

## DEPARTMENT OF TRANSPORTATION

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May 31, 1996

Ms. Susan Hugo, Senior Hazardous Waste Specialist  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway  
Alameda, CA 94502

Subject: Quarterly Groundwater Monitoring Reports for the Former Cal-East Foods Site

Dear Ms. Hugo:

Attached is the April 1996 quarterly monitoring report for the referenced site at 505 Cedar Street in Oakland. This is the third quarter of the yearlong continuation of the site investigation. The fourth and final quarter (eighth sampling round overall) is scheduled to take place in July 1996. If you have any questions or comments, please give me a call. My telephone number is 286-5647.

Sincerely,

*Christopher Wilson*

Christopher Wilson, P.E.  
Office of Environmental Engineering

Attachment  
cc: file

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ENVIRONMENTAL  
PROTECTION  
96 JUN -8 PM 3 21

**APRIL 1996**  
**GROUNDWATER INVESTIGATION REPORT**  
**CAL-EAST FOODS**  
**505 CEDAR STREET**  
**OAKLAND, CALIFORNIA 94607**

Submitted By:

**CALIFORNIA DEPARTMENT OF TRANSPORTATION**  
**DISTRICT 4**  
**OFFICE OF ENVIRONMENTAL ENGINEERING**  
**111 GRAND AVENUE**  
**OAKLAND, CALIFORNIA**

May 30, 1996

Prepared By:

*Christopher R. Wilson*  
Christopher R. Wilson, P.E.



ENVIRONMENTAL  
INVESTIGATION  
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## **I Introduction**

This report is on the April 1996 quarterly groundwater sampling and analysis at the former Cal-East Foods site located at 505 Cedar Street in Oakland. It is the seventh round of sampling that has been conducted at the site. The first four quarters of sampling were concluded in April 1995, but fluctuating hydrocarbon concentrations found in the groundwater warranted a continuation of the quarterly sampling to begin in October 1995 and continue for another year, as requested by the Alameda County Health Care Services Agency (ACHCSA).

## **II Site History**

The subject site at 505 Cedar Street in Oakland (see Figure 1 for the location map) was occupied by Cal-East Foods, a frozen seafood processing facility, from 1975 to 1993. The site was purchased by the State Department of Transportation as part of the right of way for the Cypress freeway replacement. Past Cal-East Foods vehicle operations utilized gasoline from an underground storage tank (UST) located at the site's northeast corner (see Figure 2 for detailed site map). Following the State's purchase of the site, the 2500-gallon UST was removed in November 1993. Soil samples collected from the tank excavation pit had elevated levels of total petroleum hydrocarbons as gasoline (TPH-g) and gasoline components benzene, toluene, ethyl benzene, and xylenes (BTEX). In an effort to remove the petroleum hydrocarbon-impacted soil, the tank pit was over-excavated five days after the UST had been removed, and more soil samples from the tank pit were taken. Analyses of these samples showed considerably lower concentrations of TPH-g and BTEX than the first series of samples, but TPH-g was still found at concentrations up to 45 mg/kg, benzene at 0.32 mg/kg, toluene at 0.62 mg/kg, ethyl benzene at 0.40 mg/kg, and xylenes at 2.3 mg/kg. In December 1993 the UST excavation was backfilled with sand.

In July 1994, the installation of three monitoring wells around the former tank location was completed, and the first round of quarterly groundwater sampling was conducted. The four quarters of sampling over the next year showed consistently declining concentrations of the volatile organic compounds detected in MW1 (benzene and 1,2-dichloroethane); no detectable contamination in MW2, which was shown to be upgradient of the former tank location; and fluctuating concentrations of BTEX in MW3 (see Table 1 for a summary of the analysis results). Because of the variability of the BTEX concentrations found in MW3, ACHCSA requested the quarterly sampling be continued for another year.

During the first year of quarterly sampling, construction activities at the site and in the area impacted the physical characteristics of the site. The former warehouse building was demolished in late 1994, and the lot was paved during the 1995 summer. The site is now being utilized as a parking lot for Southern Pacific Railroad employees. The monitoring wells have been maintained in good condition through these changes.

### **III Monitoring Well Sampling Procedures**

The seventh round of sampling at the former Cal-East Foods site took place on April 29, 1996. The sampling was conducted by Caltrans' Office of Environmental Engineering. After the bolted well covers and the locking well caps were removed, the depth to water in each well was measured with an electric sounder and recorded. The wells were then purged of at least three and one-half well casing volumes, using dedicated, disposable bailers. During purging activities, the groundwater conductivity, pH, and temperature were measured and recorded after approximately every well casing volume removed. See Table 2 for a historical summary of the site results and Appendix B for the field data from the April 1996 purging event.

After being purged of multiple casing volumes, the wells were allowed to recharge before sampling. The groundwater samples were collected using the dedicated bailers and were decanted into sterile, pre-chilled, laboratory-supplied containers through disposable volatile compound samplers. The samples were immediately placed in a cooler containing blue ice. They were kept refrigerated in the cooler that afternoon, and were delivered under chain of custody to American Environmental Network (AEN), a state-certified laboratory in Pleasant Hill, for analysis. The samples were delivered to AEN within 5 hours of their collection.

After the conclusion of the first year of sampling, ACHCSA eliminated the diesel fuel, oil and grease, and metals analyses from the site's analytical program. As a result, the next four quarters of samples (including April 1996) were scheduled to be submitted to AEN for the following tests:

Total Petroleum Hydrocarbons as Gasoline (TPH-g) by EPA Method 8015-m  
Volatile Organic Compounds (VOCs) by EPA Method 8240  
Methyl Tertiary Butyl Ether (MTBE) by EPA Method 8020

MTBE is a relatively new additive to gasoline that was not screened for at the Cal-East site during the first four quarters of monitoring. The analysis was requested for the next four quarters by ACHCSA.

### **IV Analytical Results**

The April 1996 water level measurements found the water table at the site to be approximately 8 feet below ground surface, about 2 feet deeper than the February 1996 measurements and comparable to the depths measured at the end of summer 1995. A summary of the water level measurements is shown in Table 3. The groundwater table gradient derived from this quarter's measurements is 0.0018, with a direction of flow due east. Figure 3 shows the groundwater table contour map for the April 1996 sampling period. The magnitude of the water table gradient and the direction of groundwater flow

measured this quarter are generally consistent with those measured in five of the six past sampling sessions; the one anomaly (January 1995) was during a period of unusually heavy rains that may have altered the normal groundwater table found in the area. The gradient measured this quarter, while comparable with past results, is somewhat flatter and has a direction of flow directly east, whereas the flow directions measured in the past have tended more to the southeast.

The laboratory analyses found 1,2-dichloroethane (1,2-DCA) to be the only contaminant still above detection limits in MW1 for the second straight quarter; the TPH-g concentration again being non-detect (ND). 1,2-DCA has been detected in MW1 every sampling session, and its concentrations have been consistently declining since first being detected at 43 ug/L in July 1994. The 1,2-DCA concentration continued to decay this quarter, falling to 5.0 ug/L. This concentration is still well above the State's Maximum Contaminant Level (MCL) for 1,2-DCA of 0.5 ug/L; however, the contaminated aquifer below the Cal-East Foods site and in the West Oakland area is not utilized as a drinking water source.

As with all six past sampling rounds, the analyses of MW2 for VOCs and TPH-g were non-detect (ND) this quarter. The groundwater flow directions derived from the quarterly water level measurements taken in the wells have consistently shown MW2 is situated upgradient from the former UST location (see Figure 3), and, therefore, no contaminants have migrated towards MW2.

Because all four aromatic constituents of BTEX were detected together in MW-3 for the first time during the fourth round (April 1995), ACHCSA required the quarterly monitoring to continue for another year. Since that time, the analyses of MW3 for BTEX concentrations have been ND for three straight sampling sessions, including April 1996. All VOC analyte concentrations were again below their detection limits in MW3.

While the concentrations of the individual aromatic constituents of gasoline in MW3 have decayed below detectable levels, TPH-g continued to be found above detection limits in every past sampling session. An obvious gasoline odor had also been detected during the purging and sampling of MW3. The maximum TPH-g concentration in MW3 was detected during the third round (January 1995) at 2.90 mg/L. The last two sampling rounds (October 1995 and February 1996) found the TPH-g concentration constant at 0.20 mg/L. The results of the April 1996 sampling and analysis found the TPH-g level in MW3 to be below the detection limit (0.05 mg/L) for the first time. Also, the gasoline odor in MW3, while still detectable, was much less evident during the purging and sampling activities.

A summary of the laboratory analysis results is presented in Table 1, and the laboratory data sheets, including the QA/QC results, are in Appendix A. There were no analytical anomalies reported in the QA/QC results.

## V Conclusions

1,2-DCA in MW1 was identified this quarter as the final contaminant in the groundwater under the Cal-East Foods site to be at or above laboratory detection limits. The BTEX and TPH-g levels in MW3 have dropped to ND, just as the benzene and TPH-g in MW1 did previously. The 1,2-DCA concentration in MW1 as a function of time continues to manifest a regression trend very consistent with first-order decay analysis. Incorporating the results of the April 1996 quarter into the first-order regression model slightly fine-tunes some of the conclusions resulting from the mathematical model:

By assuming a first-order decay in the contaminant concentration, the change in concentration, C, with time, t, is given by:

$$\frac{dC}{dt} = -kC$$

where k is the first-order decay rate constant.

The solution to this differential equation is given by:

$$C(t) = C_0 e^{-kt}$$

where C(t) is the concentration at time t and C<sub>0</sub> is the contaminant concentration at t = 0.

If an equation of this form is plotted on semi-log paper with C(t) as the logarithmic ordinate value and time, t, as the linear abscissa value, the plot will be a straight line with a slope equal to the decay rate, k, and a y-axis intercept equal to C<sub>0</sub>.

