

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

February 18, 1998

Attn: Ann MacDonald
Coca Cola Enterprises
PO Box 4067
Oakland CA 94614

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

REMEDIATION ACTION COMPLETION CERTIFICATION

RE: former Coca Cola site, 1340 Cypress St., Oakland CA 94607
Case File Number 3785

Dear Ms. MacDonald,

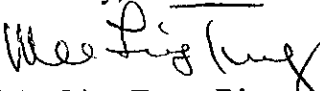
This letter confirms the completion of site investigation and remedial action for the underground storage tank(s) formerly located at the above referenced site. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) is greatly appreciated.

Based on information in the above-referenced file, and with the provision that the information provided to this agency was accurate and representative of site conditions, **no further action related to the underground tank release is required.**

This notice is issued pursuant to a regulation contained in Title 23, Division 3, Chapter 16, Section 2721(e) of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,


Mee Ling Tung, Director

cc: Kevin Graves, RWQCB
Dave Deaner, SWRCB, UST Cleanup Fund Program
Attn: Leroy Griffin, Supervisor, Hazardous Materials Program, City of Oakland, Fire
Services Agency, 505-14th St., suite 702, Oakland CA 94612
Gary Floyd, Woodward-Clyde Consultants, 500-12th St., Suite 200, Oakland CA 94607
Jennifer Eberle (3 copies of letter only)

LOP/Completion
je.3785clos.let

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Attn: Ann MacDonald
Coca Cola Enterprises
PO Box 4067
Oakland CA 94614

RE: **CASE CLOSURE**

six underground storage tanks (10,000-gallon unleaded gasoline, two 10,000-gallon diesel, 7,000-gallon diesel, 4,000-gallon boiler fuel and 500-gallon waste oil)
former Coca Cola site, 1340 Cypress St., Oakland CA 94607

Dear Ms. MacDonald,

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board (SWRCB) adopted this letter on 2/20/97. As of 3/1/97, Alameda County Health Care Services Agency, Environmental Health Services, Local Oversight Program is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. **The subject fuel leak case is closed.**

SITE INVESTIGATION AND CLEANUP SUMMARY:

Please be advised that the following conditions exist at the site:

- * Up to two thousand parts per billion (ppb) benzene, 1,000 ppb toluene, 120 ppb ethylbenzene, and 630 ppb xylene remain *in the groundwater*.

If you have any questions, please call Ms. Jennifer Eberle at 510-567-6761. Thank you.

Sincerely,

Tom Peacock
Supervisor, Local Oversight Program

February 18, 1998
STID 3785
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Enclosures:

1. Case Closure Letter
2. Case Closure Summary

cc: Gary Floyd, Woodward-Clyde Consultants, 500-12th St., Suite 200, Oakland CA 94607
Attn: Leroy Griffin, Supervisor, Hazardous Materials Program, City of Oakland, Fire
Services Agency, 505-14th St., suite 702, Oakland CA 94612
Jennifer Eberle (3 copies of letter only)

ENVIRONMENTAL
PROTECTION

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: 12/24/97

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Pky**
 City/State/Zip: **Alameda CA 94502** Phone: **(510) 567-6700**
 Responsible staff person: **Jennifer Eberle** Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **former Coca Cola site**
 Site facility address: **1340 Cypress St., Oakland CA 94607**
 RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **3785**
 ULR filing date: **11/21/90** SWEEPS No: **N/A**

Responsible Parties: **Addresses:** **Phone Numbers:**
 Ann MacDonald, Coca Cola Enterprises, PO Box 4067, Oakland CA 94614

<u>Tank No:</u>	<u>Size in gal:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	10,000	unleaded gasoline	removed	2/11/91
2	10,000	diesel	removed	2/11/91
3	7,000	diesel	removed	2/11/91
4	10,000	diesel	removed	2/11/91
5	4,000	boiler fuel	removed	2/11/91
6	500	waste oil	removed	2/11/91

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **piping leak**
 Site characterization complete? **YES**
 Monitoring Wells installed? **YES** Number: **9**
 Proper screened interval? **YES**
 Highest GW depth below ground surface:
 Lowest GW depth:
 Flow direction: **historically to the east**
 Most sensitive current use at present: **commercial**
 Are drinking water wells affected? **NO** Aquifer name: **Merritt**
 Is surface water affected? **Probably not** Nearest SW name: **Estuary is approx 6,000' SW of the site**
 Off-site beneficial use impacts (addresses/locations): **n/a**
 Report(s) on file? **YES** Where is report(s) filed?
Alameda County, Environmental Health, 1131 Harbor Bay Pky, Alameda CA 94502-6577

Leaking Underground Fuel Storage Tank Program

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount (include units)</u>	<u>Action (Treatment of Disposal w/destination)</u>	<u>Date</u>
Tank	6 USTs	disposed to Erickson	2/13/91
Soil	300 yd3	disposed/recycled to Gibson Oil	3/91

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	<u>Before*</u>	<u>After**</u>	<u>Before#</u>	<u>After##</u>
TPH (Gas)	4,900		7,400	NA
TPH (Diesel)	4,200		3,700	NA
Benzene	50		3,500	2,000
Toluene	260		330	1,000
Ethylbenzene	100		130	120
Xylene	500		540	630
Oil & Grease	190		NA	NA
Cd	0.75		NA	NA
Cr	46		NA	NA
Pb	2.7		NA	NA
Ni	ND		NA	NA
Zn	27		NA	NA
MTBE	NA		NA	<500 ⊕

* Soil samples collected during UST removals, 2/91 at depths between 10' and 12'bgs. The highest concentrations were found in the T3 and T4 samples collected from the 7,000-gal and 10,000-gal diesel USTs.

** not applicable, since there was no confirmatory sampling after the overexcavation

Initial samples collected from monitoring wells on 3/27/91

Last samples collected from monitoring wells on 7/24/97. Note that TPH-g and TPH-d levels had been reduced to ND in MWB-13, and to lower levels in MWB-1.

⊕ earlier sample was ND at 100 ppb

Leaking Underground Fuel Storage Tank Program

- * Concentrations of petroleum-related compounds in groundwater (after remediation) do not pose a significant risk to human health, as per the risk assessment.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Name: Jennifer Eberle Title: Hazardous Materials Specialist
Signature: *J Eberle* Date: 12-24-97

Reviewed by

Name: Madhulla Logan Title: Hazardous Materials Specialist/Risk Assessor
Signature: *Madhulla Logan* Date: 12-31-97

Name: Tom Peacock Title: Manager of LOP
Signature: *Tom Peacock* Date: 1-5-98

VII. RWQCB NOTIFICATION

Date Submitted to RWQCB: 1-6-98 RWQCB Response: Concur

RWQCB Staff Name: ~~Kevin Graves~~ Date: 1/20/98

~~Associate Water Resources Control Engineer~~

Stephen Hill, ES IV Syp.

Leaking Underground Fuel Storage Tank Program

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan?
Undetermined

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan?
Undetermined

Does corrective action protect public health for current land use? YES

Site management requirements: NA

Should corrective action be reviewed if land use changes? NO

Monitoring wells Decommissioned: Not yet

Number Decommissioned: 0 Number Retained: 9

List enforcement actions taken: none

List enforcement actions rescinded: none

V. ADDITIONAL COMMENTS, DATA, ETC.

This site is located in west Oakland; **see Figure 1**. Six USTs were installed onsite while Coca-Colca (CC) operated the facility; the USTs were installed between 1958 and 1979; **see Figure 2**. A product delivery line was discovered to be leaking in November 1990. In February 1991, these six USTs and one hydraulic lift were removed. As per the County inspector's notes, only one UST had an "obvious hole." Both diesel USTs, one unleaded gasoline UST, and the waste oil UST had apparently leaked, as evidenced by stained soil during UST removal. UST soil sample results are outlined in **Table 1 and Figures 3a and 3b**. The highest soil concentrations included 50 ppm benzene, 260 ppm toluene, 100 ppm ethylbenzene, 500 ppm xylene, 4,200 ppm TPHd, 4,900 ppm TPHg, 190 ppm O&G, 0.75 ppm Cd, 46 ppm Cr, 2.7 ppm Pb, and 27 ppm Zn.

In March 1991, approximately 300 yd³ of contaminated soil were removed offsite to Gibson Oil in Bakersfield for recycling into asphalt. Confirmatory samples were apparently not collected.

