BILL COX
SAN LEANDRO CHRYSLER • PLYMOUTH
282 East 14th St. • San Leandro, CA 94577
510-562-4871 • Fax 562-8070

1 November 1995

Mr. Thomas Reacock
Alameda County Health Care Services Agency
Department of Environmental Health
1731 Harbor Bay Parkway
Alameda, CA 94502

SUGJECT: Fourth Quarterly Monitoring Report
Cox Cadillac, 230 Bay Place, Oakland, California

Dear Mr. Peacock:

Enclosed is one copy of the "Fourth Quarterly Monitoring Report" for the Cox Cadillac, 230 Pay Place, Oakland, California site. The report was completed according to Task III of the approved Work Plan for Futher Investigation, 230 Bay Place, Oakland, California (Work Plan), dated March 1994. As recommended in your June 7, 1994 Work Plan approval letter, well TW-2 was used as a upgradient well for the purpose of estimating groundwater flow direction only, and well TW-6 was sampled for groundwater analyses. EOA, Inc. will continue measuring groundwater elevations monthly.

I will contact you in approximately two weeks to set up a meeting to discuss the results of the quarterly monitoring and the hydropunch investigation. Please call me if you have any questions regarding the report.

Sincerely,

William L. Cox
President

WLC/ceg

CC: Andy Briefer, PES
Rory Campbell
Robert Cross
File

ENC: 1

EOA, Inc.

Eisenberg, Olivieri, & Associates
Environmental and Public Health Engineering

November 7, 1995

Mr. Bill Cox
232 E. 14th St.
San Leandro, CA 94577

SUBJECT: Fourth Quarterly Monitoring Report

Dear Mr. Cox:

This letter report summarizes the results of monitoring of wells during the period July through September 1995 (fourth quarter of monitoring) at the property located at 230 Bay Place, Oakland, California. Monitoring activities during this quarter include measuring depth to groundwater monthly and sampling groundwater for analyses in September. The 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.

Two main tasks were completed for this report; 1) on a monthly basis, wells MW-1, TW-2, TW-6, and TW-7 were checked for free product, then depth to groundwater was measured in them and 2) on September 29, wells MW-1, TW-6, and TW-7 were purged and sampled for groundwater analyses. As subcontractors to EOA, Inc., Subsurface Consultants, Inc. (SCI) performed the field tasks and Curtis and Tompkins Laboratory, a California-Certified Laboratory, performed the groundwater analyses.

Methodology

The August groundwater surface contour map (SCI, September 6, 1995) is included in this report in Attachment 1. The September groundwater surface contour map and the field methods used to perform the tasks listed above are included in Attachment 2, "Quarterly Groundwater Monitoring" Report (SCI, October 13, 1995). The depth to groundwater was measured and contoured for August and September (see Figures 1 and 2). Due to an oversight on the subcontractor's part (because of the hydropunch work at the site), the depths to groundwater were not measured during 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 MW-1. The wells have not been surveyed to date and this methodology is consistent with that used by PES in a prior report.

In September, wells MW-1, TW-6, and TW-7 were purged and samples were collected for the following analyses: 1) Total Volatile Hydrocarbons (as gasoline) and Benzene, Toluene, Ethylbenzene, and total Xylenes (TVH/BTEX) (by California DOHS Method and LUFT

1410 Jackson Street • Oakland, CA 94612 • (510) 832-2852

Manual methodology, and by EPA 5030/8020), 2) 1,1-, and 1,2-dichloroethane (DCA) (by EPA Method 8010) and 3) soluble lead (by EPA 6010A). Locations of the sampled wells with groundwater analyses results are indicated on Figure 3.

Results

Table 1A summarizes the quarterly groundwater elevation data for December 1994, March 1995, June 1995, and September 1995. Table 1B summarizes the monthly groundwaer elevation data for the August and September 1995 monitoring events. Based on data collected during this quarter, the general direction of groundwater flow is in a southwesterly to westerly direction; the former is toward Lake Merritt and is similar to previous observations at this site. Over the past three quarterly monitoring events, the groundwater elevation is decreasing.

The August groundwater flow direction is anomolous to previous groundwater level measurements, due to the measurement from well MW-1. Based on historical quarterly depth-to-groundwater measurements that range from 2.21 feet to 3.00 feet, the measurement of 6.45 feet is inconsistent with prior measurements. If the depth to groundwater for August 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.

According to the technician who measured the depths-to-groundwater in August, nothing unusual was observed during the field measurements and he is confident that the reported measurement is correct (telephone conversation on November 6, 1995). At present, we have no explanation for this apparently anomolous measurement, however, it should be noted that the recorded total depth of well MW-1 is 20 feet, whereas the total depths in wells TW-2, TW-6, and TW-7, are 7.63, 7.60, and 7.68 feet, respectively (PES, December 23, 1993).

No free product was observed in any of the wells that were monitored. The results of the groundwater analyses are summarized in Table 2, "Summary of Groundwater Analyses". A copy of the original laboratory analytical report is in Attachment 3. Historical groundwater analyses are summarized in Table 3. The concentrations in groundwater of TVH, benzene, toluene, ethyl benzene, and total xylenes have generally decreased in value over time; however, for the June and September monitoring events, the concentrations increased slightly. The concentrations of all chemicals in MW-1 decreased slightly from the concentrations detected during the June monitoring event. The concentrations of all chemicals in wells TW-6 and TW-7 either increased or decreased slightly; all except TVH concentrations in well TW-7 remained within the same order of magnitude as the concentrations detected during the June monitoring event.

