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**ANNUAL MONITORING REPORT
FORMER COX CADILLAC SITE
230 BAY PLACE
OAKLAND, CALIFORNIA**

January 1996

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FORMER COX CADILLAC SITE
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Prepared by:

EOA, Inc.

January 1996

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INTRODUCTION

This annual report summarizes the results of groundwater monitoring during the period December 1994 through November 1995 at the property located at 230 Bay Place, Oakland, California. Monitoring activities for December 1994 through September 1995 have been reported in previous quarterly monitoring reports (EOA, January 1995, April 1995, and October 1995). Monthly monitoring of groundwater elevations during October and November are the only activities conducted since the last quarterly report. The results of that additional work represent the only previously-unreported data included in this annual summary.

This annual summary report was completed according to Task III of the approved *Work Plan for Further Investigation, 230 Bay Place, Oakland, California* (Work Plan), dated March 1994. The Work Plan was approved by the Alameda County Department of Environmental Health, Environmental Protection Division (County) with two exceptions. The County suggested using well TW-2 as an upgradient well, if needed, and the County suggested sampling well TW-6 for groundwater analyses.

As subcontractors to EOA, Inc., for the year's monitoring, Subsurface Consultants, Inc. (SCI) performed the field tasks and Curtis and Tompkins Laboratory, a California-Certified Laboratory, performed the groundwater analyses.

METHODOLOGY

The methods for measuring groundwater elevations and sampling groundwater for analyses have been reported in previous quarterly monitoring reports (EOA, January 1995, April 1995, and October 1995). The December 1994 through November 1995 groundwater surface contour maps are included in this report in Figures 1-11. Table 1 summarizes the quarterly groundwater elevation data for December 1994, March 1995, June 1995, and September 1995. Table 2 summarizes all of the groundwater elevation data, beginning October 1993 through November 1995. Due to an oversight on the subcontractor's part, the depths to groundwater were not measured in July. For the groundwater surface contour maps, the data points were referenced to an arbitrary datum of 100' for the top of casing (TOC) in well MW-1. The wells have not been surveyed to date and this methodology is consistent with that used by PES in a prior report.

GROUNDWATER ELEVATION

On a quarterly basis, groundwater fluctuations have been consistent among all four wells. As expected, groundwater elevations were highest during the wet season (first and second

quarter) and fell during the dry season (third and fourth quarters - Table 1). On a monthly basis, more variability among wells was observed, but the overall pattern remained relatively consistent. At least part of the variability among wells was due to anomalous elevation readings in well MW-1 in August and October of 1995. The depth to groundwater in well MW-1 was measured at 6.45 and 6.05 for August and October, respectively. All of the other measurements in that well were in the range of 2.21 feet to 3.97 feet, and no dramatic changes in groundwater elevation were observed in any of the other wells during these two months. Upon further investigation in November, it was determined that water level in well MW-1 rose several feet within the first few hours of removal of the unvented well cap on well MW-1. Such a stabilization period resulted in measurements which were within the previously observed range. The well cap will be replaced with a vented one for future monitoring, if required, or a stabilization period will be included in protocols for future monitoring.

GROUNDWATER FLOW DIRECTION

Based on the past year of water level measurements, the general direction of groundwater flow is in a southwesterly direction toward Lake Merritt. The August and October groundwater flow directions are anomalous to the rest of the year's data, due to anomalous groundwater elevation measurements from well MW-1 as described above. If the depth to groundwater for August and October were in the historical range, the groundwater gradient map would show a gradient similar to historic maps for the site; i.e. groundwater flow in a southwesterly direction instead of a westerly direction as shown.

GROUNDWATER QUALITY

Over the year of monitoring, no free product was observed in any of the wells that were monitored. Table 3 summarizes and Figures 12-15 illustrate quarterly groundwater analytical results. Table 4 summarizes historical groundwater analytical results and copies of the original laboratory reports for the four quarters of monitoring are in Appendix C.

The concentrations in groundwater of TVH, benzene, toluene, ethyl benzene, and total xylenes (BTEX) have decreased only slightly in wells MW-1 and TW-6 during the monitoring period. Some fluctuation in concentration was observed (e.g. decrease followed by increase), but the data is not sufficient to determine whether this represents any seasonal- and/or groundwater elevation-related pattern. The concentrations of TVH and BTEX in well TW-6 have increased during the year's monitoring. In addition, soluble lead present in well MW-1, was not detected in wells TW-6 and TW-7 during the second quarter monitoring event, but was detected in both wells during both the third and fourth quarter monitoring events.

CONCLUSIONS

Water level measurements identified an apparently seasonal groundwater elevation fluctuation on the order of approximately two feet. This pattern was consistent in all of the wells.

Regarding groundwater flow direction, the data appears to confirm that the gradient across the property is consistently towards the southwest. There is some indication from the three most recent quarter's measurements that the flow may shift to a more southerly direction near the Bay St. property boundary (near well TW-7). With the available data, it cannot be determined whether this is actually a change of flow direction, or some localized effect, or even a problem with the construction of wells TW-6 or TW-7.

The groundwater elevations measured in well MW-1 in August and October are not likely representative of stabilized groundwater conditions. The apparently anomalous depths to groundwater measured in those months appear to be an artifact of specific well construction and sampling conditions. Protocols and/or well cap type will be modified if future sampling is conducted, to prevent future anomalous readings.

Over the one-year period of monitoring, chemical concentrations have not changed significantly. The values measured during this period seem to be representative of groundwater quality in the monitored area for the constituents analyzed. In general, the concentrations of TVH and BTEX decreased slightly during the second quarter monitoring event, then increased slightly during the third and fourth quarterly monitoring events. This apparent, slight fluctuation in concentrations may be due to the accompanying fluctuations in groundwater elevations. The increase in TVH concentration in well TW-6 may indicate some lateral spreading of the hydrocarbon plume, or it may be a result of groundwater level fluctuation into material in the vadose zone.

The highest concentrations of TVH and BTEX were found in well TW-7, which is located adjacent to, and downgradient from, the former underground storage tank location. The only detection of 1,2-DCA was in well MW-1 and the highest concentrations of soluble lead were detected in well MW-1. Lower concentrations of soluble lead were also detected in wells TW-6 and TW-7 during the third and fourth quarter monitoring events, but not the second quarter monitoring event. Well MW-1 is located next to the former waste oil tank location. The presence of TVH and BTEX is consistent with the confirmed release of unleaded gas from the underground fuel tank which was removed last year.

Both dissolved lead and chlorinated solvents are more commonly associated with releases from waste oil tanks than with unleaded gasoline. The detection of soluble lead and 1,2-DCA, and their presence primarily in MW-1, tend to indicate that their source was more likely the former waste oil tank than the former fuel tank. Their extent in groundwater is probably relatively limited, but soluble lead was detected over a larger area in the third and fourth quarter's sampling than in previous quarters. The relatively low concentrations of soluble lead in wells TW-6 and TW-7 are consistent with a source near well MW-1.

Limitations

The services performed by EOA, Inc. for this report have been performed using that degree of care and skill ordinarily exercised by reputable professionals practicing under similar circumstances in this or similar localities. No other warranty, expressed or implied, is made by providing these consulting services. This report has been prepared by EOA, Inc. for Mr. Cox for submittal to Alameda County Health Department and other regulatory agencies. This report has not been prepared for use by other parties, and may not contain sufficient information for the purposes of other parties or uses.

It should be recognized that subsurface conditions may vary from those encountered at the location where samples are collected. The data, interpretation and recommendations of EOA, Inc. are based solely on the information available to EOA, Inc. during the project. EOA, Inc. will be responsible for those data, interpretations and recommendations, but shall not be responsible for the interpretation by others of the information developed.

Because of the limitations inherent in sampling, and the variability of natural materials, determining the absence of any chemical except in the immediate vicinity of a sample can rarely be done with complete certainty. The only way to determine that a site is absolutely free of chemicals of concern is to sample and analyze all the soil and groundwater at the site, which is impractical and costly. Balancing the level of confidence required against the budgetary constraints is difficult. The sampling and analysis in this investigation were approved by the Alameda County Health Department and are consistent with State regulations and guidelines.

Table 1
Quarterly Groundwater Elevation Data
December 1994, March 1995, June 1995, and September 1995

Well Number	Date	TOC Elevation* (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
TW-2	12/22/94	100.43	2.88	97.55
	3/24/95		1.87	98.56
	6/29/95		2.10	98.33
	9/29/95		3.02	97.41
TW-6	12/22/94	98.75	4.66	94.09
	3/24/95		3.81	94.94
	6/29/95		5.25	93.50
	9/29/95		6.12	92.63
TW-7	12/22/94	97.96	4.50	93.46
	3/24/95		2.98	94.98
	6/29/95		4.30	93.66
	9/29/95		5.19	92.77
MW-1	12/22/94	100.00	2.96	97.04
	3/24/95		2.21	97.79
	6/29/95		2.44	97.56
	9/29/95		3.00	97.00

Depths are measured below Top of Casing (TOC)

* Elevations are referenced to the TOC for MW-1, which was assumed (by PES) to have an elevation of 100.00 feet

Table 2
Historical Groundwater Elevation Data
October 1993 Through November 1995

Well Number	Date	TOC Elevation* (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
TW-1	10/13/93	100.91	0.06	100.85
TW-2	10/13/93	100.43	2.32	98.11
	12/22/94		2.88	97.55
	1/24/95		1.95	98.48
	2/22/95		1.87	98.56
	3/24/95		1.87	98.56
	4/25/95		2.86	97.57
	5/26/95		1.90	98.53
	6/29/95		2.10	98.33
	8/24/95		3.13	97.30
	9/29/95		3.02	97.41
	10/31/95		3.78	96.65
11/27/95	2.48	97.95		
TW-3	10/13/93	100.46	4.43	96.03
TW-4	10/13/93	99.35	2.73	96.62
TW-5	10/13/93	99.40	4.84	94.56
TW-6	10/13/93	98.75	5.40	93.35
	12/22/94		4.66	94.09
	1/24/95		4.10	94.65
	2/22/95		4.14	94.61
	3/24/95		3.81	94.94
	4/25/95		6.03	92.72
	5/26/95		5.07	93.68
	6/29/95		5.25	93.50
	8/24/95		5.83	92.92
	9/29/95		6.12	92.63
	10/31/95		6.12	92.63
11/27/95	6.25	92.50		
TW-7	10/14/93	97.96	5.40	92.56
	12/22/94		4.50	93.46
	1/24/95		3.10	94.86
	2/22/95		4.15	93.81
	3/24/95		2.98	94.98
	4/25/95		5.23	92.73
	5/26/95		3.93	94.03
	6/29/95		4.30	93.66
	8/24/95		4.80	93.16
	9/29/95		5.19	92.77
	10/31/95		5.34	92.62
11/27/95	5.50	92.46		

**Table 2 (cont.)
 Historical Groundwater Elevation Data
 October 1993 Through November 1995**

Well Number	Date	TOC Elevation* (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
MW-1	10/13/93	100.00	3.55	96.45
	12/22/94		2.96	97.04
	1/24/95		3.62	96.38
	2/22/95		2.65	97.35
	3/24/95		2.21	97.79
	4/25/95		3.69	96.31
	5/26/95		2.32	97.68
	6/29/95		2.44	97.56
	8/24/95		6.45	93.55
	9/29/95		3.00	97.00
	10/31/95		6.05	93.95
	11/27/95		3.97	96.03

Depths are measured below Top of Casing (TOC)

* Elevations are referenced to the TOC for MW-1, which was assumed (by PES) to have an elevation of 100.00 feet

Table 3
Summary of Quarterly Groundwater Analytical Results
Cox Cadillac

Well	Date	TVH as gasoline	benzene	toluene	ethyl benzene	total xylenes	1,1-DCA	1,2-DCA	ethylene dibromide	soluble lead
MW-1	12/22/94	110	18	11	2	16	<.001	0.13	NA	NA
	3/24/95	25	3.7	1.8	2.2	4.7	<.005	0.13	NA	.023
	6/29/95	28	5.3	2.1	3.2	7.5	<.002	0.110	NA	.014
	9/29/95	43	5.6	2.2	3.8	7.4	<.001	0.980	NA	.016
TW-6	12/22/94	24	5	2	3	6	<.001	<.001	NA	NA
	3/24/95	10	4.9	0.53	0.27	0.38	<.002	<.002	NA	<.003
	6/29/95	28	12	6.6	1	3	<.001	<.001	NA	.0042
	9/29/95	47	19	5.2	1.5	4	<.001	<.001	NA	.0033
TW-7	12/22/94	210	49	33	7	28	<.001	<.001	NA	NA
	3/24/95	56	13	7	1.5	5.6	<.002	<.002	NA	<.003
	6/29/95	100	39	8.1	3	8.3	<.001	<.001	NA	.0035
	9/29/95	74	32	8.7	2.9	8.6	<.001	<.001	NA	.0035

All values in milligrams per liter (ppm).
 NA - Not Analyzed

Table 4
Summary of Historical Groundwater Analytical Results
Cox Cadillac

Well	Date	TVH as gasoline	benzene	toluene	ethyl benzene	total xylenes	1,1-DCA	1,2-DCA	ethylene dibromide	soluble lead
MW-1	3/3/93	110	8.5	7.5	4.4	15	NA	0.35	NA	NA
	10/13/93	74	6.1	4.8	4	11	NA	0.35	0.08	NA
	12/22/94	110	18	11	2	16	<.001	0.13	NA	NA
	3/24/95	25	3.7	1.8	2.2	4.7	<.005	0.13	NA	.023
	6/29/95	28	5.3	2.1	3.2	7.5	<.002	0.110	NA	.014
	9/29/95	43	5.6	2.2	3.8	7.4	<.001	0.980	NA	.016
TW-1	10/13/93	<0.05	<.0005	<.0005	<.0005	<.0005	NA	<.0005	<.0005	NA
TW-2	10/13/93	<.05	<.0005	<.0005	<.0005	<.0005	NA	<.0005	<.0005	NA
TW-3	10/13/93	<.05	<.0005	<.0005	<.0005	<.0005	NA	<.0005	<.0005	NA
TW-4	10/13/93	2	.065	.018	.049	.033	NA	<.005	<.005	NA
TW-5	10/13/93	140	20	25	3.8	23	NA	<.01	<.01	NA
TW-6	10/14/93	4.1	3.8	1.6	0.11	0.54	NA	<.001	<.001	NA
	12/22/94	24	5	2	3	6	<.001	<.001	NA	NA
	3/24/95	10	4.9	0.53	0.27	0.38	<.002	<.002	NA	<.003
	6/29/95	28	12	6.6	1	3	<.001	<.001	NA	.0042
	9/29/95	47	19	5.2	1.5	4	<.001	<.001	NA	.0033
TW-7	10/14/93	100	48	15	3.4	16	NA	<.05	<.05	NA
	12/22/94	210	49	33	7	28	<.001	<.001	NA	NA
	3/24/95	56	13	7	1.5	5.6	<.002	<.002	NA	<.003
	6/29/95	100	39	8.1	3	8.3	<.001	<.001	NA	.0035
	9/29/95	74	32	8.7	2.9	8.6	<.001	<.001	NA	.0035