In March 1991, 16 borings were drilled, and 6 were converted to groundwater monitoring wells (MWB-1, MWB-4, MWB-9, MWB-12, MWB-13, and MWB-14); **see Figure 4 and Table 2**. CC's consultant (USTEC) determined that the contaminated soil was distributed 30 to 40 feet around the former USTs (T1, T2, and T4), and about 10 feet around the former hydraulic lift, as well as 15 feet below ground surface (bgs). USTEC also concluded that the dissolved gasoline and diesel plume in the groundwater followed the same general distribution as the soil contamination. **See Table 3**. Maximum soil concentrations included 7.4 ppm benzene, 370 ppm toluene, 60 ppm ethylbenzene, 420 ppm xylenes, 6,900 ppm TPHg, and 8,300 ppm TPHd. Since contaminated groundwater was present in well MWB-1 (near T2), a pump test was conducted in April 1991 to evaluate aquifer characteristics. The subsurface soils consist of interbedded fluvial/deltaic deposits of sand, silty sand, and clayey sand; **see Figures 5a and 5b**. The hydraulic conductivity averaged at 4.12 ft/day.

Leaking Underground Fuel Storage Tank Program

In June 1991, 3 additional groundwater monitoring wells were installed (MWB-17, MWB-18, and MWB-19), as well as one vapor extraction well (VEW-1); see **Figure 6**.

In January 1992, CC submitted a Remedial Action Plan (RAP), prepared by USTEC. This RAP proposed a pump and treat system for groundwater, using air stripping with thermal oxidation of air emissions. However, this RAP was postponed by CC due to a major restructuring of their management.

On 2/24/93, a meeting was held between the County, Coca-Cola, and their new consultant, Woodward-Clyde. Refinements to the RAP were discussed. They included carbon treatment and discharge to the sewer system, as well as soil vapor extraction for soil remediation. These refinements were later approved by the County by letter dated 3/15/93.

The groundwater extraction and treatment system was installed by WCC in September 1993, and was started on 9/21/93. Groundwater was extracted from wells MWB-1 and MWB-13, treated by granular activated carbon, then discharged to the EBMUD sewer system (under EBMUD permit). This system was shut down on 1/26/96. Quarterly groundwater monitoring began on 3/27/91, and continued until 7/24/97; see **Table 4**.

In April 1995, CC's consultant proposed a risk-based approach for remediation with site-specific cleanup levels. In September 1995, CC's consultant submitted a risk assessment for soil and groundwater conditions at the subject site. Site-specific target levels (SSTLs) were developed as per the ASTM's RBCA Tier 2 model. The SSTLs are: 31,100 ppb benzene, 535,000 ppb toluene, 152,000 ppb ethylbenzene, and 198,000 ppb xylenes. This model included scenarios for onsite commercial workers, as well as future residents. The risk assessment was approved by the County in a letter dated 1/9/96.

To summarize, the reasons that this case should be closed are as follows:

- * The sources have been removed (six USTs, and 300 cubic yards of contaminated soil);
- * The site has been adequately characterized;
- * The downgradient wells have been ND for BTEX, TPHg, TPHd, and MTBE;
- * There are no sensitive environmental receptors in the site vicinity: the estuary lies approximately 6,000 feet from the site (a significant and unlikely distance for a hydrocarbon plume to travel);
- * The groundwater extraction system was effective in reducing concentrations of TPH-d, TPH-g, and BTEX in groundwater;
- * Concentrations of petroleum-related compounds in soil do not pose a significant risk to human health, as per the risk assessment; and

Table 1

~~TABLE 2~~

SUMMARY OF ANALYTICAL CHEMISTRY TEST RESULTS
 PRELIMINARY UNDERGROUND STORAGE TANK INVESTIGATION
 COCA-COLA ENTERPRISES - WEST
 OAKLAND, CALIFORNIA

Sample Name/Depth	Benzene	Toluene	Ethyl-benzene	Total Xylene	8015 Modified Diesel	8015 Modified Gasoline	Oil Grease
T1-S1-10'	0.011	0.0067	ND	0.0073	ND	ND	--
T1-S2-10'	0.013	0.0077	ND	0.0088	ND	ND	--
T1-S3-10'	0.024	0.0066	ND	ND	ND	ND	--
T1-S4-12'	0.87	2.4	2.1	13	9.1	250	--
T1-S5-12'	0.82	1.3	0.18	1.1	ND	9.0	--
T2-S1-10'	8.8	94	58	310	170	4,200	--
T2-S2-10'	9.0	46	17	85	98	1,300	--
T3-S1-12'	0.88	ND	1.6	3.4	4,200	1,400	--
T3-S2-10'	0.015	0.010	ND	0.017	ND	ND	--
T3-S3-10'	ND	ND	ND	ND	ND	ND	--
T3-S4-12'	ND	ND	ND	ND	ND	ND	--
T4-S1-12'	47	260	100	500	690	4,900	--
T4-S2-12'	13	68	25	130	1,000	1,800	--
T4-S3-10'	50	220	65	330	110	3,500	--
T4-S4-10'	9.8	79	57	280	470	3,700	--
T5-S1-12'	0.015	0.0090	ND	0.0079	2.4	--	--
T5-S2-10'	0.015	0.0093	ND	0.062	ND	--	--
T5-S3-12'	0.0060	ND	ND	ND	8.7	--	--
T5-L1-3'	0.0058	ND	ND	ND	ND	--	--
T6-S1-8'	ND	ND	ND	0.0051	ND	ND	ND
Stockpile-1	0.69	2.1	1.4	12	820	390	--
Stockpile-2	0.96	2.4	1.2	22	2,200	760	--
Stockpile-3	ND	ND	ND	ND	630	110	--
Hydraulic Lift-1	0.0084	0.0074	ND	0.026	2.2	--	ND
Hydraulic Lift-2	ND	ND	ND	ND	22	--	190
Dispenser S1-1	2.2	39	26	220	250	2,800	--
Analytical	.005	.005	.005	.005	1.0	1.0	30.0
Detection Limits							

ppm



Table 1

~~TABLE 2~~ CONTINUED

**SUMMARY OF ANALYTICAL CHEMISTRY TEST RESULTS
PRELIMINARY UNDERGROUND STORAGE TANK INVESTIGATION
COCA-COLA ENTERPRISES - WEST
OAKLAND, CALIFORNIA**

<u>Sample Name</u>	<u>Ph</u>	<u>Reactivity</u>	<u>Aquatic Toxicity</u>	<u>Flashpoint</u>	<u>Solvent Screen</u>	<u>Total STLC Metals</u>
Stockpile - 1	7.8	ND	>1000	>100°C	ND	BRL
Stockpile - 2	7.7	ND	>1000	>100°C	ND	BRL
Stockpile - 3	7.8	ND	>1000	>100°C	ND	BRL

<u>Name Sample</u>	<u>Solvent Screen</u>	<u>PCBs EPA-8080</u>	<u>PCP-PNA Creosote EPA 8270</u>	<u>Cadmium</u>	<u>Chromium</u>	<u>Lead</u>	<u>Nickel</u>	<u>Zinc</u>
T6-S1-8'	ND	ND	ND	0.75	46	2.7	ND	27
			STLC	1.0	5	5		250
			TTLc	100	500 2500	1000		

metals establen

NOTES:

All values where applicable are given in milligrams/kilogram (mg/kg) which are equivalent to parts per million (ppm).
The Aquatic toxicity is given for the LC-50 value.
BRL = Below regulatory levels.
ND = Not Detected
-- = Not Analyzed



TABLE 2

SUMMARY OF BORING AND GROUNDWATER MONITORING WELL
CONTAMINATION ASSESSMENT REPORT
CONSTRUCTION DETAILS, COCA-COLA ENTERPRISES - WEST
OAKLAND, CALIFORNIA

<u>Boring/Well No.</u>	<u>Date Drilled</u>	<u>Depth of Boring</u>	<u>Depth of Well</u>	<u>Screened Interval</u>
B-1 MWB-1	03/22/91	27	27	7.0 - 27.0
B-2 --	03/22/91	14.5	--	--
B-3 --	03/22/91	16.5	--	--
B-4 MWB-4	03/22/91	27	27	7.0 - 27.0
B-5 --	03/22/91	16.5	--	--
B-6 --	03/23/91	16.5	--	--
B-8 --	03/23/91	16.5	--	--
B-9 MWB-9	03/23/91	27	27	7.0 - 27.0
B-10 --	03/23/91	16.5	--	--
B-11 --	03/23/91	16.5	--	--
B-12 MWB-12	03/25/91	27	27	7.0 - 27.0
B-13 MWB-13	03/25/91	27	27	7.0 - 27.0
B-14 MWB-14	03/25/91	27	27	7.0 - 27.0
B-15 --	03/25/91	27	27	7.0 - 27.0
B-16 --	03/26/91	21.5	--	--

NOTE: All depths recorded in feet below land surface.

