: Subsurface Investigation at City of Oakland Municipal Services Center, 7101 Edgewater Drive, Oakland CA 94621

Dear Mr. Cotton:

This letter serves to comment on the recent changes to the original August 26, 1999 work plan for the above referenced site. This work plan proposed the installation of four monitoring wells along the western boundary of the site and one nested remediation test well. I previously conditionally approved this work plan in my September 7, 1999 letter. The work plan also recommended the closure of two wells, MW-3 and MW-4, located on the east side of Edgewater Drive. I understand these well closures have already occurred.

The November 30, 1999 letter from Cambria proposes two additional monitoring wells to better assess groundwater in the southwest portion of the site. Since this well array will give more information, our office approves this proposal. Upon review of past analytical data, it appears that the analysis of TPH as motor oil should also be added to the soil and groundwater samples from the proposed wells. You may recall that the appearance of oily material has been a concern at this site, even though a waste oil release has not been observed. We assume that these wells will be included among those wells scheduled for quarterly groundwater monitoring. Please confirm the monitoring schedule for the existing and proposed wells.

As mentioned in my September 7, 1999 letter, please outline how the remediation test well will be used. What wells will be used as the observation wells? How long will the well be extracted? How will the contaminants be stored/disposed?

Please provide your written comment to this letter within 30 days or no later than January 7, 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
Mr. D. Elias, Cambria, 1144 65th St., Suite B, Oakland CA 94608
3wpap7101Edgewater

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO293

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

September 7, 1999
StID # 3978

Mr. Joseph Cotton
City of Oakland Public Works
Environmental Services
250 Frank H. Ogawa Plaza, Ste. 5301
Oakland CA 94612-2034

Re: City of Oakland Municipal Service Center, 7101 Edgewater Dr., Oakland CA 94621

Dear Mr. Cotton:

Our office has received and reviewed the August 26, 1999 Cambria report for the above site. The report includes a proposal to install monitoring wells and a remediation test well and the decommissioning of wells MW-3 and MW-4. I have previously approved of the closure of these two wells in my August 31, 1999 letter, so you may proceed with their closure. Four monitoring wells are proposed in locations located down-gradient to identified "hot" spots identified from the underground tank piping removal and from current monitoring data. The remediation well will be a combination air sparge dual-phase extraction well and will be located near former USTs and a hot spot along the former piping run. The monitoring wells are approved and you may schedule their installation. Prior to installing the remediation well, please describe how it will be used. Will this well be extracted from periodically or will it be part of a pilot test for potential future expansion?

Our office has also reviewed the Fuel Pipeline Removal Sampling Report and the First Quarter 1999 Monitoring Report for this site as prepared by Cambria. Our office has the following comments and concerns:

- Please provide copies of the disposal receipts for the piping and all soil, groundwater and liquid waste generated during the piping removal.
- The piping removal report stated conduit piping was put into the piping trench. Was this conduit put into the entire length of the trench? If not, please provide a site map indicating its location. What will be the rationale when determining its use?
- Please be aware that the referenced San Francisco Airport Order has been updated since the July 1999 report, therefore, certain referenced clean-up levels have changed. The new TPHd soil clean-up concentration is 518 ppm and 640 ppb in groundwater. In addition, the recommended clean-up level for benzene in groundwater is 71 ppb. These concentrations are subject to change based on the most information.
- With these clean-up levels in mind, our office noticed, as was pointed out in the piping removal report, detection levels on some soil samples were extremely high for TPHd and benzene. This presents a problem when determining if these areas require remediation or whether we should rely on natural bio-remediation. The uncertainty of benzene concentration could cause an over-estimate of potential risk to human health and may require a deed restriction.

- In regards to the first quarter 1999 monitoring report, there appears to be uncertainty as to whether aerobic or anaerobic bio-degradation is occurring. The May 4, 1999 evaluation stated that it appears that both are occurring. The bio-parameter analysis shown is atypical of what is seen normally and cannot be used to make a judgment as to the extent of bio-remediation. This analysis compares TPHg + TPHd concentration in monitoring wells versus sulfate concentration in wells in sampled during this event. Typically, the concentration of the chemical of concern is compared with that of the bio-parameter indicator over time. I would suggest a long- term trend analysis of bio-indicators and TPH concentration to illustrate bio-degradation.

Please inform our office prior to your well installations and provide a written comment to the above observations **within 30 days or by October 9, 1999**.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

c: B. Chan, files
Mr. D. Elias, Cambria, 1144 65th St., Suite B, Oakland CA 94608
2Wpap7101Edgewater

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0293

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

August 31, 1999
StID # 3978

Mr. Joseph Cotton
City of Oakland Public Works
250 Frank H. Ogawa Plaza, Suite 5301
Oakland CA 94612-2034

Re: City of Oakland Municipal Service Center, 7101 Edgewater Dr., Oakland CA 94621

Dear Mr. Cotton:

This letter confirms our office's concurrence in approving the closure of monitoring wells MW-3 and MW-4 at the above referenced site. These two wells, located on the east side of Edgewater Drive on the property designated Alternative Site 1, have never detected any groundwater contamination and are not required for the on-going subsurface investigation on the western Municipal Service Center parcel.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. D. Elias, Cambria Environmental, (by fax only)
WellclAP7101

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#293

January 5, 1999
StID # 3978

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

Mr. Mark Hersh
City of Oakland
250 Frank H. Ogawa Plaza, Suite 5301
Oakland CA 94612

Re: City of Oakland Municipal Service Center, 7101 Edgewater Drive, Oakland CA 94621

Dear Mr. Hersh:

Our office has received and reviewed the November 11, 1998 Third Quarter Monitoring Report for the above site as prepared by your consultant, Cambria Environmental Technology (Cambria). This letter serves to comment on the **Proposed Well Sampling Protocol** recommended in the report. Specifically, these changes include the addition of TPHk and TPHmo to the analytes for MW-1, the addition of TPH parameters for MW-7, the elimination of sodium and chloride in all wells and the elimination of lead and nickel in MW-2 and MW-7, respectively. Monitoring wells MW-3 and MW-4 are proposed to be properly destroyed as they no longer provide any useful information and not impacted by any contaminants of concern.

Our office approves of this proposed sampling protocol with the following conditions:

- We do not recommend adding the analytes, TPHd, TPHg, BTEX and MTBE to the parameters for MW-7. Prior sampling for these analytes did not detect them and this was the rationale for eliminating them in the first place.
- Though direct relationships between sodium and chloride concentrations have not been seen in the samples from the bay and the monitoring wells, our office still assumes that there is potential connection with the bay and the outlying wells. Our office will require further investigation ie tidal study or tracer study to eliminate this potential pathway.
- Please submit a work plan for additional site characterization given the existing monitoring results and the results from the pipeline removal sampling. In your next monitoring report, please give a schedule for the submission of your work plan and the pipeline removal report

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. D. Elias, Cambria, 1144 65th St.,Suite B, Oakland CA 94608

Sampling7101Edgewater

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#293

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

August 3, 1998
StID # 3978

Mr. Mark Hersh
City of Oakland, Public Works Agency
250 Frank Ogawa Plaza, Suite 5301
Oakland CA 9461-2034

Re: Municipal Service Center Fuel Pipeline Removal, 7101 Edgewater Drive, Oakland CA 94621

Dear Mr. Hersh

This letter responds to the July 31, 1998 fax of Cambria Environmental's soil sampling plan for the above site. Both sampling of the overburden and soil beneath the piping is addressed in this plan. This plan was proposed to optimize the amount of soil which will require either remediation or disposal. Over-excavation is proposed for the anticipated more impacted soils beneath the pipeline. Please adhere to the following sampling guidelines:

- The eighteen (18) soil samples to be taken to characterize the overburden should be taken just above the piping. Each of the two adjacent soil samples should be composited and analyzed for TPHg, TPHd, BTEX and MTBE. Prior to running the TPHd analysis, the sample should be run through a silica gel clean-up.
- To characterize the soil beneath the piping, one soil sample should be taken every 20 linear feet. Each two adjacent soil samples should be composited and analyzed for the same parameters mentioned above. Every attempt should be made to sample from beneath the former hydrant locations and at other points of potential release.
- Because of the proximity of the former underground diesel and gasoline tanks to the bay, the most appropriate soil threshold level is the saltwater protection zone. Therefore the threshold concentrations to be observed are:

	Mg/kg
TPHg	16
TPHd	68
Benzene	2.7
Ethylbenzene	5
Toluene	2700
Xylenes	990

You are reminded to contact me 48 working hours prior to this field work. I may be reached at (510) 567-6765.