Interpretation

This quarterly sampling report is intended as a data report only. A more complete interpretation is planned for inclusion in the annual report, when the full year of monitoring data is available. However, at the County's request, some limited and preliminary interpretation can be provided regarding the limited data collected to date.

Regarding groundwater flow, 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).

Regarding analytical results, the highest concentrations of TVH and BTX were found in well TW-7, which is located adjacent to, and downgradient from, the former underground storage tank location. The highest concentration of ethyl benzene, the only detection of 1,2-DCA and soluble lead were detected in well MW-1. Lower concentrations of soluble lead were also detected in wells TW-6 and TW-7. 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 this quarter's and last 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.

In general, concentrations of TVH and BTEX have increased slightly since the last quarterly monitoring event; this apparent increase in concentrations may be due to the accompanying fluctuation in groundwater levels.

Please call me or Sherris Ragsdale if you have any questions concerning this report.

Sincerely,
EOA, Inc.

Don Eisenberg

Don Eisenberg, PhD., P.E.
President

Attachments

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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 2
Summary of Groundwater Analyses
Cox Cadillac
September 29, 1995

Well	TVH as gasoline	benzene	toluene	ethyl benzene	total xylenes	1,1 DCA	1,2 DCA	soluble lead
MW-1	43	5.6	2.2	3.8	7.4	ND at .001	.98	.016
TW-6	47	19	5.2	1.5	4.0	ND at .001	ND at .001	.0033
TW-7	74	32	8.7	2.9	8.6	ND at .001	ND at .001	.0035

All values in milligrams per liter (ppm).

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Table 3
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

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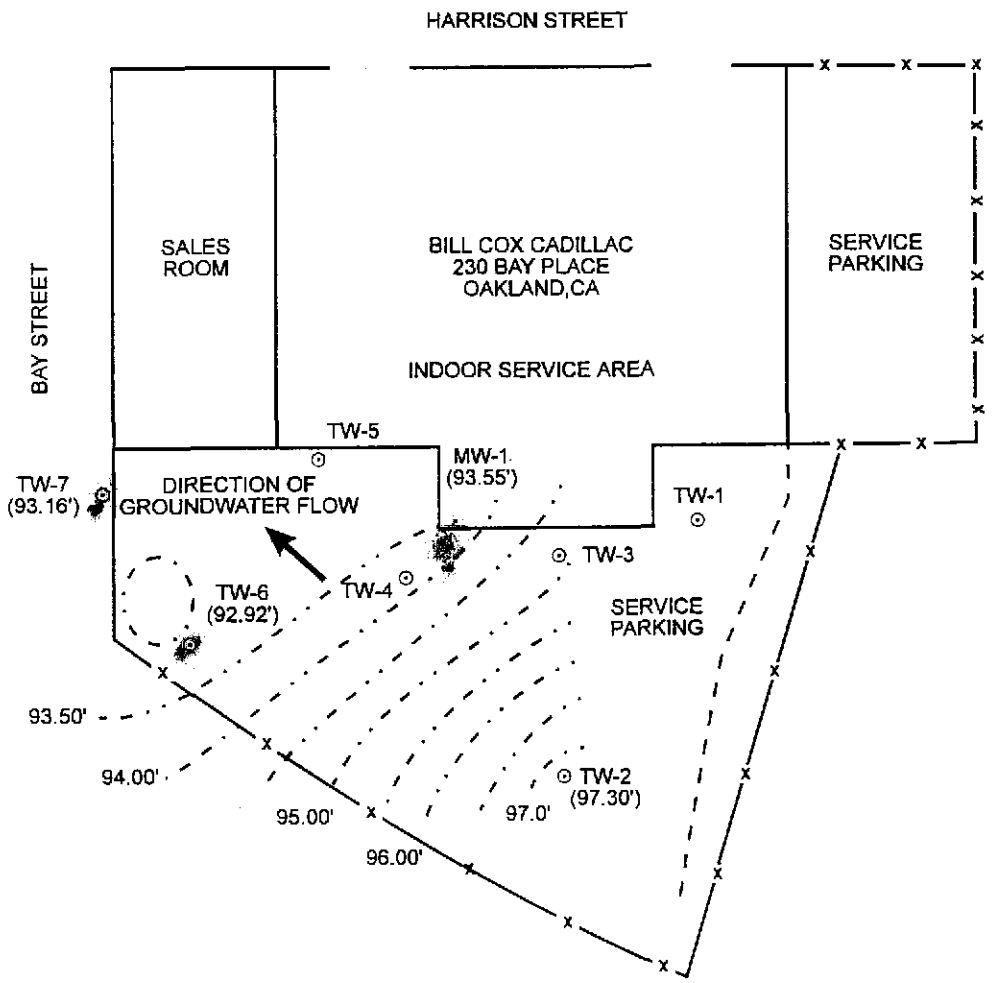

Figure 1: GROUNDWATER GRADIENT AUGUST 1995

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 Welll Location
Fence
Retaining Wall

N

EOA, Inc.