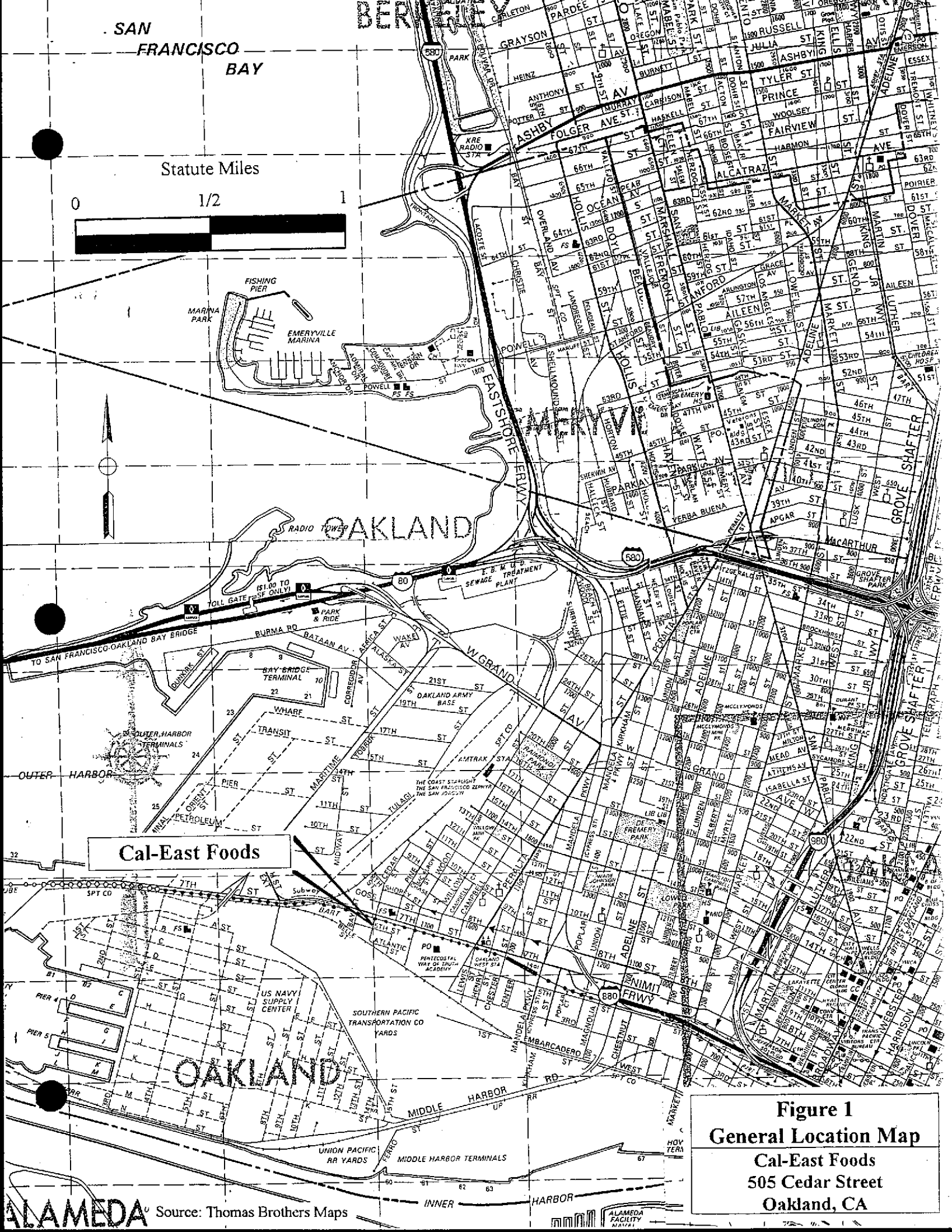
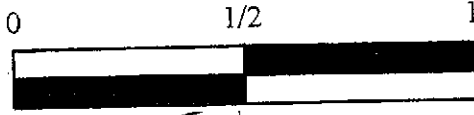
This analysis has been applied to the 1,2-DCA contamination detected in MW1 by plotting the laboratory analytical results for all seven sampling sessions against time in days, with t = 0 being July 1, 1994, and then determining the line that best fits the linear regression. The results for the 1,2-DCA contamination in MW1 shown in Figure 4 include the April 1996 quarter. The square of the correlation coefficient (r<sup>2</sup>) for the laboratory data plot is very near to 1.0 (r<sup>2</sup>=0.9322), showing an excellent agreement between the analytical results and the mathematical model.

Chlorinated solvents tend to have very slow degradation rates, and this is the case with the 1,2-DCA contamination found in MW1. The derived decay rate for 1,2-DCA when the April 1996 results are included in the analysis is 0.30%/day (an increase from the decay rate of 0.26%/day calculated in the February 1996 report). Using first-order decay analysis to project forward to when the 1,2-DCA concentration in MW1 will have regressed to its MCL of 0.5 ug/L, the time value is now found to be 1521 days from July 1, 1994, which is late August or early September 1998. This decay model also predicts that the 1,2-DCA concentration in MW1 will be below the laboratory detection limit for 1,2-DCA (5 ug/L) when the next sampling round takes place in late July 1996.



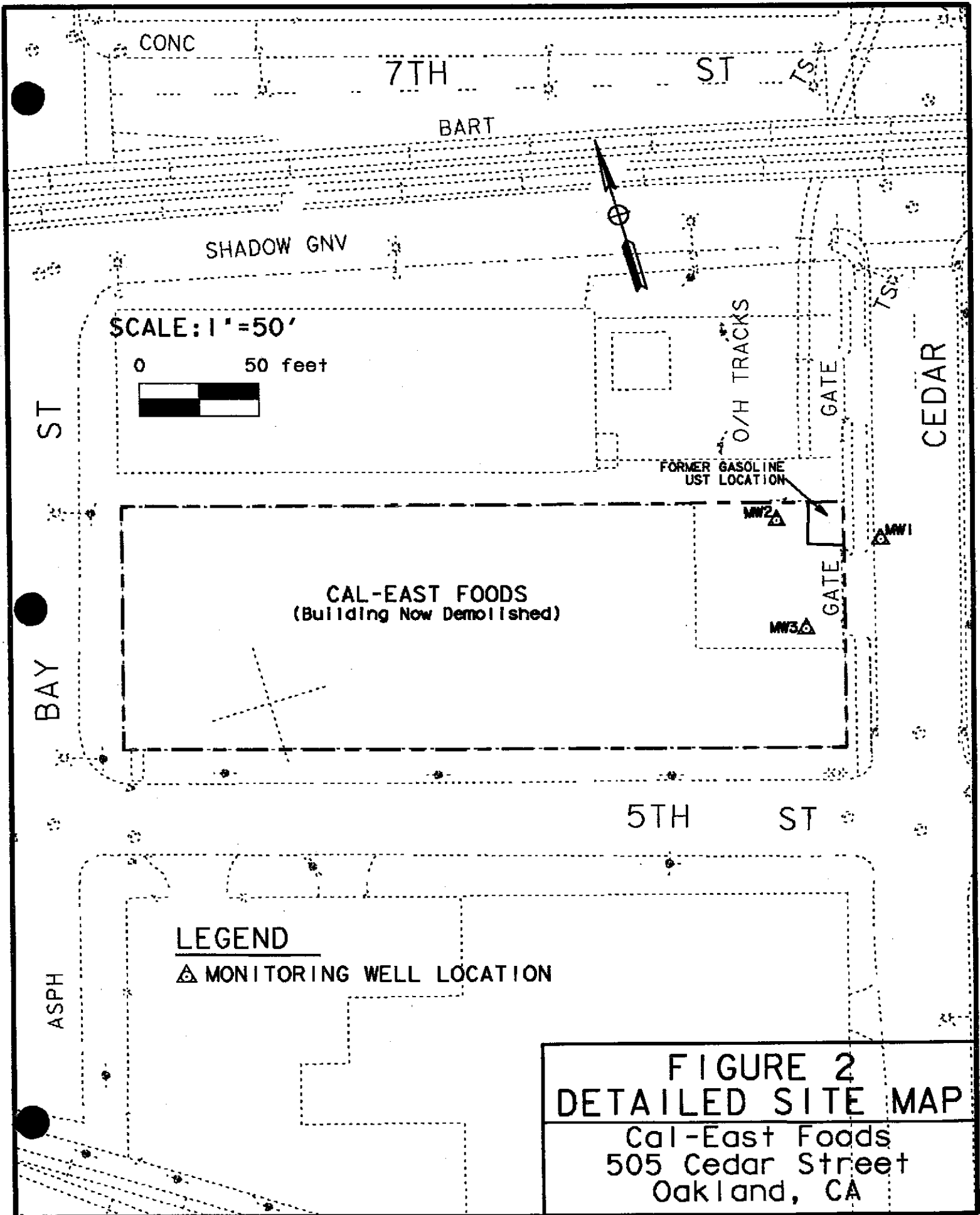
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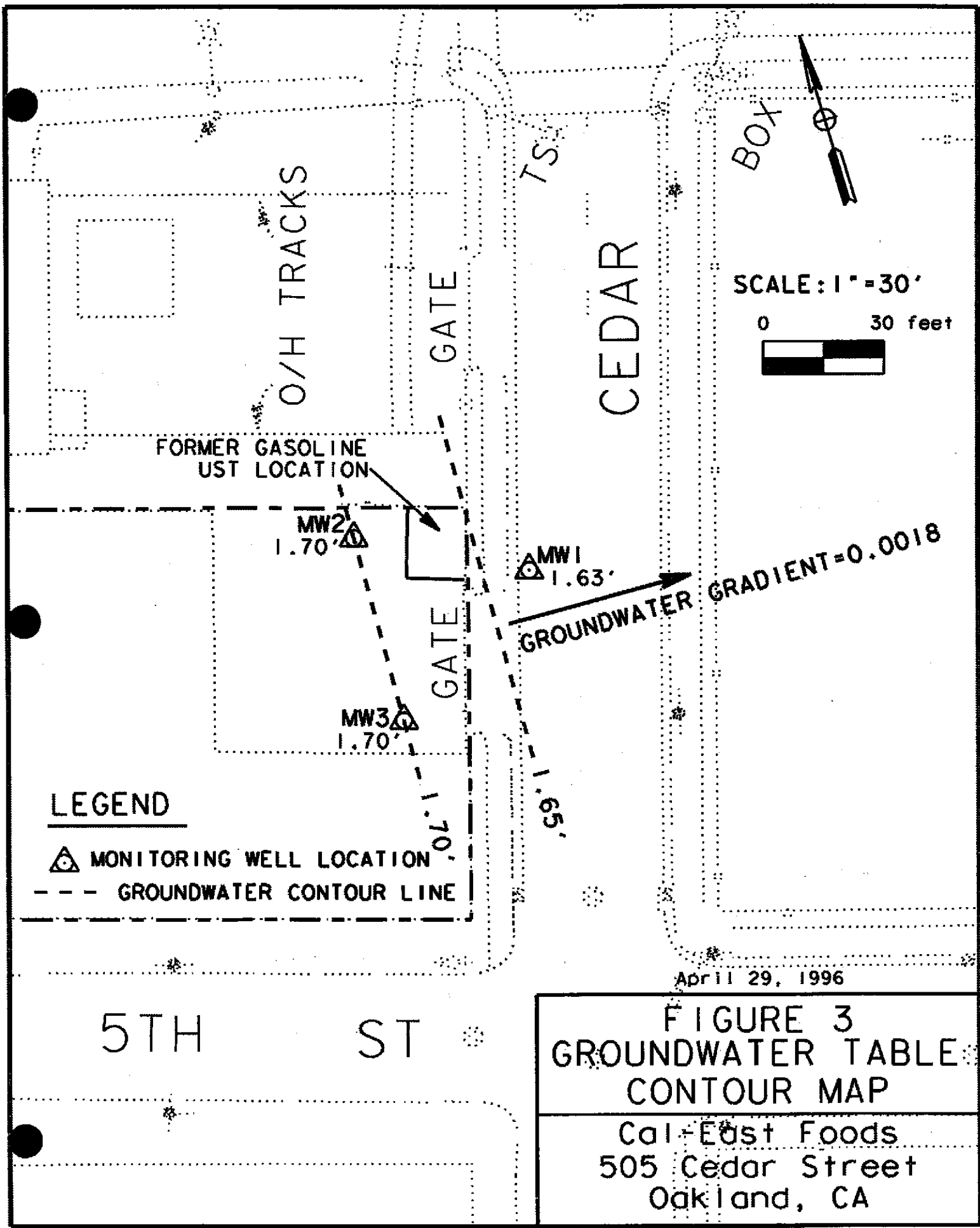
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Cal-East Foods