Sincerely,

Barney M Chan

Barney M. Chan, Hazardous Materials Specialist

C: B. Chan, files
Mr. D. Elias, Cambria, 1144 65th St.,Suite B, Oakland CA 94608 **pipe7101**

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO# 293

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

July 16, 1998
StID #3978

Mr. Mark Hersh
Public Works Agency, Environmental Services
Dalziel Building
250 Frank H. Ogawa Plaza, Suite 5301
Oakland CA 94612

Re: Fuel Distribution System Piping Removal Workplan, City of Oakland Municipal Service Center, 7101 Edgewater Drive, Oakland CA 94621

Dear Mr. Hersh:

Our office has received and reviewed the July 9, 1998 work plan for the removal of the fuel distribution system from the City of Oakland Municipal Service Center. Please address the following County concerns prior to initiating this work:

- Please notify our office at least two **working** days prior to the field work. Our office should be present to witness, if possible, all soil and groundwater sampling.
- As I mentioned in a voice message to you, our office cannot approve the reuse of excavated soil from this removal without adequate characterization. Your work plan requests the reuse of all excavated soil which is free of "gross" contamination and the disposal of "gross" contaminated soil. This characterization is too subjective, therefore, our office recommends actual sampling and analytical testing of soil. We further request that soil reuse levels be consistent with "cleanup" levels required for sites such as this ie near the bay fringe. To come up with soil cleanup numbers for TPH, you may start by looking at the Water Board Order, Draft Revised Tier 1 TPH levels for the Saltwater Ecological Protection Zone (SEPZ) at the San Francisco International Airport. Certainly, the airport site is unique and the site conditions may not be identical to the Service Center, however, you must provide additional evidence for suggesting alternative cleanup levels. Having said this, the Tier 1 level for TPHg in soil is 26-1464 ppm and that for TPHd is 267 ppm. The acceptable TPHg concentration increases as the inward land distance increases. Therefore, instead of using "gross" contamination for reuse or disposal determination, I suggest the above levels. If necessary, you may want to expedite the analyses by using a mobile laboratory. Field kits are available which may also be helpful in segregating the "gross" and marginally impacted soils. A sampling frequency of 1 per every 20 cubic yards or one two-point composite for every 50 cubic yards is reasonable.
- Should groundwater be encountered initially or through overexcavation, it should be sampled and run for the proposed analytes; TPHg, BTEX, MTBE, TPHd and lead. I agree that all samples run for TPHd should be treated with a silica gel cleanup prior to analysis. MTBE should also be confirmed (EPA 8260 or 8240) if detected.

- Our office agrees with the previously discussed soil analysis frequency of one per every 40 linear feet, however, to be consistent with Title 23, Division 3, Chapter 16, Section 2672 (d) (1), I suggest taking a soil sample every 20 linear feet and compositing every two samples into one prior to chemical analysis.

Please respond to the above comments prior to initiating your piping removal. You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
A. Clark-Clough, PWA, Environmental Services
Mr. D. Elias, Cambria Environmental, 1144 65th St., Suite B, Oakland CA 94608

Piwp7101

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0293

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

June 15, 1998
StID # 3978

Mr. Mark Hersh
City of Oakland, Environmental Services
Public Works Agency

Re: Pipeline Removal Workplan and Response to Comments on Site Workplan, City of Oakland Municipal Service Center (7101 Edgewater Dr., 94621)

Dear Mr. Hersh:

Our office has received and reviewed your June 10, 1998 letter requesting to revise the timetable for the submittal of specific work plans and the initiation of pipeline removal at the above site. Given the current status of your consultant and contractor, our office agrees with the new schedule proposed:

- Pipeline Removal Work Plan — July 15, 1998
- Commence Pipeline Removal — August 3, 1998
- Revised Site Work Plan — July 31, 1998

Please contact our office by July 27, 1998 to confirm that the piping removal is on schedule and to set a time for our office to be onsite to witness sampling.

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

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

C: [redacted]
Fax copy sent to Mr. Hersh
Sch7101

ALAMEDA COUNTY
HEALTH CARE SERVICES AGENCY
DAVID J. KEARS, Agency Director

RO#293

May 21, 1998
StID # 3978

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

Mr. Mark Hersh
City of Oakland Public Works Agency
1333 Broadway, Suite 330A
Oakland, CA 94612

Re: Response to County Evaluation of Work Plan for 7101 Edgewater Drive, Oakland CA 94621, Municipal Service Center

Our office has received and reviewed the May 8,1998 Dove Engineering Group letter responding to my April 6, 1998 letter regarding their work plan for the above site. I still have some questions since the responses in this letter are not specific or definitive. I would like to go over each of my remaining questions in hopes of receiving a revised work plan or clarification.

Task 1 pertains to the monitoring program for the site. The original Dove work plan proposes to monitor wells MW-1, MW-2, MW-6, MW-7 and MW-8 for TDS. MW-4 was to be monitored for chloride. Dove states that this would be done to determine the degree of brackish water intrusion from the buried channels known to exist at the site. However, Dove goes on further to state that TDS may not be reflective of Bay water intrusion and chemical analysis for TDS and chloride may be deleted from the program. Instead, electrical conductivity,(ec), will be used as an indicator of TDS/chloride content.

If ec can be used as a good estimate for TDS/chloride content, this evaluation could have already been done since this information already exists as part of the data commonly provided with quarterly monitoring. Our office recommends evaluating saltwater intrusion by establishing the sodium to chloride ratio in estuary water and comparing this with the sodium to chloride ratio in the monitoring wells. Brackish water should have a fairly consistent sodium to chloride ratio.

The bioremediation parameters ORP, sulfate, nitrate and iron were originally proposed to be tested in "selected" wells. In my letter, I asked which wells would be "selected" and what the logic in determining these wells would be. Dove's response was the selection of wells would be based upon well proximity to shoreline, existing buildings, and degree of biologic action expected. This information is available, therefore, these wells should be identified. Biodegradation is then stated to be non-uniform and anticipated to vary across the site. Because of this potential variability across the site, our office request that **all** wells be tested for the bioremediation parameters.

Our office requested groundwater monitoring down-gradient of the area of former USTs 1,2 & 3. I also stated that additional well(s) may be necessary to monitor down-gradient of the piping run should significant contamination be observed during piping removal. Dove's response to this was,"one or two wells downgradient of the former tank pit in areas where the highest levels of contaminants are observed during the fuel line removal may be warranted". I would just like to clarify our request, one well should be down-gradient of the former USTs in **addition** to any warranted based on the results of the pipeline removal.