October 1995

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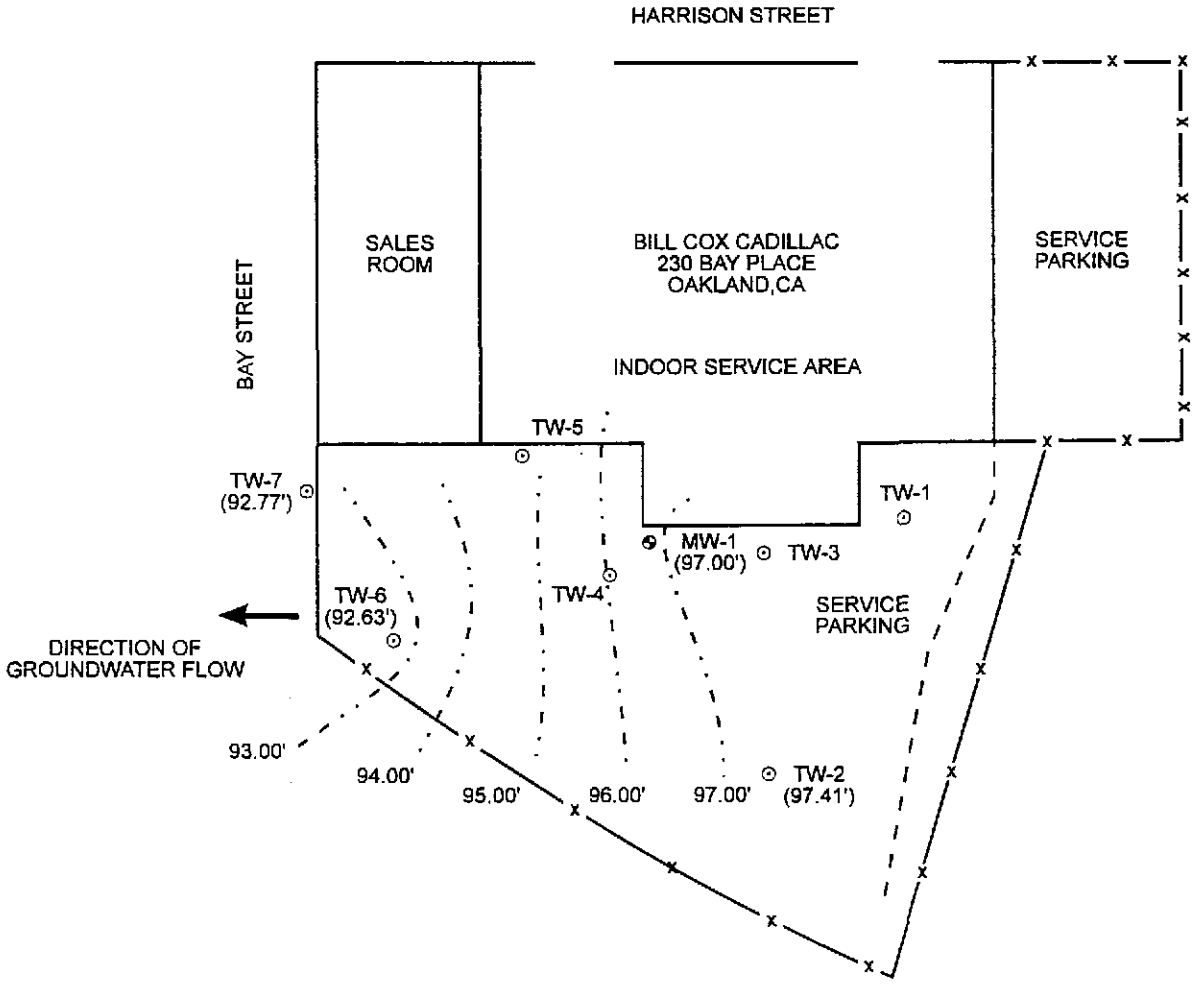

Figure 2: GROUNDWATER GRADIENT SEPTEMBER 1995

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 Welll Location
Fence
Retaining Wall

N

EOA, Inc.