Figure 1  
General Location Map  
Cal-East Foods  
505 Cedar Street  
Oakland, CA







SCALE: 1" = 30'

0 30 feet

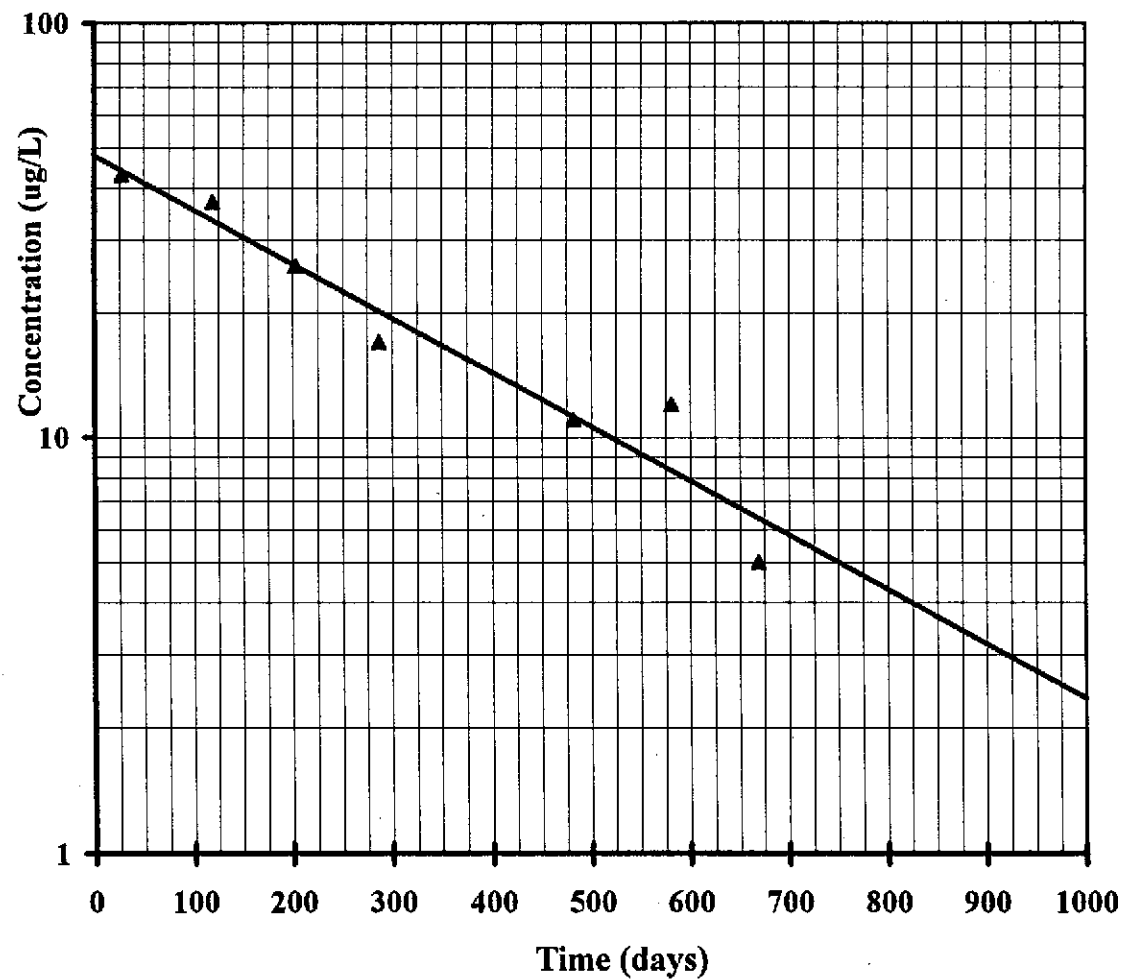
**LEGEND**

-  MONITORING WELL LOCATION
-  GROUNDWATER CONTOUR LINE

April 29, 1996

**FIGURE 3**  
**GROUNDWATER TABLE**  
**CONTOUR MAP**  
 Cal-East Foods  
 505 Cedar Street  
 Oakland, CA

**Figure 4**  
**1,2-DCA Concentration Regression in MW1**



$$C = 47.9e^{-0.0030t}$$
$$r^2 = 0.9322$$

**Table 1: Cal-East Foods Groundwater Analytical Results**

| MWell # | Date of Sampling | 8240 VOCs (ug/L) | Acetone | Benzene | Bromodichloromethane | Bromoform | Bromomethane | Methyl Ethyl Ketone | Carbon Disulfide | Carbon Tetrachloride | Chlorobenzene | Chloroethane | 2-Chloroethyl Vinyl Ether | Chloroform | Chloromethane | Dibromochloromethane | 1,1-Dichloroethane | 1,2-Dichloroethane | 1,1-Dichloroethene | Cis-1,2-Dichloroethene | Trans-1,2-Dichloroethene | 1,2-Dichloropropane | Cis-1,3-Dichloropropene | Trans-1,3-Dichloropropene | Ethylbenzene | 2-Hexanone | Methylene Chloride | Methyl Isobutyl Ketone | Styrene | 1,1,2,2-Tetrachloroethane | Tetrachloroethene |    |
|---------|------------------|------------------|---------|---------|----------------------|-----------|--------------|---------------------|------------------|----------------------|---------------|--------------|---------------------------|------------|---------------|----------------------|--------------------|--------------------|--------------------|------------------------|--------------------------|---------------------|-------------------------|---------------------------|--------------|------------|--------------------|------------------------|---------|---------------------------|-------------------|----|
| MW1     | 07/27/94         | ND               | ND      | ND      | ND                   | ND        | 3.4          | -                   | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | 43                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW1     | 10/27/94         | ND               | 37      | ND      | ND                   | ND        | ND           | -                   | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | 37                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW1     | 01/19/95         | ND               | 16      | ND      | ND                   | ND        | ND           | -                   | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | 26                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW1     | 04/13/95         | ND               | 3.5     | ND      | ND                   | ND        | ND           | -                   | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | 17                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW1     | 10/25/95         | ND               | ND      | ND      | ND                   | ND        | ND           | ND                  | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | 11                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW1     | 02/01/96         | ND               | ND      | ND      | ND                   | ND        | ND           | ND                  | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | 12                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW1     | 04/29/96         | ND               | ND      | ND      | ND                   | ND        | ND           | ND                  | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | 5                  | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW2     | 07/27/94         | ND               | ND      | ND      | ND                   | ND        | ND           | -                   | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | ND                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW2     | 10/27/94         | ND               | ND      | ND      | ND                   | ND        | ND           | -                   | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | ND                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW2     | 01/19/95         | ND               | ND      | ND      | ND                   | ND        | ND           | -                   | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | ND                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW2     | 04/13/95         | ND               | ND      | ND      | ND                   | ND        | ND           | -                   | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | ND                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW2     | 10/25/95         | ND               | ND      | ND      | ND                   | ND        | ND           | ND                  | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | ND                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW2     | 02/01/96         | ND               | ND      | ND      | ND                   | ND        | ND           | ND                  | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | ND                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW2     | 04/29/96         | ND               | ND      | ND      | ND                   | ND        | ND           | ND                  | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | ND                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW3     | 07/27/94         | ND               | ND      | ND      | ND                   | ND        | ND           | -                   | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | ND                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW3     | 10/27/94         | ND               | ND      | ND      | ND                   | ND        | ND           | -                   | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | ND                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW3     | 01/19/95         | ND               | 7.3     | ND      | ND                   | ND        | ND           | -                   | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | ND                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | 20           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW3     | 04/13/95         | ND               | 23      | ND      | ND                   | ND        | ND           | -                   | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | ND                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | 12                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW3     | 10/25/95         | ND               | ND      | ND      | ND                   | ND        | ND           | ND                  | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | ND                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW3     | 02/01/96         | ND               | ND      | ND      | ND                   | ND        | ND           | ND                  | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | ND                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |
| MW3     | 04/29/96         | ND               | ND      | ND      | ND                   | ND        | ND           | ND                  | ND               | ND                   | ND            | ND           | ND                        | ND         | ND            | ND                   | ND                 | ND                 | ND                 | ND                     | ND                       | ND                  | ND                      | ND                        | ND           | ND         | ND                 | ND                     | ND      | ND                        | ND                | ND |