Work Plan Task 2-

Our office is confused by Dove's reply for Work Plan Task 2. One of the actions in task 2 of the original work plan was the performance of a 100 hour tidal study, however, Dove's response letter states that "a rigorous tidal study may not be needed". Later, Dove explains how the tidal influence will be determined ie by measuring changes in water-level elevations and comparing them to known tidal fluctuation. Then Dove later states, "It is unclear whether a correlation between groundwater levels and flow and tide can be directly established." Our office suggests that a review of previous data be done and a decision be made whether an additional tidal study is necessary.

Our office will be overseeing the removal of the existing pipeline at this site. Because the piping removal is stated to occur in June 1998, please provide a work plan for its removal, sampling and the disposal of any soil, groundwater or free product which may be encountered.

Work Plan Task 3

Since our office will be overseeing the closure/removal of existing pipelines and dispenser systems and this work is tentatively scheduled for June 1998, please submit a closure application and a work plan for soil and groundwater sampling, source removal and piping disposal **by June 15, 1998** to insure no delays in the expected removal date. Our office should be notified 48 working hours prior to piping removal.

Work Plan Task 4

I would like to clarify my request to sample and remove free product from the recovery wells. As part of your monitoring program, you should inspect these recovery wells for the presence of free product. If present, free product should be removed. If no product is present, I recommended that the groundwater be sampled and analyzed. Based on the analysis of this groundwater, recommendations could be made to add supplements, remove groundwater etc.

Work Plan Task 5

It is likely that a Tier 1 ASTM RBCA will indicate that no unacceptable risk to human health exists at this site. It is assumed that the site cleanup levels will be that which is necessary to be protective of the environment, ie aquatic life potentially found in the estuary.

Our office has not yet received a copy of the Draft ULRP report. It is also premature to consider any cleanup levels in a draft without Water Board concurrence.

Any site referred to as a "brownfield" must still go through a risk assessment evaluation. Any corrective action must still be protective of human health, water quality and the environmental. Typically, cleanup requirements are based on known future use and exposure(s) and a risk management plan is usually required.

Please provide a written comment to this letter **within 30 days or by June 22, 1998.** You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. C. Palmer, Dove Engineering Group, 7677 Oakport St., Suite 105, Oakland CA 94621

7101resp

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#293

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

April 6, 1998
StID # 3978

City of Oakland Public Works Agency
Mr. Mark Hersh
1333 Broadway, Suite 330A
Oakland CA 94612

Re: Work Plan for Municipal Service Center, 7101 Edgewater Drive, Oakland CA 94621

Dear Mr. Hersh:

Our office has received and reviewed the February 19, 1998 work plan for the above site as prepared by DOVE Engineering Group. This work plan proposes a number of tasks to monitor, study and characterize, remove free product, remove underground piping, upgrade existing tanks, develop site cleanup goals and prepare a remedial action plan. Our office has a number of comments, questions and additional requirements regarding these tasks.

Task 1 provides a monitoring program for the wells at this site. The monitoring schedule previously approved by our office in our November 7, 1997 will be followed. In addition to the monitoring in this schedule it is proposed to monitor wells; MW-1, MW-2, MW-6, MW-7 and MW-8 for TDS. Please explain the logic for selecting these wells for this particular analysis. MW-4 is proposed to be analyzed for chloride. Please explain why this well was chosen for this analysis and the significance of this parameter.. The bioremediation parameters; oxidation-reduction potential, sulfate, nitrate and iron are also proposed for "selected" wells without identifying these wells. What will be the logic in determining which wells will be analyzed?

In regards to site monitoring, it appears that one area, near former USTs 1,2 and 3 is not currently being adequately monitored. Because of the appearance of free product in the tank pit of these USTs, it is necessary to have a monitoring well immediately downgradient of this location. In addition, it was noted that free product or sheen was noted in a number of hydropunch samples near the existing fuel distribution lines. Therefore, you should evaluate whether groundwater monitoring downgradient to these areas may also be needed.

Task 2 proposes to collect additional information and reviewing existing site data to better understand the hydrogeology of the site. This work includes:

- Compilation of historic groundwater flow maps
- Compilation of soil and groundwater contaminant distribution maps
- Preparation of geologic cross sections for the site
- Performance of a 100 hour tidal influence study on four wells
- Identify possible preferred pathways and including tidal effects, subsurface drains and media
- Assess completeness of the site chemistry data
- Review of the biologic activity data to evaluate effects of biodegradation and
- Interpret the effects of the tidal influence and determine the limits of the "fresh" water boundary.

In regards to these actions, please:

- Identify those wells to be used in the tidal study.
- Will there be a sampling plan to verify any of the identified potential pathways?
- Please clarify what is meant by assessing the completeness of site chemistry data.
- It is necessary to continue to collect biodegradation parameters to verify conclusions regarding the extent of natural degradation. Therefore, continual quarterly evaluation of data is recommended.
- Please detail how the limits of tidal influence will be determined.

Task 3 includes providing field support for UST upgrade and pipeline removal. The reports states that the existing pipeline, approximately 2,400 lineal feet, will be removed in spring 1998. In addition, USTs 7,8 and 9 will be upgraded prior to the 1998 deadline. Please be aware that the City of Oakland Fire Services, Hazardous Materials Division will oversee the upgrading of the operating tanks. It is not clear, however, if the County or the City will oversee the piping removal. In any event, please provide a work plan for the removal of the piping, including specifics for soil and groundwater sampling and analysis, potential free product removal, soil disposal and piping disposal. I will inform you as soon as our offices determine who will oversee the piping removal.

Task 4 proposes a method for the removal of any free product from the recovery wells installed in the former UST pits. Please verify the number and locations of recovery wells at this site. Because of the ability of free product and groundwater to collect within the former tank pits, it is advisable to not only remove free product but sample and analyze the groundwater within the tank pits. This information is necessary to determine which and how much of each supplement should be added to the tank pits to enhance bioremediation.

Task 5 proposes to develop site cleanup objectives. This section elaborates on methods to identify concentrations within different zones at the site. Chemicals of potential concern (COPCs) will be identified. A tiered approach similar to the ASTM risk-based corrective action method is proposed. The terms, screening media concentrations (SMC), and preliminary target concentrations (PTC) are also proposed for determination. These two concentrations are to be consistent with ASTM RBCA methodology and the Urban Land Redevelopment Program (ULRP). Please keep in mind that the ASTM RBCA does not address impact to ecological receptors, therefore, other references must be used. In addition, our office has not received nor been instructed to use the ULRP guidance document, therefore, these cleanup levels must receive Water Board approval prior to County acceptance. Please send our office a copy of the ULRP document.

The site is proposed to be divided into four zones, the vadose and saturated zones upgradient and overlying the tidally-influenced groundwater. It is reasonable to have different soil and groundwater cleanup levels for each zone.

In addition to the two references mentioned, other cleanup standards such as USEPA PRGs , RWQCB Basin Plan and the RWQCB draft Tier 1 Standards for LUFT Sites Adjacent to Surface Waters should be considered.

The work plan mentions that other "Brownfields" petroleum sites around the SF Bay will also be reviewed for reference and pertinence to this site. Please identify and provide a summary of those sites which have been so categorized and closed. I am not aware of any of these sites in the City of Oakland.

Our office anticipates the need for Water Board concurrence in accepting cleanup standards other than Tier 1 standards, therefore, when these standards are developed a joint meeting with both agencies will be necessary for their input.