October 1995

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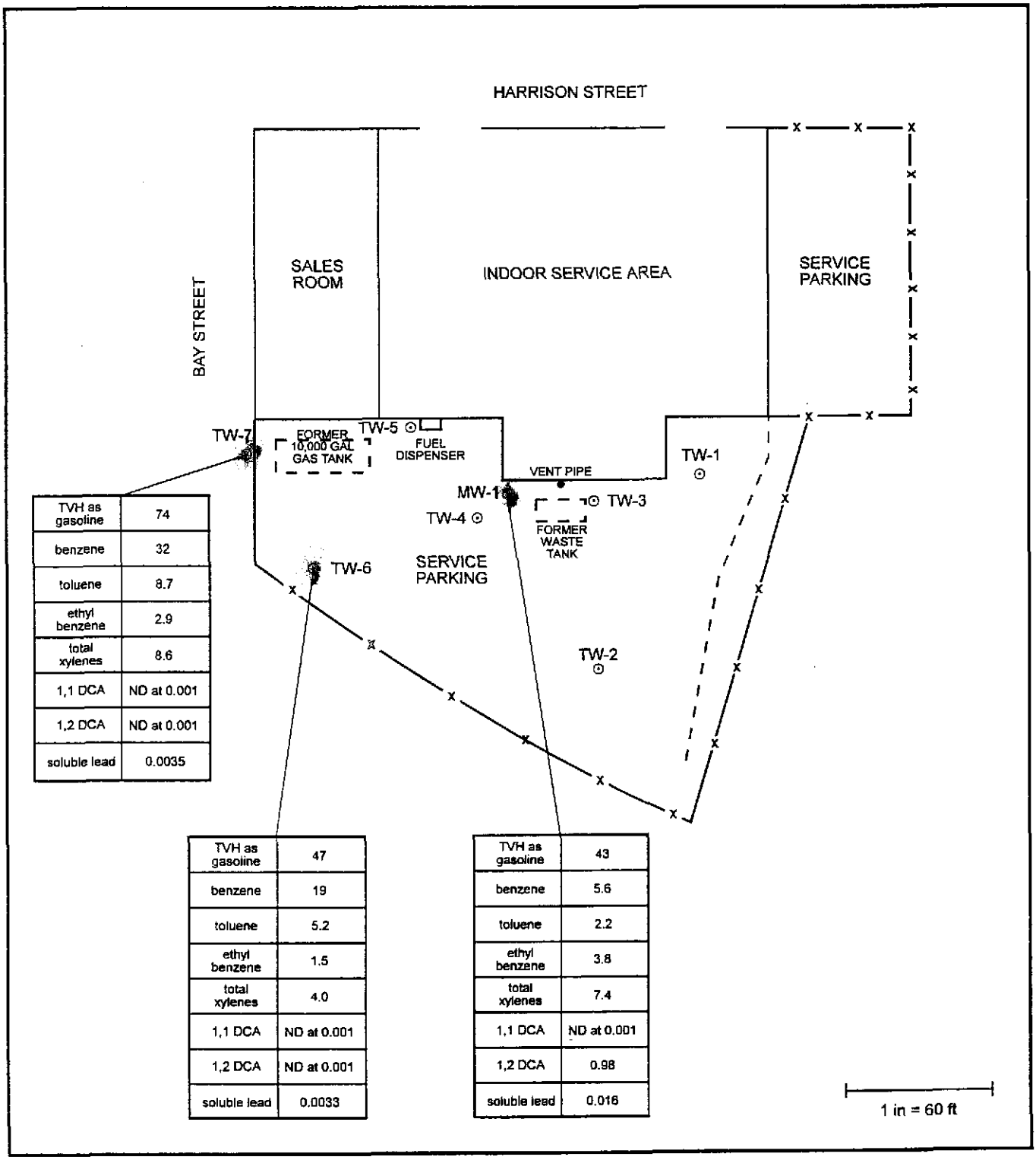

TVH as gasoline	74
benzene	32
toluene	8.7
ethyl benzene	2.9
total xylenes	8.6
1,1 DCA	ND at 0.001
1,2 DCA	ND at 0.001
soluble lead	0.0035

TVH as gasoline	47
benzene	19
toluene	5.2
ethyl benzene	1.5
total xylenes	4.0
1,1 DCA	ND at 0.001
1,2 DCA	ND at 0.001
soluble lead	0.0033

TVH as gasoline	43
benzene	5.6
toluene	2.2
ethyl benzene	3.8
total xylenes	7.4
1,1 DCA	ND at 0.001
1,2 DCA	0.98
soluble lead	0.016

Figure 3: Results of Groundwater Analyses
September 29, 1995

Monitoring Well
Temporary Welll Location
Fence
Retaining Wall

Note: Results in mg/l (ppm)
Source: PES Environmental Inc. 11/93

EOA, Inc.

October 1995

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LIST OF ATTACHMENTS

R. William Rudolph, Jr., PE
Thomas E. Cundey, PE
Jeriann N. Alexander, PE

LETTER OF TRANSMITTAL

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

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

WE ARE SENDING YOU:

__1__ copies

_____ of our final report	_____ if you have any questions, please call
_____ a draft of our report	_____ for your review and comment
_____ a Service Agreement	_____ please return an executed copy
_____ a proposed scope of services	_____ for geotechnical services
_____ specifications	_____ with our comments
_____ grading/foundation plans	_____ with Chain of Custody documents
_____ soil samples/groundwater samples	__X__ for your use
_____ an executed contract	__X__ Data from August Water Level Measurement Event

REMARKS:

COPIES TO:

BY: Mes Mendez for JNA
Jeriann N. Alexander

Subsurface Consultants, Inc.
171 12th Street - Suite 201 - Oakland, California 94607 - 510-268-0461 - Fax 510-268-0137

