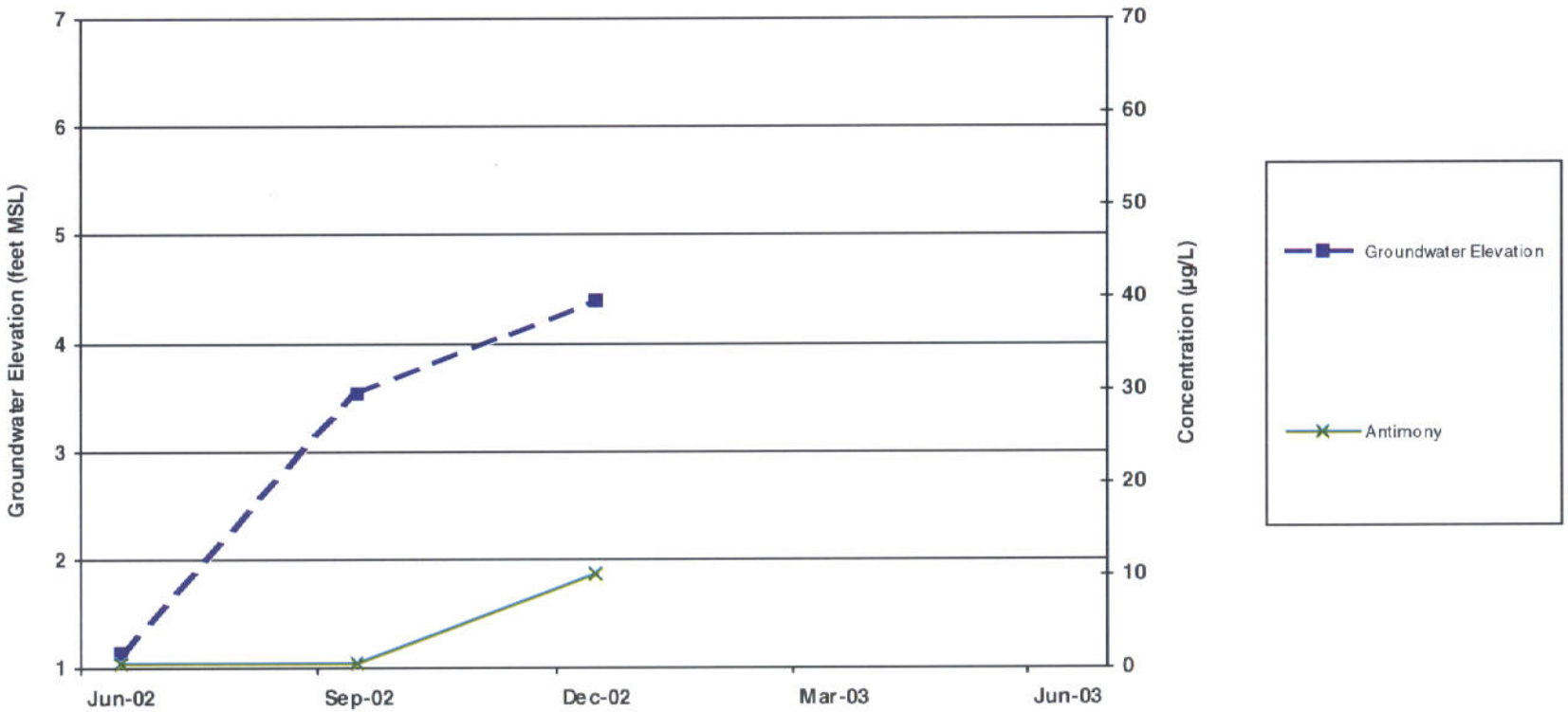
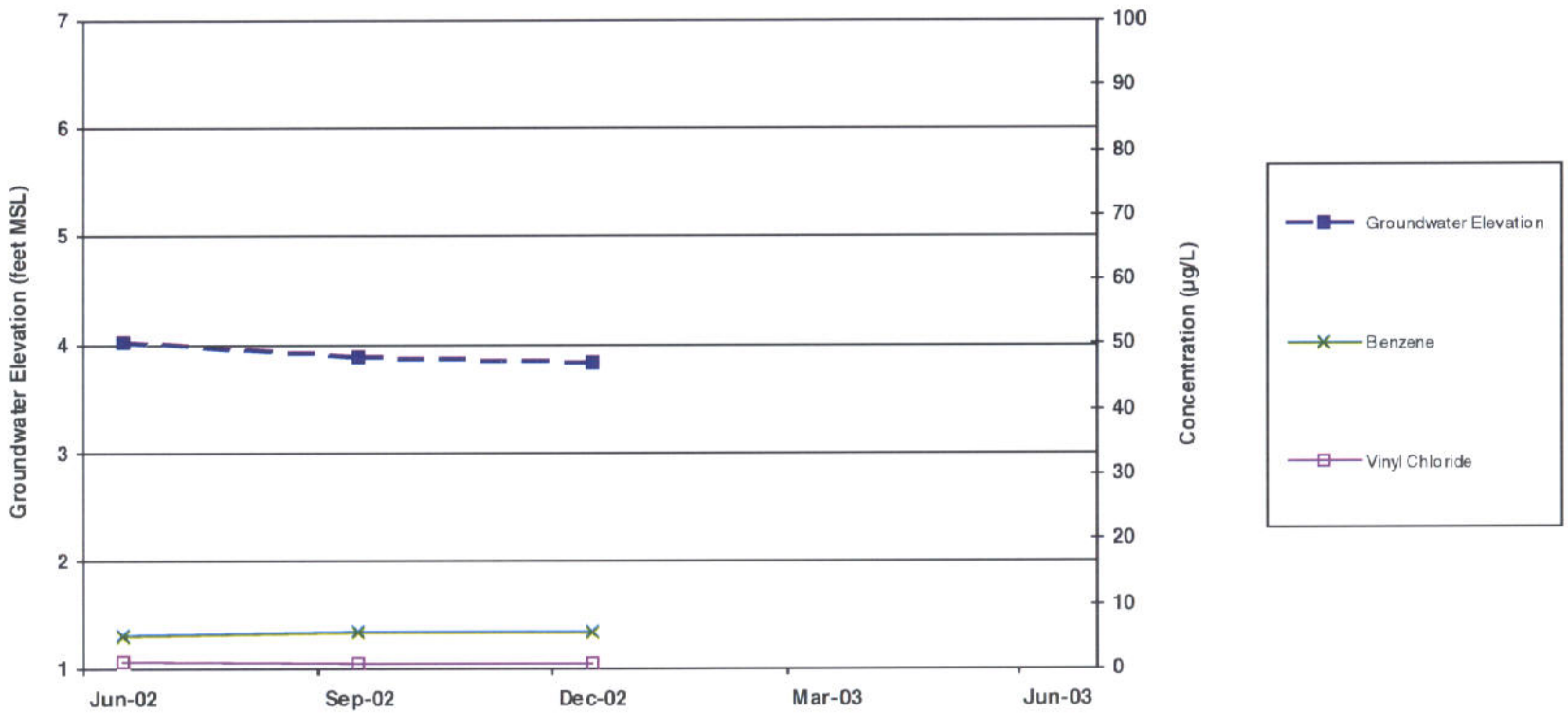
Previous

Figure 6-6
Time Series, Groundwater Elevations and Inorganic Concentrations at M001-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



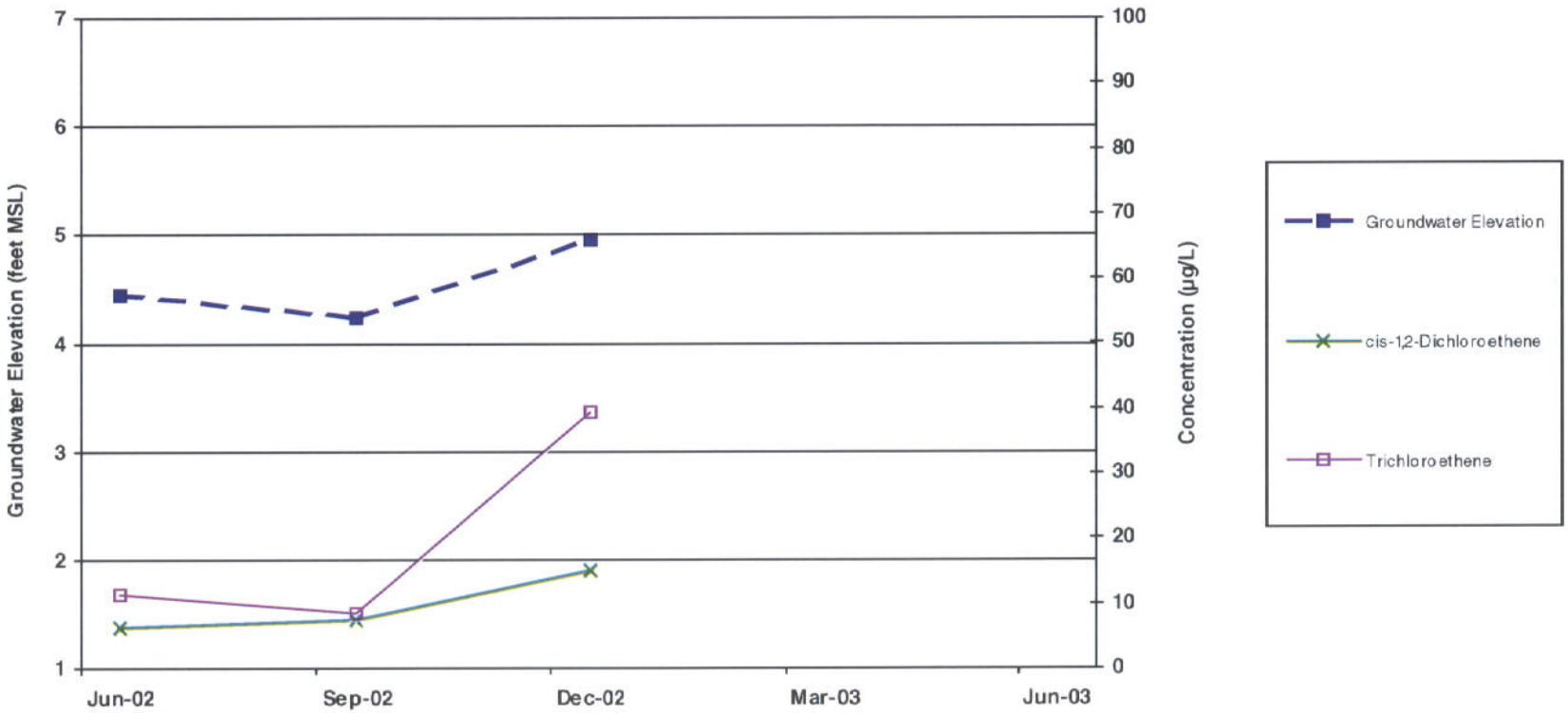
MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-7
Time Series, Groundwater Elevations and Organic Concentrations at M001-E
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



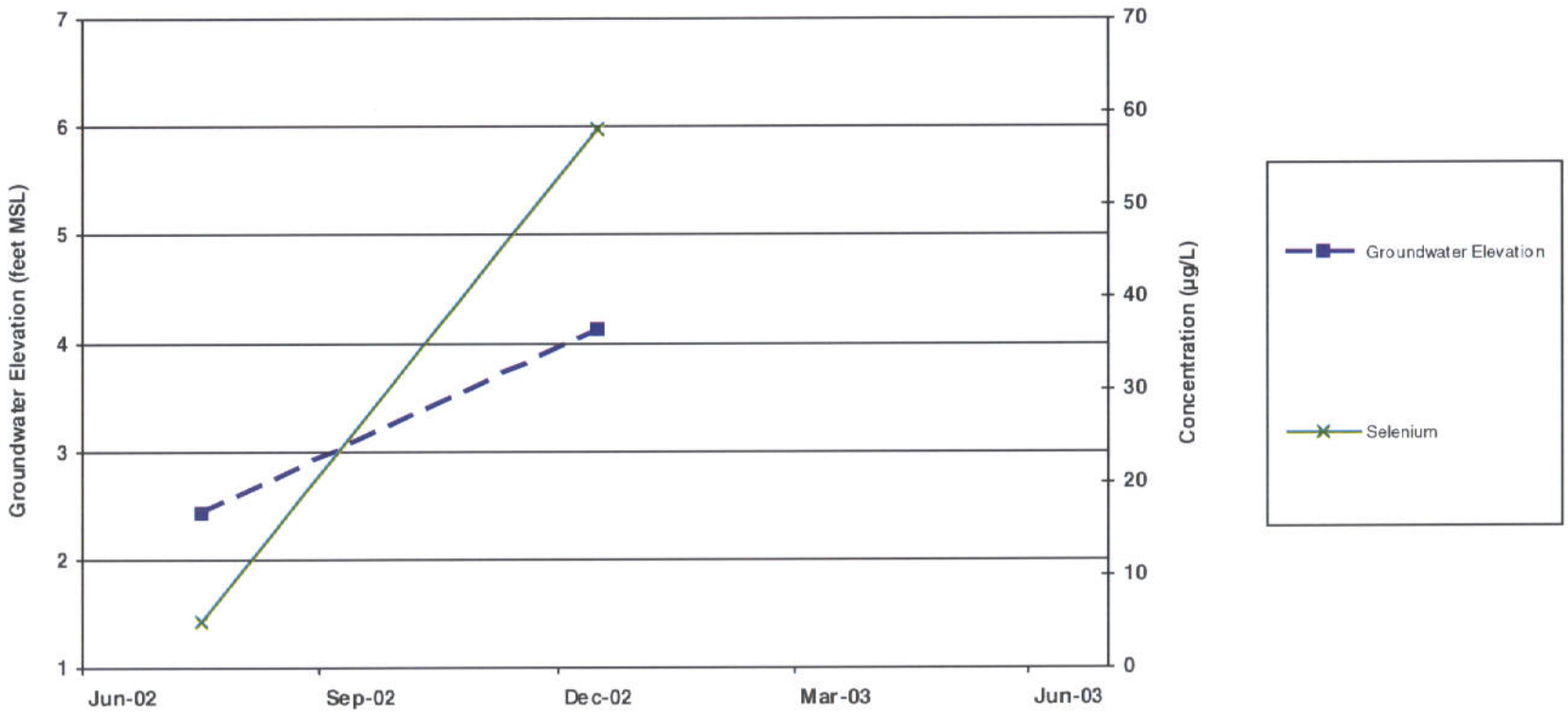
MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-8
Time Series, Groundwater Elevations and Organic Concentrations at M002-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