All values in milligrams per liter (ppm).
 NA - Not Analyzed

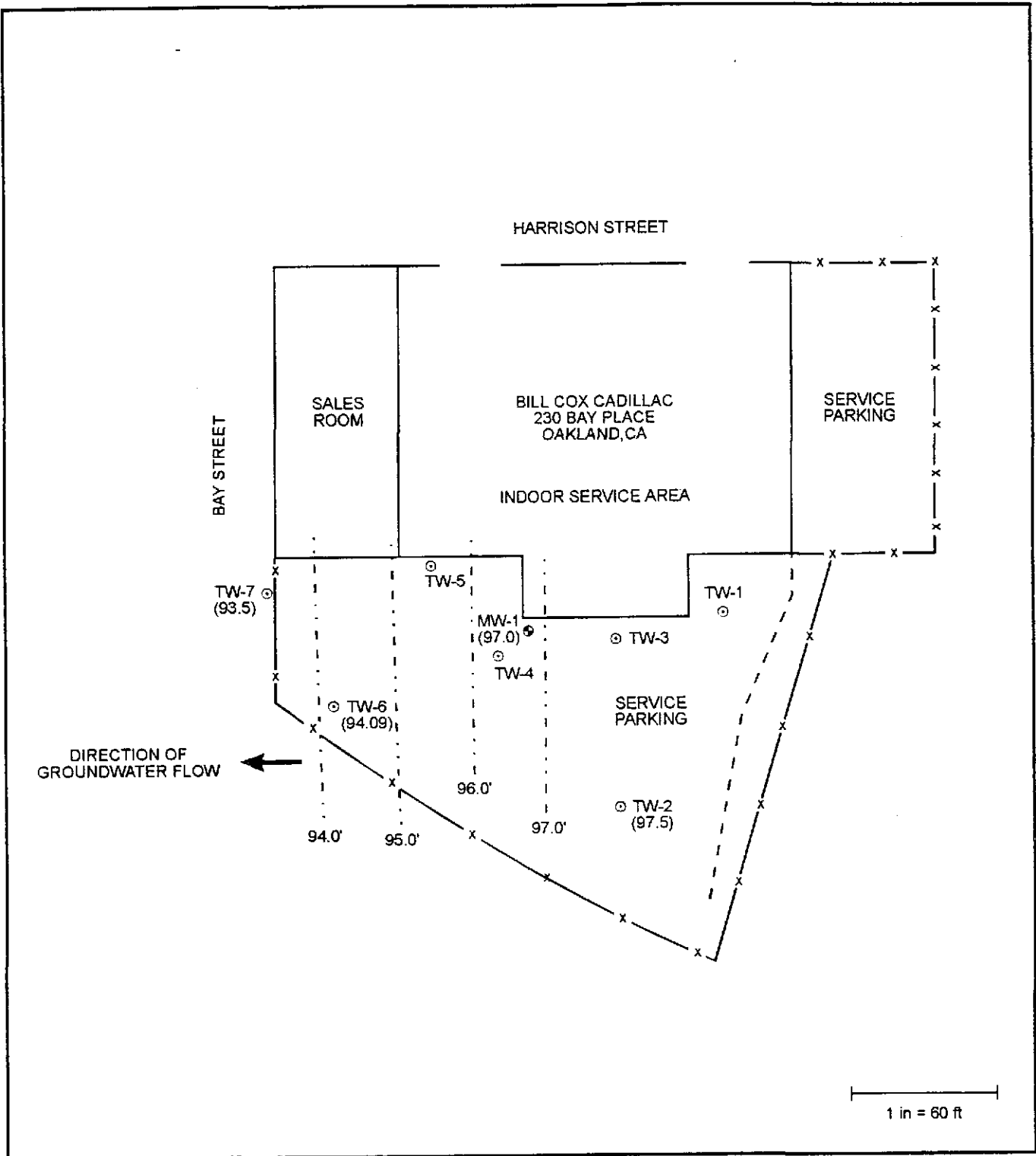


FIGURE 1: GROUNDWATER GRADIENT DECEMBER 1994

ALL ELEVATIONS RELATIVE TO AN ARBITRARY REFERENCE DATUM OF 100.00 FEET AT MW-1 TOC.

Sources: SCI (Jan '95)
PES (Nov '93)

- ⊕ Monitoring Well
- ⊙ Temporary Well Location
- x - x - Fence
- - - - Retaining Wall



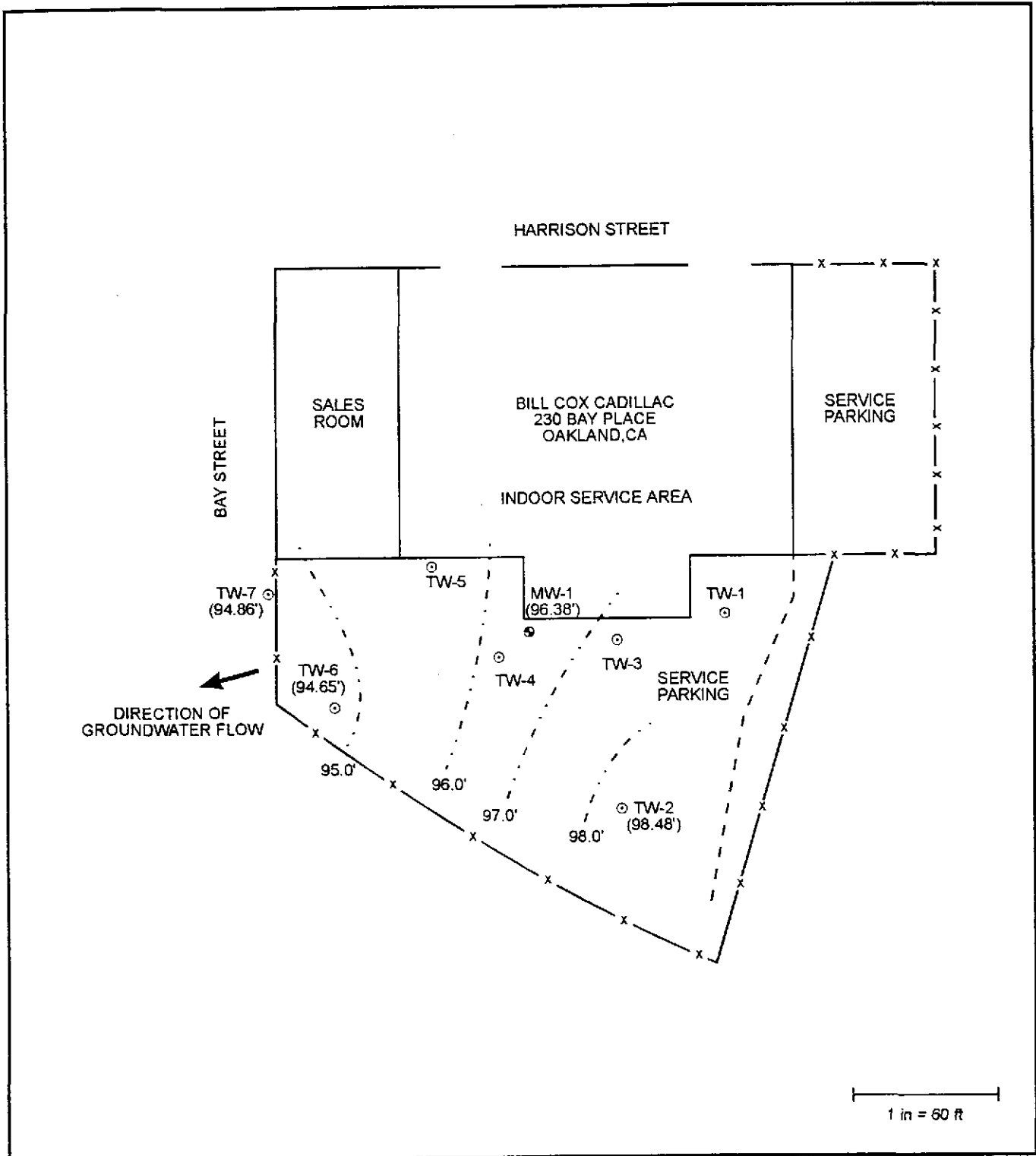


FIGURE 2: GROUNDWATER GRADIENT JANUARY 1995

ALL ELEVATIONS RELATIVE TO AN ARBITRARY
REFERENCE DATUM OF 100.00 FEET AT
MW-1 TOC.

Sources: SCI (Jan '95)
PES (Nov '93)

- ⊙ Monitoring Well
- ⊙ Temporary Well Location
- x - - - - Fence
- - - - - Retaining Wall



EOA, Inc.

December 1995

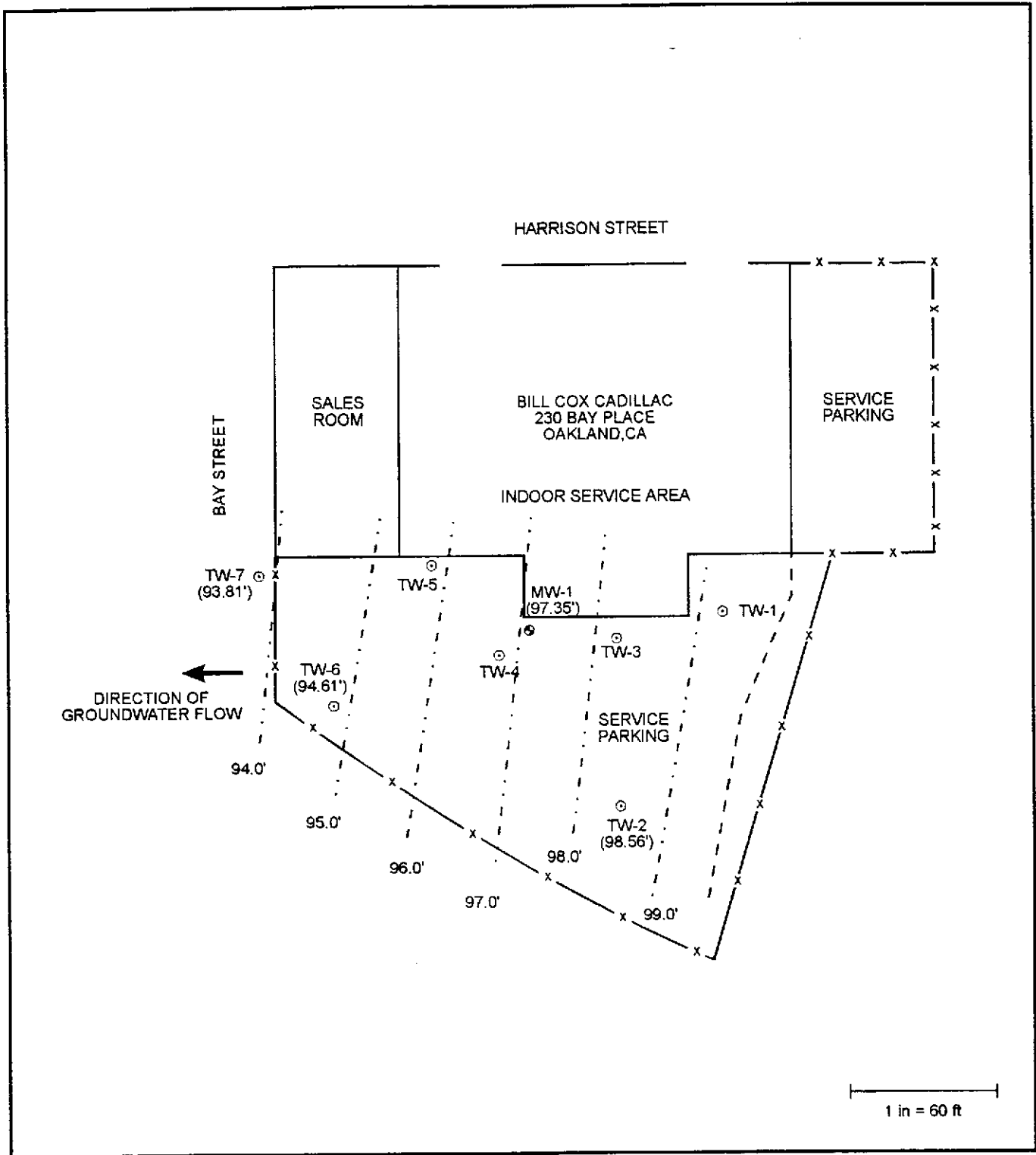


FIGURE 3: GROUNDWATER GRADIENT FEBRUARY 1995

ALL ELEVATIONS RELATIVE TO AN ARBITRARY
REFERENCE DATUM OF 100.00 FEET AT
MW-1 TOC.

Sources: SCI (Feb '95)
PES (Nov '93)

- ⊙ Monitoring Well
- Temporary Well Location
- x - - - - Fence
- - - - - Retaining Wall



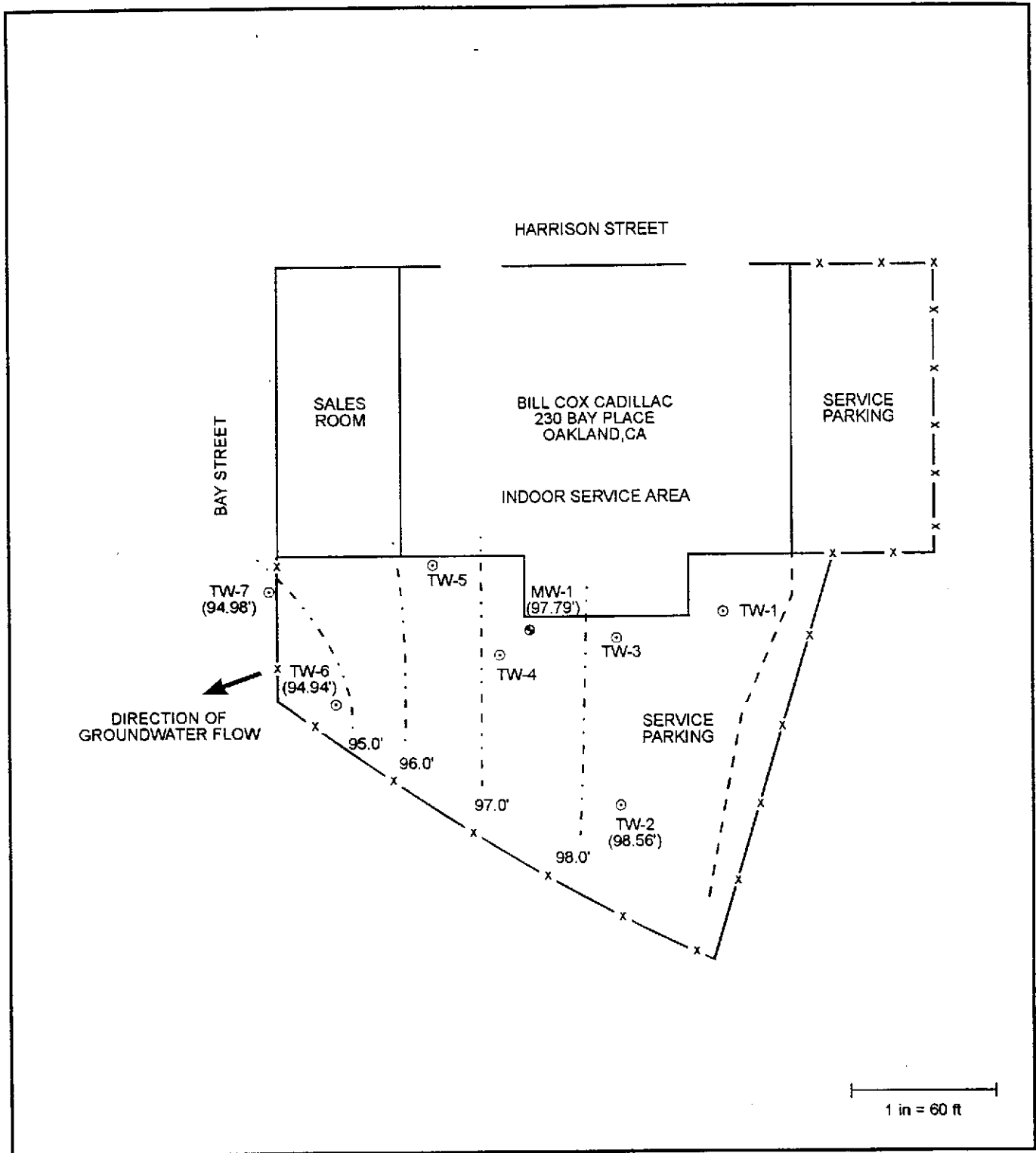


FIGURE 4: GROUNDWATER GRADIENT MARCH 1995

ALL ELEVATIONS RELATIVE TO AN ARBITRARY
REFERENCE DATUM OF 100.00 FEET AT
MW-1 TOC.