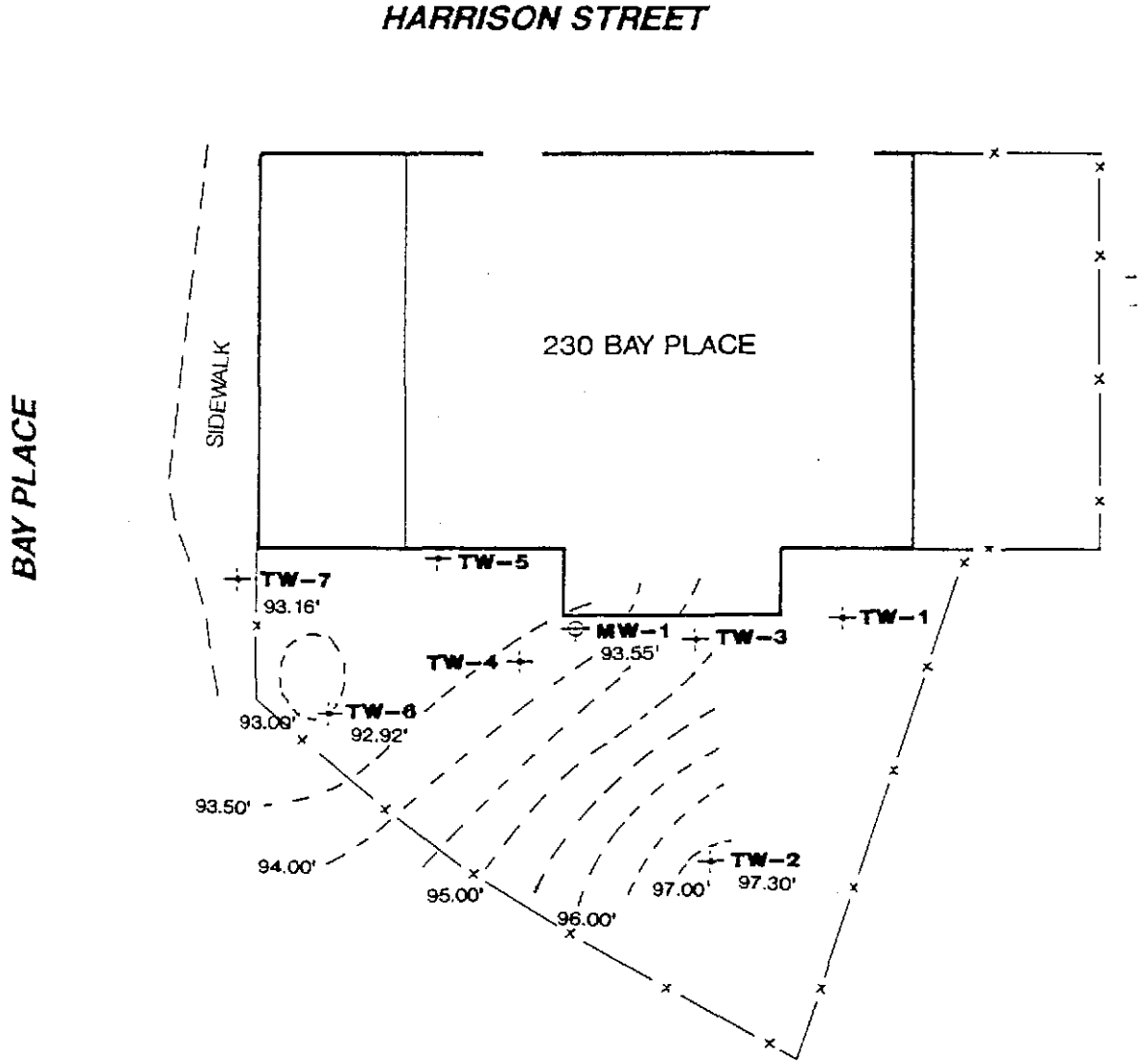
Subsurface Consultants, Inc.
171 12th Street • Suite 201 • Oakland, California 94607 • Telephone 510-268-0461 • FAX 510-268-0137

Table 1. Groundwater Elevation Data

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
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
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
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

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



⊹	TEMPORARY WELL BY OTHERS
⊕	MONITORING WELL BY OTHERS
— x —	FENCE
—— ——	GROUNDWATER CONTOURS
93.55'	GROUNDWATER ELEVATION AUGUST 1995

APPROXIMATE SCALE (feet)

0 60 120

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

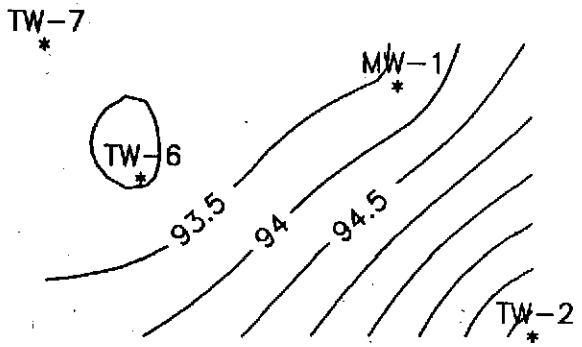
SITE PLAN

Subsurface Consultants

230 BAY PLACE – OAKLAND, CA

JOB NUMBER	DATE	APPROVED
805.007	9/6/95	

PLATE 1


COX 8/24/95
TW-7
MW-1
TW-6
93.5
94
94.5
TW-2

Subsurface Consultants

FIELD REPORT

Sheet ____ of ____

REPORT NO. [ ]

PROJECT: Cox [illegible] JOB NO: ____

PERSONNEL PRESENT: ____ DATE: 8/20/95

HOURS - From: ____ To: ____ From: ____ To: ____ TOTAL HRS: 2½

EQUIPMENT IN USE: ____

TYPE OF SERVICES PROVIDED: ☐ Exploration ☐ Field Density Testing

☐ Site Meeting ☐ Construction Observation ☐ water levels

[illegible] [illegible] new [illegible] for [illegible] [illegible] [illegible] for Cox. [illegible] [illegible] to [illegible] water [illegible] in wells