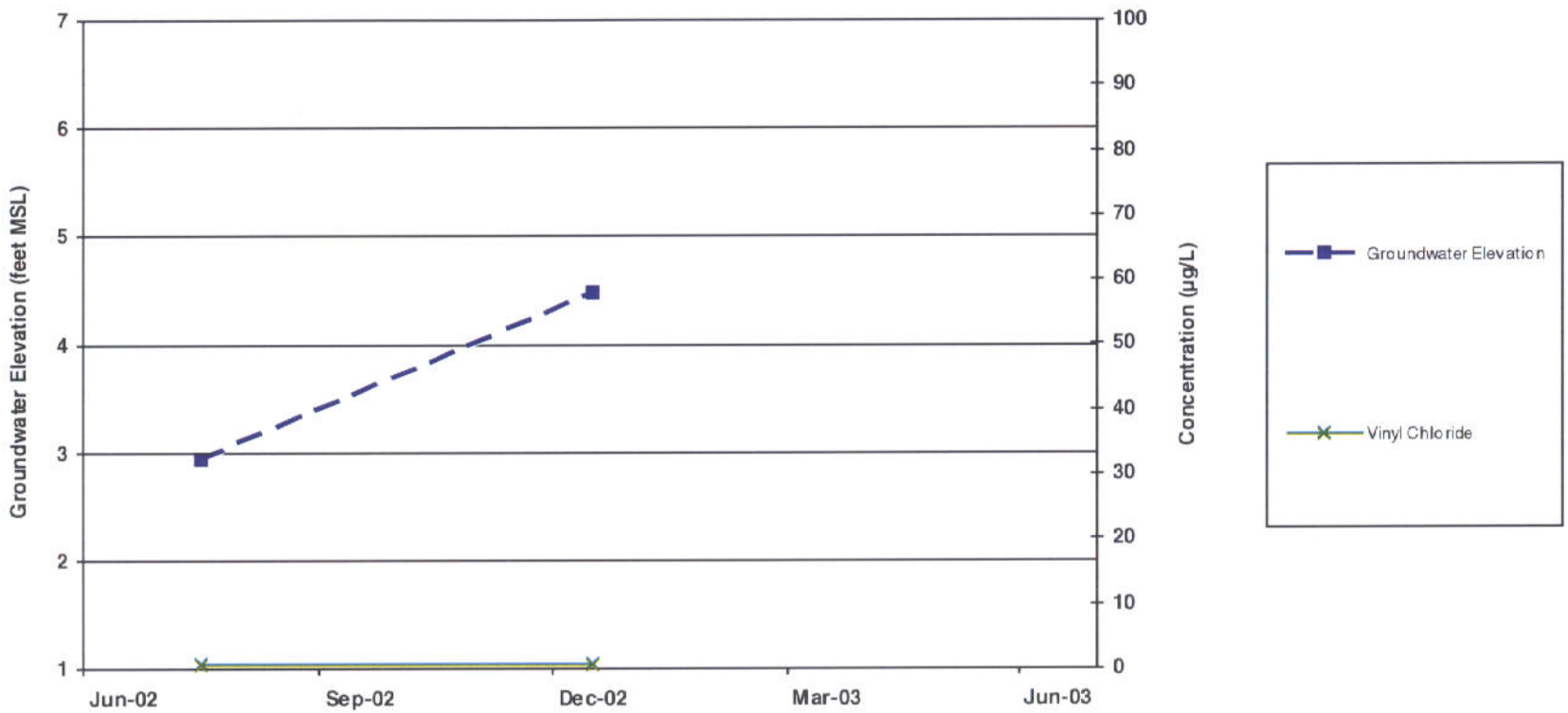
MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-9
Time Series, Groundwater Elevations and Inorganic Concentrations at M003-B
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



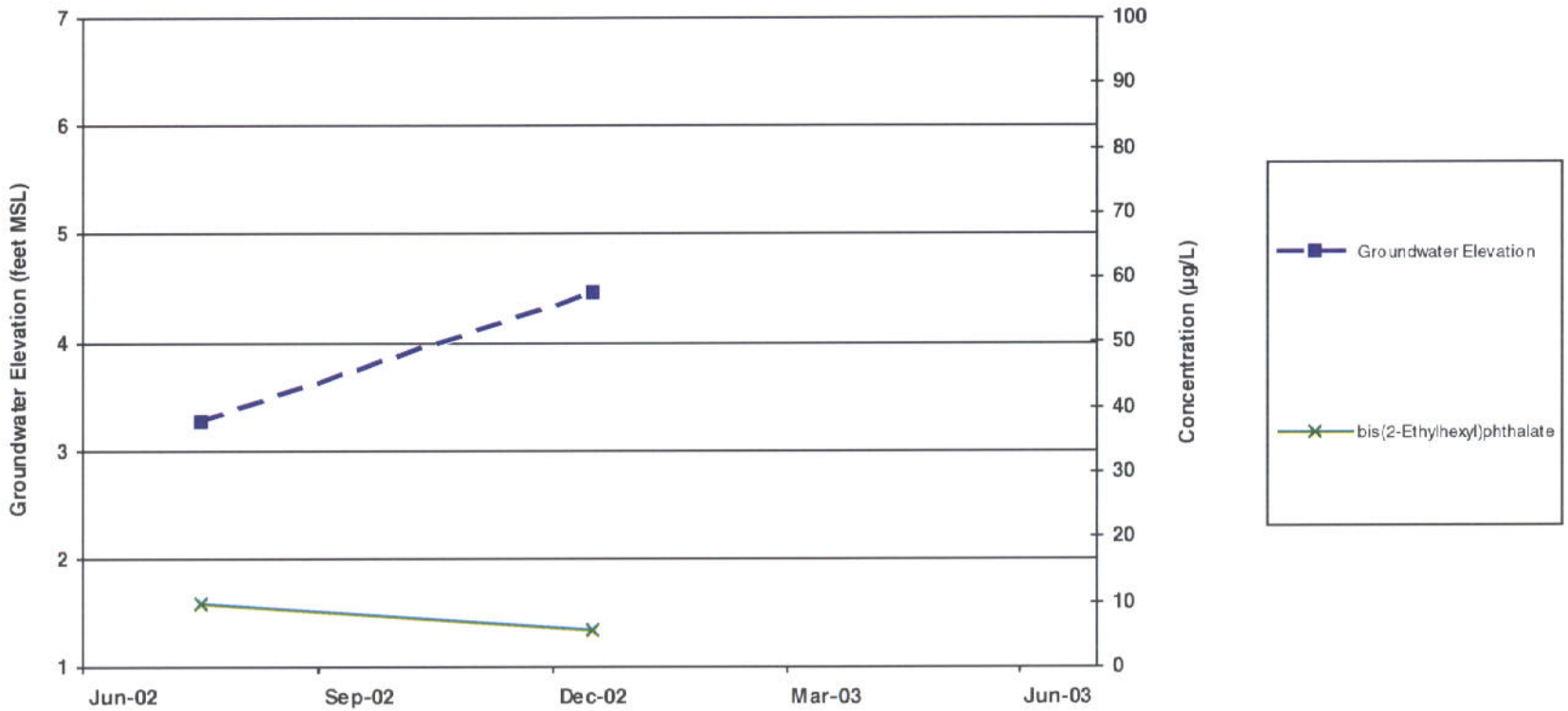
MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-10
Time Series, Groundwater Elevations and Organic Concentrations at M025-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



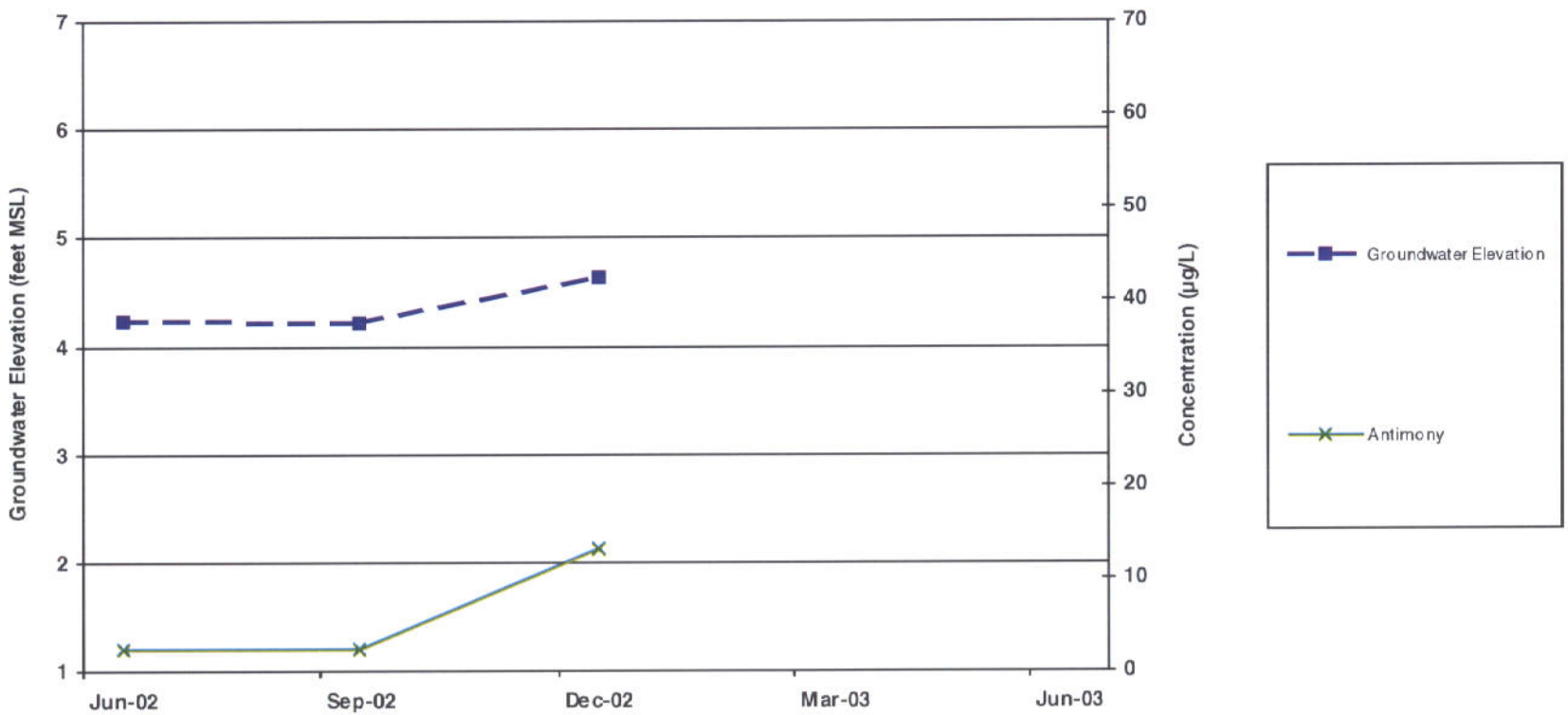
MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-11
Time Series, Groundwater Elevations and Organic Concentrations at M026-E
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