Table 3

SUMMARY OF SOIL ANALYTICAL TEST RESULTS CONTAMINATION ASSESSMENT REPORT COCA-COLA ENTERPRISES - WEST OAKLAND, CALIFORNIA

<u>Sample ID/No.</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl- benzene</u>	<u>Total Xylenes</u>	<u>TPH Gasoline</u>	<u>TPH Diesel</u>
B-1-5'	0.046	N.D.	0.033	0.071	6.5	8.6
B-1-15'	1.6	53	16	140	2,200	35
B-1-20'	1.6	0.12	0.10	0.82	3.7	N.D.
B-1-22'	0.82	30	6.0	46	870	14
B-2-3'	0.32	0.82	1.6	14	220	41
B-2-8'	N.D.	0.0096	N.D.	0.053	N.D.	N.D.
B-2-13'	2.5	2.2	0.15	1.3	16	N.D.
B-3-5'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-3-10'	N.D.	N.D.	N.D.	0.0080	N.D.	N.D.
B-3-15'	N.D.	N.D.	N.D.	0.082	N.D.	N.D.
MWB-4-5'	N.D.	N.D.	N.D.	0.020	N.D.	N.D.
MWB-4-10'	0.059	N.D.	N.D.	0.028	N.D.	N.D.
MWB-4-15'	0.049	N.D.	N.D.	0.028	N.D.	N.D.
B-5-5'	N.D.	N.D.	N.D.	0.016	N.D.	N.D.
B-5-10'	N.D.	N.D.	N.D.	0.020	N.D.	N.D.
B-5-15'	0.037	N.D.	N.D.	0.060	N.D.	N.D.
B-6-5'	0.95	0.86	7.2	21	550	16
B-6-10'	7.4	370	60	420	6,900	540
B-6-15'	N.D.	0.11	0.26	0.14	1.6	N.D.
B-7-5'	0.031	0.015	0.053	0.032	1.2	N.D.
B-7-10'	2.3	6.6	6.1	27	290	140
B-7-15'	3.6	9.6	3.0	15	130	2.7
B-8-5'	N.D.	0.011	N.D.	0.062	N.D.	N.D.
B-8-10'	0.055	0.0062	N.D.	0.026	N.D.	N.D.
B-8-15'	N.D.	N.D.	N.D.	0.022	N.D.	N.D.
MWB-9-5'	N.D.	N.D.	N.D.	0.025	N.D.	N.D.
MWB-9-10'	N.D.	N.D.	N.D.	0.021	N.D.	N.D.
MWB-9-15'	0.049	N.D.	N.D.	0.018	N.D.	N.D.
B-10-5'	1.4	0.12	0.29	0.92	150	N.D.
B-10-10'	N.D.	0.014	N.D.	0.021	N.D.	N.D.
B-10-15'	0.013	0.018	0.010	0.050	N.D.	N.D.
B-11-5'	0.078	0.013	N.D.	0.14	N.D.	N.D.
B-11-10'	5.3	26	18	84	1,700	200
B-11-15'	0.35	0.046	0.076	0.11	2.8	N.D.
MWB-12-5'	0.084	0.017	N.D.	N.D.	1.5	N.D.

PPM



Table 3

~~TABLE~~ CONTINUED
 SUMMARY OF SOIL ANALYTICAL TEST RESULTS
 CONTAMINATION ASSESSMENT REPORT
 COCA-COLA ENTERPRISES - WEST
 OAKLAND, CALIFORNIA

<u>Sample ID/No.</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl- benzene</u>	<u>Total Xylenes</u>	<u>TPH Gasoline</u>	<u>TPH Diesel</u>
MWB-12-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MWB-12-15'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MWB-13-5'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MWB-13-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MWB-13-15'	N.D.	0.0058	N.D.	0.014	N.D.	N.D.
MWB-14-5'	N.D.	0.0053	N.D.	0.014	N.D.	N.D.
MWB-14-10'	N.D.	N.D.	N.D.	0.0059	N.D.	N.D.
MWB-14-15'	N.D.	0.0099	0.0073	0.030	N.D.	N.D.
B-15-5'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-15-10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-15-15'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-16-10'	0.0072	0.047	0.016	0.15	43	8,300
B-16-15'	0.0063	0.026	0.011	0.10	23	1,700
B-16-20'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Method						
Detection Limits	0.0050	0.0050	0.0050	0.0050	1.0	1.0

NOTES: All Concentrations in mg/kg (ppm).

~~TABLE 4~~ **Table 4**

**SUMMARY OF GROUNDWATER ANALYTICAL TEST RESULTS
COCA-COLA ENTERPRISES - WEST DISTRIBUTION FACILITY
OAKLAND, CALIFORNIA**

Well Number	Date Collected	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total Lead	MtBE	
SSTL (µg/L)		--	--	31,100 ✓	535,000	152,000	198,000	--	--	
MWB-1	3/27/91	3,700	6,200	1,600	330	130	540	0.014	--	
	5/23/91	24,000	130,000	38,000	14,000	2,600	10,000	--	--	
	8/14/91	10,000	110,000	42,000	12,000	2,500	8,600	--	--	
	11/22/91	11,000	68,000	21,000	820	760	1,500	--	--	
	11/5/92	1,800	140,000	27,000	25,000	3,700	14,000	--	--	
	9/10/93	190,000	37,000	15,000	6,300	1,300	6,000	--	--	
	9/27/94	--	4,700	1,200	110	<25	140	--	--	
	2/20/95	610 ^(a)	4,700	950	180	28	320	--	--	
	5/24/95	--	3,800	940	150	16	250	--	--	
	8/22/95	170 ^(a)	3,700	990	220	<25	250	--	--	
	1/9/96	--	4,000	1,000	100	30	190	--	<250	

	✓	2/28/96	--	--	700	200	50	260	--	260
5/7/96		--	--	1,800	1,100	930	990	--	<500	
8/14/96		3 ^(c)	--	2,100	780	200	940	--	<100	
11/14/96		--	--	4,200	2,100	350	1,700	--	<1,000	
11/14/96 ^(b)		--	--	5,800	3,000	500	2,400	--	<1,250	
3/21/97		--	--	2,100	1,300	190	980	--	--	
7/24/97		5 ^(a)	--	2,000	1,000	120	630	--	<500	

MWB-4	3/27/91	<50	<30	<0.3	<0.3	<0.3	<0.3	0.0088	--	
	5/23/91	<50	<30	<0.3	<0.3	<0.3	<0.3	--	--	
	8/14/91	180	ND	ND	ND	ND	ND	--	--	
	11/22/91	<50	<30	<0.3	<0.3	<0.3	<0.3	--	--	
	11/5/92	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	9/9/93	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	1/12/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	4/20/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	7/26/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	8/22/95	74 ^(c)	<50	<0.5	<0.5	<0.5	<0.5	--	--	

✓	11/14/96	--	--	<0.5	<0.5	<0.5	<0.5	--	<5	

~~TABLE 2~~ **Table 4**

**SUMMARY OF GROUNDWATER ANALYTICAL TEST RESULTS
COCA-COLA ENTERPRISES - WEST DISTRIBUTION FACILITY
OAKLAND, CALIFORNIA**

Well Number	Date Collected	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total Lead	MtBE
SSTL (µg/L)		--	--	31,100	535,000	152,000	198,000	--	--
MWB-9	3/27/91	<50	<30	<0.3	<0.3	<0.3	<0.3	0.0058	--
	5/23/91	<50	<30	<0.3	<0.3	<0.3	<0.3	--	--
	8/14/91	110	ND	ND	ND	ND	ND	--	--
	11/22/91	140	<30	<0.3	<0.3	<0.3	<0.3	--	--
	11/5/92	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	9/10/93	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	1/12/94	50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	4/21/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	7/26/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	8/22/95	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
✓	11/14/96	--	--	<0.5	<0.5	<0.5	<0.5	--	<5.0
MWB-12	3/27/91	<50	<30	<0.3	<0.3	<0.3	<0.3	0.0088	--
	5/23/91	<50	<30	<0.3	<0.3	<0.3	<0.3	--	--
	8/14/91	360	ND	ND	ND	ND	ND	--	--
	11/22/91	190	<30	<0.3	<0.3	<0.3	<0.3	--	--
	11/5/92	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	9/10/93	140	<50	<0.5	<0.5	<0.5	<0.5	--	--
	1/12/94	68	<50	<0.5	<0.5	<0.5	<0.5	--	--
	4/21/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	7/26/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	8/23/95	<50	64	<0.5	28	<0.5	<0.5	--	--
8/23/95 ^(b)	<50	73	<0.5	32	<0.5	<0.5	--	--	
✓	11/13/96	--	--	<0.5	<0.5	<0.5	<0.5	--	<5.0
MWB-13	3/27/91	970	7,400	3,500	<30	<30	<30	0.0068	--
	4/23/91	<50	<30	<0.3	<0.3	<0.3	<0.3	--	--
	5/23/91	1,100	1,300	330	<6.0	<6.0	<6.0	--	--
	8/14/91	280	580	300	ND	ND	ND	--	--
	11/22/91	1,100	790	30	<0.6	<0.6	2	--	--
	11/5/92	230	800	160	2.6	4.5	7.6	--	--
	9/10/93	1,500	18,000	14,000	<125	<125	<125	--	--