		[illegible] ELEV.	GW ELEV
TP-2	3.13	100.43	97.30
TP-6	5.83	98.75	92.92
TP-7	4.80	97.96	93.16
MW-1	6.45	100.00	93.55

Prepared by: ____ Reviewed by: ____

R. William Rudolph, Jr., PE
Thomas E. Cundey, PE
Jeriann N. Alexander, PE

October 13, 1995
SCI 805.007

Ms. Sherris Ragsdale
Eisenberg, Olivieri, and Associates
1410 Jackson Street
Oakland, California 94612

Quarterly Groundwater Monitoring
September 1995 Event
Cox Cadillac Facility
230 Bay Street
Oakland, California

Dear Ms. Ragsdale:

This letter presents the results of the September 1995 groundwater monitoring event for the referenced site. Subsurface Consultants, Inc. (SCI) performed the event at the request of Eisenberg, Olivieri, and Associates (EOA). In general, SCI's services included:

1. Checking wells TW-2, TW-6, TW-7 and MW-1 for free floating product,
2. Measuring groundwater depths in wells TW-2, TW-6, TW-7 and MW-1, and
3. Purging and sampling wells TW-6, TW-7 and MW-1.

Groundwater Sampling

On September 29, 1995, wells TW-2, TW-6, TW-7 and MW-1 were monitored. Initially, the wells were checked for free product and the depth to groundwater using a steel tape and water and petroleum sensitive pastes. No free product was observed. Groundwater level data is summarized in Table 1. Groundwater surface contours are shown on the Site Plan, Plate 1.

Prior to sampling, the wells were each purged of at least three well volumes of water by using a new disposable bailer. Well MW-1 was sampled with a new disposable bailer after it had recovered to 80 percent of its initial level. Due to slow recovery rates, wells TW-6 and TW-7 were sampled following purging. Purge water was placed in 55-gallon drums which were labeled and left on-site for later disposal by others.

Samples were retained in glass containers pre-cleaned by the supplier in accordance with EPA protocol. The containers were placed in an ice filled cooler and remained iced until delivered to EOA. Well sampling forms are attached.

On-going Services

Groundwater levels in wells TW-2, TW-6, TW-7 and MW-1 will be measured on a monthly basis and wells TW-6, TW-7 and MW-1 will be sampled on a quarterly basis through January 1996. As a result, the next monthly event will be performed during the week of October 23, 1995 and the next quarterly event will be performed during the week of December 25, 1995.

If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.

Meg Mendoza for JNA

Jeriann N. Alexander
Civil Engineer 40469 (expires 3/31/99)

JNA:RWR:clh

Attachments: Table 1. Groundwater Elevation Data
Plate 1. Site Plan
Well Sampling Forms