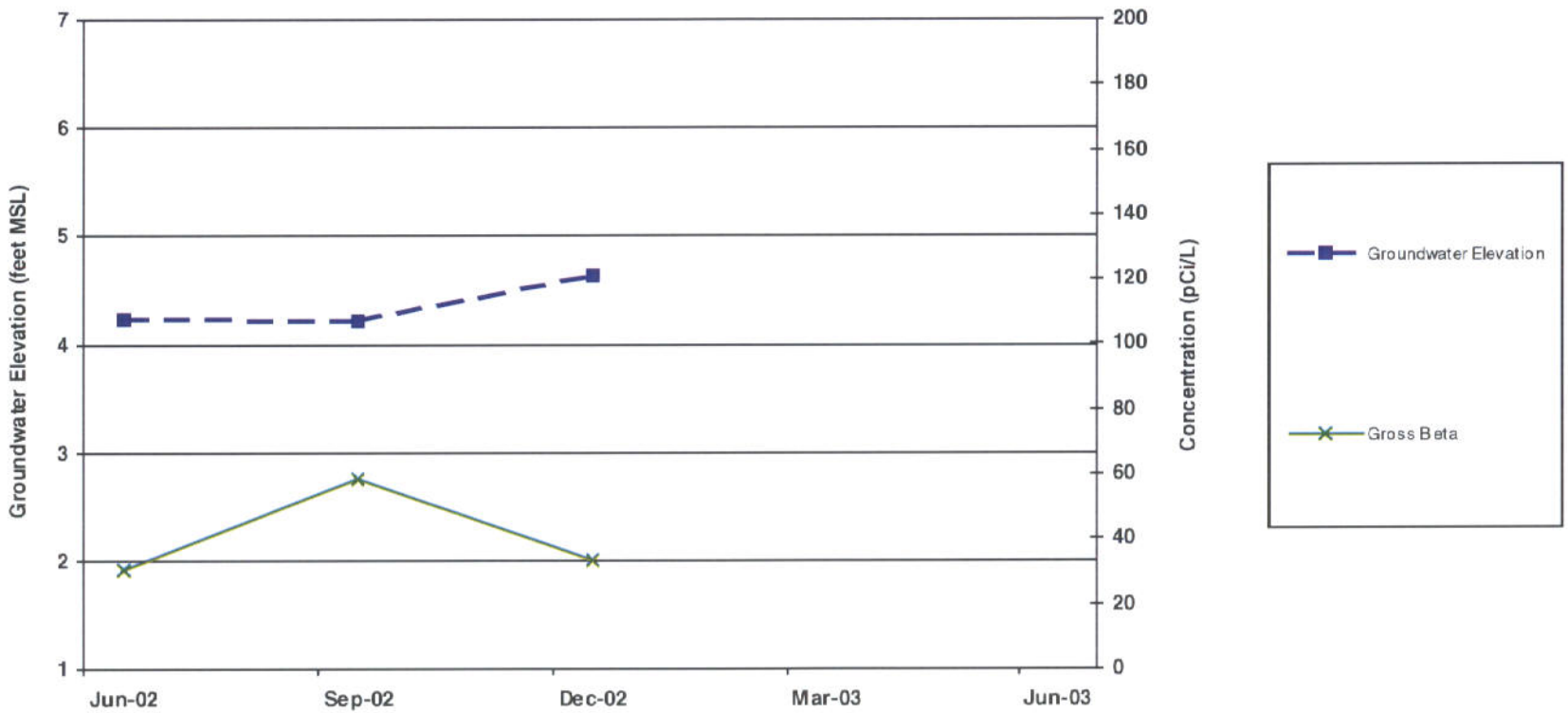
MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-12
Time Series, Groundwater Elevations and Inorganic Concentrations at M027-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



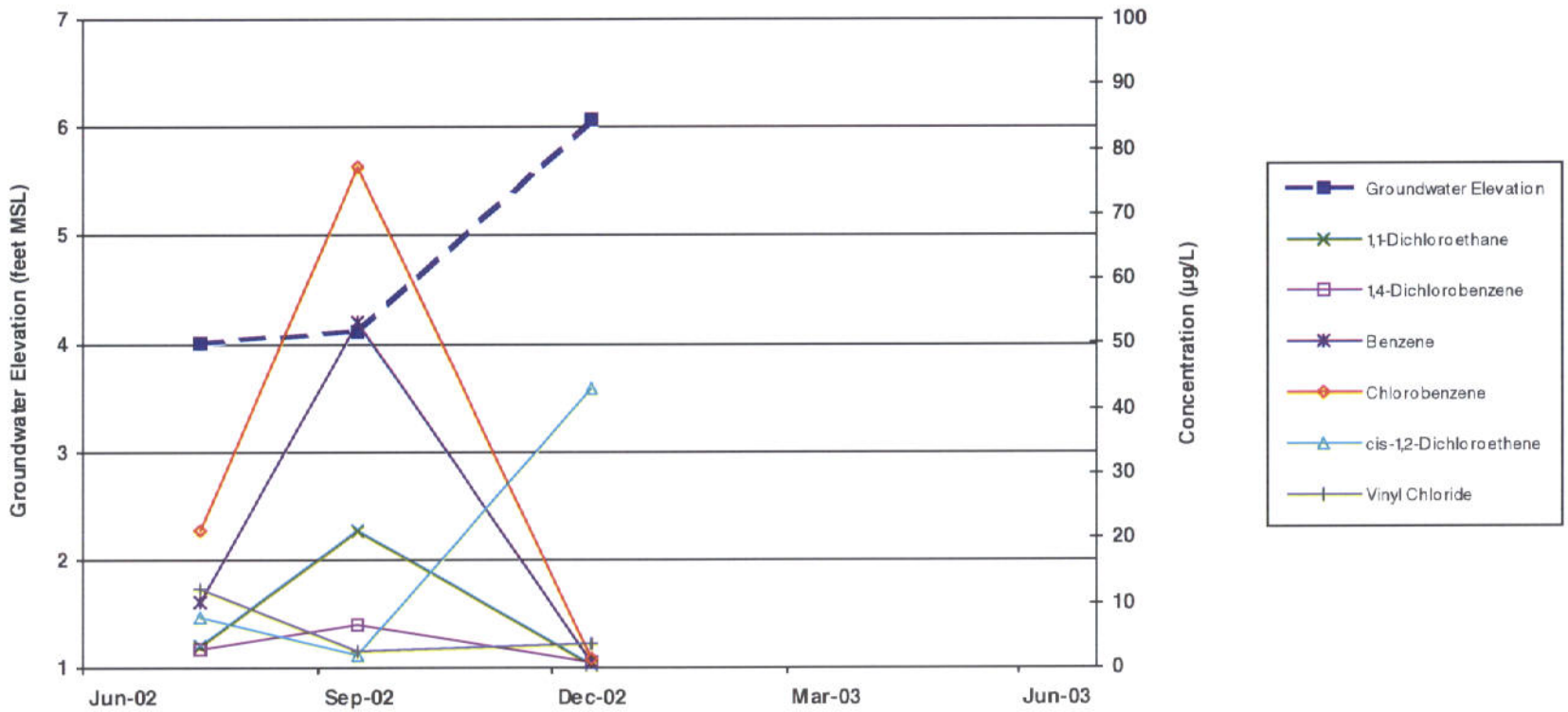
MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-13
Time Series, Groundwater Elevations and Radiological Concentrations at M027-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



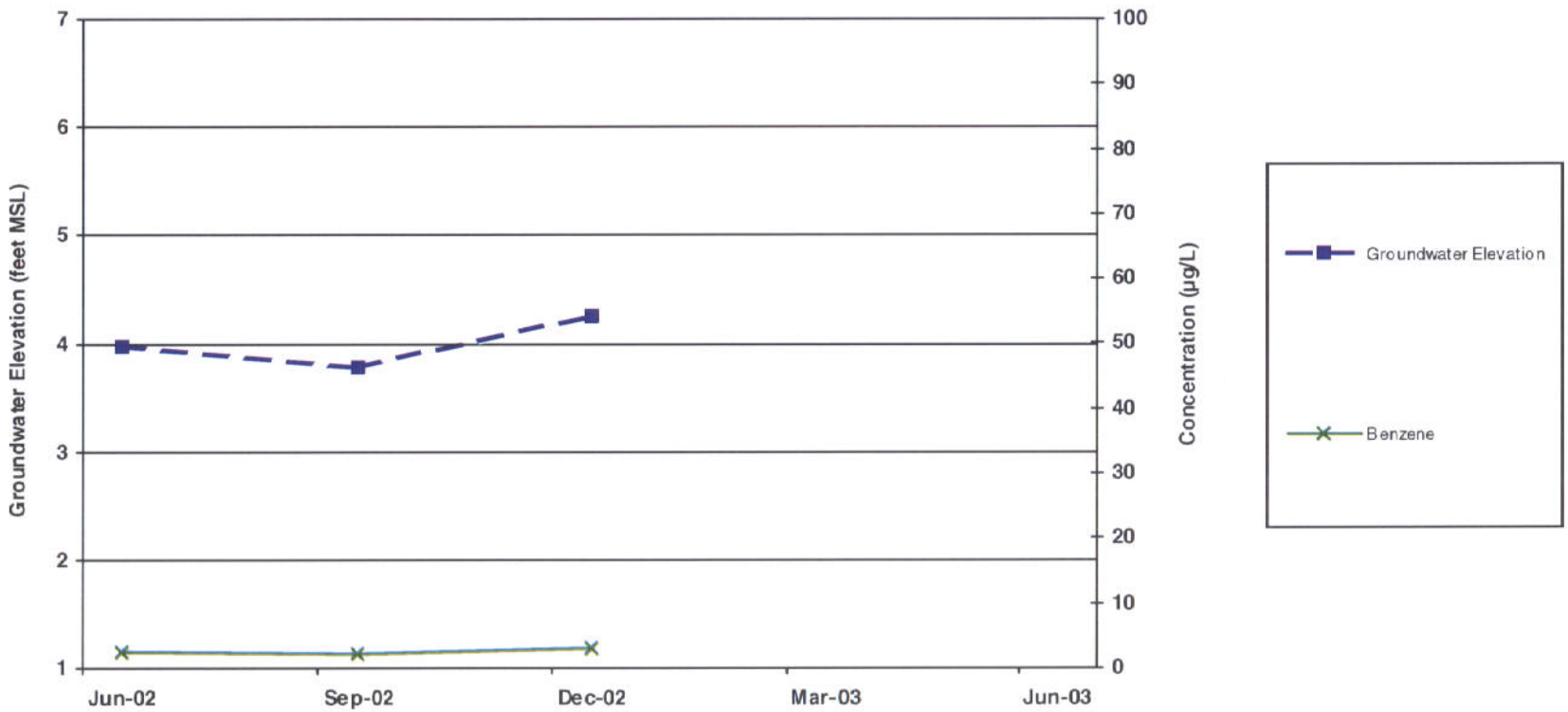
MSL Mean Sea Level
pCi/L pico curies per liter

Figure 6-14
Time Series, Groundwater Elevations and Organic Concentrations at M028-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



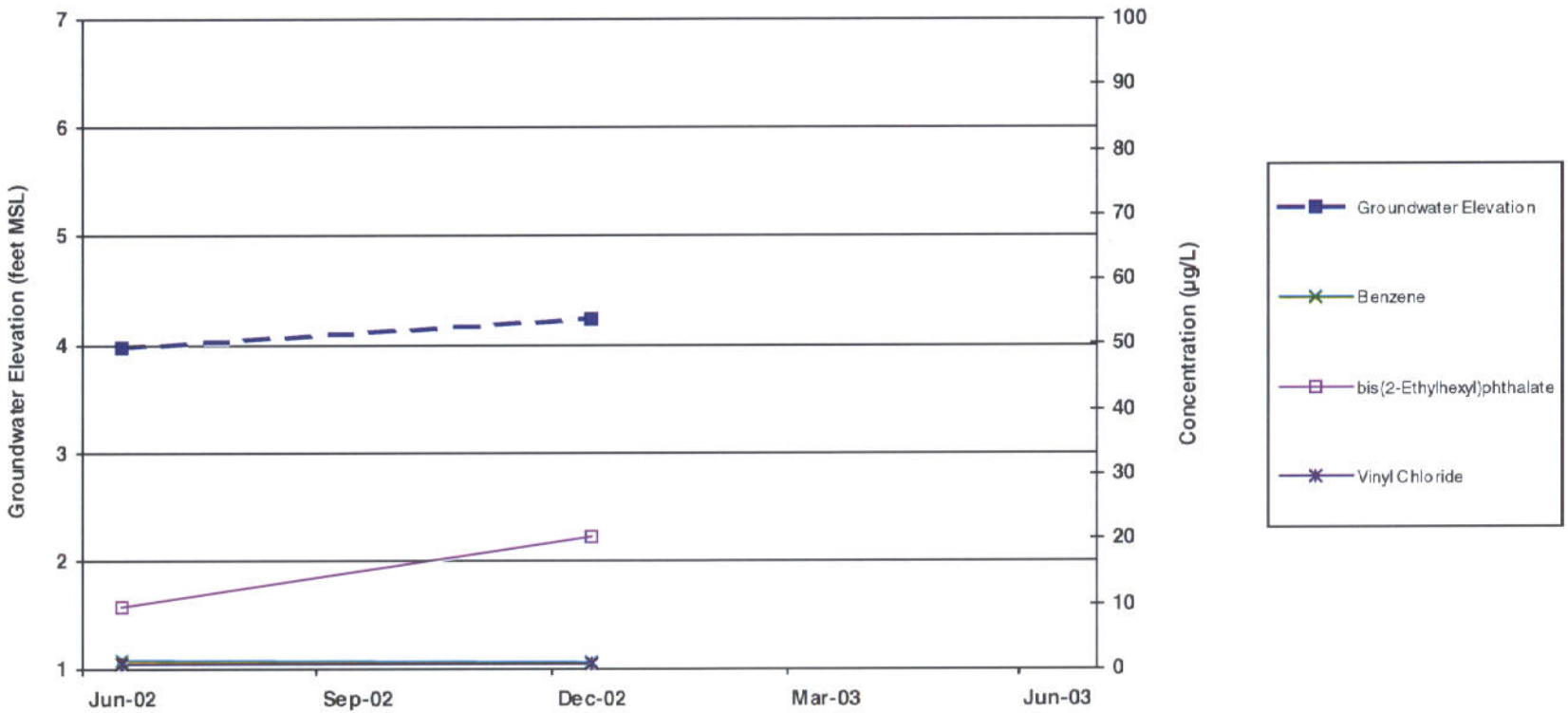
MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-15
Time Series, Groundwater Elevations and Organic Concentrations at M029-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