~~Table 2~~ **Table 4**

**SUMMARY OF GROUNDWATER ANALYTICAL TEST RESULTS
COCA-COLA ENTERPRISES - WEST DISTRIBUTION FACILITY
OAKLAND, CALIFORNIA**

Well Number	Date Collected	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total Lead	MtBE
SSTL (µg/L)		--	--	31,100	535,000	152,000	198,000	--	--
MWB-13 (con't)	09/10/93 ^(b)	1,500	20,000	11,000	<125	<125	260	--	--
	9/27/94	--	180	75	<0.5	<0.5	<0.5	--	--
	2/20/95	73	54 ^(d)	18	<0.5	<0.5	<0.5	--	--
	5/24/95	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
	8/22/95	<50	<50	6.7	<0.5	<0.5	<0.5	--	--
	1/9/96	--	<50	6.1	<0.5	<0.5	<0.5	--	<5.0
	2/28/96	--	--	<0.5	<0.5	<0.5	<0.5	--	<5.0
	5/7/96	--	--	<0.5	<0.5	<0.5	<0.5	--	<5.0
	8/14/96	--	--	<0.5	<0.5	<0.5	<0.5	--	<5.0
	11/13/96	--	--	<0.5	<0.5	<0.5	<0.5	--	<5.0
MWB-14	3/21/97	--	--	1	2.5	0.6	2.5	--	--
	7/24/97	--	--	<0.5	<0.5	<0.5	<0.5	--	<5.0
	3/27/91	<50	<30	<0.3	<0.3	<0.3	<0.3	0.0058	--
	5/23/91	<50	<50	<0.3	<0.3	<0.3	<0.3	--	--
	8/14/91	150	ND	ND	ND	ND	ND	--	--
	11/22/91	62	<30	<0.3	<0.3	<0.3	<0.3	--	--
	11/5/92	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	9/10/93	110	<50	<0.5	<0.5	<0.5	<0.5	--	--
	1/12/94	63	<50	<0.5	<0.5	<0.5	<0.5	--	--
	4/20/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
MWB-17	7/26/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	8/23/95	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
MWB-17	11/13/96	--	--	<0.5	<0.5	<0.5	<0.5	--	<5.0
	8/14/91	ND	ND	ND	ND	ND	ND	--	--
	11/22/91	<50	<30	<0.3	<0.3	<0.3	<0.3	--	--
	11/5/92	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	9/9/93	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	1/12/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	4/20/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	7/26/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--

~~TABLE 2~~ Table 4

SUMMARY OF GROUNDWATER ANALYTICAL TEST RESULTS
COCA-COLA ENTERPRISES - WEST DISTRIBUTION FACILITY
OAKLAND, CALIFORNIA

Well Number	Date Collected	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total Lead	MtBE
SSTL (µg/L)		--	--	31,100	535,000	152,000	198,000	--	--
MWB-17	07/26/94 ^(b)	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	(con't) 8/23/95	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--

	11/13/96	--	--	<0.5	<0.5	<0.5	<0.5	--	<5.0
MWB-18	8/14/91	ND	ND	ND	ND	ND	ND	--	--
	11/22/91	54	<30	<0.3	<0.3	<0.3	<0.3	--	--
	11/5/92	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	9/9/93	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	1/12/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	4/21/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	7/26/94	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
MWB-19	8/23/95	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	11/14/96	--	--	<0.5	0.7	<0.5	0.8	--	<5.0
	8/14/91	110	ND	ND	ND	ND	ND	--	--
	11/22/91	240	220	<0.3	<0.3	<0.3	<0.3	--	--
	11/5/92	<50	230 ^(c)	<0.5	<0.5	<0.5	<0.5	--	--
	11/05/92 ^(b)	<50	220 ^(c)	<0.5	<0.5	<0.5	<0.5	--	--
	9/10/93	220	130 ^(c)	<0.5	<0.5	<0.5	<0.5	--	--
	1/12/94	70	270 ^(c)	<0.5	<0.5	<0.5	<0.5	--	--
	01/12/94 ^(b)	87	280 ^(c)	<0.5	<0.5	<0.5	<0.5	--	--
	4/21/94	<50	110 ^(c)	<0.5	<0.5	<0.5	<0.5	--	--
	04/21/94 ^(b)	<50	110 ^(c)	<0.5	<0.5	<0.5	<0.5	--	--
	7/26/94	<50	110 ^(c)	<0.5	<0.5	<0.5	<0.5	--	--
	10/27/94	<50	100 ^(d)	<0.5	<0.5	<0.5	<0.5	--	--
	2/20/95	92	52 ^(d)	<0.5	<0.5	<0.5	<0.5	--	--
	5/24/95	56	56 ^(d)	<0.5	<0.5	<0.5	<0.5	--	--
8/23/95	<50	76 ^(d)	<0.5	<0.5	<0.5	<0.5	--	--	
1/9/96	<50	100 ^(d)	<0.5	<0.5	<0.5	<0.5	--	<5.0	

	2/28/96	--	--	<0.5	<0.5	<0.5	<0.5	--	<5.0
	5/7/96	--	--	<0.5	<0.5	<0.5	<0.5	--	<5.0

~~Table 2~~ **Table 4**

**SUMMARY OF GROUNDWATER ANALYTICAL TEST RESULTS
COCA-COLA ENTERPRISES - WEST DISTRIBUTION FACILITY
OAKLAND, CALIFORNIA**

Well Number	Date Collected	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total Lead	MtBE
SSTL (µg/L)		--	--	31,100	535,000	152,000	198,000	--	--
MWB-19	8/14/96	--	--	<0.5	<0.5	<0.5	<0.5	--	<5.0
(con't)	11/13/96	--	--	<0.5	<0.5	<0.5	<0.5	--	<5.0

Notes:

Total lead results are reported in mg/L. All other analytical results are reported in µg/L (equivalent to parts per billion).

Data obtained from USTEC prior to 1992; WCC obtained data since 1992.

Wells MWB-1 and MWB-13 served as extraction wells from September 12, 1993 through January 26, 1996.

-- = Not analyzed

MtBE = Methyl tert-Butyl Ether

ND = Not detected. Detection limits were not available to WCC for the 8-91 sampling by USTEC.

SSTL = Risk-based site-specific target levels developed using the RBCA method.

TPH = Total Petroleum Hydrocarbons quantified against either a diesel or a gasoline standard.

■ ■ ■ The groundwater extraction and treatment was shut down on January 26, 1997, per County approval. Monitoring results below the dotted line indicate post-remediation conditions.

^(a) The concentration reported as diesel is primarily due to the presence of a lighter petroleum product of hydrocarbon range C6-C12, possibly gasoline.

^(b) Duplicate sample.

^(c) The laboratory reported that this result is not representative of gasoline, but is the result of detection of distinct, unidentified sample components.

^(d) The laboratory reported that this result is due to a discrete peak not indicative of gasoline.

^(e) The laboratory reported that this result is due to the presence of a combination of diesel and a discrete peak not indicative of diesel fuel.

^(f) The concentration reported as gasoline is due to a combination of gasoline and discrete peaks not indicative of gasoline.