2 copies submitted

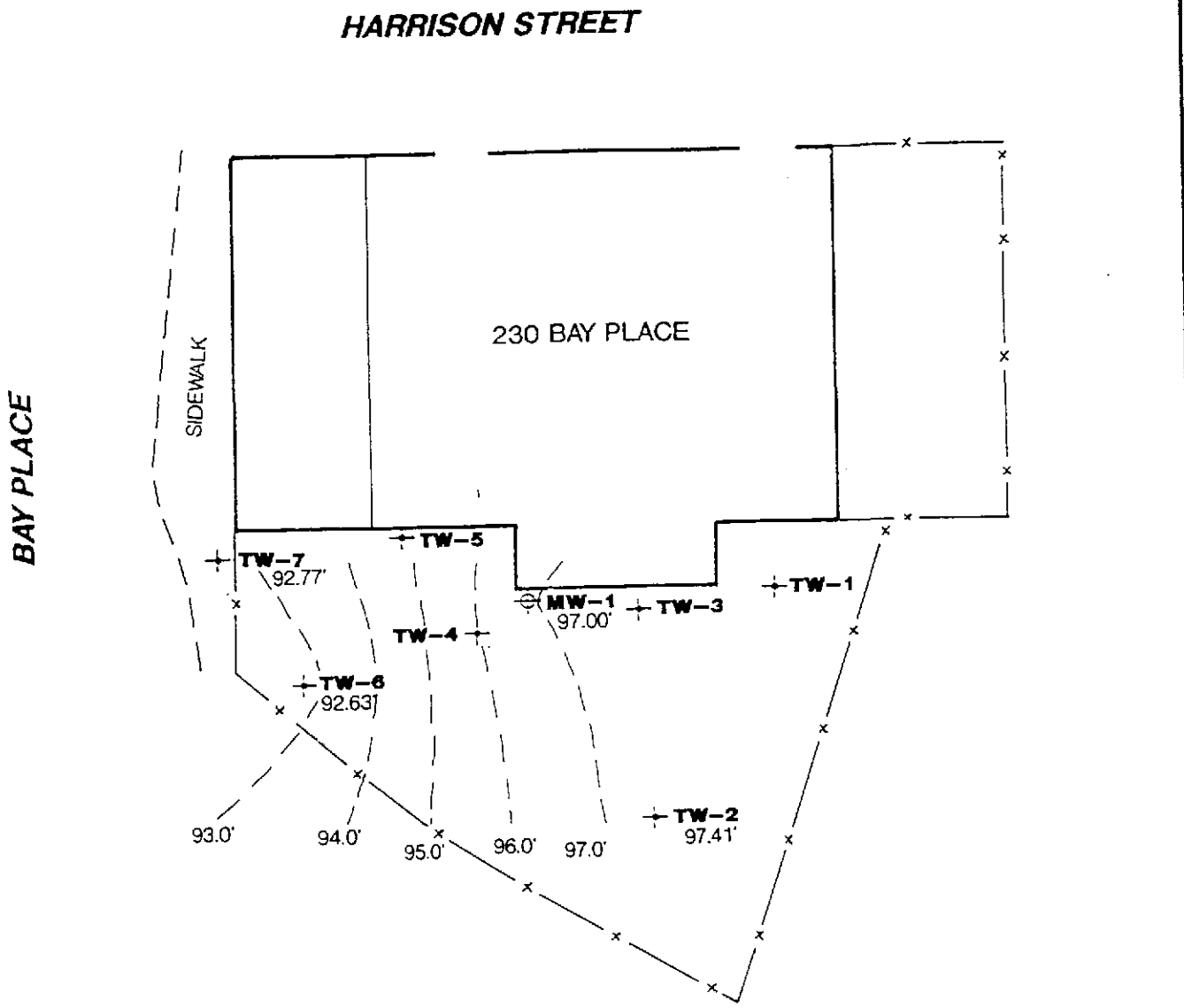
Table 1. Groundwater Elevation Data

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
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
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

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

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



+	TEMPORARY WELL BY OTHERS
⊕	MONITORING WELL BY OTHERS
— x —	FENCE
— —	GROUNDWATER CONTOURS
97.0'	GROUNDWATER ELEVATION 9/29/95

APPROXIMATE SCALE (feet)

0 60 120

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

SITE PLAN

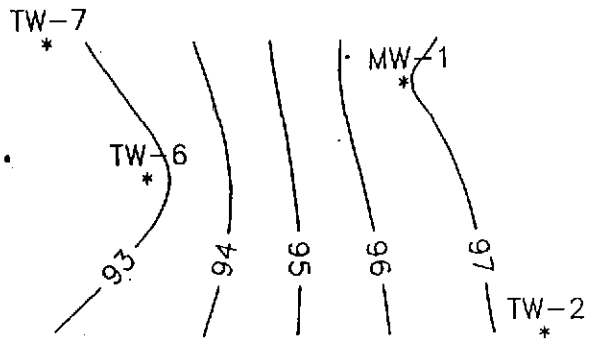
Subsurface Consultants

230 BAY PLACE – OAKLAND, CA

JOB NUMBER	DATE	APPROVED
805.007	10/4/95	

PLATE 1

Cox Cadillac 9/29/95



Subsurface Consultants
FIELD REPORT

Sheet ___ of ___

REPORT NO. ☐

PROJECT: Cox Cadillac JOB NO: 805-007

PERSONNEL PRESENT: Sherris Ragsdale EOA DATE: 9/29/95

HOURS - From: ___ To: ___ From: ___ To: ___ TOTAL HRS: 3ª

EQUIPMENT IN USE: ___

TYPE OF SERVICES PROVIDED: ☐ Exploration ☐ Field Density Testing

☐ Site Meeting ☐ Construction Observation ☑ sampling event

Met w/ Sherris Ragsdale (EOA) ground water depths measured, after groundwater levels stabilized. Purged MW-1 & waited for groundwater to recover to 80% then sampled. Purged TW-6 until dry then sampled as bailer refilled. TW-7 purged until nearly dry then sampled. Ph conductivity & temp readings taken. Samples taken by Sherris Ragsdale to lab for analysis. No free product detected in any well sampled.

Prepared by: _____ Reviewed by: _____

GROUNDWATER DEPTHS

Project Name: Cox Cadillac

Job No.: 805007

Measured by: [illegible]

Well	Date	Time	Groundwater Depth (feet)	Comments
MW-1	9/29/95		3.0	
TW-2	9/29/95		3.02	
TW-6	9/29/95		6.12	
TW-7	9/29/95		5.19	

WELL SAMPLING FORM

Project Name: Cox Cadillac
Well Number: MW-1
Job No.: 805.007
Well Casing Diameter: 2 inch
Sampled By: DDA
Date: 9/29/05
TOC Elevation:
Weather: clear

Depth to Casing Bottom (below TOC) 20.00 feet
Depth to Groundwater (below TOC) 3.00 feet
Feet of Water in Well 17.00 feet
Depth to Groundwater When 80% Recovered 5.90 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 2.77 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) Other
Free Product none
Purge Method teflon bailer

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
2	7.75	80.2	1540		
4	7.49	74.8	1900		
6	7.33	72.9	1860		
8	7.15	71.9	1910		

Total Gallons Purged 8 gallons
Depth to Groundwater Before Sampling (below TOC) 5.90 feet
Sampling Method teflon bailer
Containers Used 3 (40 ml) 1 (liter) pour 250ml pint