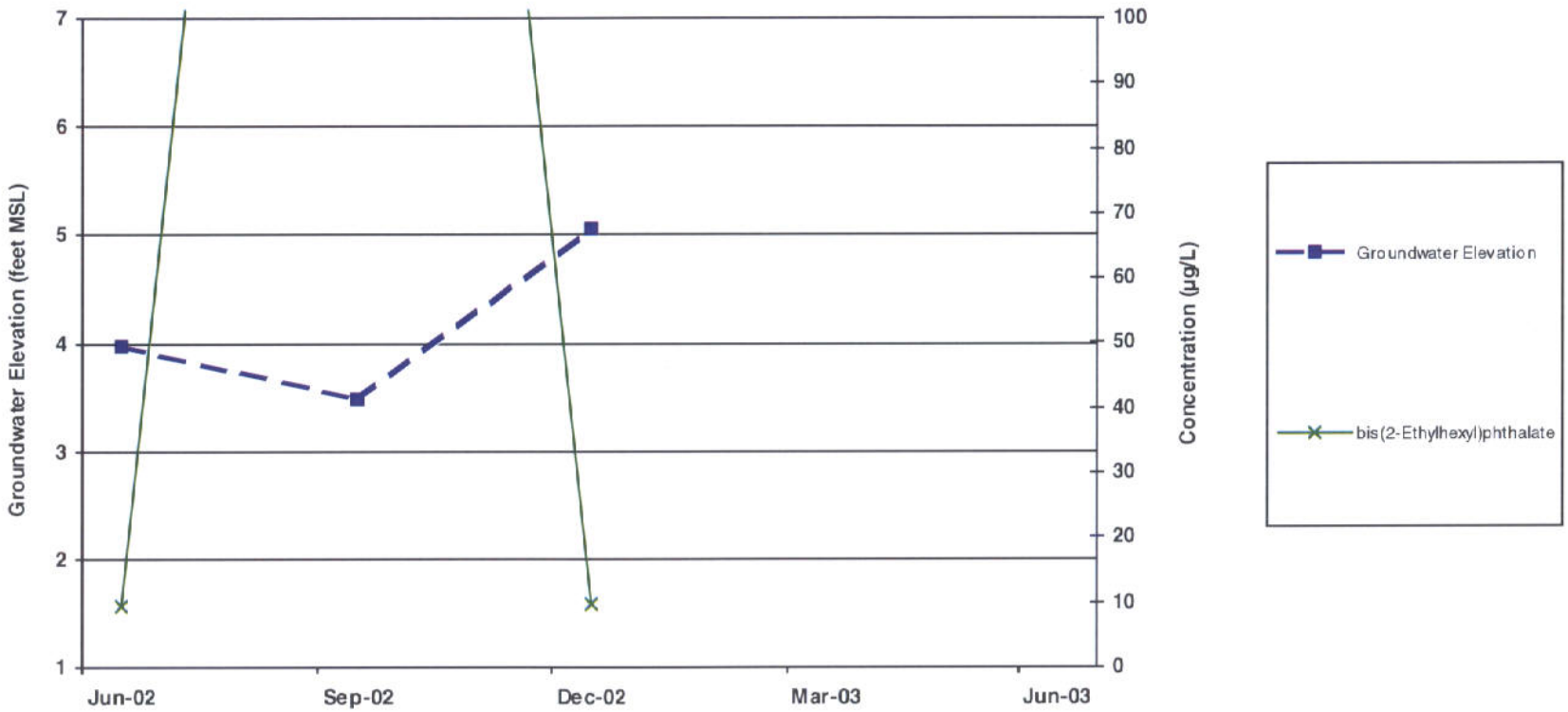
MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-16
Time Series, Groundwater Elevations and Organic Concentrations at M029-E
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-17
Time Series, Groundwater Elevations and Organic Concentrations at M030-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

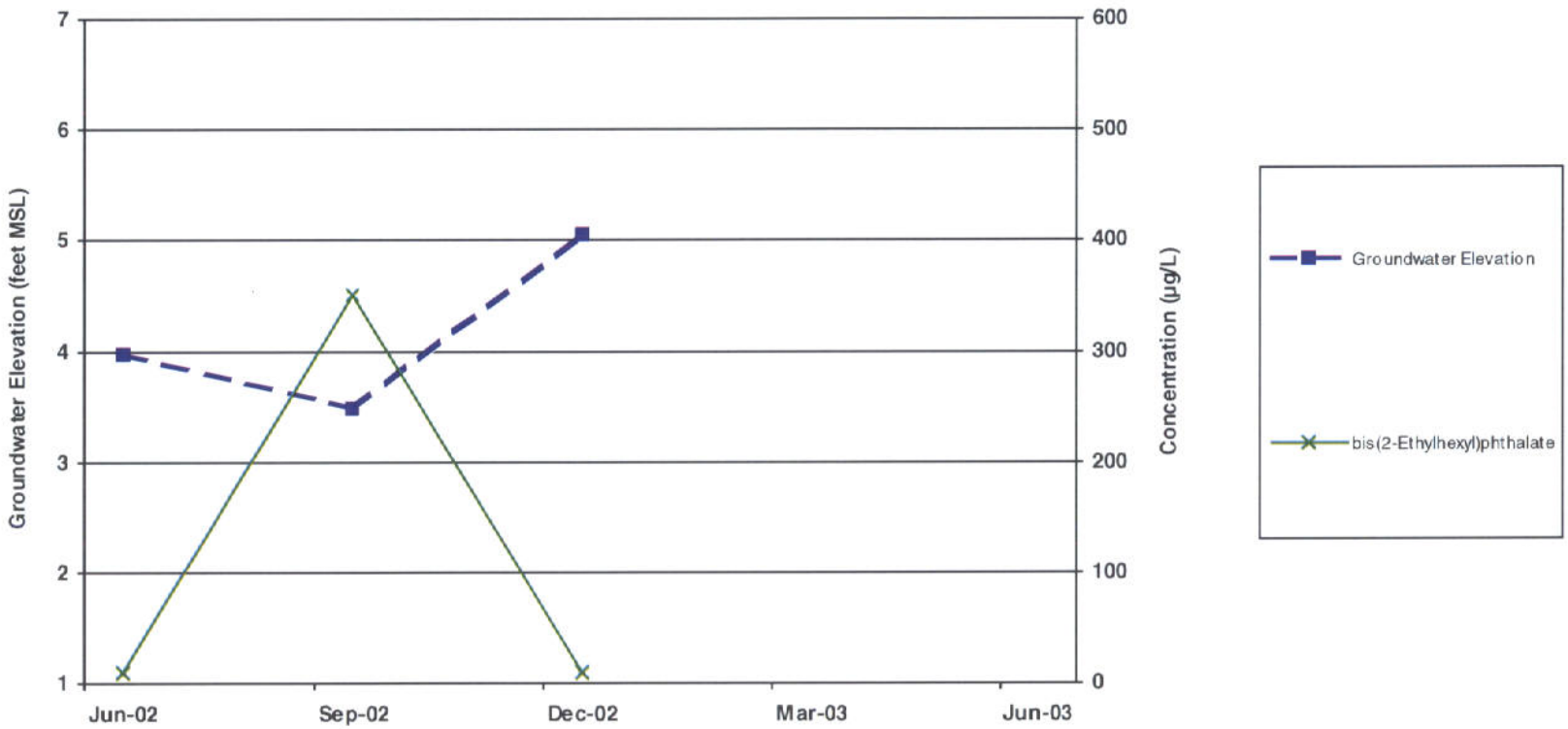


MSL Mean Sea Level
µg/L micrograms per liter

Note: Concentration axis restricted to less than observed maximum. Out-of-range compound(s) plotted on an auxiliary view on the subsequent figure.

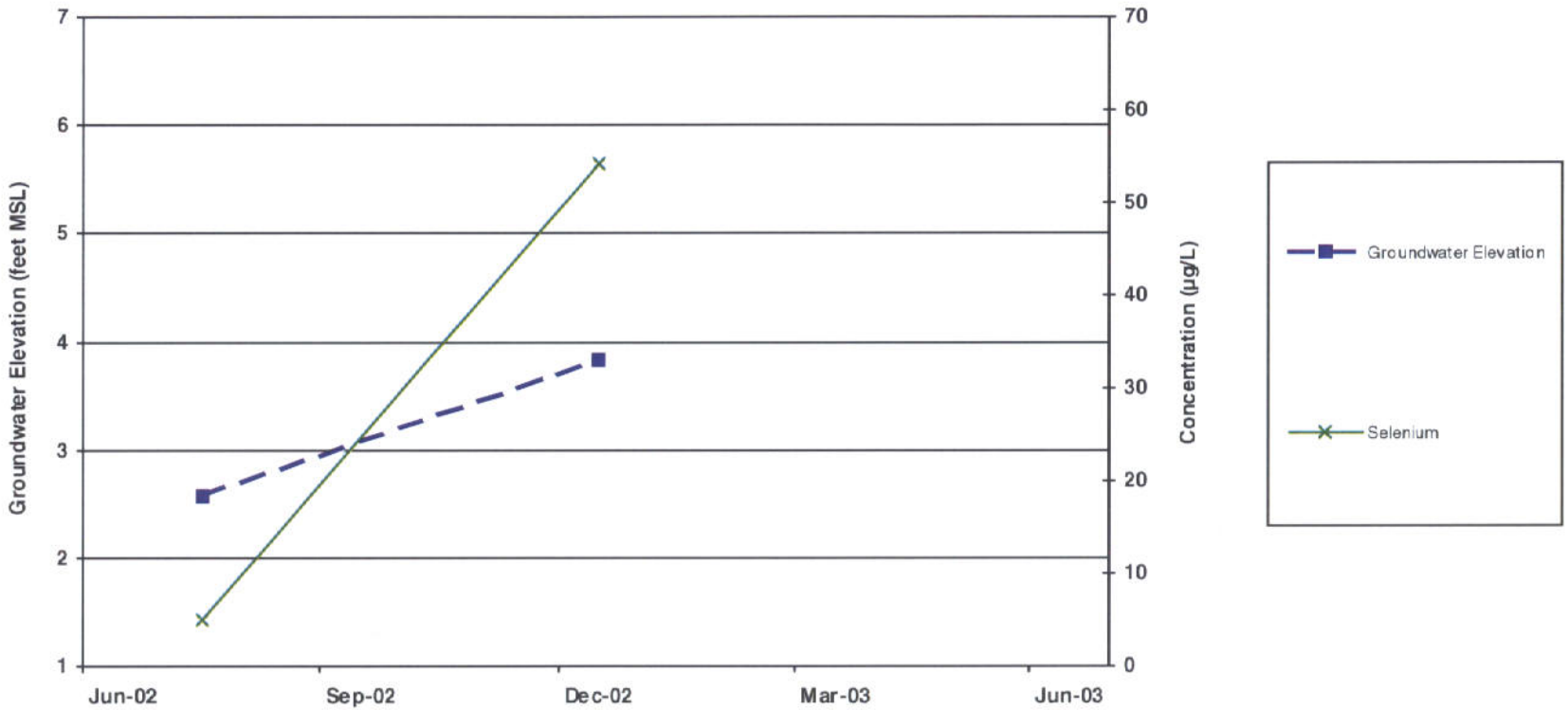
Results for Out-of-Range Compound(s)	Summer 2002	Fall 2002	Winter 2002	Unit
bis(2-Ethylhexyl)phthalate	9.4 U	350	9.6 U	µg/L

Figure 6-17a
Time Series, Groundwater Elevations and Organic Concentrations at M030-A (Auxiliary View)
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