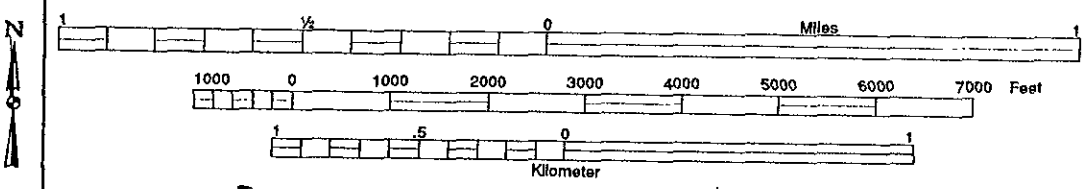
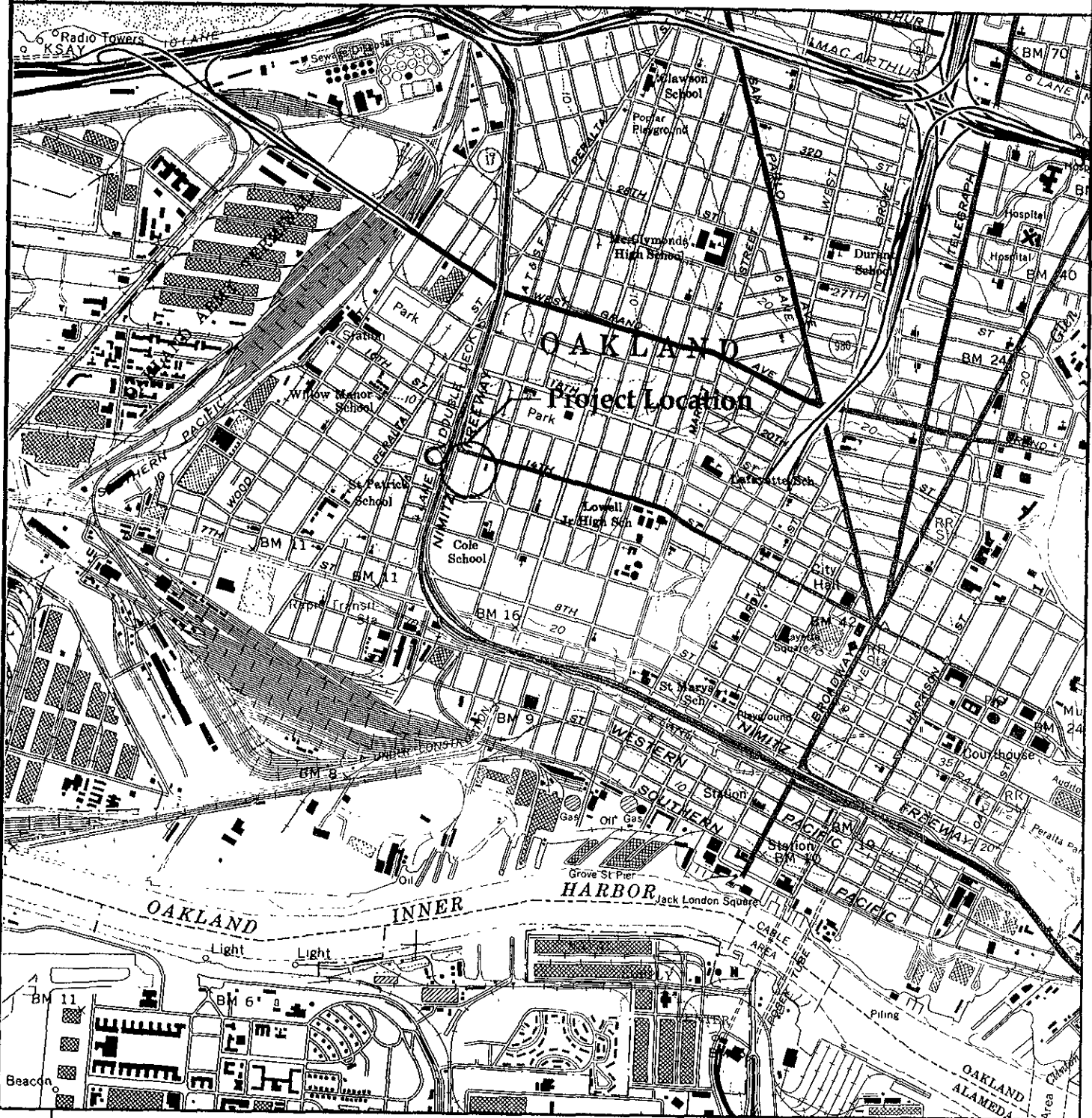
^(g) The concentration reported as diesel is due to a combination of diesel fuel, and lighter petroleum product of hydrocarbon range C6-C14 (possibly gasoline) and discrete peaks not indicative of diesel fuel.

Preliminary Underground Storage Tank Report

Coca-Cola Enterprises - West • Oakland, California

Vicinity Map
Figure 1

Fig. 1

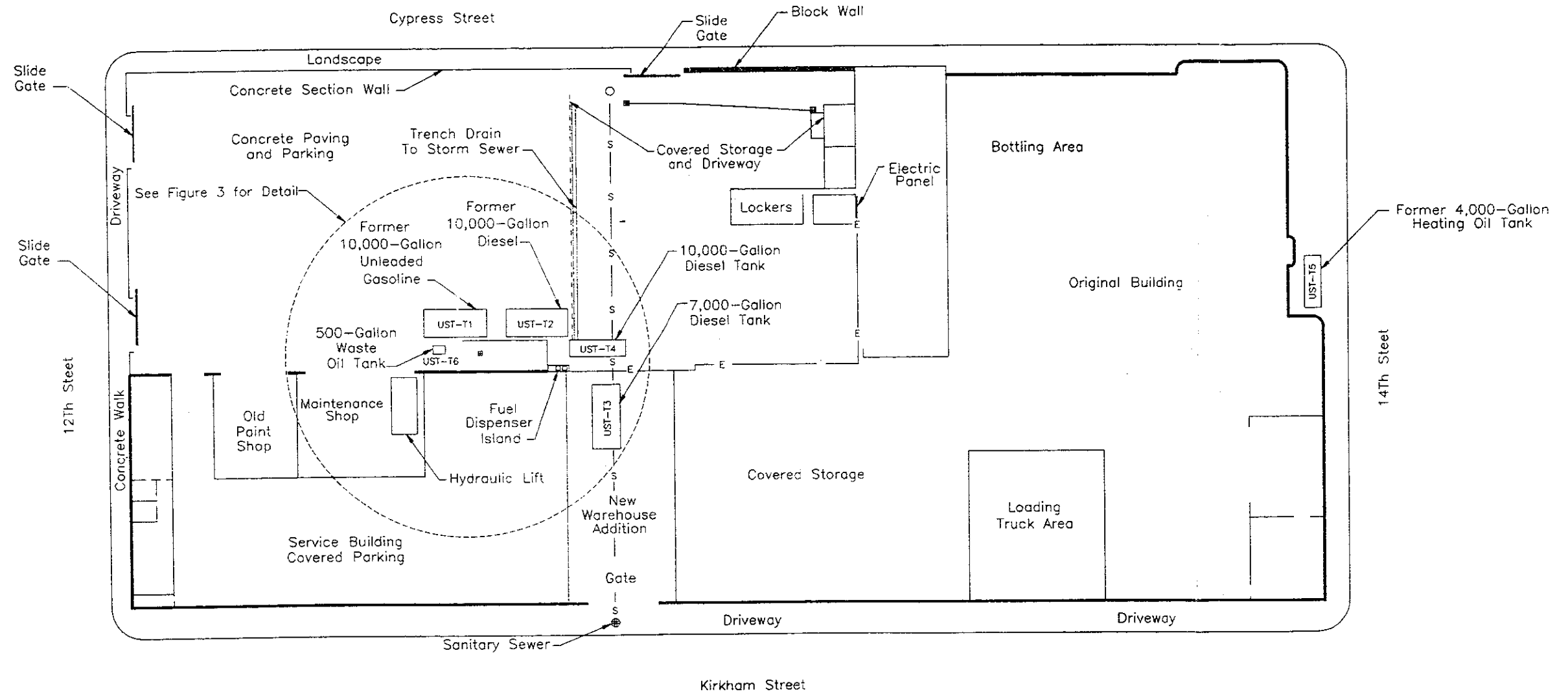


Base Map:
Oakland West
California
USGS 7.5 Minute
Quadrangle

Job No.: 91058.01	Reviewed By: R. Hall	Drafted By: J. Overholt
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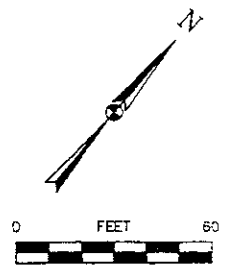
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Fig. 2



Explanation

- Storm Sewer
- Sanitary Sewer Manhole Cover
- s- Sanitary Sewer Line
- || Trench Drainage
- E- Electric Line



CARBASE.DWG
 Frame_Base_Site
 REV. 5/22/91 01-02 J.T.O.