The final two tasks are the preparation of a Remedial Action Plan and on-going verification monitoring. An attached Estimated Schedule for Work Tasks was also provided. Please revise this schedule to include specific dates as best as they can be estimated.

Please provide a written response to the letter within 30 days or by May 8, 1998.

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

Sincerely,

Barney M Chan

Barney M.Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. Chris Palmer, Dove Engineering Group, 7677 Oakport St., Suite 105, Oakland CA 94621

wpap7101

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0293

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, 1997
StID # 3978

Mr. Mark Hersh
City of Oakland
Environmental Services Division
1330 Broadway, Suite 330A
Oakland CA 94612

Re: Groundwater Monitoring at Municipal Service Center, 7101 Edgewater Drive, Oakland CA 94621

Dear Mr. Hersh:

I have received and reviewed the November 6, 1997 fax from Dove Engineering Group detailing the proposed monitoring for the wells at the above referenced site. The schedule is consistent with that previously proposed in Woodward-Clyde's January 8, 1997 letter. This schedule and analyses is accepted with the following comments/conditions:

* Please provide a site map indicating the location of those wells scheduled for monitoring. I am aware that that monitoring wells MW-8 through Mw-10 were the three borings completed as wells by Uribe & Associates, however, I never received a well completion report.

* In regards to the proposed analytical methods please be aware that EPA Method 8260 will only be required if MTBE is detected during the modified 8020 analysis. Therefore, you may forego analysis by EPA Method 8260 if MTBE is ND by modified 8020.

The analysis for Iron +2 in groundwater is an indicator of anaerobic biodegradation and is typically done using a colormetric method ie 3500 D in SM. Method 6010 is an ICP method which measures total iron.

* Please submit the above mentioned well completion report and the tank closure report for USTs 1,2,3, 12 and 15 removed in May 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
C. Palmer, Dove Eng., 7677 Oakport St., Suite 105, Oakland 94621

monap7101

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#293

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

July 10, 1997
StID # 3978

Mr. Mark Hersh
City of Oakland Environmental Services
1333 Broadway, Suite 330A
Oakland CA 94612

Re: Closure In-Place for UST-10 and UST-11 at the Municipal Service Center, 7101 Edgewater Drive, Oakland 94621

Dear Mr. Hersh:

Our office has received and reviewed your July 3, 1997 work plan for the closure in-place of the above referenced tanks at the City's Municipal Service Center.

Our office approves of this closure based upon the perceived threat to the integrity of the existing building should these tanks be removed.

Enclosed, please find a stamped and signed copy of your work plan. Please adhere to the listed activities. Please note the additional requirements added to the analysis section. Total Oil and Grease to **all** soil and water samples plus semi-volatiles via EPA Method 8270 to the lone water sample and the soil sample with the highest TOG concentration is required. In addition, should underground piping exist from these tanks, this piping must be properly closed. Prior to closing the piping, you may choose to either pressure test the line or sample along it every twenty feet.

Please inform me at least **72 working hours** prior to the tank closure. You may contact me at (510) 567-6765.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

c: B. Chan, files

MSCinplace

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#293

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

April 25, 1997
StID # 3978

Mr. Joseph Cotton
City of Oakland
Office of Public Works
1333 Broadway, Suite 300
Oakland CA 94614

Re: City of Oakland Municipal Service Center, 7101 Edgewater Dr., Oakland CA 94621

Dear Mr. Cotton:

Our office has received and reviewed the draft **Soil and Groundwater Investigation Report** for the above site as prepared by Woodward-Clyde. This report details the extensive soil and groundwater investigation performed at the site in October, November and December 1996.

The results of the investigation are somewhat inconsistent and at this time continual site monitoring is recommended. Please observe the following for this site:

1. The temporary well points B35, B39 and B44 should be completed into permanent wells and included in your monitoring program.

2. The bioremediation parameters should continue to be tested for in groundwater samples. The parameters should include dissolved oxygen, oxidation-reduction potential, nitrate, sulfate, iron +2, pH and alkalinity. The colony count of heterotrophic and hydrocarbon degraders is not as expected, however, if the other parameters reflect intrinsic bioremediation, the microbial count should be repeated again. Natural bioremediation should also be demonstrated by plotting TPH or BTEX concentration versus specific parameters over time.

3. Because of the differentiation of petroleum and non-petroleum TPH, please continue to the silica gel cleanup procedure for all extractable hydrocarbon analysis.

For your information, the underground tank removal plans for the first set of tanks has been reviewed and approved by our office.

You may reach me at (510) 567-6765 for comments or questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

c: Mr. G. Muehleck, WCC, 500 12th St., Suite 100, Oakland CA 94607-4014
D. Heinze, Port of Oakland Environmental Dept., 530 Water St. P.O. Box 2064, Oakland CA 94607-2064
B. Chan, files

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ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO # 293

February 25, 1997
StID # 3978

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

Mr. Joseph Cotton
City of Oakland
Office of Public Works
1333 Broadway, Suite 300
Oakland CA 94614

Re: City of Oakland Municipal Service Center, 7101 Edgewater Dr., Oakland CA 94621

Dear Mr. Cotton:

Our office has received and reviewed the October 10, 1996 Baseline report for the August 1996 sampling of monitoring wells and Woodward-Clyde's January 8, 1997 letter recommending a change in monitoring frequency and analyses. Based on historic groundwater monitoring data, Woodward-Clyde has recommended considerable changes in sampling as stated in Table 3 of the January 8, 1997 letter. Also included are Tier 1 Cleanup Standards for saltwater ecological protection as established for the SF International Airport. These levels are considered conservative and serve as standards until additional levels are generated by the Water Board or your consultant.

The letter also refers to the recent additional groundwater characterization at the site. Twelve borings were advanced along the San Leandro Bay boundary of the MSC site. Three of these borings were proposed to be completed into monitoring wells as stated by Mr. George Muehleck of Woodward-Clyde and discussed with yourself. Upon the condition that the three borings; B35, B39 and B44 are completed into monitoring wells and monitored on a **quarterly basis**, the proposed changes in monitoring are accepted.

Please submit the **Additional Groundwater Characterization Report and documentation of monitoring well installations within 30 days or by March 26, 1997.** Please also propose a list of analytes for these three wells and justification for any analyte omission. You should also be aware that based upon the results of the **Additional Groundwater Characterization Report,** more requirements may be necessary.

Our office also acknowledges and approves your November 18, 1996 revised schedule for the removal of underground tanks and piping. Accordingly, your Phase I Task for the removal of Tanks 1,2,3,4,5,10,11,12 and 13 should be initiated by May 1997.

Failure to submit the requested reports or meet the deadlines of the accepted proposed schedule may cause this site to be referred to the District Attorney's office for enforcement.

You may reach me at (510) 567-6765 for comments or questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

c: Mr. G. Muehleck, WCC, 500 12th St., Suite 100, Oakland CA 94607-4014
D. Heinze, Port of Oakland Environmental Dept., 530 Water St. P.O. Box 2064, Oakland CA 94607-2064
D. Hwang, ACEH
B. Chan, files

mon7101

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO# 293

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

October 30, 1996
StID # 3978

Mr. Andrew Clark-Clough
City of Oakland
Office of Public Works
1333 Broadway, Suite 300
Oakland CA 94614

NOTICE OF VIOLATION

Re: City of Oakland Municipal Service Center, 7101 Edgewater Dr., Oakland CA 94621

Dear Mr. Clark-Clough:

Our office last corresponded with you in my June 24, 1996 letter. This letter conditionally approved the June 17, 1996 Woodward-Clyde work plan for additional groundwater characterization at the above site. A number of hydropunch temporary well points were to be advanced along the boundary of the site on Regional Park property. Groundwater samples, groundwater gradient and samples necessary for fate and transport estimation would be taken. Obviously, should contamination concentration from the grab groundwater samples exceed conservative RBCA risk values, permanent wells and additional corrective action will be necessary. I am aware that after some delay dealing with permit issues, this work is currently being done.