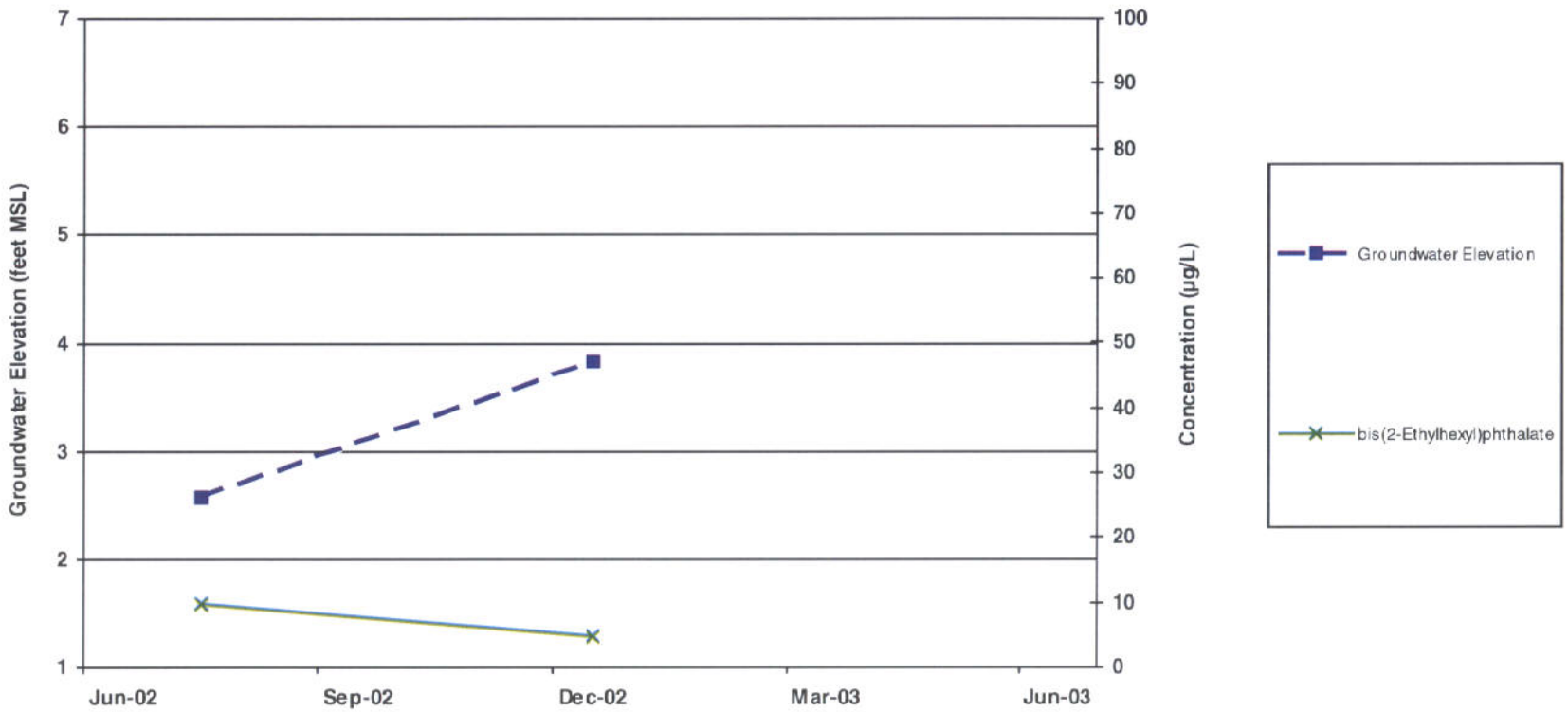
MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-18
Time Series, Groundwater Elevations and Inorganic Concentrations at M030-C
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



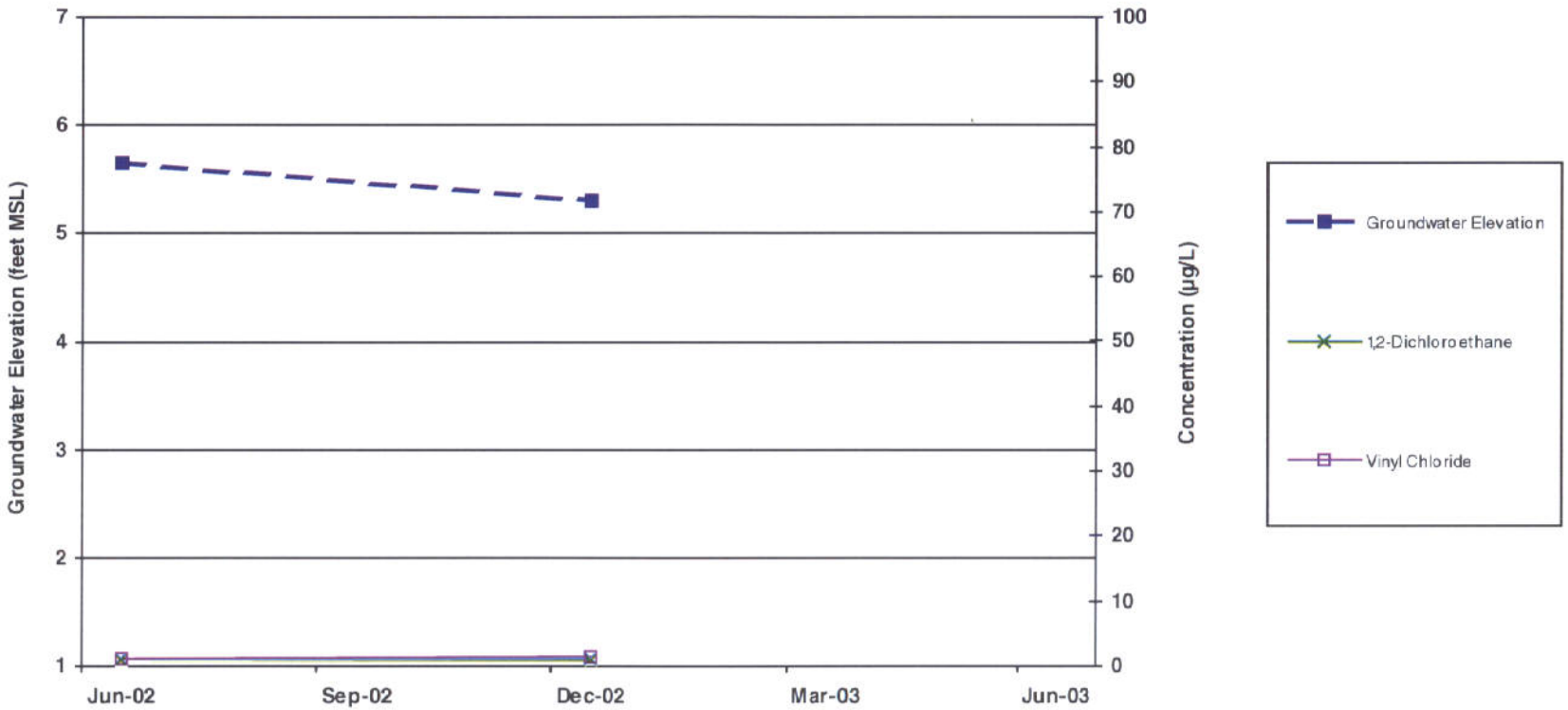
MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-19
Time Series, Groundwater Elevations and Organic Concentrations at M030-C
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



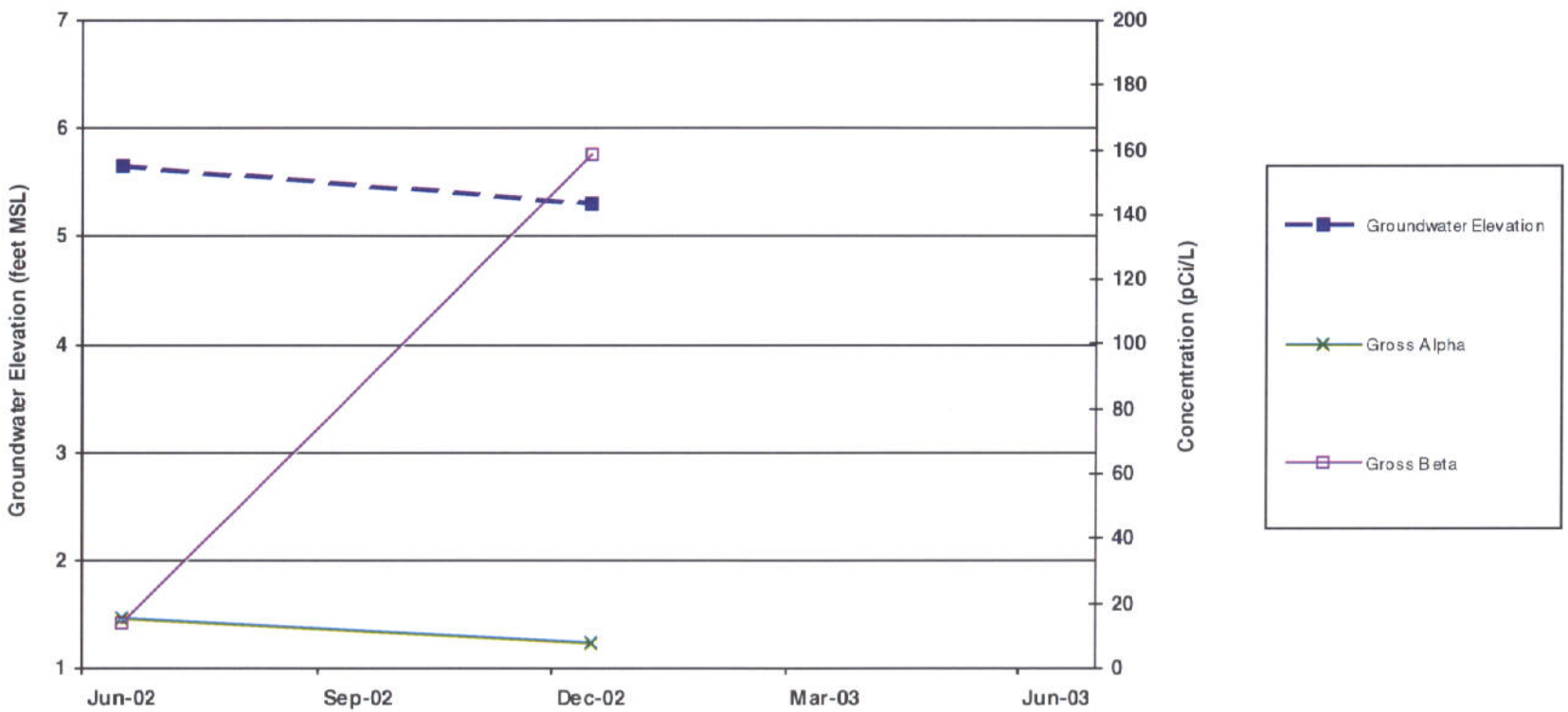
MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-20
Time Series, Groundwater Elevations and Organic Concentrations at M032-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



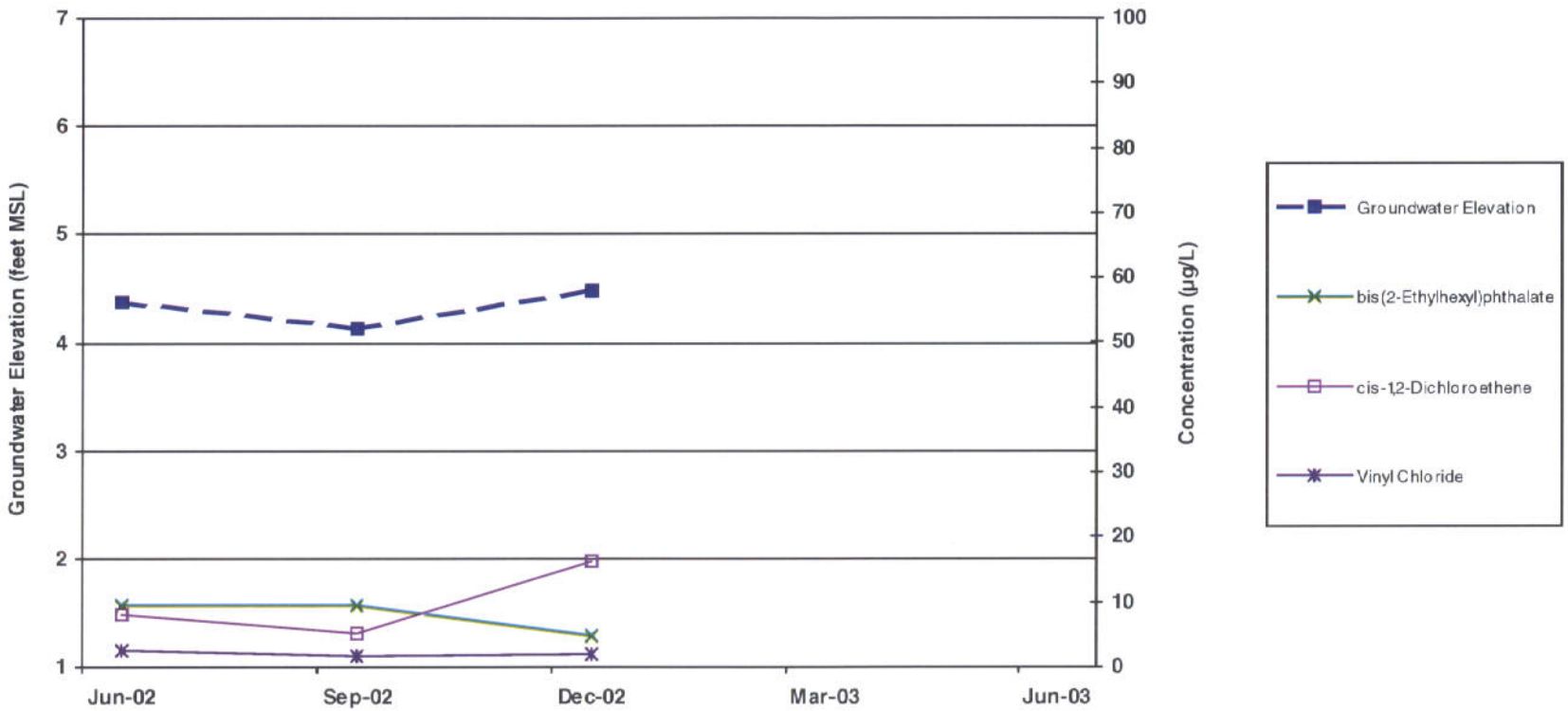
MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-21
Time Series, Groundwater Elevations and Radiological Concentrations at M032-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