Sources: SCI (Feb '95)
PES (Nov '93)

- ⊕ Monitoring Well
- ⊙ Temporary Well Location
- x - x - Fence
- - - - Retaining Wall



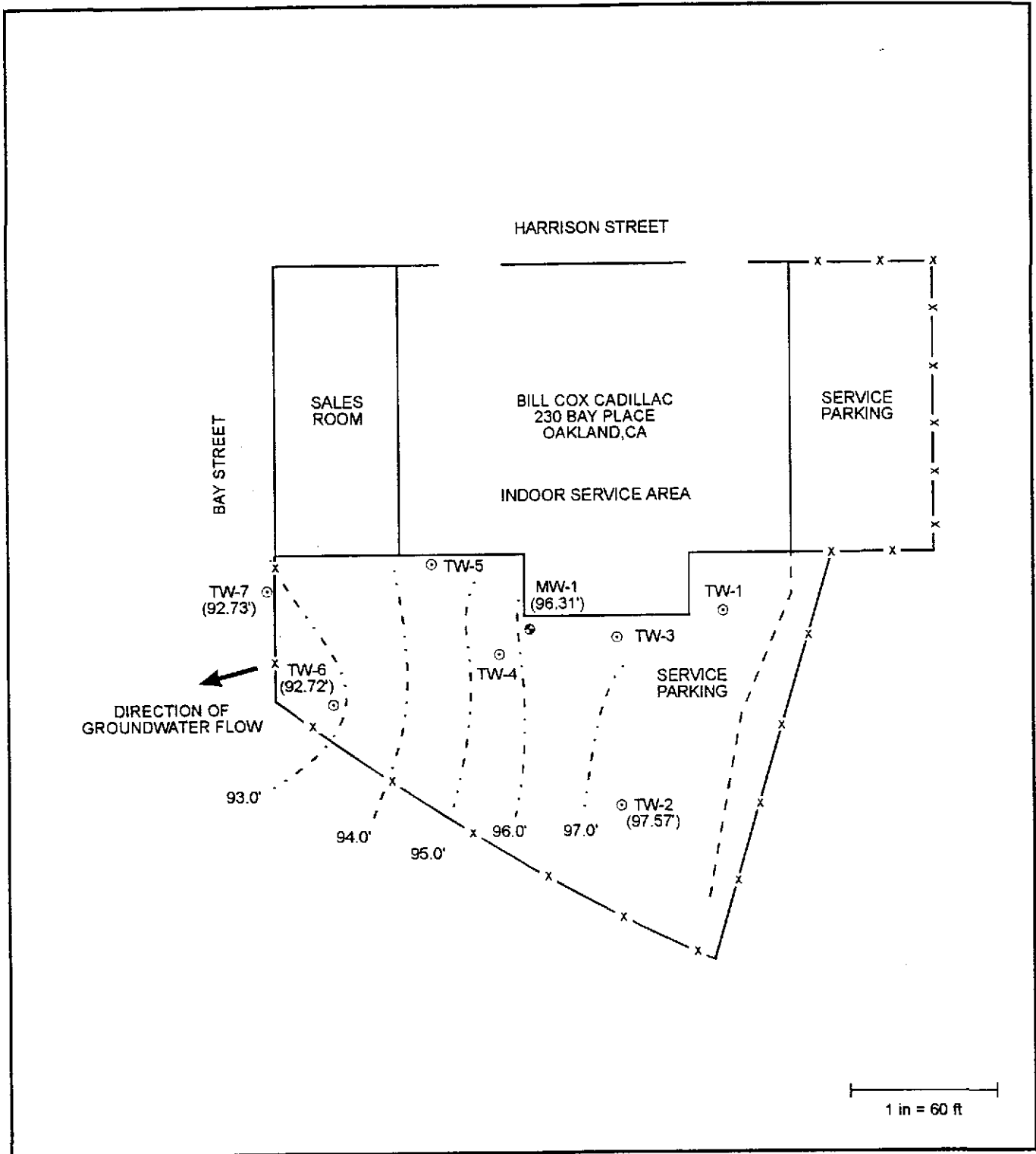


FIGURE 5: GROUNDWATER GRADIENT APRIL 1995

ALL ELEVATIONS RELATIVE TO AN ARBITRARY
REFERENCE DATUM OF 100.00 FEET AT
MW-1 TOC.

Sources: SCI (Jan '95)
PES (Nov '93)

- ⊙ Monitoring Well
- ⊙ Temporary Well Location
- x - x - Fence
- - - - Retaining Wall



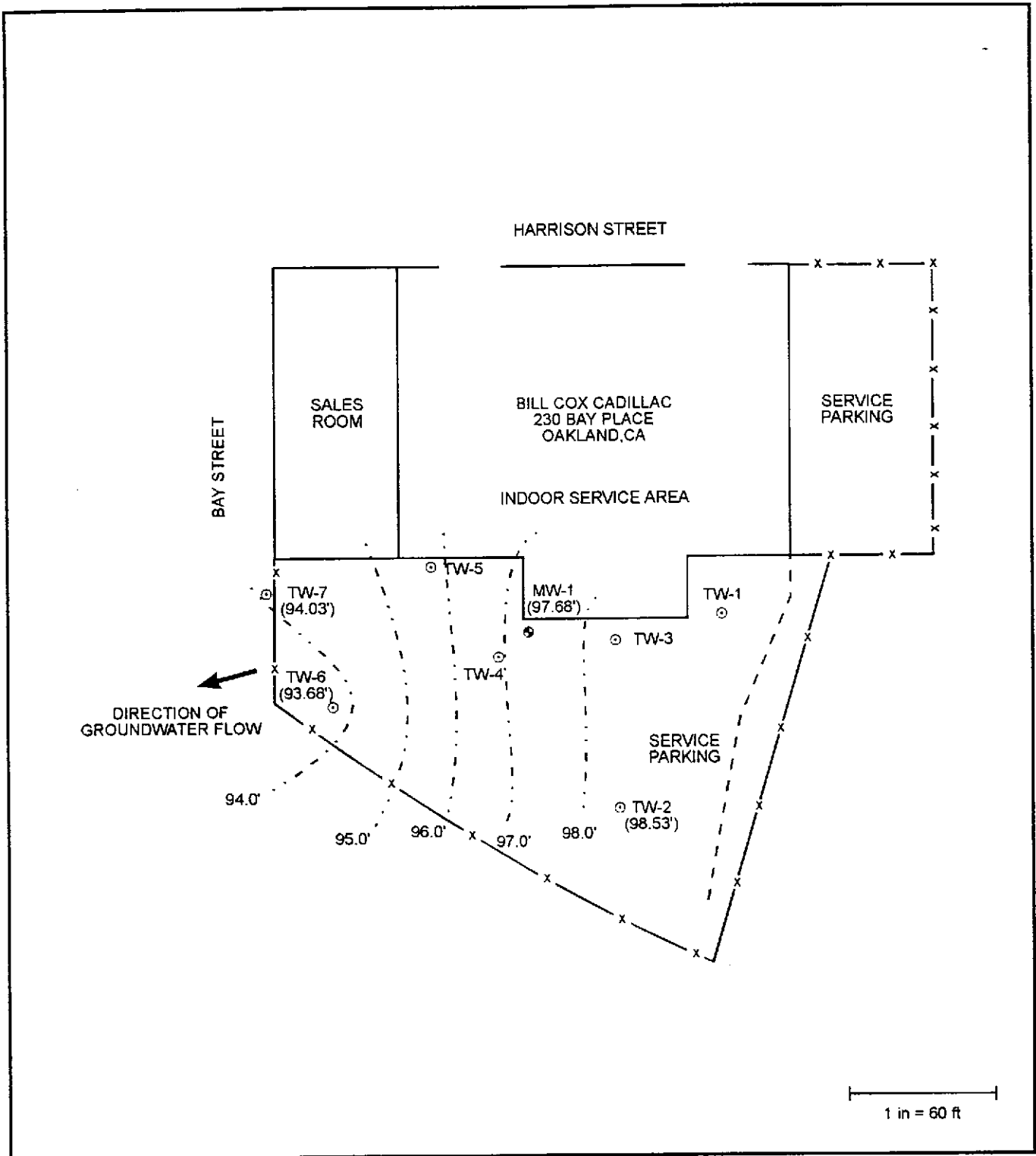


FIGURE 6: GROUNDWATER GRADIENT MAY 1995

ALL ELEVATIONS RELATIVE TO AN ARBITRARY
REFERENCE DATUM OF 100.00 FEET AT
MW-1 TOC.

Sources: SCI (Jan '95)
PES (Nov '93)

- ⊙ Monitoring Well
- ⊙ Temporary Well Location
- X - X - Fence
- - - - Retaining Wall



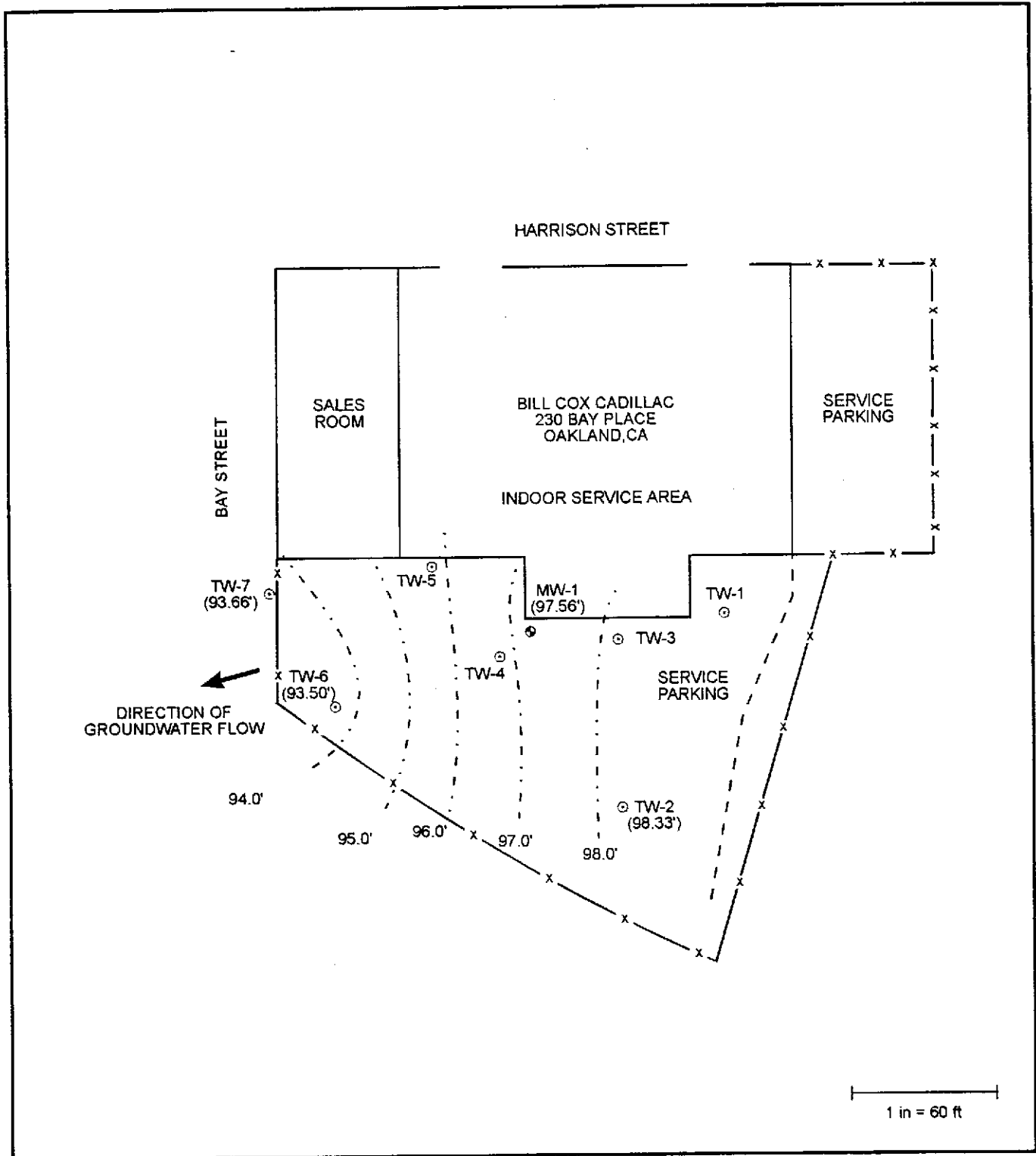


FIGURE 7: GROUNDWATER GRADIENT JUNE 1995

ALL ELEVATIONS RELATIVE TO AN ARBITRARY
REFERENCE DATUM OF 100.00 FEET AT
MW-1 TOC.

Sources: SCI (Jan '95)
PES (Nov '93)

- ⊙ Monitoring Well
- ⊙ Temporary Well Location
- X-X- Fence
- - - - Retaining Wall



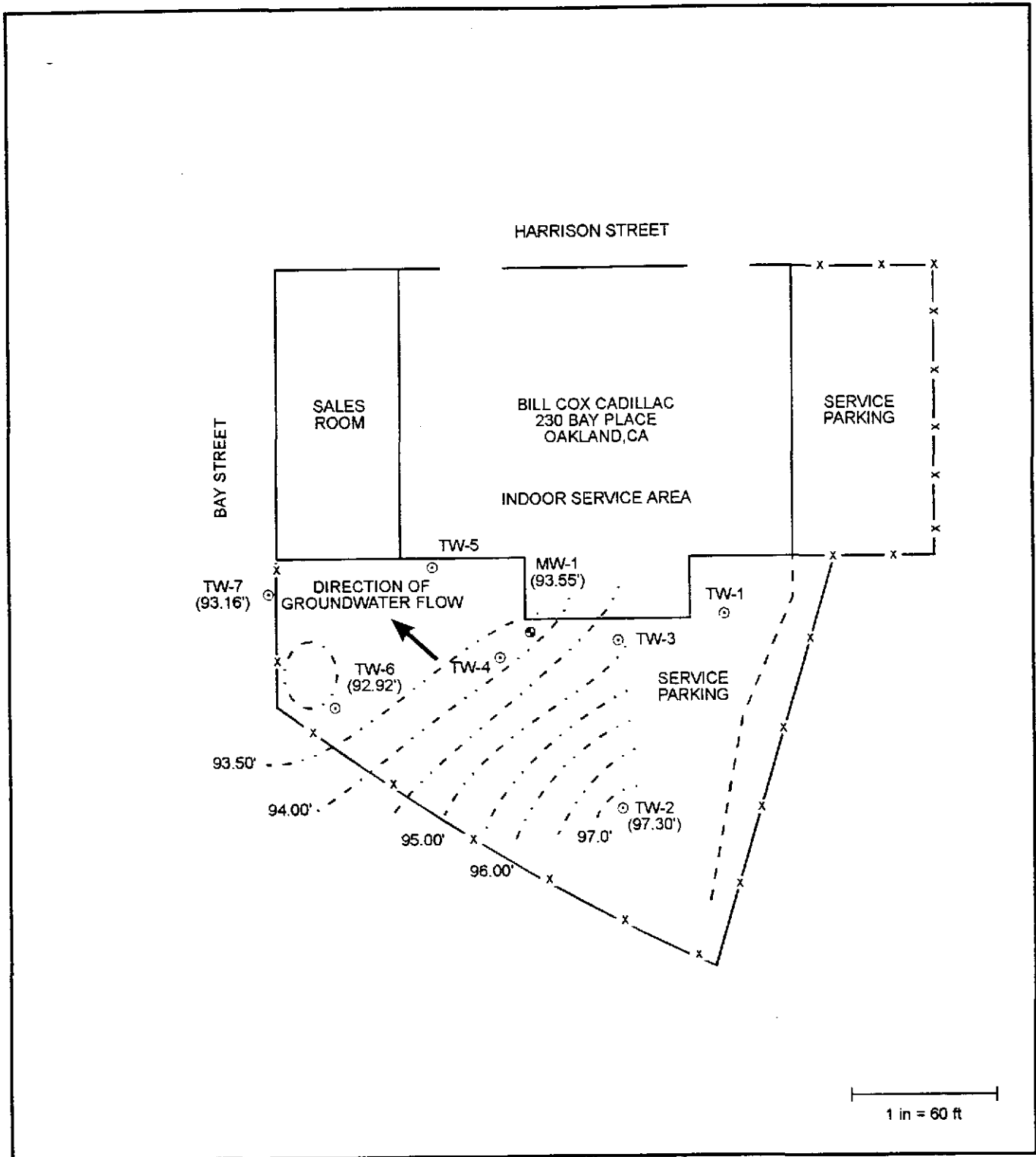


FIGURE 8: GROUNDWATER GRADIENT AUGUST 1995

ALL ELEVATIONS RELATIVE TO AN ARBITRARY
REFERENCE DATUM OF 100.00 FEET AT
MW-1 TOC.