My June 24, 1996 letter also commented on Woodward-Clyde's April 22, 1996 letter which provided a phased schedule for the removal of the thirteen underground storage tanks at this site. Phase I of the schedule proposed the removal of nine USTs in September 1996. Phase II scheduled the closure of the existing fuel distribution lines for the spring of 1997 and Phase III called for the removal of the remaining USTs in the summer of 1997. Recall, this schedule was copied to Mr. Don Hwang of our office to show the City's good intentions and to prevent potential enforcement due to these unpermitted or improperly closed USTs. To date, our office has not received the UST closure applications as scheduled.

Please submit a revised schedule for the removal of the USTs and the piping system to our office **within 15 days or by November 15, 1996.** This schedule should be realistically able to be met yet show your committment to properly close these tanks in a timely fashion.

Failure to submit the requested schedule or meet the deadlines of the accepted proposed schedule may cause this site to be referred to the District Attorney's office for enforcement.

You may reach me at (510) 567-6765 for comments or questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

c: Mr. G. Muehleck, WCC, 500 12th St., Suite 100, Oakland CA 94607-4014
D. Heinze, Port of Oakland Environmental Dept., 530 Water St. P.O. Box 2064, Oakland CA 94607-2064
K. Tinsley, ACEH
B. Chan, files

nov7101

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

Ro#293

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

June 24, 1996
StID # 3978

Mr. Andrew Clark-Clough
City of Oakland
Office of Public Works
1333 Broadway, Suite 300
Oakland CA 94614

Re: City of Oakland Municipal Service Center, 7101 Edgewater Dr., Oakland CA 94621

Dear Mr. Clark-Clough:

Our office has received and reviewed the June 17, 1996 Woodward-Clyde (WCC) Work Plan for Additional Groundwater Characterization for the above referenced site. This work plan addresses evaluating the potential extent of groundwater contamination from the various tank and fuel line sources at this site. As such, it is considered only a initial step of developing a Corrective Action Plan for the site. I have spoken with Mr. George Muehleck of WCC regarding the specific details of the work plan and in general, our office agrees with its approach.

I would like to clarify some of the items mentioned in my conversation with Mr. Muehleck for your edification:

* All temporary borings will be outside of the property boundaries of the MSC. As such, the potential of offsite contaminant sources exists ie offsite surface releases, utility releases and surface water infiltration. It is understood, however, any contamination detected in the temporary borings is assumed to be from onsite sources unless demonstrated otherwise.

* The work plan requests that the analyte TPHd not be run in proposed borings 41-46. This was based on TPHd not being reported in previous groundwater sampling in this area. It appears, however, that TPHd has **not** been analyzed in this area. Mr. Muehleck recommends and I concurr with analyzing water samples from borings 41 and 42 for TPHd given the past contamination detected in hydropunch 10 and hydropunch 7.

* Based on the detection of TPH contamination in groundwater from the borings, permanent monitoring wells should be proposed. Further, either a site specific or previously accepted default risk assessment must be provided with recommended cleanup levels for the detected chemicals of concern. It is recognized that the ecological risk may outweigh the risk to human health.

RO # 293

* Although no soil samples are proposed to be analyzed in the temporary borings, soil samples will be field screened with a FID instrument. Should significant readings be detected in any of the soil samples, it was acknowledged that the soil sample would be analyzed also by a certified laboratory.

* This work plan is a necessary part of the site characterization/site corrective action phase. The items in the City's **April 22, 1996 Planned Work/...** for this site is equally important. Significant source removal is expected during the closure and removal of existing USTs and fuel distribution lines. Contaminated soil and groundwater may be encountered during this activity. Please keep our office updated on your progress in each Phase proposed in your **Planned Work.** Accordingly, our office expects tank closure applications for approximately 9 USTs by September 2, 1996. Hopefully, actual tank removal would occur soon thereafter.

Please contact me **at least 72 hours prior to your field work** so I may arrange to be onsite if possible. You may reach me at (510) 567-6765 for comments or questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

c: Mr. G. Muehleck, WCC, 500 12th St., Suite 100, Oakland CA 94607-4014
D. Heinze, Port of Oakland Environmental Dept., 530 Water St. P.O. Box 2064, Oakland CA 94607-2064
G. Coleman, files

wpap7101

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#293

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

April 29, 1996
StID # 3978

Mr. Andrew Clark-Clough
1333 Broadway, Suite 330
Oakland CA 94612

Re: Modification to Quarterly Monitoring at 7101 Edgewater Dr., City of Oakland-Municipal Service Center, Oakland 94621

Dear Mr. Clark-Clough:

Our office has received the February 1996 Groundwater Monitoring Report and your consultant's recommendations for modification of monitoring for the above site. The proposed changes are acceptable and may be incorporated in your future monitoring events. In review, these changes are:

*** Discontinue gasoline analysis on MW-2 and MW-7;**
*** Discontinue diesel analysis on MW-7;**
*** Discontinue lead analysis on MW-1, MW-5 and MW-7 and**
*** Discontinue cadmium, chromium and nickel analysis on MW-5.**
Additionally, the recommendation to perform a silica gel cleanup on water samples for which TPH extractables are run is also acceptable.

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

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

c: G. Muehleck, Woodward-Clyde, 500 12th St., Suite 100, Oakland CA 94607-4014
G. Coleman, files

okmon7101

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#293

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

April 25, 1996
StID # 3978

Mr. Andrew Clark-Clough
City of Oakland
1333 Broadway, Suite 330
Oakland CA 94612

Re: Planned Work/Response for City of Oakland- Municipal Service Center, 7101 Edgewater Drive, Oakland CA 94621

Dear Mr. Clark-Clough:

Our office has received the April 22, 1996 response letter from Woodward-Clyde in your behalf outlining the future activities at the Oakland Service Center. The letter proposes future removal/ closure activities in three phases; the removal of nine unpermitted USTs, the closure of the fuel distribution lines and the removal and replacement of the three existing registered USTs. Additionally, groundwater monitoring of the existing wells is scheduled for May, August and November of 1996. This proposal is conditionally accepted with the following additional requirements:

1. Please submit your quarterly groundwater monitoring reports **within 45 days** after each monitoring event.

2. Please submit your underground tank closure application for the nine USTs by September 2, 1996. Also, please state exactly when you will be submitting your tank closure application for the closure of the fuel distribution lines and USTs #7-9.

3. The March 14, 1996 Woodward-Clyde report, Table 7, states that tank ID # 4 was removed, however the April 22, 1996 letter states that tank 4 will be removed in September 1996. Please clarify this item.

4. You are requested to immediately insure that all unused tanks and fuel distribution lines are emptied to reduce their potential for release.

5. Please submit a work plan for the installation of additional wells downgradient to the former distribution lines and USTs. Based on the previous 1993 hydropunch water samples, significant gasoline and BTEX exists in areas not being monitored by existing wells. Recall, this same request was stated in my March 19, 1996 letter.