JOB NO:
91058.02

REVIEWED BY:
R. Hall

DRAFTED BY:
J. Overholt

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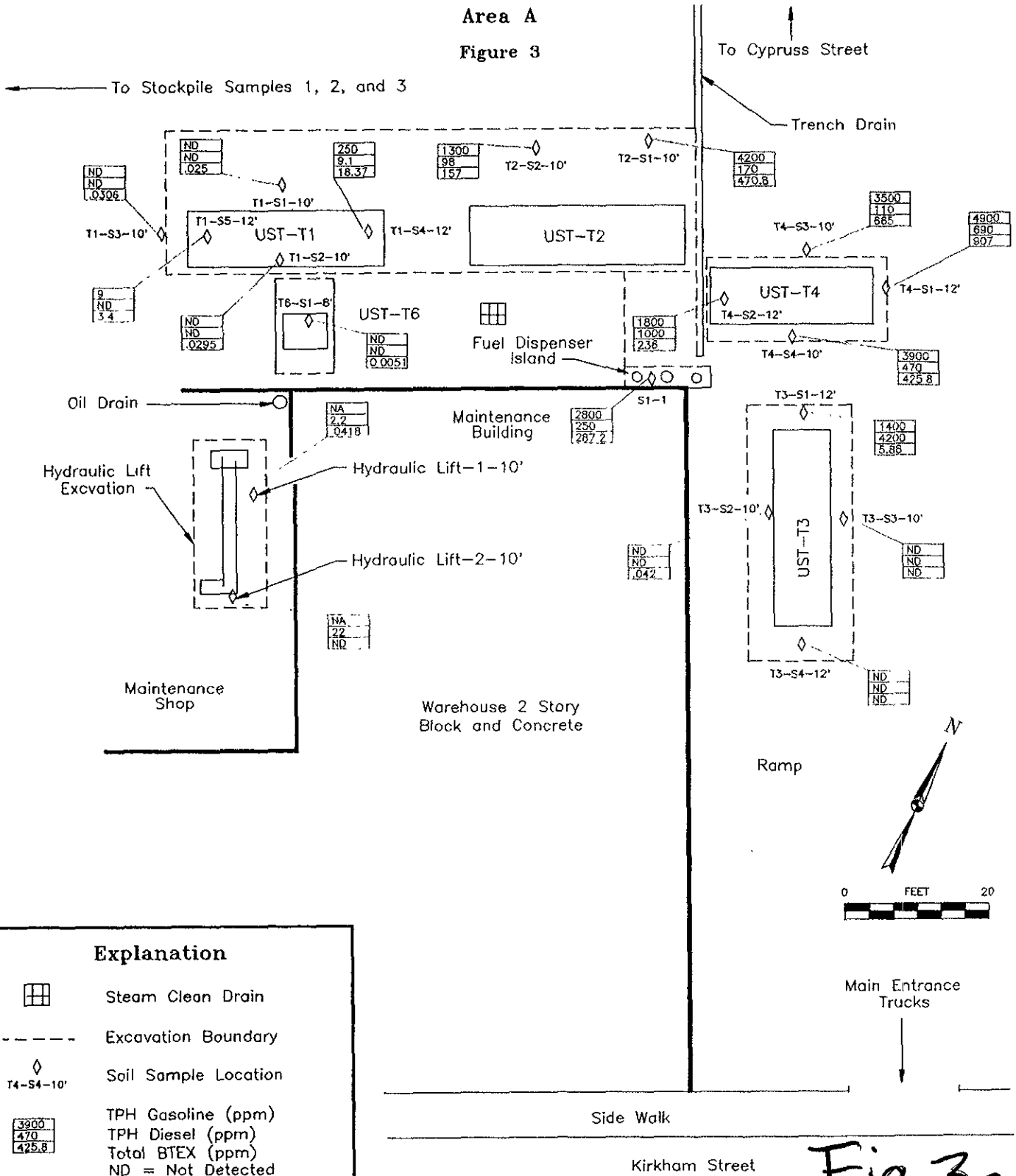
Preliminary Underground Storage Tank Assessment

Coca-Cola Enterprises - West • Oakland, California

Excavation Detail

Area A

Figure 3



Explanation

- Steam Clean Drain
- Excavation Boundary
- Soil Sample Location
- | |
|-------|
| 3900 |
| 470 |
| 425.8 |

 TPH Gasoline (ppm)
- | |
|-------|
| 470 |
| 425.8 |

 TPH Diesel (ppm)
- | |
|-------|
| 3900 |
| 470 |
| 425.8 |

 Total BTEX (ppm)
- ND = Not Detected
- NA = Not Analyzed

Fig. 3a
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91058.01

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R. Hall

DRAFTED BY:
J. Overholt

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Preliminary Underground Storage Tank Assessment

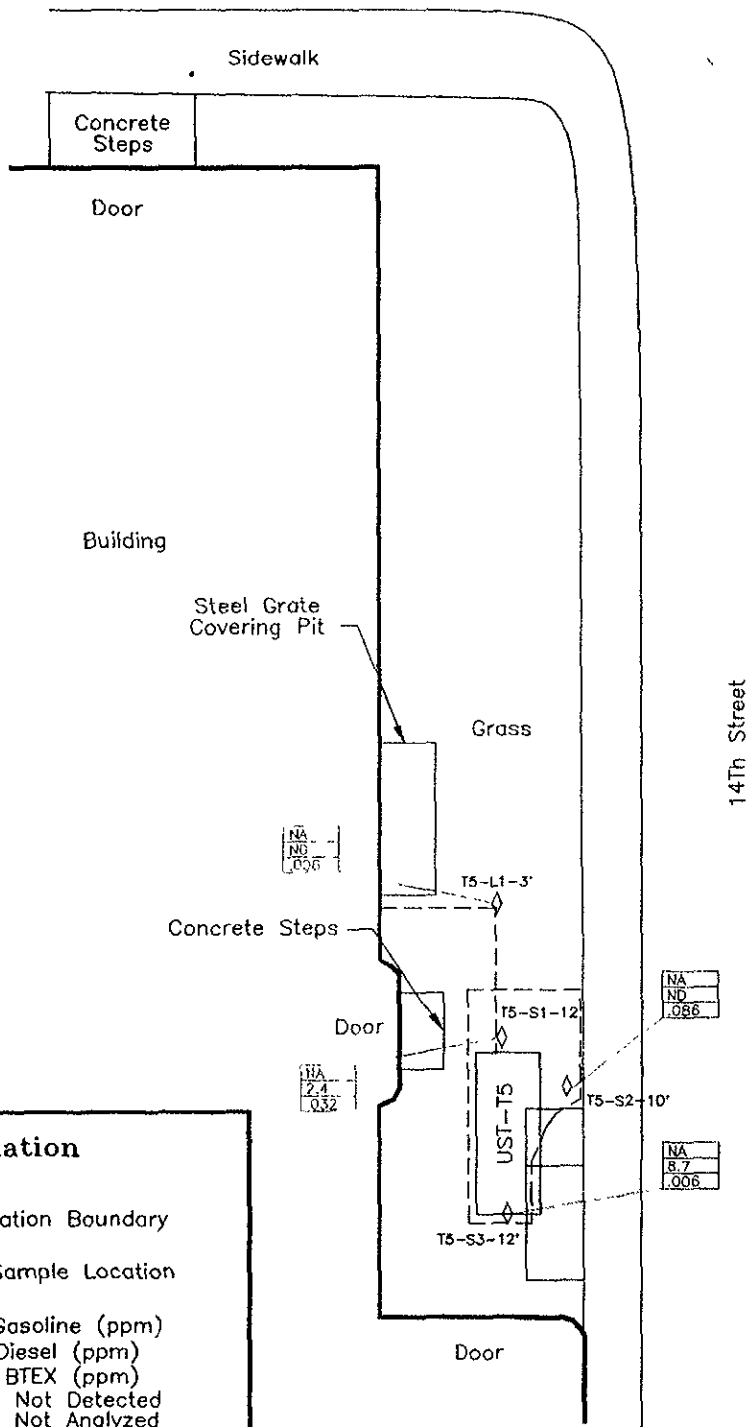
Coca-Cola Enterprises - West • Oakland, California

Excavation Detail

Area B

Figure 4

Cypress Street/Mandela Parkway



14Th Street

Explanation

- Excavation Boundary
- ◇ Soil Sample Location
- T5-S2-10'
- TPH Gasoline (ppm)
- TPH Diesel (ppm)
- Total BTEX (ppm)
- ND = Not Detected
- NA = Not Analyzed

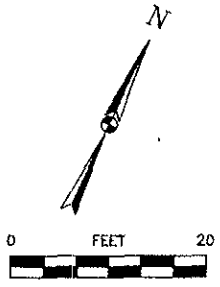


Fig. 3b

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Contamination Assessment Report