ND=Not Detected  
 --=Not Analyzed

**Table 1: Cal-East Foods Groundwater Analytical Results**

| MWel # | Date of Sampling | 8240 VOCs (ug/L) cont. |                       |                       |                 |                        |               |                |               |                                 | Hydrocarbons (mg/L) |      |
|--------|------------------|------------------------|-----------------------|-----------------------|-----------------|------------------------|---------------|----------------|---------------|---------------------------------|---------------------|------|
|        |                  | Toluene                | 1,1,1-Trichloroethane | 1,1,2-Trichloroethane | Trichloroethene | Trichlorofluoromethane | Vinyl Acetate | Vinyl Chloride | Total Xylenes | Methyl t-Butyl Ether (EPA 8020) | 8015m TPH-gasoline  |      |
| MW1    | 07/27/94         | ND                     | ND                    | ND                    | ND              | ND                     | ND            | ND             | ND            | -                               | -                   | 0.12 |
| MW1    | 10/27/94         | ND                     | ND                    | ND                    | ND              | ND                     | ND            | ND             | ND            | -                               | -                   | 0.45 |
| MW1    | 01/19/95         | ND                     | ND                    | ND                    | ND              | ND                     | ND            | ND             | ND            | -                               | -                   | ND   |
| MW1    | 04/13/95         | ND                     | ND                    | ND                    | ND              | ND                     | ND            | ND             | ND            | -                               | -                   | 0.18 |
| MW1    | 10/25/95         | ND                     | ND                    | ND                    | ND              | -                      | ND            | ND             | ND            | ND                              | ND                  | 0.08 |
| MW1    | 02/01/96         | ND                     | ND                    | ND                    | ND              | -                      | ND            | ND             | ND            | ND                              | ND                  | ND   |
| MW1    | 04/29/96         | ND                     | ND                    | ND                    | ND              | -                      | ND            | ND             | ND            | ND                              | ND                  | ND   |
| MW2    | 07/27/94         | ND                     | ND                    | ND                    | ND              | ND                     | ND            | ND             | ND            | -                               | -                   | ND   |
| MW2    | 10/27/94         | ND                     | ND                    | ND                    | ND              | ND                     | ND            | ND             | ND            | -                               | -                   | ND   |
| MW2    | 01/19/95         | ND                     | ND                    | ND                    | ND              | ND                     | ND            | ND             | ND            | -                               | -                   | ND   |
| MW2    | 04/13/95         | ND                     | ND                    | ND                    | ND              | ND                     | ND            | ND             | ND            | -                               | -                   | ND   |
| MW2    | 10/25/95         | ND                     | ND                    | ND                    | ND              | -                      | ND            | ND             | ND            | ND                              | ND                  | ND   |
| MW2    | 02/01/96         | ND                     | ND                    | ND                    | ND              | -                      | ND            | ND             | ND            | ND                              | ND                  | ND   |
| MW2    | 04/29/96         | ND                     | ND                    | ND                    | ND              | -                      | ND            | ND             | ND            | ND                              | ND                  | ND   |
| MW3    | 07/27/94         | ND                     | ND                    | ND                    | ND              | ND                     | ND            | ND             | ND            | -                               | -                   | 0.13 |
| MW3    | 10/27/94         | ND                     | ND                    | ND                    | ND              | ND                     | ND            | ND             | ND            | -                               | -                   | 0.07 |
| MW3    | 01/19/95         | ND                     | ND                    | ND                    | ND              | ND                     | ND            | ND             | 7.7           | -                               | -                   | 2.90 |
| MW3    | 04/13/95         | 2.7                    | ND                    | ND                    | ND              | ND                     | ND            | ND             | 11.0          | -                               | -                   | 1.30 |
| MW3    | 10/25/95         | ND                     | ND                    | ND                    | ND              | -                      | ND            | ND             | ND            | ND                              | ND                  | 0.20 |
| MW3    | 02/01/96         | ND                     | ND                    | ND                    | ND              | -                      | ND            | ND             | ND            | ND                              | ND                  | 0.20 |
| MW3    | 04/29/96         | ND                     | ND                    | ND                    | ND              | -                      | ND            | ND             | ND            | ND                              | ND                  | ND   |

ND=Not Detected  
 --=Not Analyzed

**Table 2**  
**Cal-East Foods Groundwater Investigation**  
**505 Cedar Street**  
**Groundwater Conductivity, pH, and Temperature Measurements**

| <b>Well Number</b> | <b>Measuring Date</b> | <b>Conductivity (umhos/cm)</b> | <b>pH</b> | <b>Temperature (degrees fahrenheit)</b> |
|--------------------|-----------------------|--------------------------------|-----------|---|
| MW1                | 07/27/94              | 1158                           | NA        | 67                                      |
|                    | 10/27/94              | 1103                           | 7.0       | 70                                      |
|                    | 01/19/95              | 1410                           | 6.6       | 66                                      |
|                    | 04/13/95              | 1110                           | 7.1       | 63                                      |
|                    | 10/25/95              | 3650                           | 6.6       | 65                                      |
|                    | 02/01/96              | 1240                           | 6.0       | 61                                      |
|                    | 04/29/96              | 3630                           | 6.3       | 78                                      |
| MW2                | 07/27/94              | 1040                           | NA        | 65                                      |
|                    | 10/27/94              | 916                            | 7.1       | 68                                      |
|                    | 01/19/95              | 740                            | 7.0       | 63                                      |
|                    | 04/13/95              | 571                            | 6.3       | 63                                      |
|                    | 10/25/95              | 810                            | 6.8       | 65                                      |
|                    | 02/01/96              | 257                            | 6.6       | 61                                      |
|                    | 04/29/96              | 996                            | 6.6       | 77                                      |
| MW3                | 07/27/94              | 1756                           | NA        | 67                                      |
|                    | 10/27/94              | 1374                           | 6.8       | 68                                      |
|                    | 01/19/95              | 980                            | 6.6       | 60                                      |
|                    | 04/13/95              | 532                            | 6.6       | 62                                      |
|                    | 10/25/95              | 1050                           | 6.8       | 66                                      |
|                    | 02/01/96              | 307                            | 6.3       | 60                                      |
|                    | 04/29/96              | 1600                           | 6.3       | 76                                      |

NA=Not Available

**Table 3**  
**Cal-East Foods Groundwater Investigation**  
**505 Cedar Street**  
**Water Level Data**

| <b>Well Number</b> | <b>Top of Casing Elevation*</b> | <b>Measuring Date</b> | <b>Depth To Water**</b> | <b>Water Level Elevation*</b> |
|--------------------|---------------------------------|-----------------------|-------------------------|-------------------------------|
| MW1                | 9.25                            | 07/27/94              | 8.83                    | 0.42                          |
|                    |                                 | 10/27/94              | 8.32                    | 0.94                          |
|                    |                                 | 01/19/95              | 4.91                    | 4.34                          |
|                    |                                 | 04/13/95              | 5.28                    | 3.97                          |
|                    |                                 | 10/25/95              | 7.36                    | 1.89                          |
|                    |                                 | 02/01/96              | 5.65                    | 3.60                          |
|                    |                                 | 04/29/96              | 7.62                    | 1.63                          |
| MW2                | 9.84                            | 07/27/94              | 9.24                    | 0.60                          |
|                    |                                 | 10/27/94              | 8.82                    | 1.02                          |
|                    |                                 | 01/19/95              | 5.31                    | 4.53                          |
|                    |                                 | 04/13/95              | 5.74                    | 4.10                          |
|                    |                                 | 10/25/95              | 7.68                    | 2.16                          |
|                    |                                 | 02/01/96              | 5.94                    | 3.90                          |
|                    |                                 | 04/29/96              | 8.14                    | 1.70                          |
| MW3                | 9.41                            | 07/27/94              | 8.94                    | 0.47                          |
|                    |                                 | 10/27/94              | 8.41                    | 1.00                          |
|                    |                                 | 01/19/95              | 3.78                    | 5.63                          |
|                    |                                 | 04/13/95              | 5.36                    | 4.05                          |
|                    |                                 | 10/25/95              | 7.37                    | 2.04                          |
|                    |                                 | 02/01/96              | 5.80                    | 3.61                          |
|                    |                                 | 04/29/96              | 7.71                    | 1.70                          |