Please provide the above requested information/reports to our office **within 30 days or by May 28, 1996.**

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

c: G. Jensen, Alameda County District Attorney Office
Mr. G. Muehleck, Woodward-Clyde, 500 12th St., Suite 100, Oakland, CA 94607-4014
Mr. O. Ozoh, City of Oakland, OGS, 7101 Edgewater Dr., Oakland CA 94621
D. Hwang, ACEH
G. Coleman, files

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ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0293

RAFAT A. SHAHID, Director
DEPARTMENT OF ENVIRONMENTAL HEALTH
Environmental Protection Division
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577
(510) 567-6700

July 17, 1995
StID # 3978

Mr. Andrew Clark-Clough
City of Oakland
1333 Broadway, Suite 330
Oakland CA 94612

Re: Request for Technical Reports for City of Oakland, Municipal Service Center, 7101 Edgewater Dr., Oakland CA 94621

Dear Mr. Clark-Clough:

Thank you for the submission of the the July 13, 1995 Baseline groundwater monitoring report for the above referenced site. Our office received and reviewed this report on July 14, 1995. Although this report provides some information regarding the groundwater contamination at this site, it fails to address **all** items requested in my June 16, 1995 Notice of Violation letter. You are referred to this letter if clarification is required.

Not only are all the requested items not provided, but our office finds the contents of this monitoring report insufficient. Since this monitoring event occurred in April 1995, your next monitoring event should be scheduled for some time this month. Please insure that your next monitoring report (due within 45 days) includes the following:

1. Groundwater elevation and gradient tables;

2. A summary table with all previous groundwater monitoring results;

3. A recommendation section which discusses what work is scheduled for the next quarter and proposes additional work for further site characterization; and

4. Indicates when your Remedial Action Plan (RAP) will be provided for this site.

In reference to my June 16, 1995 letter you have failed to address items 1,2 and 4. Item 1 requested clarification as to what remediation was performed after contaminated soils were uncovered in a June 1984 excavation. Item 2 requested that you submit a comprehensive list of **all** technical reports existing for this site. Rather than this list, our office received additional reports and analytical results which we are unable to identify as all of the existing reports. Lastly, item 4 requested

clarification for **all** existing underground tanks at this site. Based on the information we have available, only three underground tanks are permitted at this site and up to 12 tanks exist. Please provide the following information:

1. A site map indicating the location and contents of all permitted and non-permitted tanks. Please describe whether each tank is empty, contains waste or product or if it has been closed and filled with an inert material;

2. A schedule for the permitting or removal of all non-permitted tanks. Based on the County's information, this UST situation has existed since at least December 1992, over 2 1/2 years ago.

Please be aware that significant petroleum contamination has been detected in soil and groundwater in an adjacent site, 7303-7307 Edgewater Dr. Claims have been made implicating the City of Oakland site, therefore, gradient determination and full delineation of contamination is essential to clarify this claim.

Please submit the requested technical information **within 30 days or by August 21, 1995.**

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

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

cc: G. Jensen, Alameda County District Attorney Office
Mr. O. Ozoh, City of Oakland, OGS, 7101 Edgewater Dr., Oakland, CA 94621
Ms. L. Huang, Baseline Environmental Consulting, 5900 Hollis St., Suite D, Emeryville, CA 94608
T. Peacock, files

rep7101

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0293

RAFAT A. SHAHID, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700

June 16, 1995
StID # 3978

Mr. Andrew Clark-Clough
City of Oakland
1333 Broadway, Suite 330
Oakland CA 94612

NOTICE OF VIOLATION

Re: Request for Technical Report for 7101 Edgewater Dr., Oakland 94621, City of Oakland Consolidated Services Center

Dear Mr. Clark-Clough:

This letter is to notify you that the technical reports and information requested in my February 9,1995 letter have yet to be provided. I am writing this next letter to you in hopes that you are familiar with this site and can respond to my previous request. In speaking with Mr. Ozoh of the City of Oakland, he seemed to be unaware of the May 13, 1992 Woodward Clyde report which describes certain environmental problematic areas on this site. I have left a copy of this report at our office, however, it has yet to be picked up. Please clarify if Mr. Ozoh or you will be the contact for this site.

I refer you to my February 9, 1995 letter which requested certain technical reports along with requesting additional information. In summary our office requests the following information:

1. Clarification as to what, if any, remediation was performed subsequent to uncovering petroleum contaminated soils in a June 1984 excavation in preparation for a UST installation.

2. Provide a comprehensive list of all technical reports existing for this site so we may verify that we have all relevant information.

3. Groundwater monitoring of the existing wells was requested to be initiated in this letter. Please submit a quarterly monitoring report for the wells at this site along with all other available documents. Should there be no evidence of a hydrocarbon release ie Alternative site 1, no monitoring in that area is required.

4. Please clarify the status of all underground storage tanks at this site. As mentioned in the February 1995 letter, our records indicate that there are only three permitted tanks at this site while records indicate as many as 12 underground tanks at this site. You must either permit or properly close all tanks exclusive of the three permitted tanks. Significant civil liability exists for each tank and for every day this tank is not properly closed. Should you choose to remove the tanks in question you may contact me directly. Otherwise you may contact Mr. Don Hwang of our office at (510) 567-6746 to obtain the information and forms to properly permit the tanks.

Please submit the requested technical reports/information **within 30 days or by July 17, 1995.**

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

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

cc: G. Jensen, Alameda County District Attorney Office
Mr. O. Ozoh, City of Oakland, OGS,7101 Edgewater Dr., Oakland 94621
D. Hwang, ACEH Hazardous Materials Division
M. Ling Tung, files

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ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO# 293

RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510)567-6700

March 19,1995
StID # 3978

Mr. Andrew Clark-Clough
City of Oakland
1333 Broadway, Suite 330
Oakland CA 94612

Re: Request for Technical Report for 7101 Edgewater Dr., Oakland 94621, City of Oakland Consolidated Services Center

Dear Mr. Clark-Clough:

Our office has received and reviewed the two Baseline Environmental Consulting reports: the November 20, 1995 monitoring report and the March 14, 1996 Progress Report for the above site. Upon review of this information, two obvious concerns exist. One is the complete characterization and remediation of the site and two is the proper closure of the abandoned tanks and piping at this site. Mr. Don Hwang of this office will be co-ordinating the proper closure or permitting of the tanks. You were initially informed of your tank requirements in my June 15, 1995 letter. Alternatively, you may contact me directly if you are going to **remove all non-permitted tanks.**

Consistent with the current policy of handling fuel leak cases, it is necessary to adequately define the extent of the soil and groundwater contamination prior to determining if a risk to human health or the environment exists. Based on the historical hydropunch and monitoring data, additional monitoring wells will be needed to determine the extent of groundwater contamination. Therefore, at a minimum, you are requested to provide a work plan for the installation of sufficient number of monitoring wells to properly characterize this site. You may also choose to perform additional site assessment should you want to determine the best locations for these wells. It is also noted that surface water may be impacted due to the close proximity of Damon Slough and the San Leandro Bay. Please submit your work plan **within 30 days or by April 22, 1996.**

Mr. A. Clark-Clough
StID # 3978
7101 Edgewater Dr.
March 19, 1996

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

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

cc: G. Jensen, Alameda County District Attorney Office
Mr. George Muehleck, Woodward-Clyde, 500 12th St., Suite 100 Oakland, CA 94607-4014
Mr. O. Ozoh, City of Oakland, OGS,7101 Edgewater Dr., Oakland 94621
D. Hwang, ACEH Hazardous Materials Division
G. Coleman, files

wpre7101

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR
DEPARTMENT OF ENVIRONMENTAL HEALTH

R0293

February 9, 1995
StID # 3978

Mr. Okey Ozoh
City of Oakland
Office of General Services
7101 Edgewater Drive
Oakland CA 94621

ALAMEDA COUNTY CC4580
DEPT. OF ENVIRONMENTAL HEALTH
ENVIRONMENTAL PROTECTION DIV.
1131 HARBOR BAY PKWY., #250
ALAMEDA CA 94502-6577

Re: Request for Technical Reports for 7101 Edgewater Dr., Oakland 94621, City of Oakland Consolidated Services Center

Dear Mr. Ozoh:

This letter serves to recount our conversation of February 8, 1995. I noted that our office had recently been given a May 13, 1992 report prepared by Woodward-Clyde Consultants. The Regional Water Quality Control Board (RWQCB) had recently relinquished their oversight of the above referenced site to our office.