Sources: SCI (Aug '95)
PES (Nov '93)

- ⊙ Monitoring Well
- ⊙ Temporary Well Location
- x — x - Fence
- - - - - Retaining Wall



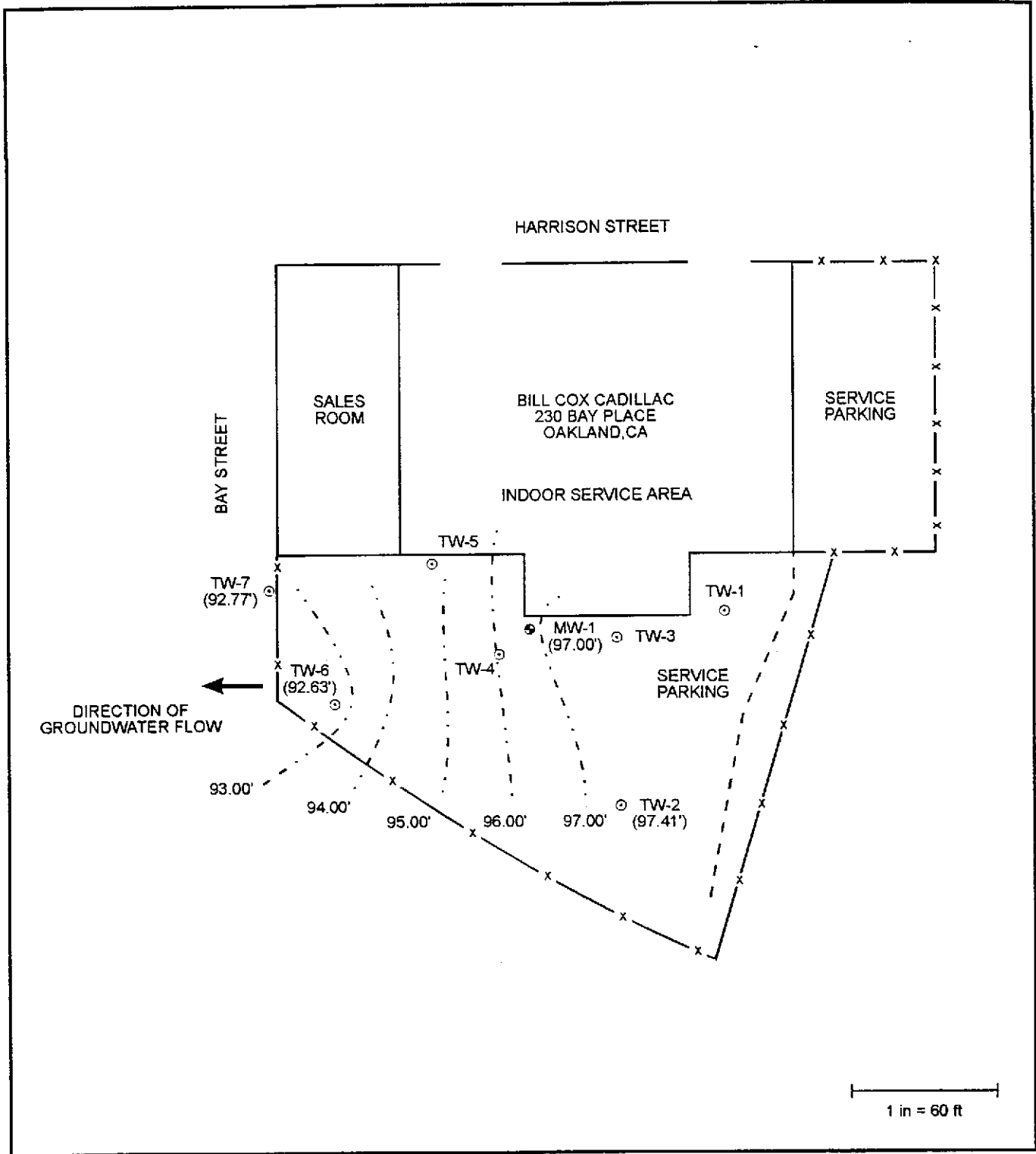


FIGURE 9: GROUNDWATER GRADIENT SEPTEMBER 1995

ALL ELEVATIONS RELATIVE TO AN ARBITRARY REFERENCE DATUM OF 100.00 FEET AT MW-1 TOC.

Sources: SCI (Sept '95)
PES (Nov '93)

- ⊙ Monitoring Well
- ⊙ Temporary Well Location
- x - - - - Fence
- - - - - Retaining Wall



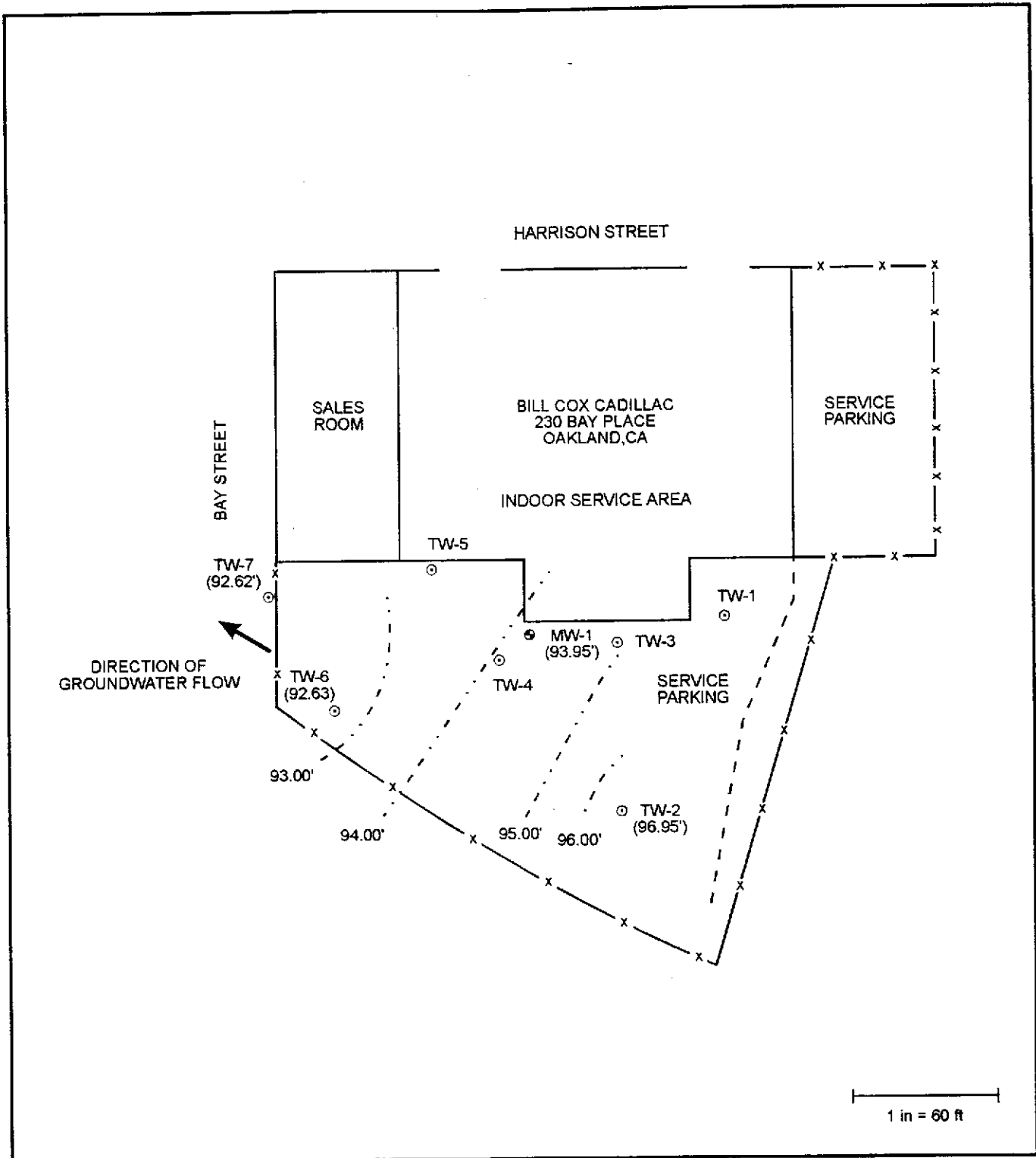


FIGURE 10: GROUNDWATER GRADIENT OCTOBER 1995

ALL ELEVATIONS RELATIVE TO AN ARBITRARY
REFERENCE DATUM OF 100.00 FEET AT
MW-1 TOC.

Sources: SCI (Sept '95)
PES (Nov '93)

- ⊙ Monitoring Well
- ⊙ Temporary Well Location
- x — x - Fence
- - - - - Retaining Wall



December 1995

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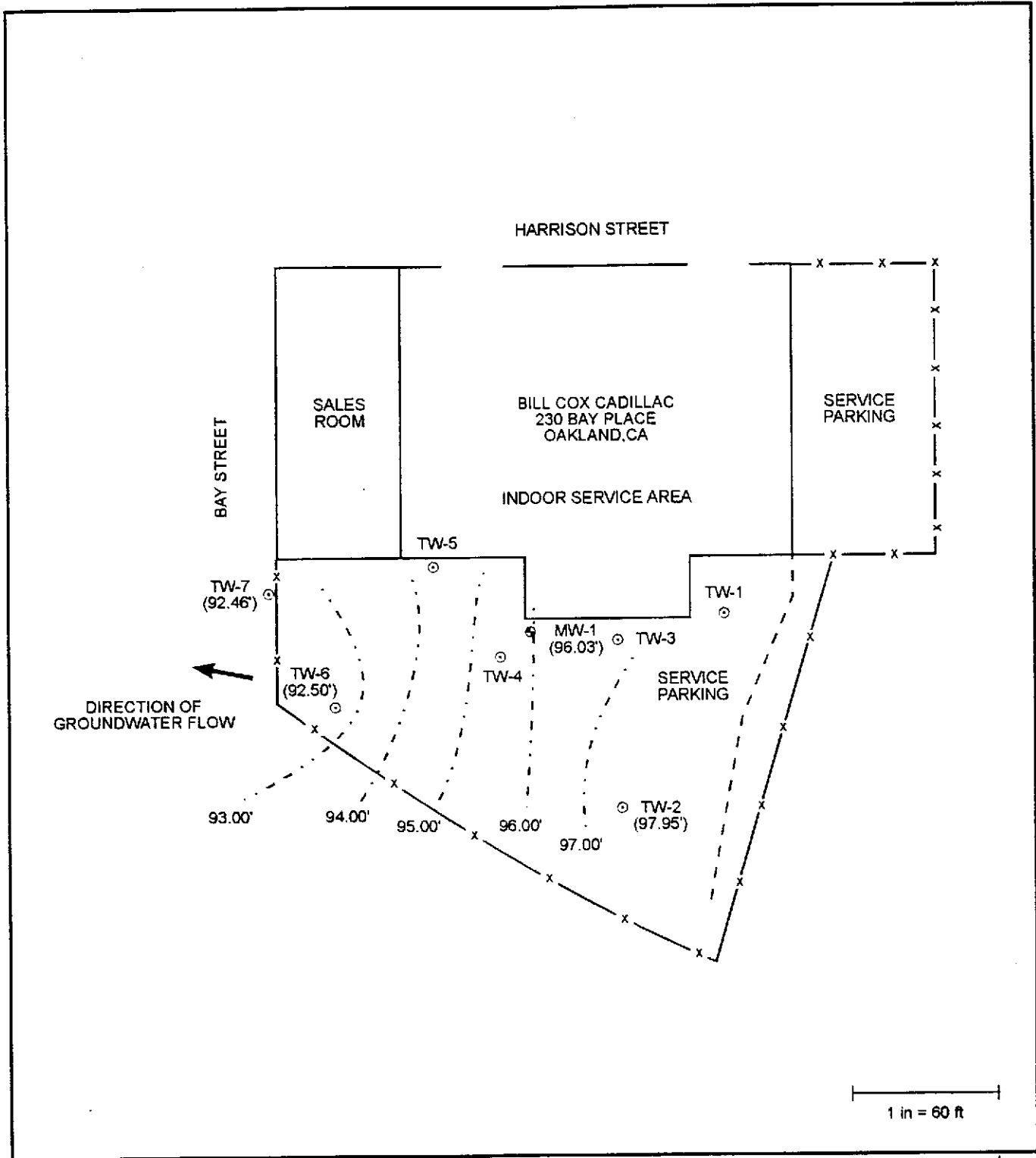


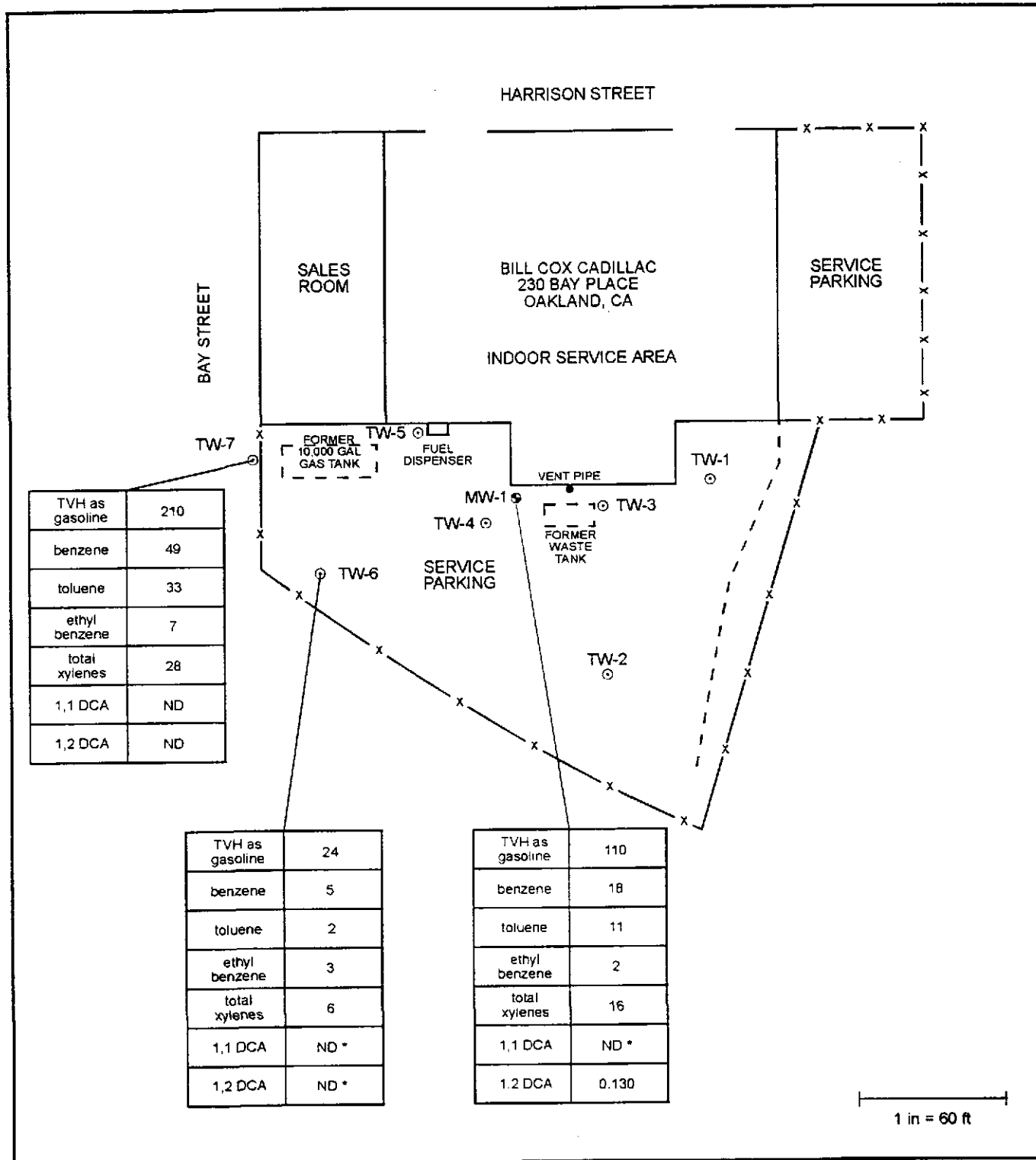
FIGURE 11: GROUNDWATER GRADIENT NOVEMBER 1995

ALL ELEVATIONS RELATIVE TO AN ARBITRARY
REFERENCE DATUM OF 100.00 FEET AT
MW-1 TOC.