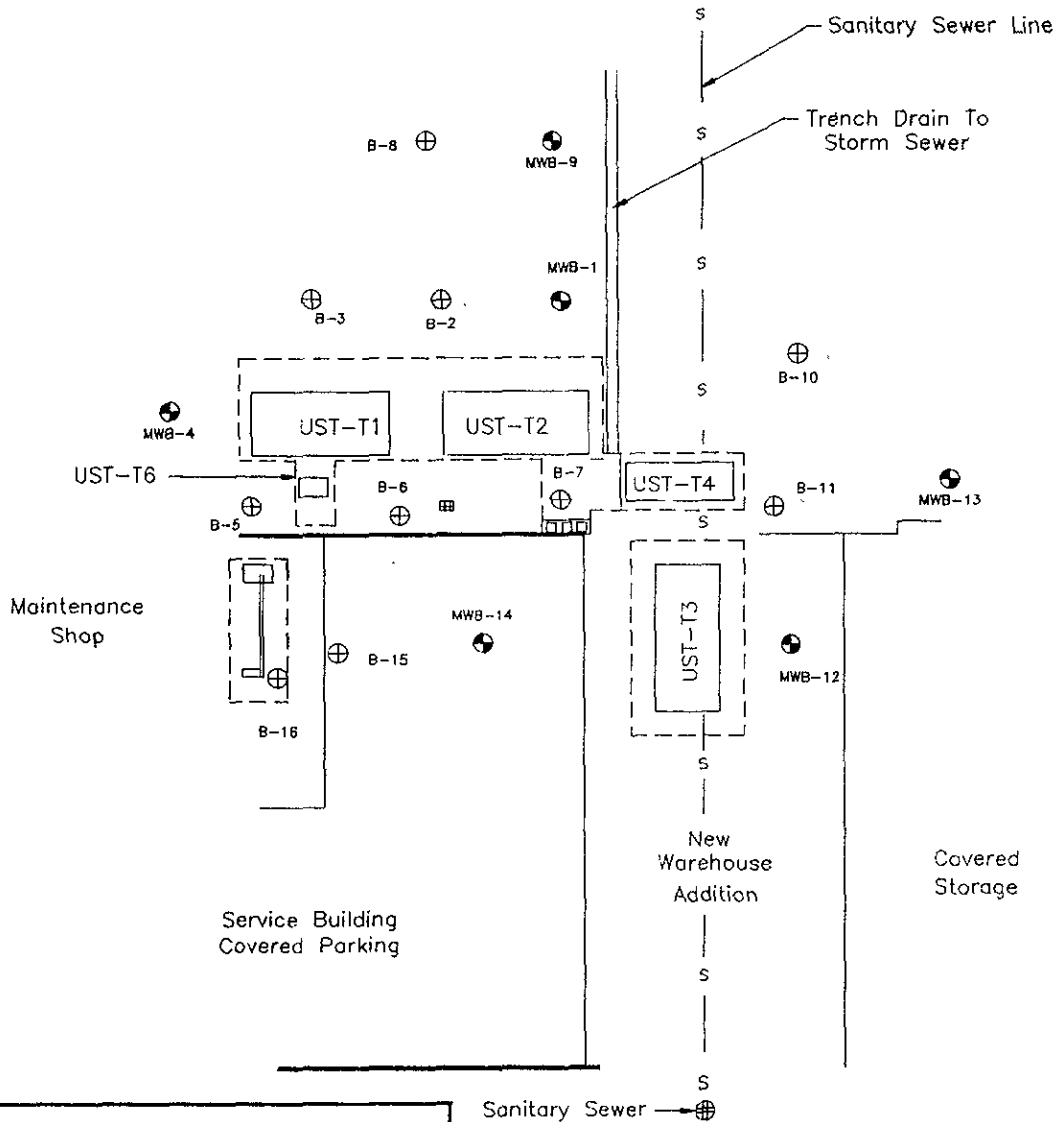
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Soil Boring and Groundwater

Monitoring Well Location Map

Figure 3

Fig. 4

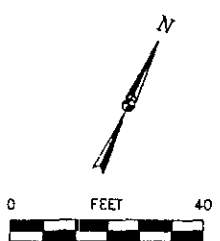


Explanation

- Steam Clean Drain
- Excavation Boundary
- Groundwater Monitoring Well Location
- Soil Boring Location

Sanitary Sewer

Kirkham Street



Frame, Base, SB, MW, SBMW-LOC

REV 5/28/91 01-02 J.T.O.

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CARDING

Contamination Assessment Report

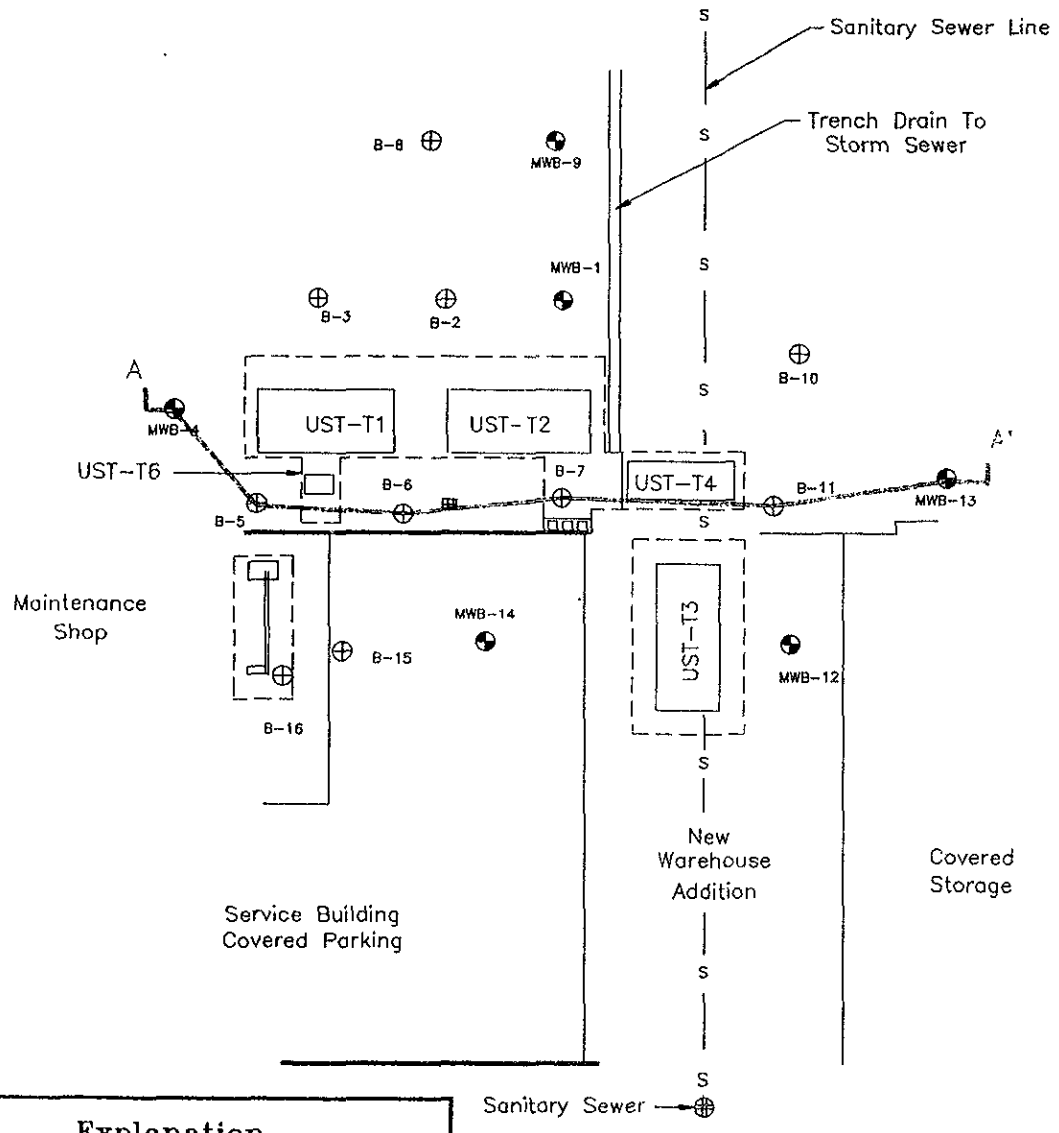
Coca-Cola - West • Oakland, California

Cross Section Location Map

Cross Section A - A'

Figure 6

Fig. 5a



Explanation

- Steam Clean Drain
- Excavation Boundary
- Groundwater Monitoring Well Location
- Soil Boring Location
- Line of Geologic Cross Section