Enclosed with this report were notes which indicated that a release of gasoline was discovered in June 1984 during the excavation of soils preparing for the installation of storage tanks. An Unauthorized Leak Report (ULR) was completed as a result. The exact location of the release and the specific actions taken to remediate the release were, however, never stated to our office. **Please clarify this issue with a site map and other supportive documents.**

The Woodward-Clyde report was performed to evaluate alternative locations for Building 5 at the Edgewater facility. Four locations , alternative sites 1,2, A and B were evaluated through the installation of seven monitoring wells. Both soil and groundwater samples were analyzed. Alternative site number 1 was deemed "clean" based on analytical results. It is located on the east side of Edgewater Drive, next to the Grand Auto facility. This report states that gasoline and BTEX contamination was found in soil and groundwater samples taken from monitoring wells 1 and 2. This information is found in a 1989 Woodward-Clyde report. **Please provide copies of this report to our office. We would also request any and all additional environmental reports concerning this site.**

The soil and groundwater were sampled from monitoring wells 5,6 and 7 which were installed in assumed downgradient directions next to three underground tank complexes. Considerable petroleum contamination was detected in both soil and groundwater samples from MW5. To a lesser degree was contamination in MW-6 while MW-7 detected the least amount. Based on these results, Woodward-Clyde recommended additional site characterization and

establishing site specific gradient. Our office is unaware of any reports beyond this initial one.

Please be aware that quarterly groundwater monitoring must be initiated immediately. Until this site is closed by the RWQCB, reports should be submitted to our office every three months or sooner if requested by the RWQCB or our office. Your quarterly reports should include: cumulative groundwater gradient and elevation data, tabulated analytical results and recommendations for the future quarter's work.

Please submit the requested technical reports to our office **within 30 days or by March 13, 1995.** This is a formal request pursuant to the California Water Code Section 13267 (b). Failure to submit the requested reports may cause this case to be referred to the District Attorney Office or the RWQCB for enforcement.

You should also be aware that only three underground tanks are permitted at this facility. Records indicate the existence of up to 12 underground tanks. California underground tank regulations require that all tanks be either permitted or properly closed. To this end, you should contact Mr. Don Hwang of our office at (510) 567-6746 to obtain the appropriate forms to complete your permitting or closure requirements. Based on the pre-existence of a petroleum fuel release, the Local Oversight Program (LOP) may be the lead when tanks are removed. Please be aware that substantial civil liability exists for the improper closure of underground tanks.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

cc: G. Jensen, Alameda County District Attorney Office
A. Clark-Clough, City of Oakland, 1333 Broadway, Suite 330, Oakland CA 94612
Mr. Michael McGuire, Woodward-Clyde Consultants, 500 12th St., Suite 100, Oakland CA 94607-4014
D. Hwang, ACEH Hazardous Materials Division
E. Howell, files
wprp7101

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0293

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

Certified mailer #:P 833 981 353

April 12, 1989

Mr. Tim Murray
City of Oakland
7101 Edgewater Dr.
Oakland, CA 94621

Re: Unauthorized releases from underground storage tanks, City of Oakland Fire Stations Nos. 6, 10, and 12.

Dear Mr. Murray:

The Alameda County Department of Environmental Health, Hazardous Materials Division, has received analytical results for the tank removals at the above three sites. Soil samples from each of these sites shows hydrocarbon contamination above 100 ppm, indicating that diesel releases have occurred in the past. Title 23 of the California Code of Regulations requires all such unauthorized releases from underground tanks to be reported. An unauthorized release report for each site must be sent to this office within 5 days of the date of this letter; in addition, you must initiate further investigation and/or cleanup activities at this site.

First, a preliminary assessment should be conducted at each site to determine the extent of soil and groundwater contamination that has resulted from the leaking tanks. The information gathered by this investigation will be used to assess the need for additional actions. The preliminary assessments should be designed to provide all of the information in the format shown in the attachment at the end of this letter. This format is based on the Regional Water Quality Control Board (RWQCB's) guidelines. At each of the sites, the City of Oakland should be prepared to install one monitoring well, if the direction of groundwater flow can be verified in the immediate vicinity of each site, and three wells or piezometers otherwise.

Until site cleanups are complete, you will need to submit reports to this office and to the RWQCB every three months (or at a more frequent interval, if specified at any time by either agency). These reports should include information pertaining to further investigative results; the methods and costs of cleanup actions implemented to date; and the method and location of disposal of any contaminated material.

Soils contaminated at hazardous waste concentrations should be transported by a licensed hazardous waste hauler and disposed of or treated at a facility approved by the California Department of Health Services. Soils contaminated below the hazardous waste threshold may be managed as nonhazardous, but are still subject to the RWQCB's waste discharge requirements.

Your work plans for each of these sites should be submitted to this office by May 12, 1989. Reports describing results of the preliminary site assessments should be submitted by May 12, 1989. Copies of the proposal and report should also be sent to the RWQCB (attention: Dyan Whyte). You may implement remedial actions before approval of the work plan, but final concurrence by this office will depend on the extent to which the work done meets the requirements described in this letter.

You will need to submit an additional deposit of $800 to cover costs that the Division of Hazardous Materials incurs during remediation oversight. If you have any questions about this letter or about remediation requirements established by the RWQCB, please contact Gil Wistar, Hazardous Materials Specialist, at 271-4320.

Sincerely,

Edgar B. Howell for

Rafat A. Shahid, Chief
Hazardous Materials Division

RAS:GW:gw

enclosure

cc: Howard Hatayama, DOHS (w/o enclosure)
Dyan Whyte, San Francisco Bay RWQCB (w/o enclosure)
Gil Jensen, District Attorney, Alameda County Consumer and Environmental Protection Agency (w/o enclosure)
files

WORK PLAN FOR INITIAL SUBSURFACE INVESTIGATION

This outline should be followed by professional engineering or geologic consultants in preparing work plans to be submitted to the RWQCB and local agencies. Work plans should be signed by a California-registered engineer or geologist.

This outline should be referred to in context with the "Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks" (June 2, 1988).

PROPOSAL FORMAT

I. Introduction

A. State the scope of work

B. Provide information on site location, background, and history

1. Describe the type of business and associated activities that take place at the site, including the number and capacity of operating tanks.

2. Describe previous businesses at the site.

3. Provide other tank information:

- number of underground tanks, their uses, and construction material;

- filing status and copy of unauthorized release form, if not previously submitted;

- previous tank testing results and dates, including discussion of inventory reconciliation methods and results for the last three years.