Sources: SCI (Sept '95)
PES (Nov '93)

- ⊙ Monitoring Well
- ⊙ Temporary Well Location
- x - x - Fence
- - - - Retaining Wall





TVH as gasoline	210
benzene	49
toluene	33
ethyl benzene	7
total xylenes	28
1,1 DCA	ND
1,2 DCA	ND

TVH as gasoline	24
benzene	5
toluene	2
ethyl benzene	3
total xylenes	6
1,1 DCA	ND *
1,2 DCA	ND *

TVH as gasoline	110
benzene	18
toluene	11
ethyl benzene	2
total xylenes	16
1,1 DCA	ND *
1,2 DCA	0.130

1 in = 60 ft

**FIGURE 12: RESULTS OF GROUNDWATER ANALYSES
DEC. 22, 1994**

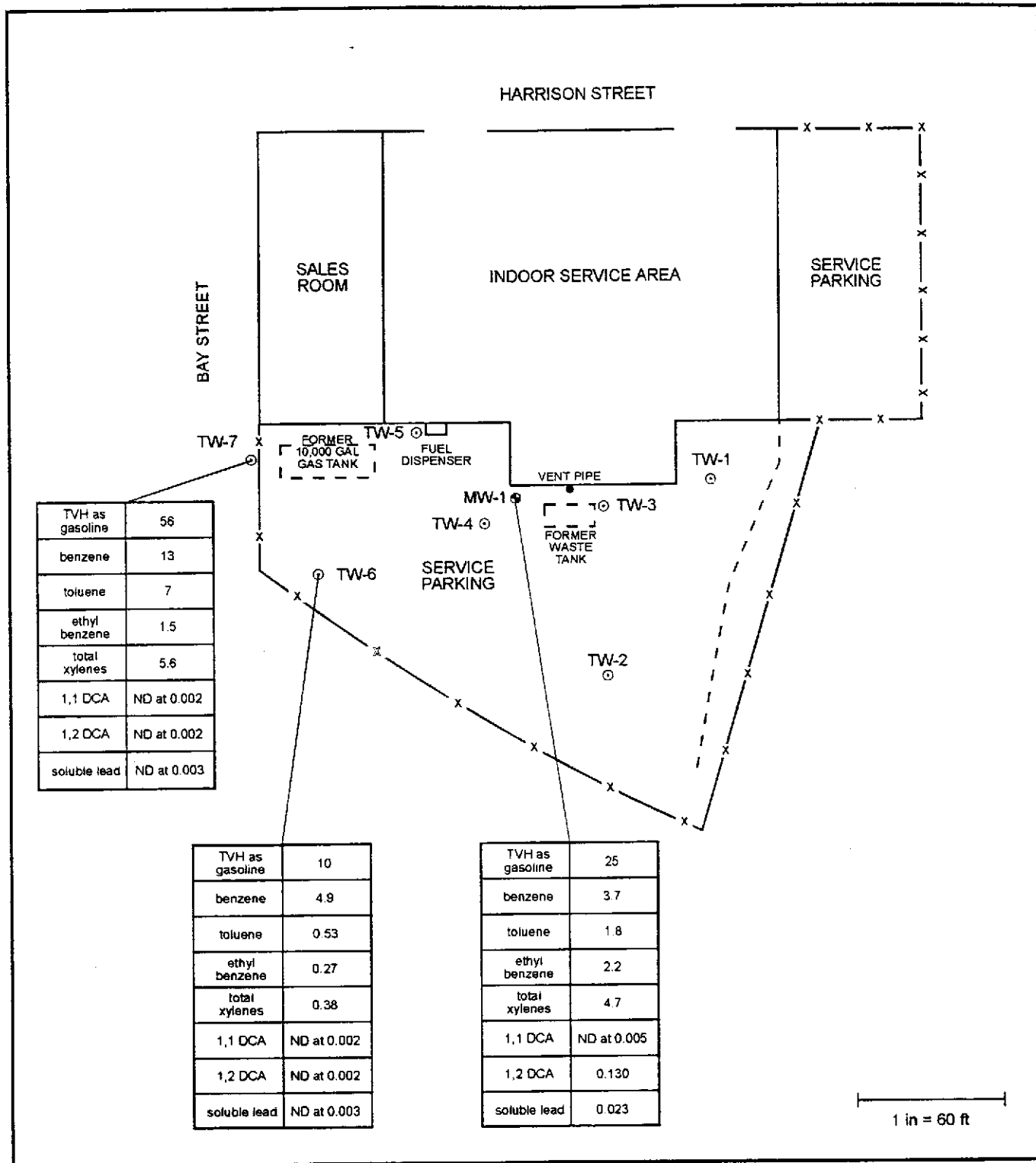
All values in milligrams per liter (ppm)

* Detection limit of 0.001 ppm

Source for base map PES (Nov '93)

- ⊙ Monitoring Well
- ⊙ Temporary Well Location
- x - - - - - Fence
- - - - - Retaining Wall





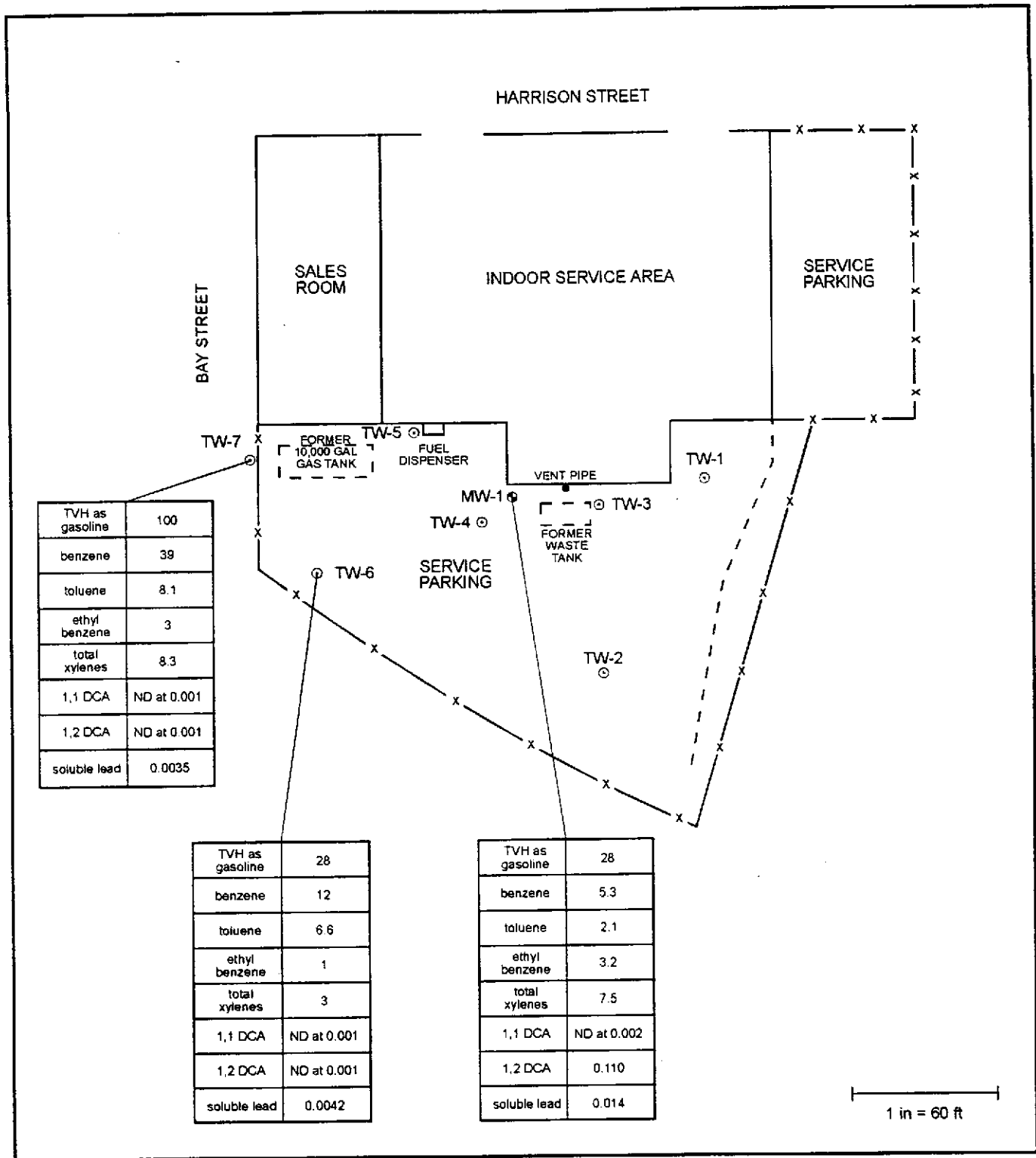
**FIGURE 13: RESULTS OF GROUNDWATER ANALYSES
MARCH 24, 1995**

Note: Results in mg/l (ppm)

Source: PES Environmental Inc. 11/93

- ⊕ Monitoring Well
- ⊙ Temporary Well Location
- x - - - x - Fence
- - - - - Retaining Wall





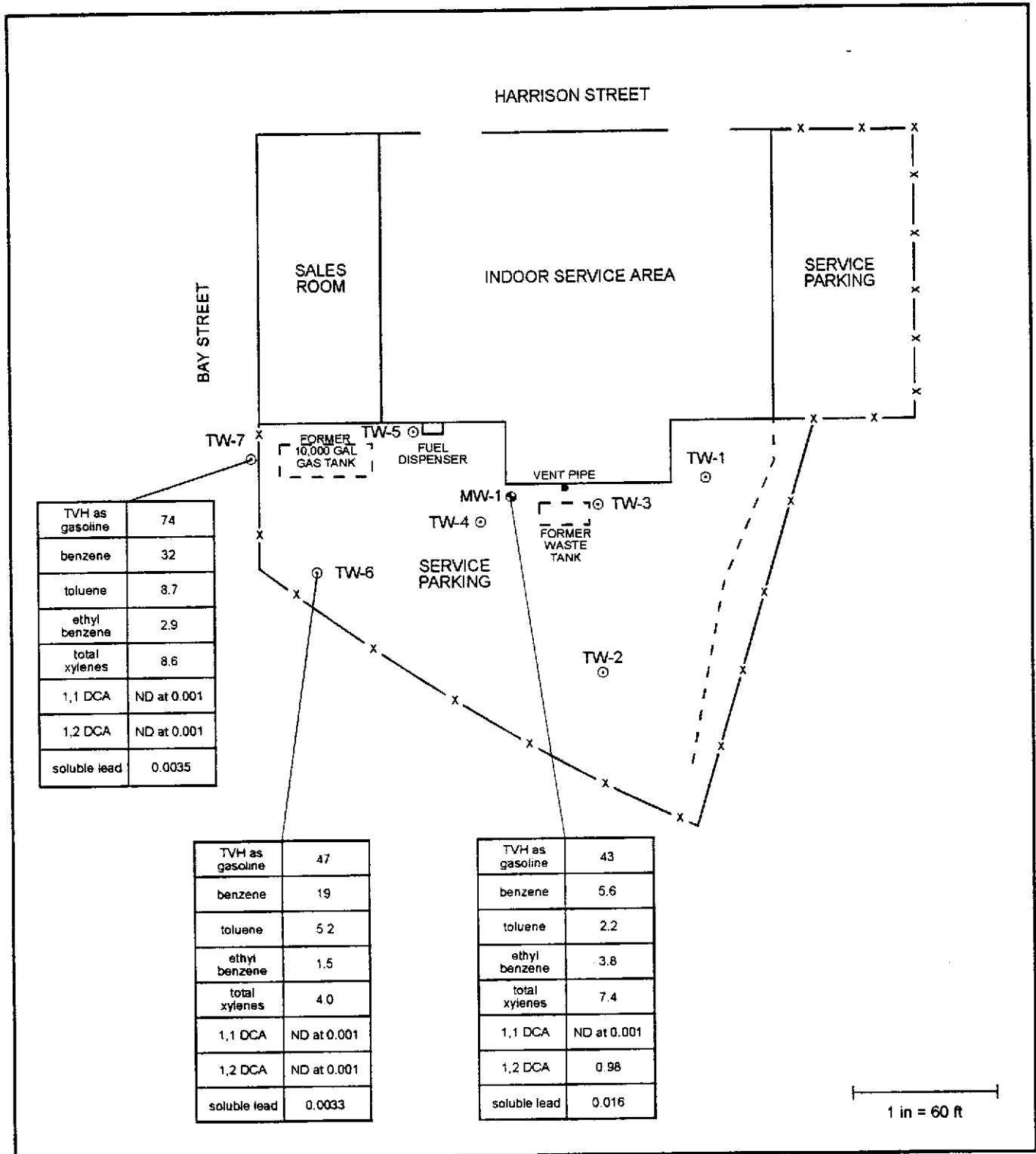
**FIGURE 14: RESULTS OF GROUNDWATER ANALYSES
JUNE 29, 1995**

Note: Results in mg/l (ppm)

Source: PES Environmental Inc. 11/93

- ⊕ Monitoring Well
- ⊙ Temporary Well Location
- x - - - - Fence
- - - - - Retaining Wall





**FIGURE 15: RESULTS OF GROUNDWATER ANALYSES
SEPTEMBER 29, 1995**

Note: Results in mg/l (ppm)

Source: PES Environmental Inc. 11/93

- ⊙ Monitoring Well
- ⊙ Temporary Well Location
- x - - - - Fence
- - - - - Retaining Wall



APPENDIX A
SCI LETTER REPORT FOR OCTOBER WATER LEVEL MEASUREMENT EVENT

LETTER OF TRANSMITTAL

TO: Ms. Sherris Ragsdale
EOA
1410 Jackson Street
Oakland, CA 94612

DATE: November 6, 1995
PROJECT: 230 Bay Place, Oakland
SCI JOB NUMBER: 805.007

WE ARE SENDING YOU:

- 1 copies
- | | |
|---|--|
| <input type="checkbox"/> of our final report | <input type="checkbox"/> if you have any questions, please call |
| <input type="checkbox"/> a draft of our report | <input type="checkbox"/> for your review and comment |
| <input type="checkbox"/> a Service Agreement | <input type="checkbox"/> please return an executed copy |
| <input type="checkbox"/> a proposed scope of services | <input type="checkbox"/> for geotechnical services |
| <input type="checkbox"/> specifications | <input type="checkbox"/> with our comments |
| <input type="checkbox"/> grading/foundation plans | <input type="checkbox"/> with Chain of Custody documents |
| <input type="checkbox"/> soil samples/groundwater samples | <input checked="" type="checkbox"/> for your use |
| <input type="checkbox"/> an executed contract | <input checked="" type="checkbox"/> <u>Data from October Water Level</u> |
| <input type="checkbox"/> _____ | <input type="checkbox"/> <u>Measurement Event</u> |

REMARKS:

COPIES TO:

BY: Meg Mendoza
Meg Mendoza

Subsurface Consultants, Inc.

Table 1. Groundwater Elevation Data

<u>Well Number</u>	<u>Date</u>	<u>TOC Elevation* (feet)</u>	<u>Depth to Water (feet)</u>	<u>Groundwater Elevation (feet)</u>
TW-1	10/13/93	100.91	0.06	100.85
TW-2	10/13/93	100.43	2.32	98.11
	12/22/94		2.88	97.55
	1/24/95		1.95	98.48
	2/22/95		1.87	98.56
	3/24/95		1.87	98.56
	4/25/95		2.86	97.57
	5/26/95		1.90	98.53
	6/29/95		2.10	98.33
	8/24/95		3.13	97.30
	9/29/95		3.02	97.41
	10/31/95		3.78	96.65
TW-3	10/13/93	100.46	4.43	96.03
TW-4	10/13/93	99.35	2.73	96.62
TW-5	10/13/93	99.40	4.84	94.56
TW-6	10/13/93	98.75	5.40	93.35
	12/22/94		4.66	94.09
	1/24/95		4.10	94.65
	2/22/95		4.14	94.61
	3/24/95		3.81	94.94
	4/25/95		6.03	92.72
	5/26/95		5.07	93.68
	6/29/95		5.25	93.50
	8/24/95		5.83	92.92
	9/29/95		6.12	92.63
	10/31/95		6.12	92.63
TW-7	10/14/93	97.96	5.40	92.56
	12/22/94		4.50	93.46
	1/24/95		3.10	94.86
	2/22/95		4.15	93.81
	3/24/95		2.98	94.98
	4/25/95		5.23	92.73
	5/26/95		3.93	94.03
	6/29/95		4.30	93.66
	8/24/95		4.80	93.16
	9/29/95		5.19	92.77
	10/31/95		5.34	92.62

Table 1. Groundwater Elevation Data

<u>Well Number</u>	<u>Date</u>	<u>TOC Elevation* (feet)</u>	<u>Depth to Water (feet)</u>	<u>Groundwater Elevation (feet)</u>
MW-1	10/13/93	100.00	3.55	96.45
	12/22/94		2.96	97.04
	1/24/95		3.62	96.38
	2/22/95		2.65	97.35
	3/24/95		2.21	97.79
	4/25/95		3.69	96.31
	5/26/95		2.32	97.68
	6/29/95		2.44	97.56
	8/24/95		6.45	93.55
	9/29/95		3.00	97.00
	10/31/95		6.05	93.95

Depths are measured below Top of Casing (TOC)

* Elevations are referenced to the TOC for MW-1, which was assumed by others to have an elevation 100.00 feet

Subsurface Consultants FIELD REPORT

Sheet ___ of ___

REPORT NO.