\*=Measurement in feet above USGS Mean Sea Level

\*\*=Measurement in feet from top of casing



Reporting Information:

1. Client: Caltrans, Office of Env. Eng.  
 Address: 111 Grand Ave., 14th Floor  
Oakland, CA 94612  
 Contact: Chris Wilson  
 Alt. Contact: Joel Howie

**American Environmental Network**  
 3440 Vincent Road, Pleasant Hill, CA 94523  
 Phone (510) 930-9090  
 FAX (510) 930-0256

**AEN**

**REQUEST FOR ANALYSIS / CHAIN OF CUSTODY**

Lab Job Number: 9604416  
 Lab Destination: \_\_\_\_\_  
 Date Samples Shipped: \_\_\_\_\_  
 Lab Contact: \_\_\_\_\_  
 Date Results Required: Standard Turn Around Time  
 Date Report Required: \_\_\_\_\_  
 Client Phone No.: (510) 286-5647  
 Client FAX No.: (510) 286-6374

Address Report To:

2. Chris Wilson, Office of Env. Eng.  
Caltrans  
111 Grand Ave., 14th Floor  
Oakland, CA 94612

Send Invoice To:

3. Same as #2

Send Report To: 1 or (2) (Circle one)

Client P.O. No.: \_\_\_\_\_ Client Project I.D. No.: Cal-East Foods

Sample Team Member (s) Chris Wilson, Joel Howie

| Lab Number | Client Sample Identification | Air Volume | Date/Time Collected | Sample Type* | Pres. | No. of Cont. | Type of Cont. | ANALYSIS |   |   |   |   |   |   |   |   |    | Comments / Hazards |    |  |   |
|------------|------------------------------|------------|---------------------|--------------|-------|--------------|---------------|----------|---|---|---|---|---|---|---|---|----|--------------------|----|--|---|
|            |                              |            |                     |              |       |              |               | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                    | 11 |  |   |
| 01A-F      | MW-1                         |            |                     | 7            | HCL   | 6            | VOA           | X        | X |   |   |   |   |   |   |   |    |                    |    |  | Please Include Methyl Tertiary Butyl Ether (MTBE) in the TPH-g 8015 m / 8020 Analysis |
| 02A-F      | MW-2                         |            |                     | 7            | HCL   | 6            | VOA           | X        | X |   |   |   |   |   |   |   |    |                    |    |  |   |
| 03A-F      | MW-3                         |            |                     | 7            | HCL   | 6            | VOA           | X        | X |   |   |   |   |   |   |   |    |                    |    |  |   |
| 04AB       | TB                           |            |                     | 7            | -     | 2            | VOA           | X        | X |   |   |   |   |   |   |   |    |                    |    |  |   |

TPH-g 8015 m / 8020  
 VOC-s 8210

|   |                     |                   |   |                     |                   |
|---|---------------------|-------------------|---|---------------------|-------------------|
| Relinquished by: (Signature) <u>Christopher R. Wilson</u> | DATE <u>4/29/96</u> | TIME <u>17:48</u> | Received by: (Signature) <u>Lu L Pruitt</u> | DATE <u>4-29-96</u> | TIME <u>17:48</u> |
| Relinquished by: (Signature)                              | DATE                | TIME              | Received by: (Signature)                    | DATE                | TIME              |
| Relinquished by: (Signature)                              | DATE                | TIME              | Received by: (Signature)                    | DATE                | TIME              |
| Method of Shipment  |                     |                   | Lab Comments                                |                     |                   |

\*Sample type (Specify): 1) 37mm 0.8 µm MCEF 2) 25mm 0.8 µm MCEF 3) 25mm 0.4 µm polycarb. filter  
 4) PVC filter, diam. \_\_\_\_\_ pore size \_\_\_\_\_ 5) Charcoal tube 6) Silica gel tube 7) Water 8) Soil 9) Bulk Sample  
 10) Other \_\_\_\_\_ 11) Other \_\_\_\_\_

# American Environmental Network

## Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

CALTRANS  
OFFICE OF ENV. ENG.  
111 GRAND AVE., 14th FLOOR  
OAKLAND, CA 94612

ATTN: CHRISTOPHER WILSON  
CLIENT PROJ. ID: CAL-EAST FOODS

REPORT DATE: 05/16/96

DATE(S) SAMPLED: 04/29/96

DATE RECEIVED: 04/29/96

AEN WORK ORDER: 9604416

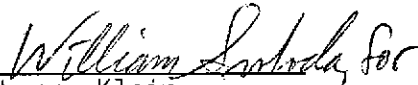
### PROJECT SUMMARY:

On April 29, 1996, this laboratory received 4 water sample(s).

Client requested sample(s) be analyzed for chemical parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

  
Larry Klein  
Laboratory Director

## CALTRANS OFFICE OF ENV. ENG.

SAMPLE ID: MW-1  
 AEN LAB NO: 9604416-01  
 AEN WORK ORDER: 9604416  
 CLIENT PROJ. ID: CAL-EAST FOODS

DATE SAMPLED: 04/29/96  
 DATE RECEIVED: 04/29/96  
 REPORT DATE: 05/16/96

| ANALYTE                           | METHOD/<br>CAS# | RESULT | REPORTING<br>LIMIT | UNITS | DATE<br>ANALYZED |
|-----------------------------------|-----------------|--------|--------------------|-------|------------------|
| <b>BTEX &amp; Gasoline HCs</b>    | <b>EPA 8020</b> |        |                    |       |                  |
| Benzene                           | 71-43-2         | ND     | 0.5                | ug/L  | 05/08/96         |
| Toluene                           | 108-88-3        | ND     | 0.5                | ug/L  | 05/08/96         |
| Ethylbenzene                      | 100-41-4        | ND     | 0.5                | ug/L  | 05/08/96         |
| Xylenes, Total                    | 1330-20-7       | ND     | 2                  | ug/L  | 05/08/96         |
| Purgeable HCs as Gasoline         | 5030/GCFID      | ND     | 0.05               | mg/L  | 05/08/96         |
| <b>Methyl t-Butyl Ether</b>       | <b>EPA 8020</b> | ND     | 50                 | ug/L  | 05/08/96         |
| <b>Volatile Organic Compounds</b> | <b>EPA 8240</b> |        |                    |       |                  |
| Acetone                           | 67-64-1         | ND     | 100                | ug/L  | 05/09/96         |
| Benzene                           | 71-43-2         | ND     | 5                  | ug/L  | 05/09/96         |
| Bromodichloromethane              | 75-27-4         | ND     | 5                  | ug/L  | 05/09/96         |
| Bromoform                         | 75-25-2         | ND     | 5                  | ug/L  | 05/09/96         |
| Bromomethane                      | 74-83-9         | ND     | 10                 | ug/L  | 05/09/96         |
| 2-Butanone                        | 78-93-3         | ND     | 100                | ug/L  | 05/09/96         |
| Carbon Disulfide                  | 75-15-0         | ND     | 10                 | ug/L  | 05/09/96         |
| Carbon Tetrachloride              | 56-23-5         | ND     | 5                  | ug/L  | 05/09/96         |
| Chlorobenzene                     | 108-90-7        | ND     | 5                  | ug/L  | 05/09/96         |
| Chloroethane                      | 75-00-3         | ND     | 10                 | ug/L  | 05/09/96         |
| 2-Chloroethyl Vinyl Ether         | 110-75-8        | ND     | 10                 | ug/L  | 05/09/96         |
| Chloroform                        | 67-66-3         | ND     | 5                  | ug/L  | 05/09/96         |
| Chloromethane                     | 74-87-3         | ND     | 10                 | ug/L  | 05/09/96         |
| Dibromochloromethane              | 124-48-1        | ND     | 5                  | ug/L  | 05/09/96         |
| 1,1-Dichloroethane                | 75-34-3         | ND     | 5                  | ug/L  | 05/09/96         |
| 1,2-Dichloroethane                | 107-06-2        | 5 *    | 5                  | ug/L  | 05/09/96         |
| 1,1-Dichloroethene                | 75-35-4         | ND     | 5                  | ug/L  | 05/09/96         |
| cis-1,2-Dichloroethene            | 156-59-2        | ND     | 5                  | ug/L  | 05/09/96         |
| trans-1,2-Dichloroethene          | 156-60-5        | ND     | 5                  | ug/L  | 05/09/96         |
| 1,2-Dichloropropane               | 78-87-5         | ND     | 5                  | ug/L  | 05/09/96         |
| cis-1,3-Dichloropropene           | 10061-01-5      | ND     | 5                  | ug/L  | 05/09/96         |
| trans-1,3-Dichloropropene         | 10061-02-6      | ND     | 5                  | ug/L  | 05/09/96         |
| Ethylbenzene                      | 100-41-4        | ND     | 5                  | ug/L  | 05/09/96         |
| 2-Hexanone                        | 591-78-6        | ND     | 50                 | ug/L  | 05/09/96         |
| Methylene Chloride                | 75-09-2         | ND     | 20                 | ug/L  | 05/09/96         |
| 4-Methyl-2-pentanone              | 108-10-1        | ND     | 50                 | ug/L  | 05/09/96         |
| Styrene                           | 100-42-5        | ND     | 5                  | ug/L  | 05/09/96         |
| 1,1,2,2-Tetrachloroethane         | 79-34-5         | ND     | 5                  | ug/L  | 05/09/96         |
| Tetrachloroethene                 | 127-18-4        | ND     | 5                  | ug/L  | 05/09/96         |
| Toluene                           | 108-88-3        | ND     | 5                  | ug/L  | 05/09/96         |
| 1,1,1-Trichloroethane             | 71-55-6         | ND     | 5                  | ug/L  | 05/09/96         |
| 1,1,2-Trichloroethane             | 79-00-5         | ND     | 5                  | ug/L  | 05/09/96         |

## CALTRANS OFFICE OF ENV. ENG.

SAMPLE ID: MW-1  
AEN LAB NO: 9604416-01  
AEN WORK ORDER: 9604416  
CLIENT PROJ. ID: CAL-EAST FOODS

DATE SAMPLED: 04/29/96  
DATE RECEIVED: 04/29/96  
REPORT DATE: 05/16/96

---

| ANALYTE         | METHOD/<br>CAS# | RESULT | REPORTING<br>LIMIT | UNITS | DATE<br>ANALYZED |
|-----------------|-----------------|--------|--------------------|-------|------------------|
| Trichloroethene | 79-01-6         | ND     | 5                  | ug/L  | 05/09/96         |
| Vinyl Acetate   | 108-05-4        | ND     | 50                 | ug/L  | 05/09/96         |
| Vinyl Chloride  | 75-01-4         | ND     | 10                 | ug/L  | 05/09/96         |
| Xylenes, Total  | 1330-20-7       | ND     | 10                 | ug/L  | 05/09/96         |

---

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## CALTRANS OFFICE OF ENV. ENG.