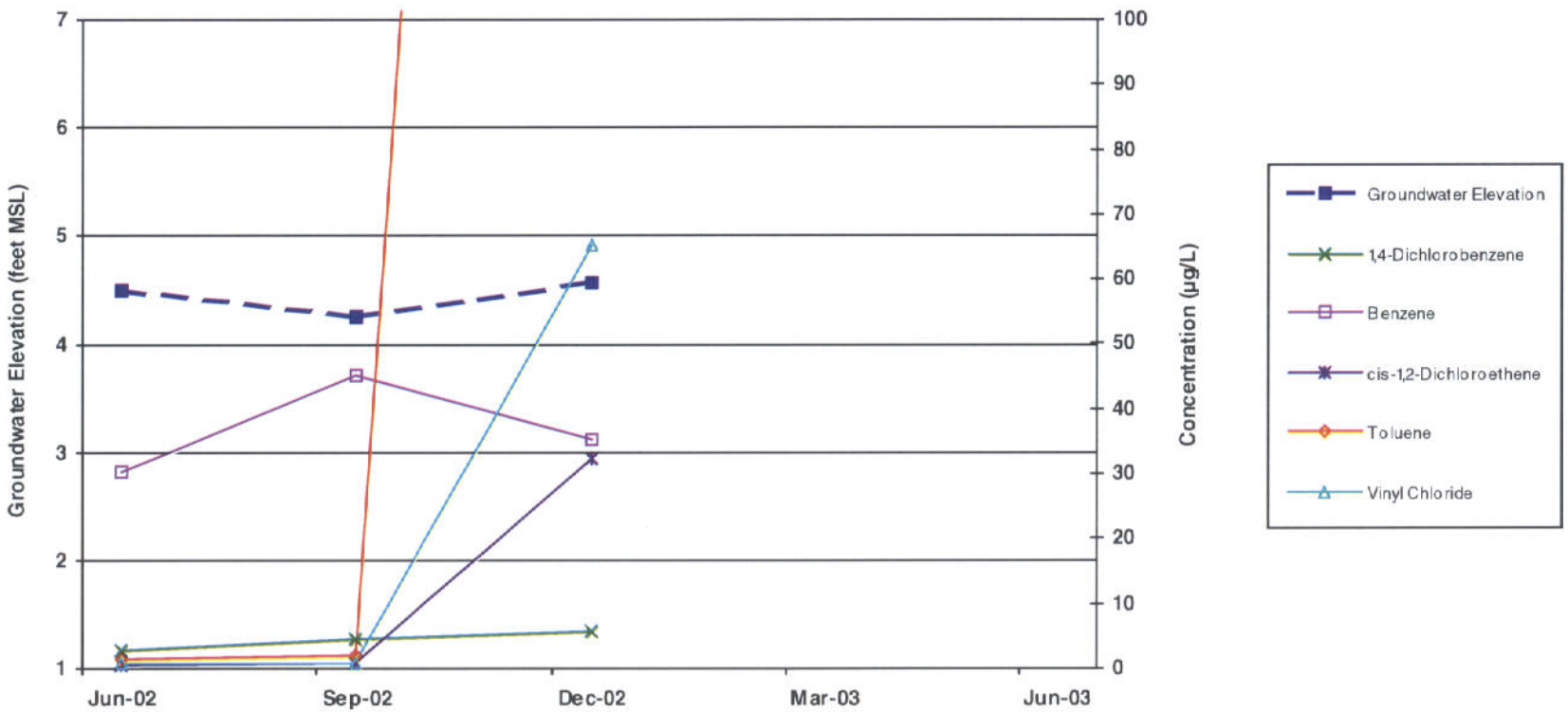
MSL Mean Sea Level
pCi/L pico curies per liter

Figure 6-22
Time Series, Groundwater Elevations and Organic Concentrations at M033-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-23
Time Series, Groundwater Elevations and Organic Concentrations at M034-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

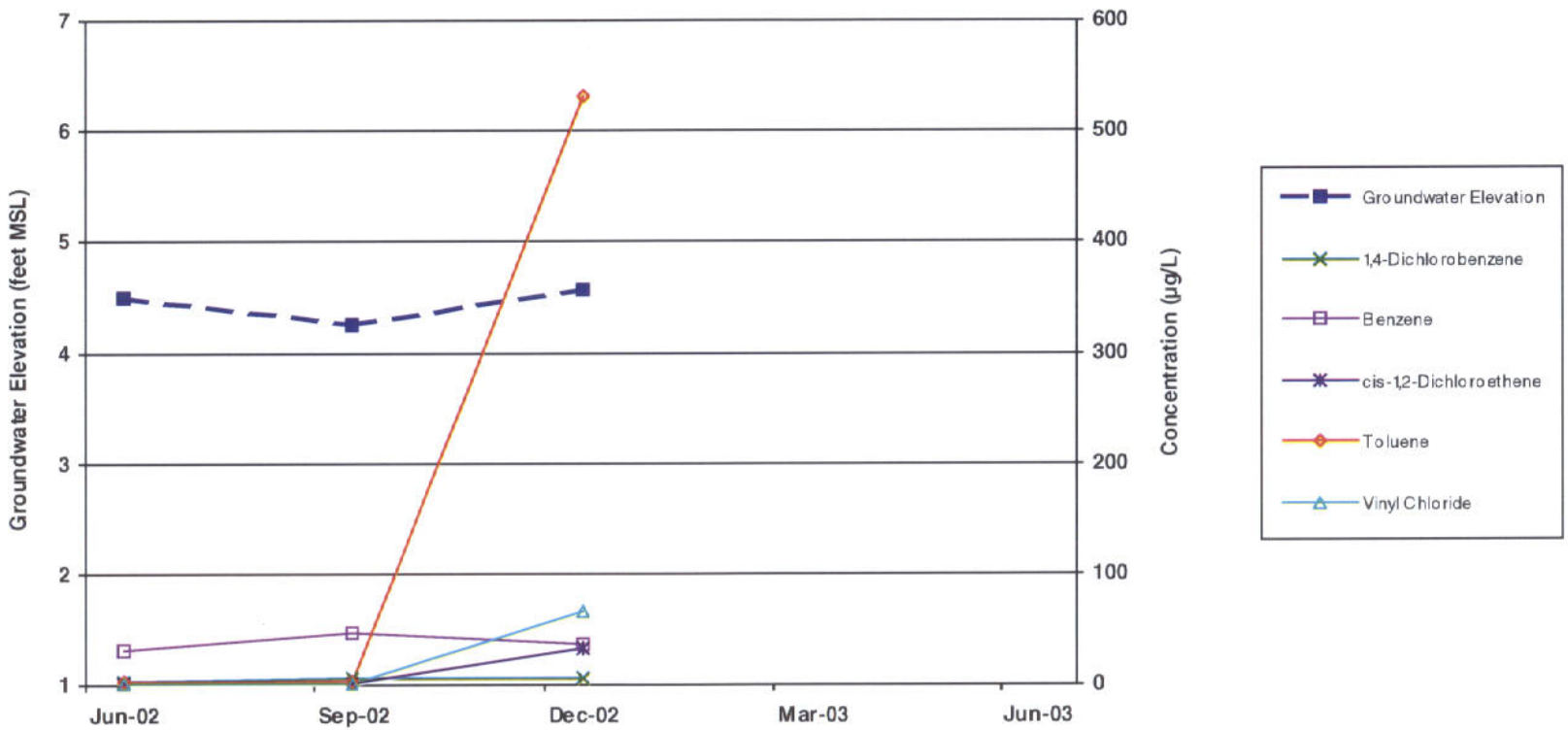


MSL Mean Sea Level
µg/L micrograms per liter

Note: Concentration axis restricted to less than observed maximum. Out-of-range compound(s) plotted on an auxiliary view on the subsequent figure.

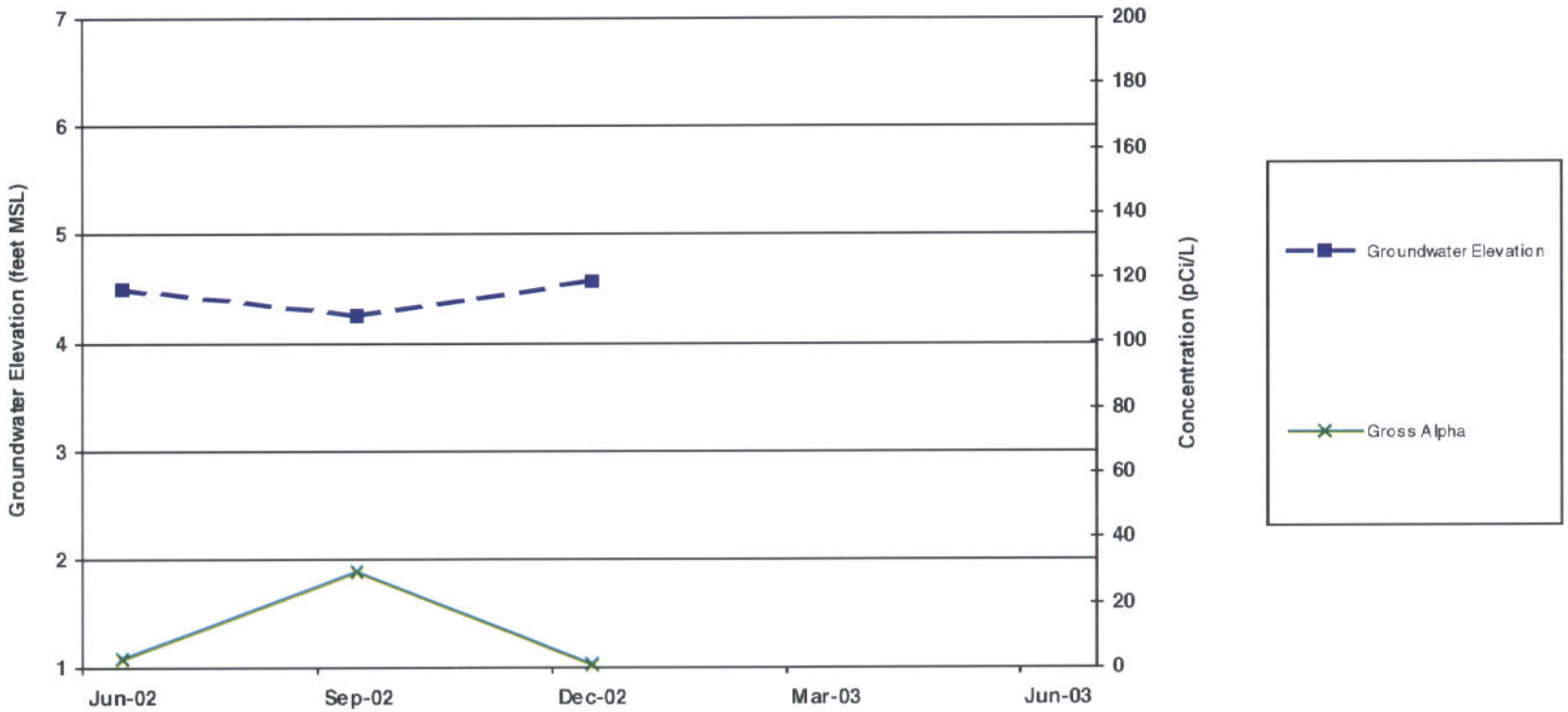
Results for Out-of-Range Compound(s)	Summer 2002	Fall 2002	Winter 2002	Unit
Toluene	1.2	1.7	530	µg/L

Figure 6-23a
Time Series, Groundwater Elevations and Organic Concentrations at M034-A (Auxiliary View)
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



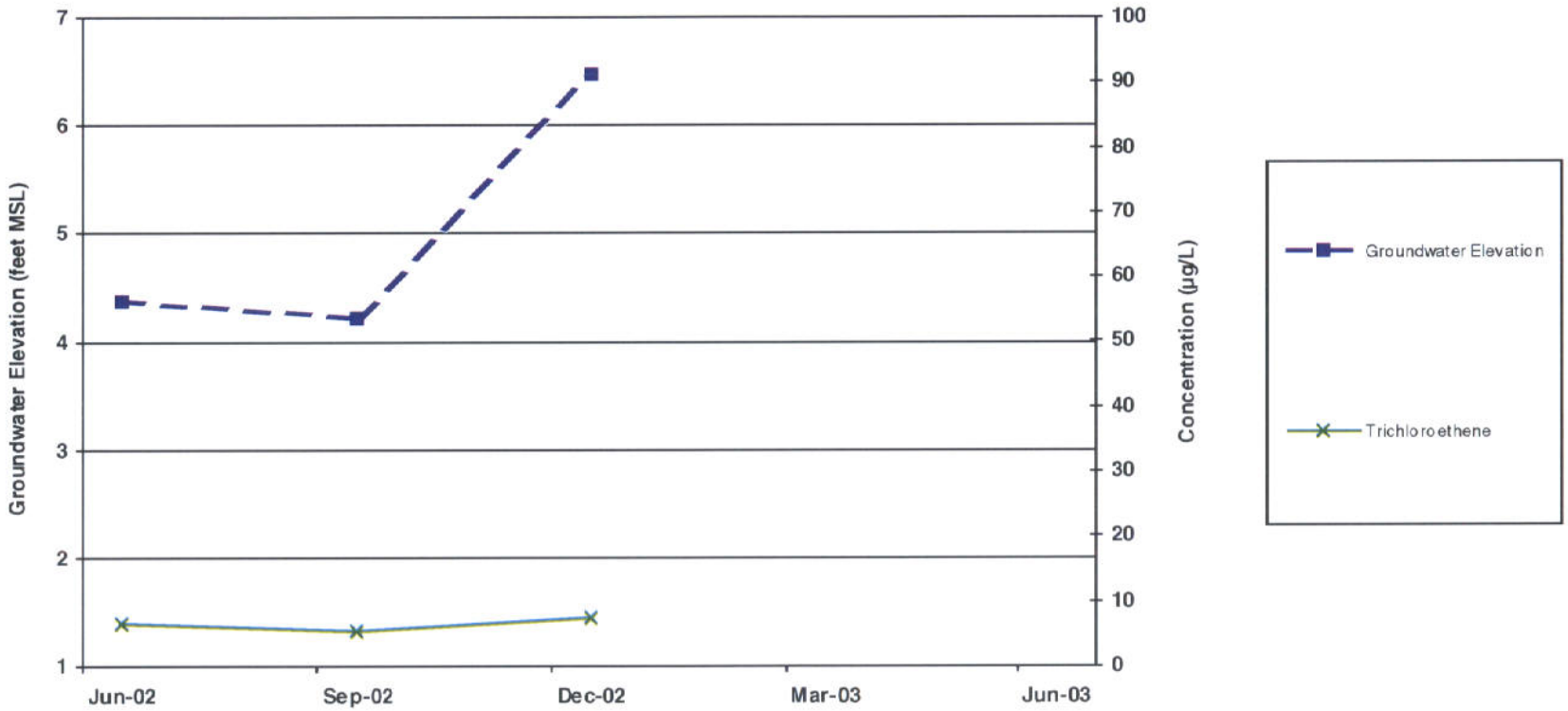
MSL Mean Sea Level
µg/L micrograms per liter