PROJECT: Cox Aquifer JOB NO: _____
PERSONNEL PRESENT: _____ DATE: 10/31/95
HOURS - From: _____ To: _____ From: _____ To: _____ TOTAL HRS: _____

EQUIPMENT IN USE: _____

TYPE OF SERVICES PROVIDED: Exploration Field Density Testing
 Site Meeting Construction Observation water levels

measured water levels in wells
TW-2 TW-6 TW-7 & MW-1. Allowed
water levels to rise to max. elev.
before measuring.

TW-2	3.78'
TW-6	6.12'
TW-7	5.34'
MW-1	6.05'

Prepared by: [Signature] Reviewed by: _____

Cox Cadillac 10/31/95

TW-7
*

TW-6
*

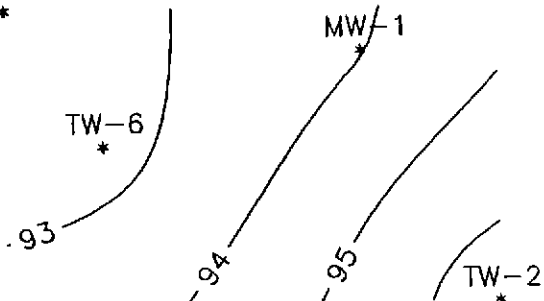
.93

-94

MW-1
*

-95

TW-2
*

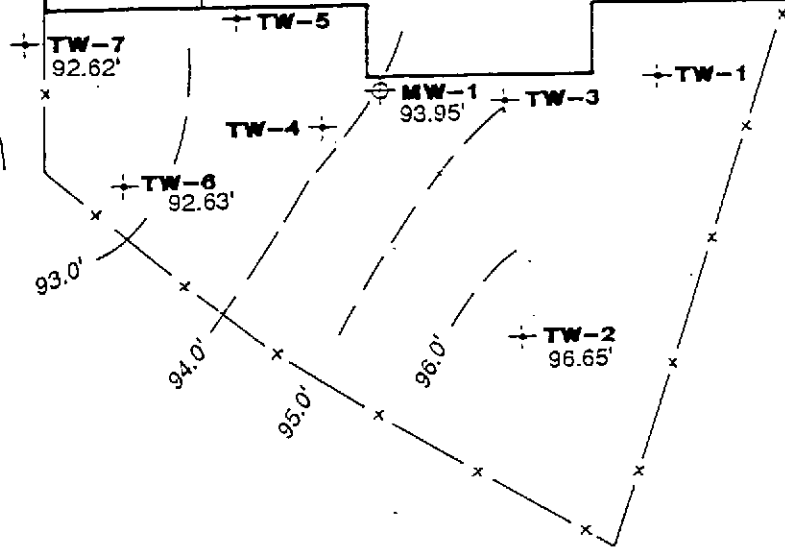


HARRISON STREET

BAY PLACE

SIDEWALK

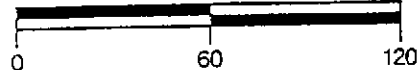
230 BAY PLACE



- + TEMPORARY WELL BY OTHERS
- ⊕ MONITORING WELL BY OTHERS
- x - FENCE
- - - GROUNDWATER CONTOURS
- 93.0' GROUNDWATER ELEVATION
10/31/95



APPROXIMATE SCALE (feet)



NOTE: ALL ELEVATION RELATIVE TO AN ARBITRARY REFERENCE DATUM OF 100.00 FEET AT MW-1 TOC.

SITE PLAN

230 BAY PLACE - OAKLAND, CA

PLATE

1

Subsurface Consultants

JOB NUMBER
805.007

DATE
11/3/95

APPROVED
MM

APPENDIX B
SCI LETTER REPORT FOR NOVEMBER WATER LEVEL MEASUREMENT EVENT

LETTER OF TRANSMITTAL

TO: Ms. Sherris Ragsdale
EOA
1410 Jackson Street
Oakland, CA 94612

DATE: December 8, 1995
PROJECT: 230 Bay Place, Oakland
SCI JOB NUMBER: 805.007

WE ARE SENDING YOU:

- 1 copies
- | | |
|---|---|
| <input type="checkbox"/> of our final report | <input type="checkbox"/> if you have any questions, please call |
| <input type="checkbox"/> a draft of our report | <input type="checkbox"/> for your review and comment |
| <input type="checkbox"/> a Service Agreement | <input type="checkbox"/> please return an executed copy |
| <input type="checkbox"/> a proposed scope of services | <input type="checkbox"/> for geotechnical services |
| <input type="checkbox"/> specifications | <input type="checkbox"/> with our comments |
| <input type="checkbox"/> grading/foundation plans | <input type="checkbox"/> with Chain of Custody documents |
| <input type="checkbox"/> soil samples/groundwater samples | <input checked="" type="checkbox"/> for your use |
| <input type="checkbox"/> an executed contract | <input checked="" type="checkbox"/> <u>Data from November Water Level</u> |
| <input type="checkbox"/> _____ | <input type="checkbox"/> <u>Measurement Event</u> |

REMARKS: Sherris:

Chris left the cap off MW-1 and returned twice to take a water level reading. The water level rose from 6.50' to 3.97 feet in about 4-1/2 hours.

COPIES TO:

BY: Meg Mendoza
Meg Mendoza

Subsurface Consultants, Inc.

171 12th Street • Suite 201 • Oakland, California 94607 • Telephone 510-268-0461 •

Table 1. Groundwater Elevation Data

<u>Well Number</u>	<u>Date</u>	<u>TOC Elevation* (feet)</u>	<u>Depth to Water (feet)</u>	<u>Groundwater Elevation (feet)</u>
TW-1	10/13/93	100.91	0.06	100.85
TW-2	10/13/93	100.43	2.32	98.11
	12/22/94		2.88	97.55
	1/24/95		1.95	98.48
	2/22/95		1.87	98.56
	3/24/95		1.87	98.56
	4/25/95		2.86	97.57
	5/26/95		1.90	98.53
	6/29/95		2.10	98.33
	8/24/95		3.13	97.30
	9/29/95		3.02	97.41
	10/31/95		3.78	96.65
	11/27/95		2.48	97.95
TW-3	10/13/93	100.46	4.43	96.03
TW-4	10/13/93	99.35	2.73	96.62
TW-5	10/13/93	99.40	4.84	94.56
TW-6	10/13/93	98.75	5.40	93.35
	12/22/94		4.66	94.09
	1/24/95		4.10	94.65
	2/22/95		4.14	94.61
	3/24/95		3.81	94.94
	4/25/95		6.03	92.72
	5/26/95		5.07	93.68
	6/29/95		5.25	93.50
	8/24/95		5.83	92.92
	9/29/95		6.12	92.63
	10/31/95		6.12	92.63
	11/27/95		6.25	92.50

Table 1. Groundwater Elevation Data

<u>Well Number</u>	<u>Date</u>	<u>TOC Elevation* (feet)</u>	<u>Depth to Water (feet)</u>	<u>Groundwater Elevation (feet)</u>
TW-7	10/14/93	97.96	5.40	92.56
	12/22/94		4.50	93.46
	1/24/95		3.10	94.86
	2/22/95		4.15	93.81
	3/24/95		2.98	94.98
	4/25/95		5.23	92.73
	5/26/95		3.93	94.03
	6/29/95		4.30	93.66
	8/24/95		4.80	93.16
	9/29/95		5.19	92.77
	10/31/95		5.34	92.62
11/27/95	5.50	92.46		
MW-1	10/13/93	100.00	3.55	96.45
	12/22/94		2.96	97.04
	1/24/95		3.62	96.38
	2/22/95		2.65	97.35
	3/24/95		2.21	97.79
	4/25/95		3.69	96.31
	5/26/95		2.32	97.68
	6/29/95		2.44	97.56
	8/24/95		6.45	93.55
	9/29/95		3.00	97.00
	10/31/95		6.05	93.95
11/27/95	3.97	96.03		

Depths are measured below Top of Casing (TOC)

* Elevations are referenced to the TOC for MW-1, which was assumed by others to have an elevation 100.00 feet

Subsurface Consultants FIELD REPORT

Sheet 1 of 1

REPORT NO.

PROJECT: 230 Bay Place JOB NO: 805.007

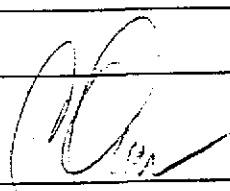
PERSONNEL PRESENT: _____ DATE: 11/27/95

HOURS - From: _____ To: _____ From: _____ To: _____ TOTAL HRS: 3^{1/2}
with travel

EQUIPMENT IN USE: _____

TYPE OF SERVICES PROVIDED: Exploration Field Density Testing
 Site Meeting Construction Observation water levels

Opened wells TW-2, TW-6, TW-7 & MW-1 at approx 11:00am. Measured water levels. Noticed a rise in water level after waiting approx 30 min. Returned site two additional times to take reading in MW-1. Last reading in MW-1 at 3:20 pm. Had to bail TW-2 dry before taking water level due to recent rain.

Prepared by:  Reviewed by: _____

HARRISON STREET

BAY PLACE

SIDEWALK

230 BAY PLACE

TW-7
92.62'

TW-5

MW-1
93.95'

TW-3

TW-1

TW-4

TW-6
92.63'



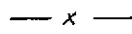
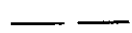
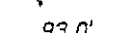
TW-2
96.65'

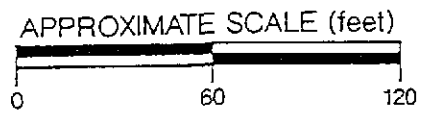
93.0'

94.0'

95.0'

96.0'

-  TEMPORARY WELL BY OTHERS
-  MONITORING WELL BY OTHERS
-  FENCE
-  GROUNDWATER CONTOURS
-  93.0' GROUNDWATER ELEVATION 10/31/95



NOTE: ALL ELEVATION RELATIVE TO AN ARBITRARY REFERENCE DATUM OF 100.00 FEET AT MW-1 TOC.

SITE PLAN

Subsurface Consultants

230 BAY PLACE - OAKLAND, CA

JOB NUMBER
805.007

DATE
11/3/95

APPROVED
M-M

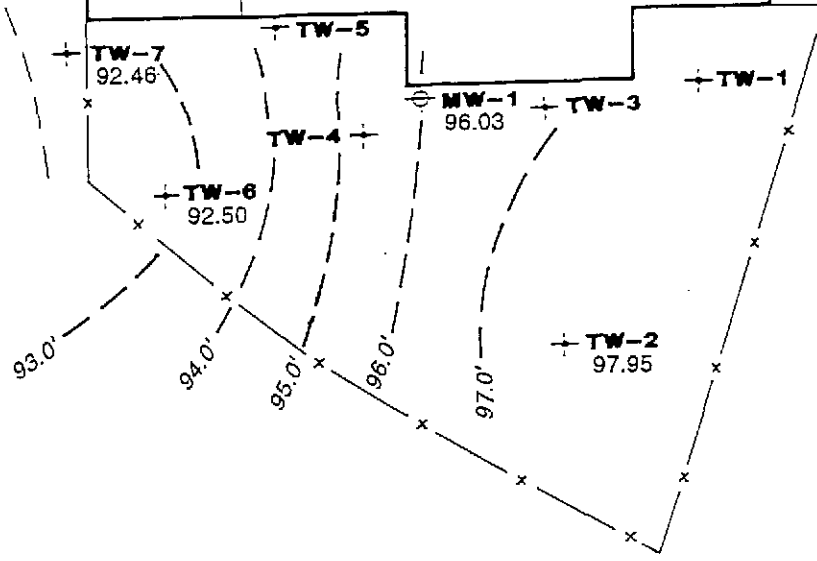
PLATE
1

HARRISON STREET

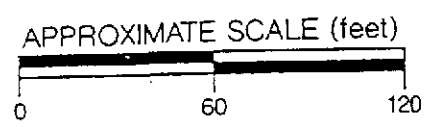
BAY PLACE

SIDEWALK

230 BAY PLACE



	TEMPORARY WELL BY OTHERS
	MONITORING WELL BY OTHERS
	FENCE
	GROUNDWATER CONTOURS
93.0'	GROUNDWATER ELEVATION 11/27/95



NOTE: ALL ELEVATION RELATIVE TO AN ARBITRARY REFERENCE DATUM OF 100.00 FEET AT MW-1 TOC.

SITE PLAN

Subsurface Consultants

230 BAY PLACE - OAKLAND, CA

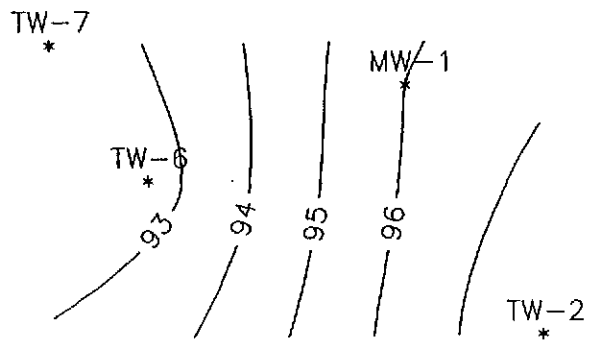
JOB NUMBER
805.007

DATE
12/6/95

APPROVED
[Signature]

PLATE
1

Cox Cadillac 11/27/95



APPENDIX C
CURTIS AND TOMPKINS LABORATORY ANALYTICAL REPORTS



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

EOA, Inc.
1410 Jackson Street
Oakland, CA 94612

Date: 24-JAN-95
Lab Job Number: 119254
Project ID: CC02
Location: Cox Cadillac

Reviewed by: _____

Reviewed by: _____

This package may be reproduced only in its entirety.



LABORATORY NUMBER: 119254
CLIENT: EOA, INC.
PROJECT ID: CC02
LOCATION: COX CADILLAC

DATE SAMPLED: 12/22/94
DATE RECEIVED: 12/22/94
DATE ANALYZED: 12/31/94
DATE REPORTED: 01/10/95
DATE REVISED: 01/24/95
BATCH NO: 18348

Total Volatile Hydrocarbons with BTXE in Aqueous Solutions
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)
119254-001	MW-1	110,000	18,000	11,000	2,800	16,000
119254-002	TW6	24,000	5,400	2,700	3,100	6,800
119254-003	TW7	210,000	49,000	33,000	7,300	28,000
METHOD BLANK	N/A	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY: BS/BSD

RPD, %	<1
RECOVERY, %	98



LABORATORY NUMBER: 119254-001
CLIENT: EOA, INC.
PROJECT ID: CC02
LOCATION: COX CADILLAC
SAMPLE ID: MW1

DATE SAMPLED: 12/22/94
DATE RECEIVED: 12/22/94
DATE ANALYZED: 01/03/95
DATE REPORTED: 01/10/95
DATE REVISED: 01/24/95
BATCH NO: 18363

ANALYSIS	RESULT	UNITS	REPORTING LIMIT	METHOD
1,1-Dichloroethane	ND	ug/L	1.0	EPA 8240
1,2-Dichloroethane	130	ug/L	1.0	EPA 8240

ND = Not detected at or above reporting limit.

SURROGATE RECOVERY

=====
1,2-Dichloroethane-d4

=====
89 %
=====



LABORATORY NUMBER: 119254-002
CLIENT: EOA, INC.
PROJECT ID: CC02
LOCATION: COX CADILLAC
SAMPLE ID: TW6

DATE SAMPLED: 12/22/94
DATE RECEIVED: 12/22/94
DATE ANALYZED: 01/03/95
DATE REPORTED: 01/10/95
DATE REVISED: 01/24/95
BATCH NO: 18363

ANALYSIS	RESULT	UNITS	REPORTING LIMIT	METHOD
1,1-Dichloroethane	ND	ug/L	1.0	EPA 8240
1,2-Dichloroethane	ND	ug/L	1.0	EPA 8240

ND = Not detected at or above reporting limit.