SAMPLE ID: MW-2  
 AEN LAB NO: 9604416-02  
 AEN WORK ORDER: 9604416  
 CLIENT PROJ. ID: CAL-EAST FOODS

DATE SAMPLED: 04/29/96  
 DATE RECEIVED: 04/29/96  
 REPORT DATE: 05/16/96

| ANALYTE                           | METHOD/<br>CAS# | RESULT | REPORTING<br>LIMIT | UNITS | DATE<br>ANALYZED |
|-----------------------------------|-----------------|--------|--------------------|-------|------------------|
| <b>BTEX &amp; Gasoline HCs</b>    | <b>EPA 8020</b> |        |                    |       |                  |
| Benzene                           | 71-43-2         | ND     | 0.5                | ug/L  | 05/08/96         |
| Toluene                           | 108-88-3        | ND     | 0.5                | ug/L  | 05/08/96         |
| Ethylbenzene                      | 100-41-4        | ND     | 0.5                | ug/L  | 05/08/96         |
| Xylenes, Total                    | 1330-20-7       | ND     | 2                  | ug/L  | 05/08/96         |
| Purgeable HCs as Gasoline         | 5030/GCFID      | ND     | 0.05               | mg/L  | 05/08/96         |
| <b>Methyl t-Butyl Ether</b>       | <b>EPA 8020</b> | ND     | 50                 | ug/L  | 05/08/96         |
| <b>Volatile Organic Compounds</b> | <b>EPA 8240</b> |        |                    |       |                  |
| Acetone                           | 67-64-1         | ND     | 100                | ug/L  | 05/09/96         |
| Benzene                           | 71-43-2         | ND     | 5                  | ug/L  | 05/09/96         |
| Bromodichloromethane              | 75-27-4         | ND     | 5                  | ug/L  | 05/09/96         |
| Bromoform                         | 75-25-2         | ND     | 5                  | ug/L  | 05/09/96         |
| Bromomethane                      | 74-83-9         | ND     | 10                 | ug/L  | 05/09/96         |
| 2-Butanone                        | 78-93-3         | ND     | 100                | ug/L  | 05/09/96         |
| Carbon Disulfide                  | 75-15-0         | ND     | 10                 | ug/L  | 05/09/96         |
| Carbon Tetrachloride              | 56-23-5         | ND     | 5                  | ug/L  | 05/09/96         |
| Chlorobenzene                     | 108-90-7        | ND     | 5                  | ug/L  | 05/09/96         |
| Chloroethane                      | 75-00-3         | ND     | 10                 | ug/L  | 05/09/96         |
| 2-Chloroethyl Vinyl Ether         | 110-75-8        | ND     | 10                 | ug/L  | 05/09/96         |
| Chloroform                        | 67-66-3         | ND     | 5                  | ug/L  | 05/09/96         |
| Chloromethane                     | 74-87-3         | ND     | 10                 | ug/L  | 05/09/96         |
| Dibromochloromethane              | 124-48-1        | ND     | 5                  | ug/L  | 05/09/96         |
| 1,1-Dichloroethane                | 75-34-3         | ND     | 5                  | ug/L  | 05/09/96         |
| 1,2-Dichloroethane                | 107-06-2        | ND     | 5                  | ug/L  | 05/09/96         |
| 1,1-Dichloroethene                | 75-35-4         | ND     | 5                  | ug/L  | 05/09/96         |
| cis-1,2-Dichloroethene            | 156-59-2        | ND     | 5                  | ug/L  | 05/09/96         |
| trans-1,2-Dichloroethene          | 156-60-5        | ND     | 5                  | ug/L  | 05/09/96         |
| 1,2-Dichloropropane               | 78-87-5         | ND     | 5                  | ug/L  | 05/09/96         |
| cis-1,3-Dichloropropene           | 10061-01-5      | ND     | 5                  | ug/L  | 05/09/96         |
| trans-1,3-Dichloropropene         | 10061-02-6      | ND     | 5                  | ug/L  | 05/09/96         |
| Ethylbenzene                      | 100-41-4        | ND     | 5                  | ug/L  | 05/09/96         |
| 2-Hexanone                        | 591-78-6        | ND     | 50                 | ug/L  | 05/09/96         |
| Methylene Chloride                | 75-09-2         | ND     | 20                 | ug/L  | 05/09/96         |
| 4-Methyl-2-pentanone              | 108-10-1        | ND     | 50                 | ug/L  | 05/09/96         |
| Styrene                           | 100-42-5        | ND     | 5                  | ug/L  | 05/09/96         |
| 1,1,2,2-Tetrachloroethane         | 79-34-5         | ND     | 5                  | ug/L  | 05/09/96         |
| Tetrachloroethene                 | 127-18-4        | ND     | 5                  | ug/L  | 05/09/96         |
| Toluene                           | 108-88-3        | ND     | 5                  | ug/L  | 05/09/96         |
| 1,1,1-Trichloroethane             | 71-55-6         | ND     | 5                  | ug/L  | 05/09/96         |
| 1,1,2-Trichloroethane             | 79-00-5         | ND     | 5                  | ug/L  | 05/09/96         |

## CALTRANS OFFICE OF ENV. ENG.

SAMPLE ID: MW-2  
AEN LAB NO: 9604416-02  
AEN WORK ORDER: 9604416  
CLIENT PROJ. ID: CAL-EAST FOODS

DATE SAMPLED: 04/29/96  
DATE RECEIVED: 04/29/96  
REPORT DATE: 05/16/96

---

| ANALYTE         | METHOD/<br>CAS# | RESULT | REPORTING<br>LIMIT | UNITS | DATE<br>ANALYZED |
|-----------------|-----------------|--------|--------------------|-------|------------------|
| Trichloroethene | 79-01-6         | ND     | 5                  | ug/L  | 05/09/96         |
| Vinyl Acetate   | 108-05-4        | ND     | 50                 | ug/L  | 05/09/96         |
| Vinyl Chloride  | 75-01-4         | ND     | 10                 | ug/L  | 05/09/96         |
| Xylenes, Total  | 1330-20-7       | ND     | 10                 | ug/L  | 05/09/96         |

---

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## CALTRANS OFFICE OF ENV. ENG.