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: Cox Cad. Mac
Well Number: TW-6
Job No.: 805.007
Well Casing Diameter: 2 inch
Sampled By: WDa
Date: 9/29/95
TOC Elevation:
Weather: Clear

Depth to Casing Bottom (below TOC) 8.00 feet
Depth to Groundwater (below TOC) 6.12 feet
Feet of Water in Well 1.88 feet
Depth to Groundwater When 80% Recovered 6.50 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) .30 gallons
Depth Measurement Method Tape & Paste / Electronic Sounder / Other
Free Product none
Purge Method teflon bailer

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
0	6.97	77.1	1112		
1	6.91	74.2	916		Dry

Total Gallons Purged 1 gallons
Depth to Groundwater Before Sampling (below TOC) feet
Sampling Method teflon bailer
Containers Used 3 (40 ml) 1 (liter poly 500 ml.) pint

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: Cox Cadillac
Well Number: TW-7
Job No.: 805-057
Well Casing Diameter: 2 inch
Sampled By: DD
Date: 9/20/05
TOC Elevation:
Weather: clear

Depth to Casing Bottom (below TOC) 10.00 feet
Depth to Groundwater (below TOC) 5.19 feet
Feet of Water in Well 4.81 feet
Depth to Groundwater When 80% Recovered 6.15 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) .78 gallons
Depth Measurement Method Tape & Paste / Electronic Sounder / Other
Free Product none
Purge Method teflon Bailer

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
2	6.76	77.0	619		
3	6.80	75.9	537		

Total Gallons Purged 3 gallons
Depth to Groundwater Before Sampling (below TOC) feet
Sampling Method teflon Bailer
Containers Used 3 (40 ml) 1 (liter) (pint)
(2 x 250 ml)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

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: _____

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.

Curtis & Tompkins, Ltd

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8240 Laboratory Control Sample Report

Lab No: QC06168 LCS Datafile: DJ624
Date Analyzed: 06-OCT-95
Matrix: WATER Operator: TW
Batch No: 23699 435279228024

Compound	ug/L	SpikeAmt	% Rec	Limits
1,1-Dichloroethene	52.66	50	105 %	61-145%
Trichloroethene	46.97	50	94 %	71-120%
Benzene	52.95	50	106 %	76-127%
Toluene	52.23	50	104 %	76-125%
Chlorobenzene	51.04	50	102 %	75-130%
Surrogate Recoveries				
1,2-Dichloroethane-d4	51.53	50	103 %	75-143%
Toluene-d8	48.60	50	97 %	77-134%
Bromofluorobenzene	51.00	50	102 %	65-129%

Results within Specifications - PASS

Note: Instrument C and D surrogates based on LCS data

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8240 MS/MSD Report

Curtis & Tompkins, Ltd.

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
MS RESULTS				
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%
MSD RESULTS				
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%
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Benzene	0			
Toluene	0			
Chlorobenzene	0			

RPD DATA		
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 Diln Fac:	Units	122870-001 50	122870-002 30	122870-003 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

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Lab #: 122870 BATCH QC REPORT

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

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Lab #: 122870 BATCH QC REPORT

BTXE	
Client: EOA, Inc.	Analysis Method: BTXE
Project#: CC03	Prep Method: EPA 5030
Location: Cox Cadillac	
METHOD BLANK	
Matrix: Water	Prep Date: 10/10/95
Batch#: 23764	Analysis Date: 10/10/95
Units: ug/L	
Diln Fac: 1	

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

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Lab #: 122870 BATCH QC REPORT

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

Curtis & Tompkins, Ltd.

Lab #: 122870

BATCH QC REPORT

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

Curtis & Tompkins, Ltd.

Lab #: 122870 BATCH QC REPORT

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

Curtis & Tompkins, Ltd.

Lab #: 122870 BATCH QC REPORT

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

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

Curtis & Tompkins, Ltd.

Lab #: 122870 BATCH QC REPORT

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

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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	BSD Result	Units	BS % Recovery	BSD % 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	Analysi Date
Lead	ND	3	ug/L	23687	EPA 6010A	10/12/9

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.

1228770

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 #

Sampler: Chris - SCI

Project No: CC03

Report To: Sherris Ragsdale

Project Name: Cox

Company: EDA, Inc.

Project P.O.:

Telephone: 832-2882

Turnaround Time: 2 weeks

Fax: 832-2856

Analyses

Lab Number	Sample ID.	Sampling Date Time	Matrix: Soil	Matrix: Water	Matrix: Waste	# of Containers	Preservative: HCl	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: ICE	Field Notes	Soluble Lead	EDB (ONLY) DCA 10/2/95	BTEX/Gasoline
	MW-1	9/29 3:20		✓		1-250 ml						✓	✓	
				✓		3-VOA	✓						✓	✓
	TW-6	9/29 3:35		✓		1-250						✓	✓	
				✓		3-VOA	✓						✓	✓
	TW-7	9/29 3:55		✓		1-250						✓		
				✓		2-VOA	✓						✓	✓

Notes:

RELINQUISHED BY:	RECEIVED BY:
Sherris Ragsdale 9/29/95 4:25 DATE/TIME	Damara Moore 9-29-95 4:30 pm DATE/TIME
DATE/TIME	DATE/TIME
DATE/TIME	DATE/TIME

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