4. Other spill, leak, and accident history at the site, including any previously removed tanks.

II. Site Description

A. Describe the hydrogeologic setting of the site vicinity

B. Prepare a vicinity map (including wells located on-site or on adjoining lots, as well as any nearby streams

C. Prepare a site map

D. Summarize known soil contamination and results of excavation

1. Provide results in tabular form and indicate location of all soil samples (and water samples, if appropriate). Sample dates, the identity of the sampler, and signed laboratory data sheets need to be included, if not already in possession of the County.

2. Describe any unusual problems encountered.

3. Describe methods for storing and disposing of all contaminated soil.

III. Plan for Determining Extent of Soil Contamination

A. Describe method for determining the extent of contamination within the excavation

B. Describe sampling methods and procedures to be used

1. If a soil gas survey is planned, then:

- identify number of boreholes, locations, sampling depths, etc.;

- identify subcontractors, if any;

- identify analytical methods;

- provide a quality assurance plan for field testing.

2. If soil borings are to be used to determine the extent of soil contamination, then:

- identify number, location (mapped), and depth of the proposed borings;

- describe the soil classification system, soil sampling method, and rationale;

- describe the drilling method for the borings, including decontamination procedures;

- explain how borings will be abandoned.

C. Describe how clean and contaminated soil will be differentiated, and describe how excavated soil will be stored and disposed of. If on-site soil aeration is to be used, then describe:

1. The volume and rate of aeration/turning;

2. The method of containment and cover;

3. Wet-weather contingency plans;

4. Results of consultation with the Bay Area Air Quality Management District.

Other on-site treatments (such as bioremediation) require permits issued by the RWQCB. Off-site storage or treatment also requires RWQCB permits.

D. Describe security measures planned for the excavated hole and contaminated soil

IV. Plan for Characterizing Groundwater Contamination

Construction and placement of wells should adhere to the requirements of the "Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks."

A. Explain the proposed locations of monitoring wells (including construction diagrams), and prepare a map to scale

B. Describe the method of monitoring well construction and associated decontamination procedures

1. Expected depth and diameter of monitoring wells.
2. Date of expected drilling.
3. Locations of soil borings and sample collection method.
4. Casing type, diameter, screen interval, and pack and slot sizing technique.
5. Depth and type of seal.
6. Development method and criteria for determining adequate development.
7. Plans for disposal of cuttings and development water.
8. Surveying plans for wells (requirements include surveying to established benchmark to 0.01 foot).

C. Groundwater sampling plans

1. Water level measurement procedure.
2. Well purging procedures and disposal protocol.
3. Sample collection and analysis procedures.
4. Quality assurance plan.
5. Chain-of-custody procedures.

V. Prepare a Site Safety Plan

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVE KEARS
Agency Director

R0293 (7101 Edgewater)

470-27th Street, Third Floor
Oakland, California 94612
(415)874-7237

August 25, 1986

Mr. W. Webb, Buyer
Municipal Service Center
7101 Edgewater Drive
Oakland, CA 94621

Dear Mr. Webb:

As requested in your letter of May 19, 1986, and subsequent Purchase Order No. 4550-95017A, the (19) drums located at the Animal Shelter Corporation Yard, Ford Street, Oakland, and the (93) drums located at the 7101 Edgewater Drive Corporation Yard, were checked for contents, sampled and the samples evaluated as to their hazardous characteristics.

On August 4, 1986, the 19 drums located at the Ford Street Corporation Yard were checked and samples taken. Each drum was labeled by number. On August 5, 7, and 8, 1986, the 93 drums at the 7101 Edgewater Drive Corporation Yard were checked and samples taken. Each drum was labeled by number.

The drums were checked for contents, whether liquid, sludge or liquid and sludge.

The samples taken were then checked for corrosive (pH), flammable (comb.), and water reactive. Odor was used as a screening tool in the lab as well. Flash Point was checked on selected samples to confirm our flammability test.

The following table presents the results of the tests made on each sample taken, amount of material in each drum and what the results indicate is in each drum. If there were any labels on the drums, these are also noted. Each drum was numbered with international orange spray paint.

Enter: 3 pages of drum analysis.

Two drums, number 29, located near the gate and number 98, located at the maintenance yard, both sites at 7101 Edgewater Drive. These drums probably contain the same material as those around them, which is paint sludge, thinner and water. These two drums were totally rusted and not operable.

R0293

Mr. W. Webb
Municipal Service Center
7101 Edgewater Drive
Oakland, CA 94621
August 25, 1986

For disposal purposes, these drums which were found to be empty, can be taken to a municipal type landfill.

The two drums, number 70 and number 77, are in a deteriorated condition and will have to be overpacked or the material placed into another drum for transportation and disposal.

One drum, number 106, has never been opened and is labeled Transmission Oil. This drum may be used by the shop or utilized as product by another unit or company. If you wish to dispose of this drum, it must be handled as a hazardous waste.

The drums with liquid and sludge, will have to be solidified for disposal. In some cases, the liquids from several drums can be consolidated into one drum and solidified for disposal. The empty drums may then be handled by a licensed drum recycler as a means of disposal. A licensed hazardous waste company must be contacted for hauling and disposal of the materials.

The total time utilized in the sampling, evaluating and report preparation is:

	Date	Time	Specialist	Man Hours
Sampling	8/04/86	1:00-04:00	Larry Seto/Ed Howell	6
Sampling	8/05/86	9:00-10:00	Larry Seto/Ed Howell	2
Lab	8/06/86	9:00-11:00	Larry Seto	2
Sampling	8/07/86	9:00-04:00	Larry Seto/Ed Howell	14
Sampling	8/08/86	9:00-04:00	Larry Seto/Ed Howell	14
Lab	8/18/86	9:00-03:00	Larry Seto/Ed Howell	12
DOHS Lab	8/21/86	9:00-03:00	Larry Seto/Ed Howell	12
Report	8/22/86	9:00-04:00	Ed Howell	7
Report	8/22/86	7:00-10:00	Ed Howell	3
				72 Hours

If you have any questions, please call Edgar B. Howell, III, Senior Hazardous Materials Specialist, at 874-7237.

Sincerely,

RAS

Rafat A. Shahid, Chief
Hazardous Materials Program

RAS:mn-c

cc: Jerry Winn
Henry R. Renteria
Tak Shirasawa

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVE KEARS
Agency Director

R0293

470-27th Street, Third Floor
Oakland, California 94612
(415) 874-7237

June 26, 1986

Mr. W. Webb
City of Oakland
Office of General Services
7101 Edgewater Drive
Oakland, CA 94621

Dear Mr. Webb:

This is in response to your recent letter requesting the services of County Hazardous Materials Management Unit to identify unknown liquid substances located on city property.

On June 6, 1986, staff of the County Hazardous Materials Unit inspected the area of 7101 Edgewater Drive. There were ninety-six (96) drums of unknown substances stored in this location.

On June 12, 1986, the Corporation Yard located at Ford and LanCaster in Oakland was inspected and twenty (20) more drums of unknown substances were stored in this location. Each one of the 116 drums on both sites will be sampled and tested individually for potential hazardous waste by County Hazardous Materials Specialist. Each drum will be labeled with the proper identification or hazardous status. It is estimated that the cost of this service will not exceed $3,560, which reflects staff time and laboratory fees. The identification services can be achieved within ten (10) working days from the date of starting the services.

In order to perform this evaluation, all drums should be non-stacked with aisle space between them.

If this proposal is acceptable to you, please notify me so that we can start the identification procedure at your earliest convenience.

Very truly yours,

Rafat A. Shahid, Manager
Hazardous Materials Unit

RAS:mn-c

cc; Gerald H. Winn
Sharon Powell
Tak Shirasawa
Hank Renteria