SAMPLE ID: MW-3  
 AEN LAB NO: 9604416-03  
 AEN WORK ORDER: 9604416  
 CLIENT PROJ. ID: CAL-EAST FOODS

DATE SAMPLED: 04/29/96  
 DATE RECEIVED: 04/29/96  
 REPORT DATE: 05/16/96

| ANALYTE                    | METHOD/<br>CAS# | RESULT | REPORTING<br>LIMIT | UNITS | DATE<br>ANALYZED |
|----------------------------|-----------------|--------|--------------------|-------|------------------|
| BTEX & Gasoline HCs        | EPA 8020        |        |                    |       |                  |
| Benzene                    | 71-43-2         | ND     | 0.5                | ug/L  | 05/08/96         |
| Toluene                    | 108-88-3        | ND     | 0.5                | ug/L  | 05/08/96         |
| Ethylbenzene               | 100-41-4        | ND     | 0.5                | ug/L  | 05/08/96         |
| Xylenes, Total             | 1330-20-7       | ND     | 2                  | ug/L  | 05/08/96         |
| Purgeable HCs as Gasoline  | 5030/GCFID      | ND     | 0.05               | mg/L  | 05/08/96         |
| Methyl t-Butyl Ether       | EPA 8020        | ND     | 50                 | ug/L  | 05/08/96         |
| Volatile Organic Compounds | EPA 8240        |        |                    |       |                  |
| Acetone                    | 67-64-1         | ND     | 100                | ug/L  | 05/09/96         |
| Benzene                    | 71-43-2         | ND     | 5                  | ug/L  | 05/09/96         |
| Bromodichloromethane       | 75-27-4         | ND     | 5                  | ug/L  | 05/09/96         |
| Bromoform                  | 75-25-2         | ND     | 5                  | ug/L  | 05/09/96         |
| Bromomethane               | 74-83-9         | ND     | 10                 | ug/L  | 05/09/96         |
| 2-Butanone                 | 78-93-3         | ND     | 100                | ug/L  | 05/09/96         |
| Carbon Disulfide           | 75-15-0         | ND     | 10                 | ug/L  | 05/09/96         |
| Carbon Tetrachloride       | 56-23-5         | ND     | 5                  | ug/L  | 05/09/96         |
| Chlorobenzene              | 108-90-7        | ND     | 5                  | ug/L  | 05/09/96         |
| Chloroethane               | 75-00-3         | ND     | 10                 | ug/L  | 05/09/96         |
| 2-Chloroethyl Vinyl Ether  | 110-75-8        | ND     | 10                 | ug/L  | 05/09/96         |
| Chloroform                 | 67-66-3         | ND     | 5                  | ug/L  | 05/09/96         |
| Chloromethane              | 74-87-3         | ND     | 10                 | ug/L  | 05/09/96         |
| Dibromochloromethane       | 124-48-1        | ND     | 5                  | ug/L  | 05/09/96         |
| 1,1-Dichloroethane         | 75-34-3         | ND     | 5                  | ug/L  | 05/09/96         |
| 1,2-Dichloroethane         | 107-06-2        | ND     | 5                  | ug/L  | 05/09/96         |
| 1,1-Dichloroethene         | 75-35-4         | ND     | 5                  | ug/L  | 05/09/96         |
| cis-1,2-Dichloroethene     | 156-59-2        | ND     | 5                  | ug/L  | 05/09/96         |
| trans-1,2-Dichloroethene   | 156-60-5        | ND     | 5                  | ug/L  | 05/09/96         |
| 1,2-Dichloropropane        | 78-87-5         | ND     | 5                  | ug/L  | 05/09/96         |
| cis-1,3-Dichloropropene    | 10061-01-5      | ND     | 5                  | ug/L  | 05/09/96         |
| trans-1,3-Dichloropropene  | 10061-02-6      | ND     | 5                  | ug/L  | 05/09/96         |
| Ethylbenzene               | 100-41-4        | ND     | 5                  | ug/L  | 05/09/96         |
| 2-Hexanone                 | 591-78-6        | ND     | 50                 | ug/L  | 05/09/96         |
| Methylene Chloride         | 75-09-2         | ND     | 20                 | ug/L  | 05/09/96         |
| 4-Methyl-2-pentanone       | 108-10-1        | ND     | 50                 | ug/L  | 05/09/96         |
| Styrene                    | 100-42-5        | ND     | 5                  | ug/L  | 05/09/96         |
| 1,1,2,2-Tetrachloroethane  | 79-34-5         | ND     | 5                  | ug/L  | 05/09/96         |
| Tetrachloroethene          | 127-18-4        | ND     | 5                  | ug/L  | 05/09/96         |
| Toluene                    | 108-88-3        | ND     | 5                  | ug/L  | 05/09/96         |
| 1,1,1-Trichloroethane      | 71-55-6         | ND     | 5                  | ug/L  | 05/09/96         |
| 1,1,2-Trichloroethane      | 79-00-5         | ND     | 5                  | ug/L  | 05/09/96         |

## CALTRANS OFFICE OF ENV. ENG.

SAMPLE ID: MW-3  
AEN LAB NO: 9604416-03  
AEN WORK ORDER: 9604416  
CLIENT PROJ. ID: CAL-EAST FOODS

DATE SAMPLED: 04/29/96  
DATE RECEIVED: 04/29/96  
REPORT DATE: 05/16/96

---

| ANALYTE         | METHOD/<br>CAS# | RESULT | REPORTING<br>LIMIT | UNITS | DATE<br>ANALYZED |
|-----------------|-----------------|--------|--------------------|-------|------------------|
| Trichloroethene | 79-01-6         | ND     | 5                  | ug/L  | 05/09/96         |
| Vinyl Acetate   | 108-05-4        | ND     | 50                 | ug/L  | 05/09/96         |
| Vinyl Chloride  | 75-01-4         | ND     | 10                 | ug/L  | 05/09/96         |
| Xylenes, Total  | 1330-20-7       | ND     | 10                 | ug/L  | 05/09/96         |

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ND = Not detected at or above the reporting limit  
\* = Value at or above reporting limit



## CALTRANS OFFICE OF ENV. ENG.

SAMPLE ID: TB  
 AEN LAB NO: 9604416-04  
 AEN WORK ORDER: 9604416  
 CLIENT PROJ. ID: CAL-EAST FOODS

DATE SAMPLED: 04/29/96  
 DATE RECEIVED: 04/29/96  
 REPORT DATE: 05/16/96

| ANALYTE                    | METHOD/<br>CAS# | RESULT | REPORTING<br>LIMIT | UNITS | DATE<br>ANALYZED |
|----------------------------|-----------------|--------|--------------------|-------|------------------|
| Volatile Organic Compounds | EPA 8240        |        |                    |       |                  |
| Acetone                    | 67-64-1         | ND     | 100                | ug/L  | 05/13/96         |
| Benzene                    | 71-43-2         | ND     | 5                  | ug/L  | 05/13/96         |
| Bromodichloromethane       | 75-27-4         | ND     | 5                  | ug/L  | 05/13/96         |
| Bromoform                  | 75-25-2         | ND     | 5                  | ug/L  | 05/13/96         |
| Bromomethane               | 74-83-9         | ND     | 10                 | ug/L  | 05/13/96         |
| 2-Butanone                 | 78-93-3         | ND     | 100                | ug/L  | 05/13/96         |
| Carbon Disulfide           | 75-15-0         | ND     | 10                 | ug/L  | 05/13/96         |
| Carbon Tetrachloride       | 56-23-5         | ND     | 5                  | ug/L  | 05/13/96         |
| Chlorobenzene              | 108-90-7        | ND     | 5                  | ug/L  | 05/13/96         |
| Chloroethane               | 75-00-3         | ND     | 10                 | ug/L  | 05/13/96         |
| 2-Chloroethyl Vinyl Ether  | 110-75-8        | ND     | 10                 | ug/L  | 05/13/96         |
| Chloroform                 | 67-66-3         | ND     | 5                  | ug/L  | 05/13/96         |
| Chloromethane              | 74-87-3         | ND     | 10                 | ug/L  | 05/13/96         |
| Dibromochloromethane       | 124-48-1        | ND     | 5                  | ug/L  | 05/13/96         |
| 1,1-Dichloroethane         | 75-34-3         | ND     | 5                  | ug/L  | 05/13/96         |
| 1,2-Dichloroethane         | 107-06-2        | ND     | 5                  | ug/L  | 05/13/96         |
| 1,1-Dichloroethene         | 75-35-4         | ND     | 5                  | ug/L  | 05/13/96         |
| cis-1,2-Dichloroethene     | 156-59-2        | ND     | 5                  | ug/L  | 05/13/96         |
| trans-1,2-Dichloroethene   | 156-60-5        | ND     | 5                  | ug/L  | 05/13/96         |
| 1,2-Dichloropropane        | 78-87-5         | ND     | 5                  | ug/L  | 05/13/96         |
| cis-1,3-Dichloropropene    | 10061-01-5      | ND     | 5                  | ug/L  | 05/13/96         |
| trans-1,3-Dichloropropene  | 10061-02-6      | ND     | 5                  | ug/L  | 05/13/96         |
| Ethylbenzene               | 100-41-4        | ND     | 5                  | ug/L  | 05/13/96         |
| 2-Hexanone                 | 591-78-6        | ND     | 50                 | ug/L  | 05/13/96         |
| Methylene Chloride         | 75-09-2         | ND     | 20                 | ug/L  | 05/13/96         |
| 4-Methyl-2-pentanone       | 108-10-1        | ND     | 50                 | ug/L  | 05/13/96         |
| Styrene                    | 100-42-5        | ND     | 5                  | ug/L  | 05/13/96         |
| 1,1,2,2-Tetrachloroethane  | 79-34-5         | ND     | 5                  | ug/L  | 05/13/96         |
| Tetrachloroethene          | 127-18-4        | ND     | 5                  | ug/L  | 05/13/96         |
| Toluene                    | 108-88-3        | ND     | 5                  | ug/L  | 05/13/96         |
| 1,1,1-Trichloroethane      | 71-55-6         | ND     | 5                  | ug/L  | 05/13/96         |
| 1,1,2-Trichloroethane      | 79-00-5         | ND     | 5                  | ug/L  | 05/13/96         |
| Trichloroethene            | 79-01-6         | ND     | 5                  | ug/L  | 05/13/96         |
| Vinyl Acetate              | 108-05-4        | ND     | 50                 | ug/L  | 05/13/96         |
| Vinyl Chloride             | 75-01-4         | ND     | 10                 | ug/L  | 05/13/96         |
| Xylenes, Total             | 1330-20-7       | ND     | 10                 | ug/L  | 05/13/96         |

ND = Not detected at or above the reporting limit  
 \* = Value at or above reporting limit

AEN (CALIFORNIA)  
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9604416

CLIENT PROJECT ID: CAL-EAST FOODS

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9604416  
 INSTRUMENT: H  
 MATRIX: WATER

Surrogate Standard Recovery Summary

| Date Analyzed | Client Id. | Lab Id. | Percent Recovery |               |
|---------------|------------|---------|------------------|---------------|
|               |            |         |                  | Fluorobenzene |
| 05/08/96      | MW-1       | 01      |                  | 104           |
| 05/08/96      | MW-2       | 02      |                  | 103           |
| 05/08/96      | MW-3       | 03      |                  | 100           |
| QC Limits:    |            |         |                  | 70-130        |

DATE ANALYZED: 05/08/96  
 SAMPLE SPIKED: 9604428-01  
 INSTRUMENT: H

Matrix Spike Recovery Summary

| Analyte                  | Spike Added (ug/L) | Average Percent Recovery | RPD | QC Limits        |     |
|--------------------------|--------------------|--------------------------|-----|------------------|-----|
|                          |                    |                          |     | Percent Recovery | RPD |
| Benzene                  | 22.2               | 93                       | 1   | 85-109           | 17  |
| Toluene                  | 73.9               | 91                       | 1   | 87-111           | 16  |
| Hydrocarbons as Gasoline | 500                | 90                       | 1   | 66-117           | 19  |