Sanitary Sewer

Kirkham Street



REV. 5/28/91 D1-02 J.T.O. Frame, Base, MW, SB, Cross-Section

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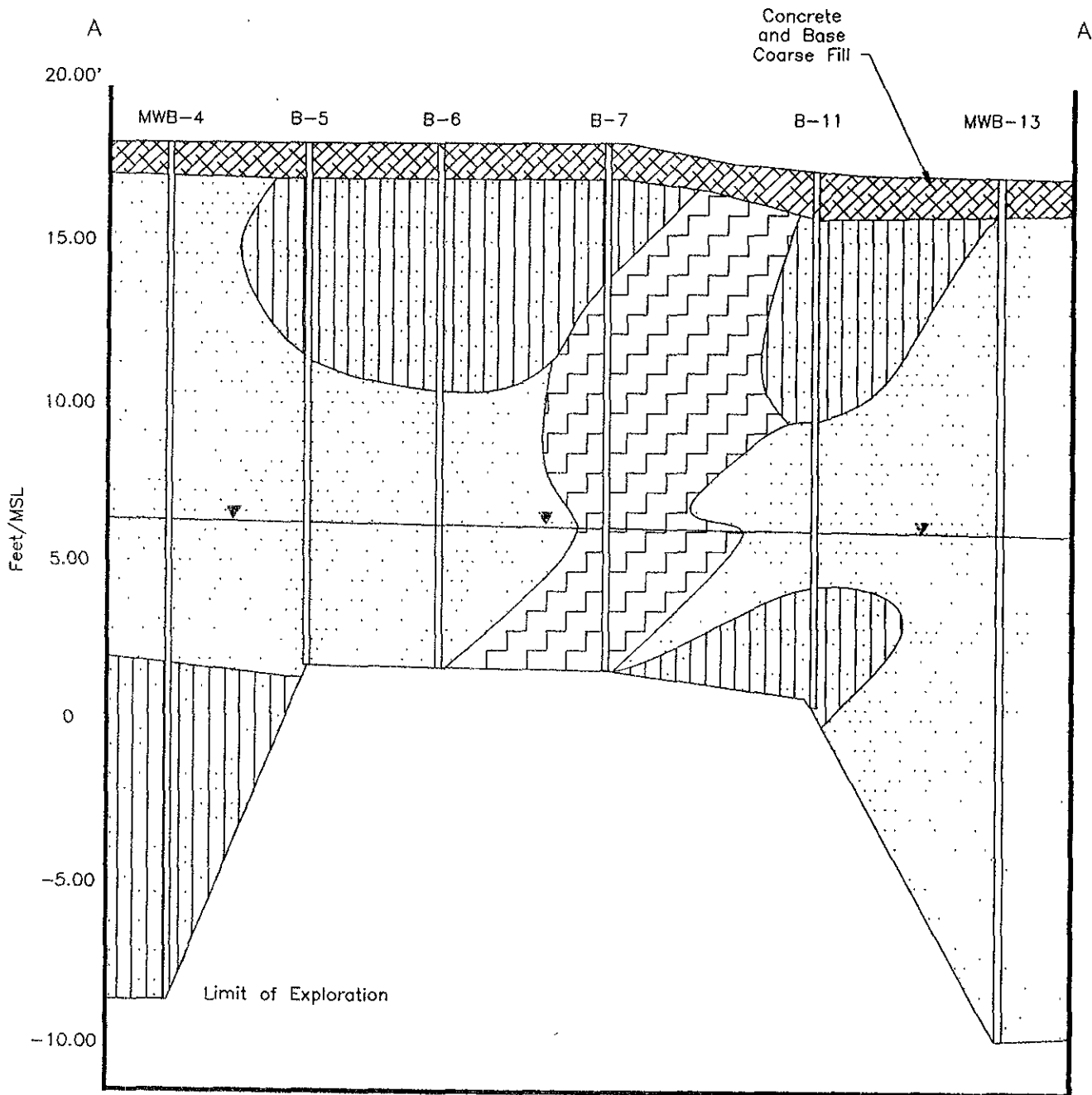
Contamination Assessment Report

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Cross Section Map A - A'

Figure 7

Fig. 5b



Explanation



Silty Sand



Sand with Gravel



Clayey Sand



Static Water Level

MSL

Mean Sea Level



Vertical Exaggeration is 6x

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QMR-391

Quarterly Monitoring Report

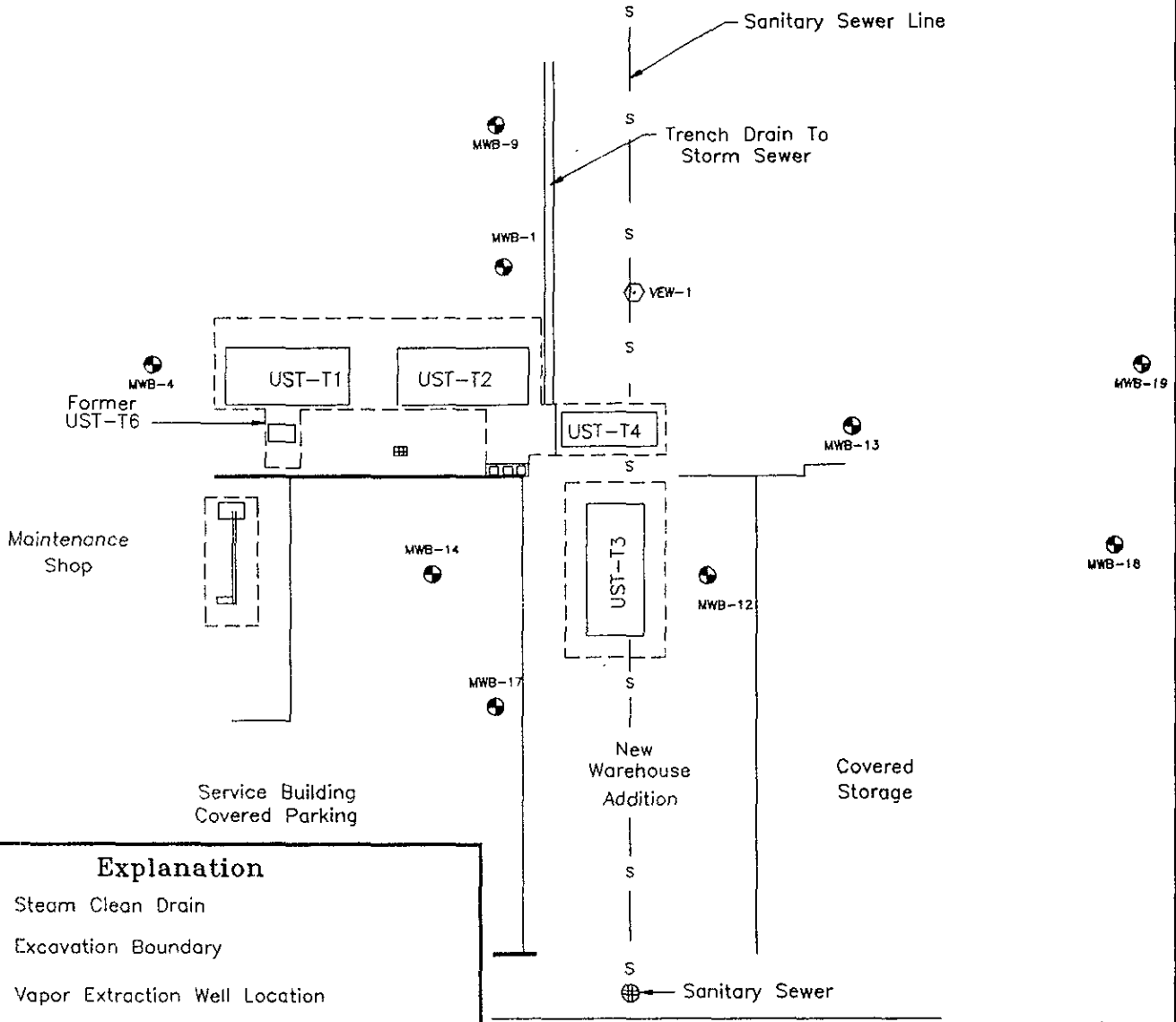
Third Quarter 1991

Coca-Cola Enterprises - West • Oakland, California





Site Map

Figure 2

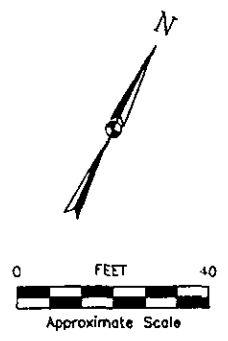
Fig. 6



Explanation

-  Steam Clean Drain
-  Excavation Boundary
-  VEW-1 Vapor Extraction Well Location
-  MWB-12 Groundwater Monitoring Well Location

 Sanitary Sewer



FRAME, BASE, SITE, MW

REV 10-10-91 01.04 J.L.O.

JOB NO:
91058.02

REVIEWED BY:
M. Roche, R.G.

DRAFTED BY:
J. Overholt

USTEC