SURROGATE RECOVERY

=====

1,2-Dichloroethane-d4

=====

83 %

LABORATORY NUMBER: 119254-003
 CLIENT: EOA, INC.
 PROJECT ID: CC02
 LOCATION: COX CADILLAC
 SAMPLE ID: TW7

DATE SAMPLED: 12/22/94
 DATE RECEIVED: 12/22/94
 DATE ANALYZED: 01/04/95
 DATE REPORTED: 01/10/95
 DATE REVISED: 01/24/95
 BATCH NO: 18363

ANALYSIS	RESULT	UNITS	REPORTING LIMIT	METHOD
1,1-Dichloroethane	ND	ug/L	1.0	EPA 8240
1,2-Dichloroethane	ND	ug/L	1.0	EPA 8240

ND = Not detected at or above reporting limit.

SURROGATE RECOVERY

=====

1,2-Dichloroethane-d4	85 %
-----------------------	------

=====



LABORATORY NUMBER: 119254 METHOD BLANK
CLIENT: EOA, INC.
PROJECT ID: CC02
LOCATION: COX CADILLAC
SAMPLE ID: N/A

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE ANALYZED: 01/03/95
DATE REPORTED: 01/10/95
DATE REVISED: 01/24/95
BATCH NO: 18363

ANALYSIS	RESULT	UNITS	REPORTING LIMIT	METHOD
1,1-Dichloroethane	ND	ug/L	1.0	EPA 8240
1,2-Dichloroethane	ND	ug/L	1.0	EPA 8240

ND = Not detected at or above reporting limit.

SURROGATE RECOVERY

=====

1,2-Dichloroethane-d4

=====

79 %

VOA, Inc.

119254

Eisenberg, Gilvick, & Associates
Environmental and Public Health Engineers
1416 Jackson Street, Oakland, CA 94612 (415) 832-1832

Post-It Fax Note 7671

To Cynthia	From Sherrie Pagdale
Co./Dept. EIT	Co. EDA
Phone # 486-0900	Phone # 832-2852
Fax # 486-0532	Fax # 832-2856

Project ID: 0002 Sampled By: COG (ECI)
Sampling Date: 12/22/94 Laboratory Name: EIT
22 OR 11/24/95

NOTES TO LAB
a) Specify analytic method and detectable
b) Notify us if there are any anomalies
c) Duplicates are listed in parentheses
d) ANY QUESTIONS/CALIFICATIONS: CALL US

Sample ID	Sampling Date	Sample/Container Type (1)	Analyze/ Hold (2)	Turn-around (3)	Analyze For:	Analytic Method/ Detection Limit	Comments
NW1-1	12/20/94	240 VOA	A	N	TUH-gas/BTEX		
NW1-2	}	240 VOA	}	}	MA	8010	
NW1-3		250 VOA			sol. Pb		
TW6-1		240 VOA			TUH-gas/BTEX		
TW6-2	}	240 VOA	}	}	MA	8010	
TW6-3		250 VOA			sol. Pb		
TW7-1		240 VOA			TUH-gas/BTEX		
TW7-2	}	240 VOA	}	}	MA	8010	
TW7-3		250 VOA			sol. Pb		

Volunteer 3:50
A. Released By (Signature), Date, Time
B. Released By (Signature), Date, Time
12/22/94
A. Received By (Signature), Date, Time
B. Received By (Signature), Date, Time

Received By Lab Personnel, Date, Time Lab Telephone Shipping Carrier, Method, Date

- (1) - Sample Type Codes: W = Water, S = Soil, O = Other (specify).
Container Type Codes: V = VOA Bottle, P = Plastic Bottle, G = Glass Bottle, T = Brass Tube, O = Other (specify)
- (2) - Analyze/Hold: A = Analyze, HOLD (spell out) = Do not analyze unless necessary or requested.
- (3) - Turnaround: N = Normal turnaround, F = 1 week turnaround, R = 24 hour turnaround.



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

EOA, Inc.
1410 Jackson Street
Oakland, CA 94612

Date: 07-APR-95
Lab Job Number: 120404
Project ID: CC03
Location: Cox Cadillac

Reviewed by: _____

Reviewed by: _____

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Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 120404
CLIENT: EOA, INC.
PROJECT ID: CC03
LOCATION: COX CADILLAC

DATE SAMPLED: 03/24/95
DATE RECEIVED: 03/24/95
DATE ANALYZED: 03/30/95
DATE REPORTED: 04/07/95
BATCH NO.: 19734

Total Volatile Hydrocarbons with BTXE in Aqueous Solutions
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)
120404-001	MW-1	25,000	3,700	1,800	2,200	4,700
120404-003	TW-7	56,000	13,000	7,000	1,500	5,600
METHOD BLANK	N/A	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY: BS/BSD

RPD, %	2
RECOVERY, %	98



Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 120404
CLIENT: EOA, INC.
PROJECT ID: CC03
LOCATION: COX CADILLAC

DATE SAMPLED: 03/24/95
DATE RECEIVED: 03/24/95
DATE ANALYZED: 03/30/95
DATE REPORTED: 04/07/95
BATCH NO.: 19523

Total Volatile Hydrocarbons with BTXE in Aqueous Solutions
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)
120404-002	TW-6	10,000	4,900*	530	270	380
METHOD BLANK	N/A	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)

* Results obtained from a 1:50 dilution (Batch No: 19734).

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY: MS/MSD of 120405-004

RPD, %	1
RECOVERY, %	112

CLIENT: EOA, Inc.
PROJECT ID: CC03
LOCATION: Cox Cadillac
MATRIX: Filtrate

DATE REPORTED: 04/07/95

Metals Analytical Report

Lead

Sample ID	Lab ID	Sample Date	Receive Date	Result (ug/L)	Reporting Limit (ug/L)	QC Batch	Method	Analysis Date
MW-1	120404-001	03/24/95	03/24/95	23	3.0	19826	EPA 6010A	04/05/95
TW-6	120404-002	03/24/95	03/24/95	ND	3.0	19826	EPA 6010A	04/05/95
TW-7	120404-003	03/24/95	03/24/95	ND	3.0	19826	EPA 6010A	04/05/95

ND = Not detected at or above reporting limit





Curtis & Tompkins, Ltd.

CLIENT: EOA, Inc.
JOB NUMBER: 120404

DATE REPORTED: 04/07/95

**BATCH QC REPORT
BLANK SPIKE / BLANK SPIKE DUPLICATE**

Compound	Spike Amount	BS Result	BSD Result	Units	BS % Recovery	BSD % Recovery	Average Recovery	RPD	QC Batch	Method	Analysis Date
Lead	500	484	484	ug/L	97	97	97	0	19826	EPA 6010A	04/05/95



Curtis & Tompkins, Ltd.

CLIENT: EOA, Inc.
JOB NUMBER: 120404

DATE REPORTED: 04/07/95

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	QC Batch	Method	Analysis Date
Lead	ND	3	ug/L	19826	EPA 6010A	04/05/95

ND = Not Detected at or above reporting limit



LABORATORY NUMBER: 120404-001
CLIENT: EOA, INC.
PROJECT ID: CC03
LOCATION: COX CADILLAC
SAMPLE ID: MW-1

DATE SAMPLED: 03/24/95
DATE RECEIVED: 03/24/95
DATE ANALYZED: 04/03/95
DATE REPORTED: 04/07/95
DATE REVISED: 04/11/95
BATCH NO: 19765

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
1,1-Dichloroethane	ND	5.0
1,2-Dichloroethane	130	5.0

ND = Not detected at or above reporting limit.

Surrogate Recovery

=====
Bromobenzene

106 %
=====



LABORATORY NUMBER: 120404-002
CLIENT: EOA, INC.
PROJECT ID: CC03
LOCATION: COX CADILLAC
SAMPLE ID: TW-6

DATE SAMPLED: 03/24/95
DATE RECEIVED: 03/24/95
DATE ANALYZED: 04/03/95
DATE REPORTED: 04/07/95
DATE REVISED: 04/11/95
BATCH NO: 19765

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
1,1-Dichloroethane	ND	2.0
1,2-Dichloroethane	ND	2.0

ND = Not detected at or above reporting limit.

Surrogate Recovery

Bromobenzene

108 %



Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 120404-003
CLIENT: EOA, INC.
PROJECT ID: CC03
LOCATION: COX CADILLAC
SAMPLE ID: TW-7

DATE SAMPLED: 03/24/95
DATE RECEIVED: 03/24/95
DATE ANALYZED: 04/03/95
DATE REPORTED: 04/07/95
DATE REVISED: 04/11/95
BATCH NO: 19765

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
1,1-Dichloroethane	ND	2.0
1,2-Dichloroethane	ND	2.0

ND = Not detected at or above reporting limit.

Surrogate Recovery

=====
Bromobenzene

107 %
=====



Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 120404-METHOD BLANK
CLIENT: EOA, INC.
PROJECT ID: CC03
LOCATION: COX CADILLAC
SAMPLE ID: MB

DATE ANALYZED: 04/03/95
DATE REPORTED: 04/07/95
DATE REVISED: 04/11/95
BATCH NO: 19765

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
1,1-Dichloroethane	ND	1.0
1,2-Dichloroethane	ND	1.0

ND = Not detected at or above reporting limit.

Surrogate Recovery


=====
Bromobenzene

104 %
=====

120404

CHAIN OF CUSTODY FORM

Curlls & Tompkins, Ltd.
 2323 Fifth Street
 Berkeley, CA 94710
 (510) 486-0900 Phone
 (510) 486-0532 Fax



Sampler: SCI

Report to: Sherrie Pagsdale

Company: EOA

Telephone: 832-2552

Project No: CCO3

Project Name: COX Cadillac

Turnaround Time: 2 week

Fax: _____

Analyses

Laboratory Number	Sample ID.	Sampling Date	Time	Matrix			# of Containers	Presyn/pt/ye				Field Notes
				Soil	Water	Waste		HC	HSO	ENC	CS	
	MW-1	3/24	11:15	✓			2 UOA					TPH-gas/BTEX 11-1-2-DCA soluble lead
				✓			2 UOA					
				✓			1 poly					
	TW-6	3/24	11:30	✓			2 UOA					
				✓			2 UOA					
				✓			1 poly					
	TW-7	3/24	11:45	✓			2 UOA					
				✓			2 UOA					
				✓			1 poly					

NOTES:

RELINQUISHED BY:
Sherrie Pagsdale 3/24/95 4:17
 DATE/TIME

RECEIVED BY:
Ken Hoch 3/24/95
 DATE/TIME



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

EOA, Inc.
1410 Jackson Street
Oakland, CA 94612

Date: 13-JUL-95
Lab Job Number: 121595
Project ID: CC03
Location: Cox Cadillac

Reviewed by: _____

Reviewed by: _____

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LABORATORY NUMBER: 121595
CLIENT: EOA, INC.
PROJECT ID: CCO3
LOCATION: COX CADILLAC

DATE SAMPLED: 06/29/95
DATE RECEIVED: 06/29/95
DATE ANALYZED: 07/07,08/95
DATE REPORTED: 07/13/95
BATCH NO.: 21734

Total Volatile Hydrocarbons with BTXE in Aqueous Solutions
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)
121595-001	MW-1	28,000	5,300	2,100	3,200	7,500
121595-002	TW-6	28,000	12,000*	6,600	1,000	3,000
121595-003	TW-7	100,000	39,000+	8,100**	3,000**	8,300**
METHOD BLANK	N/A	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)

* Result obtained from a 1:200 dilution (Batch No: 21772).
** Result obtained from a 1:300 dilution (Batch No: 21772).
+ Result obtained from a 1:600 dilution (Batch No: 21772).

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY: MS/MSD of 121561-003

```

=====
RPD, %                                15
RECOVERY, %                            94
=====

```

LABORATORY NUMBER: 121595-001
 CLIENT: EOA, INC.
 PROJECT ID: CC03
 LOCATION: COX CADILLAC
 SAMPLE ID: MW-1

DATE SAMPLED: 06/29/95
 DATE RECEIVED: 06/29/95
 DATE ANALYZED: 07/04/95
 DATE REPORTED: 07/13/95
 BATCH NO: 21643

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	4.0
Bromomethane	ND	4.0
Vinyl chloride	ND	4.0
Chloroethane	ND	4.0
Methylene chloride	ND	20
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	ND	2.0
Freon 113	ND	2.0
1,2-Dichloroethane	110	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
cis-1,3-Dichloropropene	ND	2.0
Trichloroethene	ND	2.0
1,1,2-Trichloroethane	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
Dibromochloromethane	ND	2.0
Bromoform	ND	4.0
Tetrachloroethene	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Chlorobenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0

ND = Not detected at or above reporting limit.

Surrogate Recovery

=====

Bromobenzene

=====

104 %



LABORATORY NUMBER: 121595-002
CLIENT: EOA, INC.
PROJECT ID: CC03
LOCATION: COX CADILLAC
SAMPLE ID: TW-6

DATE SAMPLED: 06/29/95
DATE RECEIVED: 06/29/95
DATE ANALYZED: 07/04/95
DATE REPORTED: 07/13/95
BATCH NO: 21643

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl chloride	ND	2.0
Chloroethane	ND	2.0
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

ND = Not detected at or above reporting limit.

Surrogate Recovery

Bromobenzene	103 %
--------------	-------

LABORATORY NUMBER: 121595-003
 CLIENT: EOA, INC.
 PROJECT ID: CC03
 LOCATION: COX CADILLAC
 SAMPLE ID: TW-7

DATE SAMPLED: 06/29/95
 DATE RECEIVED: 06/29/95
 DATE ANALYZED: 07/04/95
 DATE REPORTED: 07/13/95
 BATCH NO: 21643

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl chloride	ND	2.0
Chloroethane	ND	2.0
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

ND = Not detected at or above reporting limit.

Surrogate Recovery

Bromobenzene	104 %
--------------	-------



Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 121595-METHOD BLANK
CLIENT: EOA, INC.
PROJECT ID: CC03
LOCATION: COX CADILLAC
SAMPLE ID: MB

DATE ANALYZED: 07/03/95
DATE REPORTED: 07/13/95
BATCH NO: 21643

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl chloride	ND	2.0
Chloroethane	ND	2.0
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

ND = Not detected at or above reporting limit.

Surrogate Recovery

Bromobenzene	102 %
--------------	-------

8010 BS/BSD Report

Matrix: WATER
 Batch No: 21643 325184093004 325184102005
 Date Analyzed: 03-JUL-95
 Spike File: 184W004
 Spike Dup File: 184W005
 Analyst: LW

	Instrdg	SpikeAmt	% Rec	Limits
<u>BS RESULTS</u>				
1,1-Dichloroethene	20.7	20	103 %	68-134%
Trichloroethene	22.9	20	115 %	85-141%
Chlorobenzene	21.0	20	105 %	69-135%
Surrogate Recoveries				
Bromobenzene	101.3	100	101 %	85-119%
<u>BSD RESULTS</u>				
1,1-Dichloroethene	20.6	20	103 %	68-134%
Trichloroethene	23.1	20	115 %	85-141%
Chlorobenzene	21.0	20	105 %	69-135%
Surrogate Recoveries				
Bromobenzene	100.7	100	101 %	85-119%
<u>RPD DATA</u>				
1,1-Dichloroethene	1 %			< 14%
Trichloroethene	0 %			< 14%
Chlorobenzene	0 %			< 13%

Column: Rtx 502.2

Water Limits based on LCS Data Generated 5/95

Soil Limits based on 3/90 SOW

Results within Specifications - PASS



Curtis & Tompkins, Ltd.

SAMPLE ID: MW-1
LAB ID: 121595-001
CLIENT: EOA, Inc.
PROJECT ID: CC03
LOCATION: Cox Cadillac
MATRIX: Filtrate

DATE SAMPLED: 06/29/95
DATE RECEIVED: 06/29/95
DATE REPORTED: 07/13/95

Metals Analytical Report

Compound	Result (ug/L)	Reporting Limit (ug/L)	QC Batch	Method	Analysis Date
Lead	14	3.0	21755	EPA 6010A	07/07/95



Curtis & Tompkins, Ltd.