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

## QUALITY CONTROL DATA

METHOD: EPA 8240

AEN JOB NO: 9604416  
 INSTRUMENT: 13  
 MATRIX: WATER

## Surrogate Standard Recovery Summary

| Date Analyzed | Client Id. | Lab Id. | Percent Recovery                  |                        |                      |
|---------------|------------|---------|-----------------------------------|------------------------|----------------------|
|               |            |         | 1,2-Dichloroethane-d <sub>4</sub> | Toluene-d <sub>8</sub> | p-Bromofluorobenzene |
| 05/09/96      | MW-1       | 01      | 88                                | 95                     | 98                   |
| 05/09/96      | MW-2       | 02      | 88                                | 91                     | 98                   |
| 05/09/96      | MW-3       | 03      | 86                                | 94                     | 96                   |
| 05/13/96      | TB         | 04      | 98                                | 97                     | 105                  |
| QC Limits:    |            |         | 76-114                            | 88-110                 | 86-115               |

DATE ANALYZED: 05/09/96  
 SAMPLE SPIKED: 9604416-03  
 INSTRUMENT: 13

## Matrix Spike Recovery Summary

| Analyte            | Spike Added (ug/L) | Average Percent Recovery | RPD | QC Limits        |     |
|--------------------|--------------------|--------------------------|-----|------------------|-----|
|                    |                    |                          |     | Percent Recovery | RPD |
| 1,1-Dichloroethene | 50                 | 111                      | 11  | 59-155           | 25  |
| Trichloroethene    | 50                 | 108                      | 4   | 71-157           | 25  |
| Benzene            | 50                 | 110                      | 2   | 37-151           | 25  |
| Toluene            | 50                 | 99                       | 13  | 47-150           | 25  |
| Chlorobenzene      | 50                 | 111                      | 1   | 37-160           | 25  |

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

\*\*\*END OF REPORT\*\*\*

**CALTRANS DISTRICT 4  
OFFICE OF ENVIRONMENTAL ENGINEERING  
MONITORING WELL PURGE AND SAMPLE FORM**

Project Name: Cal-East Foods Date: ~~4/30/96~~ 4/29/96  
 Well Number: MW-1 Tested By: Chris Wilson/Joel Howie  
 Measuring Datum Description: Top of Casing = 9.25' above MSL  
 Water Level Measurement Method: Electric Sounder Depth To Water: 7.62  
 Purge Method: disposable bailer Sample Method: bailer/VOA sampler  
 Sampling Start Time: ~~12:55~~ 12:55 Sampling Depth: \_\_\_\_\_  
 Comments: Bright Warm Day 80°F +

| Well Volume Calculation:<br>(complete before purging) | Well Depth (ft) | Depth To Water (ft) | Water Column (ft) | Multiplier for Casing Diameter (in) |              |                       | Casing Water Volume (gal) |  |
|---|-----------------|---------------------|-------------------|-------------------------------------|--------------|-----------------------|---------------------------|--|
|   |                 |                     |                   | 2"                                  | 4"           | 6"                    |                           |  |
|   | <u>20</u>       | <u>7.62</u>         | <u>12.38</u>      | 0.16                                | <u>0.65</u>  | 1.47                  | <u>8.05</u>               |  |
| Time  | <u>10:40</u>    | <u>10:58</u>        | <u>11:15</u>      | <u>11:31</u>                        | <u>11:47</u> | <u>13:06</u>          |                           |  |
| Volume Purged (gal)                                   | <u>2</u>        | <u>8</u>            | <u>16</u>         | <u>24</u>                           | <u>32</u>    | <u>Asst. Sampling</u> |                           |  |
| Purge Rate (gpm)                                      | <u>-</u>        | <u>0.44</u>         | <u>0.47</u>       | <u>0.50</u>                         | <u>0.50</u>  | <u>-</u>              |                           |  |
| Conductivity (umhos/cm)                               | <u>975</u>      | <u>2560</u>         | <u>3230</u>       | <u>3770</u>                         | <u>3800</u>  | <u>3.630</u>          |                           |  |
| Temperature (deg F or C)                              | <u>78.0</u>     | <u>76.4</u>         | <u>75.8</u>       | <u>76.9</u>                         | <u>78.5</u>  | <u>78.3</u>           |                           |  |
| pH  | <u>6.80</u>     | <u>6.31</u>         | <u>6.23</u>       | <u>6.26</u>                         | <u>6.28</u>  | <u>6.29</u>           |                           |  |
| Odor  |                 |                     |                   |                                     |              |                       |                           |  |
| Turbidity/Color                                       | <u>Clear</u>    | —————→              |                   |                                     |              |                       |                           |  |
| Number of Casing Volumes Purged                       | <u>0</u>        | <u>0.99</u>         | <u>1.99</u>       | <u>2.98</u>                         | <u>3.98</u>  | <u>-</u>              |                           |  |
| Dewatered   |                 |                     |                   |                                     |              |                       |                           |  |

**CALTRANS DISTRICT 4  
OFFICE OF ENVIRONMENTAL ENGINEERING  
MONITORING WELL PURGE AND SAMPLE FORM**

Project Name: Cal-East Foods Date: ~~4/20/96~~ 4/29/96

Well Number: MW-2 Tested By: Chris Wilson/Joel Howie

Measuring Datum Description: Top of Casing = 9.84' above MSL

Water Level Measurement Method: Electric Sounder Depth To Water: 8.14

Purge Method: Disposable Bailer Sample Method: Bailer/VOA Sampler

Sampling Start Time: 13:40 Sampling Depth: \_\_\_\_\_

Comments: Bright Warm day 80°F +

| Well Volume Calculation:<br>(complete before purging) | Well Depth (ft) | Depth To Water (ft) | Water Column (ft) | Multiplier for Casing Diameter (in) |       |                | Casing Water Volume (gal) |
|---|-----------------|---------------------|-------------------|-------------------------------------|-------|----------------|---------------------------|
|   |                 |                     |                   | 2"                                  | 4"    | 6"             |                           |
|   | 19              | 8.14                | 10.86             | 0.16                                | 0.65  | 1.47           | 1.74                      |
| Time  | 12:19           | 12:24               | 12:30             | 12:36                               | 12:44 | 13:46          |                           |
| Volume Purged (gal)                                   | 0               | 2.5                 | 4.3               | 4.5                                 | 6.8   | After Sampling |                           |
| Purge Rate (gpm)                                      | —               | 0.30                | 0.25              | 0.25                                | 0.19  | —              |                           |
| Conductivity (umhos/cm)                               | 986             | 1010                | 1018              | 1055                                | 1065  | 996            |                           |
| Temperature (deg F or C)                              | 76.2            | 75.5                | 77.5              | 77.0                                | 77.1  | 76.8           |                           |
| pH  | 6.47            | 6.53                | 6.65              | 6.61                                | 6.73  | 6.55           |                           |
| Odor  | ☞               |                     |                   |                                     |       |                |                           |
| Turbidity/Color                                       | clear →         |                     |                   |                                     |       |                |                           |
| Number of Casing Volumes Purged                       | 0               | 0.86                | 1.72              | 2.59                                | 3.45  | —              |                           |
| Dewatered   |                 |                     |                   |                                     |       |                |                           |

**CALTRANS DISTRICT 4  
OFFICE OF ENVIRONMENTAL ENGINEERING  
MONITORING WELL PURGE AND SAMPLE FORM**

Project Name: Cal-East Foods Date: ~~4/26/96~~ 4/29/96

Well Number: MW-3 Tested By: Chris Wilson/Joel Howie

Measuring Datum Description: Top of Casing = 9.41' above MSL

Water Level Measurement Method: Electric Sounder Depth To Water: 7.71

Purge Method: Disposable Bailers Sample Method: Bailer/VOA Sampler

Sampling Start Time: 13:15 Sampling Depth: \_\_\_\_\_

Comments: Bright Warm Day 80°F+

| Well Volume Calculation:<br>(complete before purging) | Well Depth (ft)       | Depth To Water (ft) | Water Column (ft) | Multiplier for Casing Diameter (in) |       |       | Casing Water Volume (gal) |
|---|-----------------------|---------------------|-------------------|-------------------------------------|-------|-------|---------------------------|
|   |                       |                     |                   | 2"                                  | 4"    | 6"    |                           |
|   | 15                    | 7.71                | 7.29              | 0.16                                | 0.65  | 1.47  | 1.17                      |
| Time  | 11:54                 | 11:58               | 12:01             | 12:04                               | 12:08 | 12:11 | 13:23                     |
| Volume Purged (gal)                                   | 0                     | 1                   | 2                 | 3                                   | 4     | 5     | Aster Sampling            |
| Purge Rate (gpm)                                      | —                     | 0.25                | 0.33              | 0.33                                | 0.25  | 0.33  | —                         |
| Conductivity (umhos/cm)                               | 1370                  | 1420                | 1550              | 1630                                | 1710  | 1750  | 2140                      |
| Temperature (deg F or C)                              | 79.3                  | 77.3                | 76.0              | 77.1                                | 75.8  | 74.8  | 83.1 ←                    |
| pH  | 6.41                  | 6.35                | 6.30              | 6.29                                | 6.31  | 6.28  | 6.26                      |
| Odor  | slight gasoline smell |                     |                   |                                     |       |       |                           |
| Turbidity/Color                                       | Clear →               |                     |                   |                                     |       |       |                           |
| Number of Casing Volumes Purged                       | 0                     | 0.85                | 1.71              | 2.56                                | 3.42  | 4.27  | —                         |
| Dewatered   |                       |                     |                   |                                     |       |       |                           |

Small amount of H<sub>2</sub>O warmed by Sun?