Figure 6-24
Time Series, Groundwater Elevations and Radiological Concentrations at M034-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



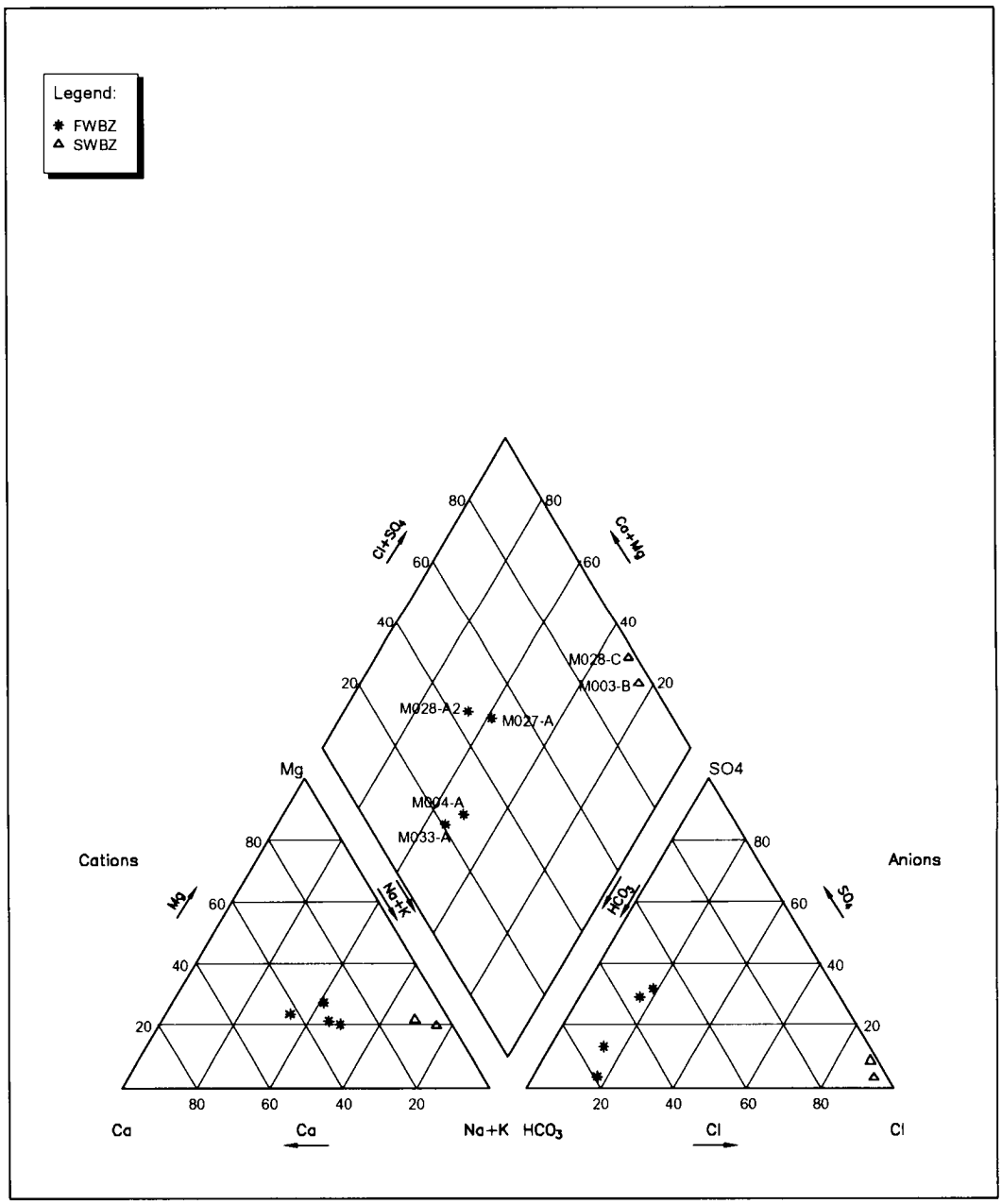
MSL Mean Sea Level
pCi/L pico curies per liter

Figure 6-25
Time Series, Groundwater Elevations and Organic Concentrations at M035-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



MSL Mean Sea Level
µg/L micrograms per liter

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	---	Concord	BJ 8-29-03			843780-A13



Shaw Environmental, Inc.

DEPARTMENT OF THE NAVY
SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 6-26

GROUNDWATER PIPER DIAGRAM
INSTALLATION RESTORATION SITE 1
WINTER 2002

ALAMEDA POINT
ALAMEDA, CALIFORNIA

Piper diagram was used to identify unique characteristics of groundwater anion and cation ratios, and potentially determine the origin of groundwater and to show whether groundwater is impacted by site activities. The Piper diagram plots the major cations (sodium, potassium, calcium, and magnesium) percentages against the major anions (chloride, sulfate, and bicarbonate) concentrations of samples on the same diagram. Major anion and cation ratios are plotted for wells sampled during the Winter 2002 sampling event.

Winter 2002 groundwater samples collected from IR Site 1 are grouped into three types. First water-bearing zone wells, M027-A and M028-A are calcium-sodium-magnesium-bicarbonate-sulfate type water and FWBZ wells M004-A and M033-A are calcium-sodium-magnesium-bicarbonate type water, the difference between the two being a higher relative abundance of sulfate. The FWBZ also has low calculated total dissolved solids (TDS) concentrations (approximately 500 milligrams per liter [mg/L]). The SWBZ wells are sodium-magnesium-chloride type (indicative of sea water), which is typical of the SWBZ. This zone also has higher specific conductance and calculated TDS values (approximately 20,000 mg/L).

6.3.4 Natural Attenuation Data

Data used to evaluate the natural attenuation of analytes in groundwater were collected during the Winter 2002 sampling event. Natural attenuation is the reduction in concentration and mass of a contaminant plume due to processes occurring naturally in the subsurface environment. Natural attenuation data measured during the Winter 2002 sampling event were as follows:

- pH
- Dissolved oxygen
- Oxidation/reduction potential
- Ferrous iron
- Dissolved gases (methane, ethene, and ethane)
- Anions (chloride, nitrate, nitrite, and sulfate)
- Sulfide
- Alkalinity

Table 6-158, "Natural Attenuation Data, Well Purge Measurements, Installation Restoration Site 1, Summer, Fall, and Winter 2002," lists the results of the natural attenuation measurements made during well purging. The natural attenuation sample data are summarized in Table 6-159, "Natural Attenuation Data, Field Test and Laboratory Analytical Data, Installation Restoration Site 1, Summer and Winter 2002."

Wide variations in dissolved oxygen, oxidation-reduction potential and pH were observed in samples from the site wells. No strong correlation between the presence of COPCs and the

Table 6-158: Natural Attenuation Data, Well Purge Measurements, Installation Restoration Site 1
Summer, Fall, and Winter 2002
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Water-Bearing Zone	Well Name	Date	pH	Dissolved Oxygen (mg/L)	ORP (mV)
First	M001-A	06/27/02	7.74	2.30	-63.00
		09/18/02	7.95	0.90	-99.20
		12/26/02	7.88	0.30	-24.00
First	M001-E	06/27/02	6.65	4.20	-234.00
		09/18/02	*8.60*	0.50	-132.20
		12/26/02	*9.03*	0.00	-240.00
First	M002-A	06/26/02	6.91	2.40	120.00
		09/19/02	6.67	7.70	24.50
		12/26/02	7.46	6.40	-11.00
First	M003-A	06/26/02	6.96	1.10	1.00
		09/19/02	6.63	0.51	-40.00
		12/26/02	6.85	1.12	2.00
First	M004-A	06/26/02	7.22	2.20	115.00
		12/26/02	7.25	4.57	130.00
First	M006-A	06/26/02	6.72	0.01	-54.80
		12/26/02	6.72	0.02	-12.00
First	M007-A	06/26/02	7.27	0.16	-75.00
		12/26/02	7.64	0.01	-104.00
First	M025-A	07/01/02	7.80	0.15	-183.20
		09/18/02	7.09	0.28	-248.00
		12/27/02	7.50	4.57	-90.00
First	M026-A	07/01/02	7.50	2.50	120.00
		12/27/02	7.93	4.29	7.00
First	M026-E	07/01/02	7.85	2.10	-115.00
		12/27/02	7.67	3.91	-127.00
First	M027-A	06/28/02	7.18	0.80	43.00
		09/18/02	6.97	1.90	-76.70
		12/27/02	6.99	0.02	1.00
First	M028-A	07/01/02	7.32	2.20	-120.00
		09/18/02	6.94	0.45	-168.00
		12/27/02	7.34	0.06	-91.00
First	M028-E	12/31/02	7.03	3.96	-124.00
First	M029-A	06/27/02	7.95	2.30	-139.00
		09/18/02	8.11	0.80	-196.70
		12/27/02	7.80	0.00	-167.00
First	M029-E	06/27/02	8.02	2.20	-152.00
		12/27/02	7.34	*12.26*	-206.60

Table 6-158: Natural Attenuation Data, Well Purge Measurements, Installation Restoration Site 1 (Continued)
Summer, Fall, and Winter 2002
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Water-Bearing Zone	Well Name	Date	pH	Dissolved Oxygen (mg/L)	ORP (mV)
First	M030-A	06/27/02	6.55	2.60	-237.00
		09/19/02	7.45	0.30	-38.00
		12/26/02	6.97	6.48	99.00
First	M031-A	06/28/02	7.22	2.30	-31.00
		09/17/02	7.49	1.30	2.20
		12/27/02	6.16	0.77	14.10
First	M032-A	06/26/02	7.11	0.09	-116.50
		12/30/02	6.79	*8.82*	-108.10
First	M033-A	06/28/02	7.17	2.00	-85.00
		09/17/02	7.48	0.90	-159.30
		12/27/02	7.63	0.00	-208.00
First	M034-A	06/28/02	6.71	1.70	95.00
		09/17/02	6.80	0.80	-125.70
		12/30/02	6.38	*36.92*	-138.50
First	M035-A	06/28/02	7.14	0.90	-127.00
		09/17/02	7.09	1.20	-47.40
		12/30/02	6.52	*17.71*	23.10
Second	M001-B	07/02/02	6.90	0.18	-46.10
		12/26/02	7.34	0.00	-95.00
Second	M003-B	07/01/02	6.78	0.03	-82.30
		12/26/02	6.87	0.17	-81.00
Second	M025-C	07/01/02	6.90	1.68	-150.90
		09/19/02	6.86	NM	-162.00
		12/26/02	7.38	0.00	-173.00
Second	M027-B	07/02/02	6.97	0.18	-127.00
		12/27/02	7.19	0.00	-190.00
Second	M027-C	07/02/02	6.97	0.12	-81.40
		12/27/02	7.16	4.36	-182.00
Second	M028-C	07/02/02	7.06	0.42	-126.30
		09/18/02	7.07	0.22	-153.00
		12/27/02	7.48	0.10	-269.00
Second	M030-C	07/15/02	7.66	2.50	-24.00
		12/26/02	8.22	3.59	-233.00
Second	M031-C	07/02/02	7.06	0.32	-87.60
		12/27/03	7.39	0.00	-242.00

Table 6-158: Natural Attenuation Data, Well Purge Measurements, Installation Restoration Site 1 (Continued)
Summer, Fall, and Winter 2002
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Note: Field parameter measurements represent the final field measurements taken prior to collection of the groundwater sample.

mg/L	milligrams per liter
ORP	Oxidation-Reduction Potential
mV	millivolts
NM	not measured

Italicized results are suspect

Table 6-159: Natural Attenuation Data, Field Test and Laboratory Analytical Data, Installation Restoration Site 1
Summer and Winter 2002
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Well Name	Date Measured	Ferrous Iron* (mg/L)	Methane (mg/L)	Ethane (mg/L)	Ethene (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Sulfide (mg/L)	Chloride (mg/L)	Alkalinity (mg/L)
M003-B	07/01/02	3.30	0.062	0.01 U	0.01 U	0.5 U	0.5 U	600	0.04 U	13,000	1,000
M003-B	12/26/02	3.30	0.077	0.01 U	0.01 U	1.3 U	1.3 U	630	0.04 U	14,000	1,000
M004-A	06/26/02	0.07	0.2	0.01 U	0.01 U	0.05 U	0.05 U	26	0.04 U	130	450
M004-A	12/26/02	<0.03	0.01 U	0.01 U	0.01 U	2.4	0.05 U	63	0.04 U	53	450
M027-A	06/28/02	0.27	0.025	0.01 U	0.01 U	0.1 U	0.1 U	190	NM	420	570
M027-A	12/27/02	0.28	0.018	0.01 U	0.01 U	3.2	0.03 J	260	0.04 U	110	510
M028-A	07/01/02	2.87	3.2	0.83	0.13	0.05 U	0.05 U	10	0.09	74	350
M028-A	12/27/02	0.43	0.01 U	0.01 U	0.01 U	2	0.05 U	160	0.04 U	67	380
M028-C	07/02/02	3.30	0.01 U	0.01 U	0.01 U	0.5 U	0.5 U	1,300	0.04 U	12,000	450
M028-C	12/27/02	3.30	0.01 U	0.01 U	0.01 U	1.3 U	1.3 U	1,400	0.18	11,000	440
M028-E	12/31/02	3.30	14	1.9	9.2	0.05 U	0.05 U	0.5 U	0.11	190	360
M033-A	06/28/02	0.67	2.5	0.01 U	0.01 U	0.05 U	0.05 U	2.5	0.04 U	58	340
M033-A	12/27/02	1.78	2.1	0.01 U	0.01 U	0.05 U	0.05 U	15	0.06	57	440

mg/L milligrams per liter
NM not measured
* Results greater than 3.0 mg/L indicate sample concentration was greater than listed value and not quantifiable by meter.