CLIENT: EOA, Inc.
JOB NUMBER: 121595

DATE REPORTED: 07/13/95

BATCH QC REPORT
BLANK SPIKE / BLANK SPIKE DUPLICATE

Compound	Spike Amount	BS Result	BSD Result	Units	BS % Recovery	BSD % Recovery	Average Recovery	RPD	QC Batch	Method	Analysis Date
Lead	500	463	480	ug/L	93	96	95	4	21755	EPA 6010A	07/07/95

CLIENT: EOA, Inc.
JOB NUMBER: 121595

DATE REPORTED: 07/13/95

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	QC Batch	Method	Analysis Date
Lead	ND	3	ug/L	21755	EPA 6010A	07/07/95

ND = Not Detected at or above reporting limit

CLIENT: EOA, Inc.
PROJECT ID: CC03
LOCATION: Cox Cadillac
MATRIX: Filtrate

DATE REPORTED: 07/20/95

Metals Analytical Report

Lead

Sample ID	Lab ID	Sample Date	Receive Date	Result (ug/L)	Reporting Limit (ug/L)	QC Batch	Method	Analysis Date
MW-1	121595-001	06/29/95	06/29/95	14	3.0	21755	EPA 6010A	07/07/95
TW-6	121595-002	06/29/95	06/29/95	4.2	3.0	21755	EPA 6010A	07/07/95
TW-7	121595-003	06/29/95	06/29/95	3.5	3.0	21755	EPA 6010A	07/07/95



Curtis & Tompkins, Ltd.

EOA, Inc.

Eisenberg, Ollivari, & Associates
 Environmental and Public Health Engineers
 1410 Jackson Street, Oakland, CA 94612 (415) 832-2852

Project ID: C1003 Sampled By: SCJ
 Sampling Date: 6/19/95 Laboratory Name: EOA

NOTES TO LAB

- a) Specify analytic method and detection limit.
- b) Notify us if there are any anomalous peaks on GC or other scans.
- c) Duplicates are listed in parentheses.
- d) ANY QUESTIONS/CALIFICATIONS: CALL US

Sample ID	Sampling Date	Sample/ Container Type (1)	Analyze/ Hold (2)	Turn-around (3)	Analyze For:	Analytic Method/ Detection Limit	Comments
-1 MW-1	6/19/95	2 VOA	A	2wk	TPH-BTEX	8010	2:30
		2 VOA			1-1, 1, 2-DBA		
		1 poly			soluble lead		
-2 TW-6	6/19/95	2 VOA	A	2wk			3:00
		2 VOA					
		1 poly					
-3 TW-7	6/19/95	2 VOA	A	2wk			2:45
		2 VOA					
		1 poly					

Annis Raphael 6/24/05 A. Released By (Signature), Date, Time
Annis Raphael 6/24/05 B. Released By (Signature), Date, Time
Annis Raphael 6/24/05 A. Received By (Signature), Date, Time
Annis Raphael 6/24/05 B. Received By (Signature), Date, Time

Received By Lab Personnel, Date, Time Lab Telephone Shipping Carrier, Method, Date

- (1) - Sample Type Codes: W - Water, S - Soil, O - Other (specify).
 Container Type Codes: V - VOA Bottle, P - Plastic Bottle, G - Glass Bottle, T - Brass Tube, O - Other (specify)
- (2) - Analyze/Hold: A - Analyze, HOLD (spell out) - Do not analyze unless necessary or requested.
- (3) - Turnaround: N - Normal turnaround, F - 1 week turnaround, R - 24 hour turnaround.



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

EOA, Inc.
1410 Jackson Street
Oakland, CA 94612

Date: 16-OCT-95
Lab Job Number: 122870
Project ID: CC03
Location: Cox Cadillac

Reviewed by: _____

Reviewed by: _____

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Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 122870
CLIENT: EOA, INC.
PROJECT ID: CC03
LOCATION: COX CADILLAC

DATE SAMPLED: 09/29/95
DATE RECEIVED: 09/29/95
DATE ANALYZED: 10/07/95
DATE REPORTED: 10/16/95
BATCH NO: 23699

=====

ANALYSIS: 1,2-Dichloroethane
ANALYSIS METHOD: EPA 8240

=====

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
122870-001	MW-1	98	ug/L	1.0
122870-002	TW-6	ND	ug/L	1.0
122870-003	TW-7	ND	ug/L	1.0
METHOD BLANK	N/A	ND	ug/L	1.0

ND = Not detected at or above reporting limit.

8240 MS/MSD Report

Matrix Sample Number: 122874-001

Date Analyzed: 06-OCT-95

Lab No: QC06165 QC06166

Spike File: DJ615

Matrix: WATER

Spike Dup File: DJ616

Batch No: 23699 435279177015 435279183016 435279172014 Analyst: TW

	ppb	SpikeAmt	% Rec	Limits
<u>MS RESULTS</u>				
1,1-Dichloroethene	49.3	50	99 %	61-145%
Trichloroethene	44.7	50	89 %	71-120%
Benzene	49.8	50	100 %	76-127%
Toluene	50.1	50	100 %	76-125%
Chlorobenzene	49.3	50	99 %	75-130%
Surrogate Recoveries				
1,2-Dichloroethane-d4	47.5	50	95 %	75-143%
Toluene-d8	48.3	50	97 %	77-134%
Bromofluorobenzene	49.4	50	99 %	65-129%
<u>MSD RESULTS</u>				
1,1-Dichloroethene	53.2	50	106 %	61-145%
Trichloroethene	47.2	50	94 %	71-120%
Benzene	52.9	50	106 %	76-127%
Toluene	54	50	108 %	76-125%
Chlorobenzene	52.2	50	104 %	75-130%
Surrogate Recoveries				
1,2-Dichloroethane-d4	48.9	50	98 %	75-143%
Toluene-d8	49.1	50	98 %	77-134%
Bromofluorobenzene	49.3	50	99 %	65-129%
<u>MATRIX RESULTS</u>				
1,1-Dichloroethene	0			
Trichloroethene	0			
Benzene	0			
Toluene	0			
Chlorobenzene	0			
<u>RPD DATA</u>				
1,1-Dichloroethene	8 %			< 14%
Trichloroethene	5 %			< 14%
Benzene	6 %			< 11%
Toluene	7 %			< 13%
Chlorobenzene	6 %			< 13%



TVH-Total Volatile Hydrocarbons

Client: EOA, Inc.
Project#: CC03
Location: Cox Cadillac

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
122870-001	MW-1	23815	09/29/95	10/12/95	10/12/95	
122870-002	TW-6	23815	09/29/95	10/12/95	10/12/95	
122870-003	TW-7	23764	09/29/95	10/10/95	10/10/95	

Analyte	Units	122870-001	122870-002	122870-003
Diln Fac:		50	30	50
Gasoline	ug/L	43000	47000	74000
Surrogate				
Trifluorotoluene	%REC	100	98	97
Bromobenzene	%REC	99	97	100



BTXE

Client: EOA, Inc.
Project#: CC03
Location: Cox Cadillac

Analysis Method: BTXE
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
122870-001	MW-1	23815	09/29/95	10/12/95	10/12/95	
122870-002	TW-6	23815	09/29/95	10/12/95	10/12/95	
122870-003	TW-7	23764	09/29/95	10/10/95	10/10/95	

Analyte	Units	122870-001	122870-002	122870-003
Diln Fac:		50	1	50
Benzene	ug/L	5600	19000	32000
Toluene	ug/L	2200	5200	8700
Ethylbenzene	ug/L	3800	1500	2900
m,p-Xylenes	ug/L	5800	2700	6000
o-Xylene	ug/L	1600	1300	2600
Surrogate				
Trifluorotoluene	%REC	106	101	115
Bromobenzene	%REC	97	97	110



Lab #: 122870

BATCH QC REPORT

Page 1 of 1

TVH-Total Volatile Hydrocarbons

Client: EOA, Inc.
Project#: CC03
Location: Cox Cadillac

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 23764
Units: ug/L
Diln Fac: 1

Prep Date: 10/10/95
Analysis Date: 10/10/95

MB Lab ID: QC06340

Analyte	Result		
Gasoline	<50		
Surrogate	%Rec	Recovery Limits	
Trifluorotoluene	100	69-120	
Bromobenzene	100	70-122	



Lab #: 122870

BATCH QC REPORT

Page 1 of 1

BTXE

Client: EOA, Inc.
Project#: CC03
Location: Cox Cadillac

Analysis Method: BTXE
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 23764
Units: ug/L
Diln Fac: 1

Prep Date: 10/10/95
Analysis Date: 10/10/95

MB Lab ID: QC06340

Analyte	Result	
Benzene	<0.5	
Toluene	<0.5	
Ethylbenzene	<0.5	
m,p-Xylenes	<0.5	
o-Xylene	<0.5	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	107	58-130
Bromobenzene	113	62-131



Lab #: 122870

BATCH QC REPORT

Page 1 of 1

TVH-Total Volatile Hydrocarbons

Client: EOA, Inc.
Project#: CC03
Location: Cox Cadillac

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 23815
Units: ug/L
Diln Fac: 1

Prep Date: 10/12/95
Analysis Date: 10/12/95

MB Lab ID: QC06539

Analyte	Result	
Gasoline	<50	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	98	69-120
Bromobenzene	96	70-122



Lab #: 122870

BATCH QC REPORT

Page 1 of 1

BTXE

Client: EOA, Inc.
Project#: CC03
Location: Cox Cadillac

Analysis Method: BTXE
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 23815
Units: ug/L
Diln Fac: 1

Prep Date: 10/12/95
Analysis Date: 10/12/95

MB Lab ID: QC06539

Analyte	Result	
Benzene	<0.5	
Toluene	<0.5	
Ethylbenzene	<0.5	
m,p-Xylenes	<0.5	
o-Xylene	<0.5	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	99	58-130
Bromobenzene	94	62-131



Lab #: 122870

BATCH QC REPORT

Page 1 of 1

TVH-Total Volatile Hydrocarbons

Client: EOA, Inc.
 Project#: CC03
 Location: Cox Cadillac

Analysis Method: CA LUFT (EPA 8015M)
 Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
 Batch#: 23815
 Units: ug/L dry weight
 Diln Fac: 1

Prep Date: 10/12/95
 Analysis Date: 10/12/95
 Moisture: 0%

BS Lab ID: QC06540

Analyte	Spike Added	BS	%Rec #	Limits
Gasoline	2006	1931	96	80-120
Surrogate	%Rec	Limits		
Trifluorotoluene	87	69-120		
Bromobenzene	100	70-122		

BSD Lab ID: QC06541

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Gasoline	2006	1939	97	80-120	3	<35
Surrogate	%Rec	Limits				
Trifluorotoluene	89	69-120				
Bromobenzene	99	70-122				

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits



Lab #: 122870

BATCH QC REPORT

Page 1 of 1

BTXE

Client: EOA, Inc.
Project#: CC03
Location: Cox Cadillac

Analysis Method: BTXE
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 23815
Units: ug/L
Diln Fac: 1

Prep Date: 10/12/95
Analysis Date: 10/12/95

LCS Lab ID: QC06538

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	19.9	20	100	80-120
Toluene	20.6	20	103	80-120
Ethylbenzene	20.4	20	102	80-120
m,p-Xylenes	40	40	100	80-120
o-Xylene	20.5	20	103	85-120
Surrogate	%Rec	Limits		
Trifluorotoluene	100	58-130		
Bromobenzene	95	62-131		

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits



Lab #: 122870

BATCH QC REPORT

Page 1 of 1

BTXE

Client: EOA, Inc.
Project#: CC03
Location: Cox Cadillac

Analysis Method: BTXE
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 23764
Units: ug/L
Diln Fac: 1

Prep Date: 10/10/95
Analysis Date: 10/10/95

LCS Lab ID: QC06339

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	19.1	20	96	80-120
Toluene	20.2	20	101	80-120
Ethylbenzene	19.7	20	99	80-120
m,p-Xylenes	38.1	40	95	80-120
o-Xylene	19.9	20	100	85-120
Surrogate	%Rec	Limits		
Trifluorotoluene	107	58-130		
Bromobenzene	116	62-131		

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits



Lab #: 122870

BATCH QC REPORT

Page 1 of 1

TVH-Total Volatile Hydrocarbons

Client: EOA, Inc.
 Project#: CC03
 Location: Cox Cadillac

Analysis Method: CA LUFT (EPA 8015M)
 Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
 Lab ID: 122938-001
 Matrix: Water
 Batch#: 23764
 Units: ug/L
 Diln Fac: 1

Sample Date: 10/05/95
 Received Date: 10/05/95
 Prep Date: 10/10/95
 Analysis Date: 10/10/95

MS Lab ID: QC06341

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	2006	<50.00	2164	108	75-125
Surrogate	%Rec	Limits			
Trifluorotoluene	106	69-120			
Bromobenzene	113	70-122			

MSD Lab ID: QC06342

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	2006	2190	109	75-125	1	<35
Surrogate	%Rec	Limits				
Trifluorotoluene	108	69-120				
Bromobenzene	113	70-122				

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

CLIENT: EOA, Inc.
PROJECT ID: CC03
LOCATION: Cox Cadillac
MATRIX: Filtrate

DATE REPORTED: 10/16/95

Metals Analytical Report

Lead

Sample ID	Lab ID	Sample Date	Receive Date	Result (ug/L)	Reporting Limit (ug/L)	QC Batch	Method	Analysis Date
MW-1	122870-001	09/29/95	09/29/95	16	3.0	23687	EPA 6010A	10/06/95
TW-6	122870-002	09/29/95	09/29/95	3.3	3.0	23687	EPA 6010A	10/06/95
TW-7	122870-003	09/29/95	09/29/95	3.5	3.0	23687	EPA 6010A	10/06/95



Curtis & Tompkins, Ltd.



Curtis & Tompkins, Ltd.

CLIENT: EOA, Inc.
JOB NUMBER: 122870

DATE REPORTED: 10/16/95

BATCH QC REPORT
BLANK SPIKE / BLANK SPIKE DUPLICATE

Compound	Spike Amount	BS Result	8SD Result	Units	BS % Recovery	8SD % Recovery	Average Recovery	RPD	QC Batch	Method	Analysis Date
Lead	500	490	504	ug/L	98	101	100	3	23687	EPA 6010A	10/12/95



Curtis & Tompkins, Ltd.

CLIENT: EOA, Inc.
JOB NUMBER: 122870

DATE REPORTED: 10/16/95

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	QC Batch	Method	Analysis Date
Lead	ND	3	ug/L	23687	EPA 6010A	10/12/95

ND = Not Detected at or above reporting limit



Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 122870
CLIENT: EOA, INC.
PROJECT ID: CC03
LOCATION: COX CADILLAC

DATE SAMPLED: 09/29/95
DATE RECEIVED: 09/29/95
DATE ANALYZED: 10/07/95
DATE REPORTED: 10/20/95
BATCH NO: 23699

=====

ANALYSIS: 1,1-Dichloroethane
ANALYSIS METHOD: EPA 8240

=====

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
122870-001	MW-1	ND	ug/L	1.0
122870-002	TW-6	ND	ug/L	1.0
122870-003	TW-7	ND	ug/L	1.0
METHOD BLANK	N/A	ND	ug/L	1.0

ND = Not detected at or above reporting limit.

CHAIN OF CUSTODY FORM

Curtis & Tompkins, Ltd.

Analytical Laboratories, Since 1878



2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

C&T
LOGIN # _____

Analyses _____

Project No: CO03
Project Name: COX
Project P.O.: _____
Turnaround Time: 2 weeks

Sampler: Chris - Sci
Report To: Sherris Ragsdale
Company: EDA, Inc.
Telephone: 832-2852
Fax: 832-2856

Lab Number	Sample ID.	Sampling Date Time	Matrix			# of Containers	Preservative				Field Notes
			Soil	Water	Waste		HCl	H ₂ SO ₄	HNO ₃	ICE	
	MW-1	9/29 3:30	/	/	/	1-ASO 3-VDA	✓				
	TW-6	9/29 3:35	/	/	/	1-ASO 3-VDA	✓				
	TW-7	9/29 3:35	/	/	/	1-ASO 2-VDA	✓				

Soluble Lead	# SEE ONLY! DCA #12/15	BTEX/GASOLINE																		
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Notes: _____

RELINQUISHED BY:
Sherris Ragsdale 9/29/95 4:55
DATE/TIME

RECEIVED BY:
Damara Moore 9-29-95 4:30pm
DATE/TIME

Signature on this form constitutes a firm Purchase Order for the services requested above.