< Not detected at or above the reporting limit.
U Not detected at or above the reporting limit.
J Estimated value.

natural attenuation indicators is observed. An evaluation of natural attenuation data will be provided in Section 7.0, (Spring 2003 Monitoring Event Summary and Results).

N00236.000774
ALAMEDA POINT
SSIC NO. 5090.3

FIGURE 6-27 – NATURAL ATTENUATION INDICATORS, INSTALLATION RESTORATION SITE 1, OPERABLE UNIT 3, WINTER 2002

GROUNDWATER MONITORING REPORT FOR INSTALLATION RESTORATION SITE 1 SUMMER 2002 TO SPRING 2003

THE ABOVE IDENTIFIED FIGURE IS NOT AVAILABLE.

EXTENSIVE RESEARCH WAS PERFORMED BY NAVFAC SOUTHWEST TO LOCATE THIS FIGURE. THIS PAGE HAS BEEN INSERTED AS A PLACEHOLDER AND WILL BE REPLACED SHOULD THE MISSING ITEM BE LOCATED.

QUESTIONS MAY BE DIRECTED TO:

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7.0 Spring 2003 Monitoring Event Summary and Results

The Spring 2003 sampling activities at Installation Restoration (IR) Site 1 were performed between April 8 and 21, 2003. The Spring 2003 sampling event at the IR Site 1 represents a quarterly sampling event. Quarterly events were conducted for the Fall 2002 and Spring 2003 sampling; semiannual events are conducted for Summer 2002 and Winter 2002. The quarterly sampling events include a subset of the Groundwater Monitoring Program wells, many of which are analyzed for reduced suites. The semiannual events include sample collection from all Groundwater Monitoring Program wells, incorporating the full analytical program. The overall sampling program is discussed in Section 2.0, "Site Background and Groundwater Monitoring Program," and the specific Spring 2003 sampling is presented in Table 7-1, "Groundwater Monitoring Summary, Installation Restoration Site 1, Spring 2003." Site well locations are presented on Figure 1-2, "Site and Well Location Map, IR Site 1, Operable Unit 3").

Sampling activities at Site 1 included the measurement of water levels in all program wells and the collection of samples for chemical analysis from 16 of 29 Groundwater Monitoring Program wells. Fourteen of the sampled wells were screened in the Fill or Fill-Bay Sediment Unit (BSU) in the first water-bearing zone (FWBZ). Two of the wells were screened in the BSU and Upper San Antonio in the second water-bearing zone (SWBZ). These Groundwater Monitoring Program wells and analytical parameters were as recommended in the *Work Plan for Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California* (Work Plan) (Shaw, 2003a).

The IR Site 1 analytical program was supplemented during the Spring 2003 sampling event with additional analyses to speciate gross alpha and beta producing compounds. Naturally occurring potassium-40 (K-40) is thought to be responsible for some of the elevated Beta activity. Analyses were added to selected wells that are currently being sampled to determine whether activity sources besides K40 are present. These analyses include: Gamma Emitting Radionuclides (EPA method 901.1), Radium 228 (EPA Method 904.0), Radioactive Strontium (EPA Method 905.0) and tritium (EPA Method 906.0). These modifications have been incorporated into the routine sampling and analysis program.

7.1 Groundwater Level Measurement Summary

The water levels in program and non-program (non-sampled) wells at IR Site 1 were measured on April 8, 2003. Table 7-2 "Summary of Groundwater Level Measurements, Installation Restoration Site 1, Summer, Fall, Winter 2002, and Spring 2003," provides a summary of the groundwater levels measured.

Table 7-1: Groundwater Monitoring Summary, Installation Restoration Site 1, Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Water-Bearing Zone*	Well	Geologic Unit	VOCs (8260B)	SVOCs (8270C)	TPH as Diesel (8015B)	TPH as Gasoline (8015B)	Metals (6010B/6020A 7470A)	Total Cyanide (335.2)	Gross Alpha (900)	Gross Beta (900)	GER (901.1)	Radium (903.0)	Radium 228 (904.0)	Radioactive Strontium (905.0)	Tritium (906.0)	Anions** (300.0)	Sulfide** (376.2)	Alkalinity** (310.1)	Dissolved Gases** (RSK175)	Ferrous Iron** (8146)†
Groundwater Monitoring Program Wells																				
First	M001-A	Fill	X	X	0	0	X	X	X	X	X	X	X	X	X	-	-	-	-	-
	M001-E	Fill	X	X	0	0	X	X	X	X	X	X	X	X	X	-	-	-	-	-
	M002-A	Fill	X	X	0	0	X	X	X	X	X	X	X	X	X	-	0	-	-	-
	M003-A	Fill	X	X	0	0	X	X	X	X	X	X	X	X	X	-	0	-	-	0
	M004-A	Fill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	M006-A	Fill	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	0
	M007-A	Fill	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	0
	M025-A	Fill	0	X	0	0	X	X	0	0	0	0	0	0	0	-	-	-	-	0
	M026-A	Fill	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
	M026-E	Fill-BSU	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
	M027-A	Fill	X	X	0	0	X	X	X	X	X	X	X	X	X	0	0	0	0	0
	M028-A	Fill	X	X	0	0	X	X	X	X	X	X	X	X	X	0	0	0	0	0
	M028-E	Fill	X	X	-	-	X	X	X	X	X	X	X	X	X	0	0	0	0	0
	M029-A	Fill	X	X	0	0	X	X	X	X	X	X	X	X	X	-	-	-	-	-
	M029-E	Fill	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
	M030-A	Fill	X	X	0	0	X	X	X	X	X	X	X	X	X	-	-	-	-	-
	M031-A	Fill	X	X	0	0	X	X	X	X	X	X	X	X	X	-	-	-	-	-
	M032-A	Fill	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	0
	M033-A	Fill	X	X	0	0	X	X	X	X	X	X	X	X	X	0	0	0	0	0
	M034-A	Fill	X	X	0	0	X	X	X	X	X	X	X	X	X	-	-	-	-	-
	M035-A	Fill	X	X	0	0	X	X	X	X	X	X	X	X	X	-	-	-	-	-
Second	M001-B	Merritt	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0
	M003-B	Merritt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	M025-C	BSU	0	X	0	0	X	X	0	0	0	0	0	0	0	-	-	-	-	0
	M027-B	Merritt	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0
	M027-C	BSU-USA	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0
	M028-C	USA	X	X	0	0	X	X	X	X	X	X	X	X	X	0	0	0	0	0
	M030-C	USA	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
	M031-C	Merritt-USA	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0
Non-Program Wells, Water Level Measurements																				
First	M027-E	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	M030-E	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	M031-E	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Second	M025-E	Fill/BSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 7-1: Groundwater Monitoring Summary, Installation Restoration Site 1, Spring 2003 (Continued)
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Notes:

* The screen interval, total depth and sampling objectives are listed on Table 2-3.
** monitored natural attenuation parameter
X indicates sampling and analysis during current quarter.
O Analysis in program but not scheduled for current sampling event. See Table 2-3.
- Analyte not in program for specified well.

VOCs - volatile organic compounds
SVOC - semivolatile organic compound
TPH - total petroleum hydrocarbons
TPH as diesel includes jet fuel and motor oil
GER - gamma emitting radionuclides
(8260B) - U.S. Environmental Protection Agency analytical method
RSK 175 - R.S. Kerr Laboratory Standard Operating Procedure 175
†Hach field test kit

Fill - artificial fill
BSU - Bay Sediment Unit
USA - Upper San Antonio Formation
Merritt - Merritt Sand

Table 7-2: Summary of Groundwater Level Measurements, Installation Restoration Sites 1 and 32
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Water-Bearing Zone	Well Name	Date	Top of Casing Elevation (feet msl)	Depth to Water (feet BTOC)	Groundwater Elevation (feet msl)	Ground Surface Elevation (feet msl)	Depth to Water (feet BGS)
First	M001-A	06/27/02	9.02 *	7.90	1.12	9.5	8.4
		09/13/02	9.02 *	5.50	3.52	9.5	6.0
		12/10/02	9.02 *	4.64	4.38	9.5	5.1
		04/08/03	9.02 *	4.31	4.71	9.5	4.8
First	M001-E	06/27/02	9.74 *	5.73	4.01	10.2	6.2
		09/13/02	9.74 *	5.87	3.87	10.2	6.3
		12/10/02	9.74 *	5.92	3.82	10.2	6.4
		04/08/03	9.74 *	5.89	3.85	10.2	6.3
First	M002-A	06/26/02	10.94 *	6.51	4.43	11.2	6.8
		09/13/02	10.94 *	6.72	4.22	11.2	7.0
		12/10/02	10.94 *	6.00	4.94	11.2	6.3
		04/08/03	10.94 *	6.88	4.06	11.2	7.2
First	M003-A	06/26/02	10.81 *	6.14	4.67	11.3	6.6
		09/13/02	10.81 *	6.59	4.22	11.3	7.1
		12/10/02	10.81 *	6.19	4.62	11.3	6.7
		04/08/03	10.81 *	4.97	5.84	11.3	5.4
First	M004-A	06/26/02	10.27 *	6.05	4.22	10.6	6.4
		09/13/02	10.27 *	6.35	3.92	10.6	6.7
		12/10/02	10.27 *	6.00	4.27	10.6	6.3
		04/08/03	10.27 *	NF	NC	10.6	NC
First	M006-A	06/26/02	10.29 *	4.30	5.99	10.5	4.5
		09/13/02	10.29 *	4.96	5.33	10.5	5.2
		12/10/02	10.29 *	4.78	5.51	10.5	5.0
		04/08/03	10.29 *	2.99	7.30	10.5	3.2
First	M007-A	06/26/02	8.22 *	2.35	5.87	8.6	2.7
		09/13/02	8.22 *	2.87	5.35	8.6	3.2
		12/10/02	8.22 *	2.30	5.92	8.6	2.7
		04/08/03	8.22 *	1.03	7.19	8.6	1.4
First	M008-A	04/08/03	9.26 **	NF	NC	Unknown	NC
First	M025-A	07/01/02	8.51 *	5.58	2.93	9.0	6.1
		09/13/02	8.51 *	5.03	3.48	9.0	5.5
		12/10/02	8.51 *	4.04	4.47	9.0	4.5
		04/08/03	8.51 *	5.26	3.25	9.0	5.7
First	M026-A	07/12/02	8.61 *	5.55	3.06	8.7	5.7
		09/13/02	8.61 *	5.06	3.55	8.7	5.2
		12/10/02	8.61 *	4.21	4.40	8.7	4.3
		04/08/03	8.61 *	5.68	2.93	8.7	5.8
First	M026-E	07/01/02	8.65 *	5.40	3.25	8.5	5.3
		09/13/02	8.65 *	5.17	3.48	8.5	5.0
		12/10/02	8.65 *	4.20	4.45	8.5	4.1
		04/08/03	8.65 *	5.49	3.16	8.5	5.4

Table 7-2: Summary of Groundwater Level Measurements, Installation Restoration Sites 1 and 32 (Continued)
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Water-Bearing Zone	Well Name	Date	Top of Casing Elevation (feet msl)	Depth to Water (feet BTOC)	Groundwater Elevation (feet msl)	Ground Surface Elevation (feet msl)	Depth to Water (feet BGS)
First	M027-A	06/28/02	9.38 *	5.16	4.22	9.7	5.5
		09/13/02	9.38 *	5.18	4.20	9.7	5.5
		12/10/02	9.38 *	4.76	4.62	9.7	5.1
		04/08/03	9.38 *	4.95	4.43	9.7	5.3
First	M027-E ‡	09/13/02	9.41	4.95	4.46	10.0	5.5
First	M028-A	07/01/02	10.67 *	6.68	3.99	10.8	6.8
		09/13/02	10.67 *	6.58	4.09	10.8	6.8
		12/27/02	10.67 *	4.61 §	6.06	10.8	4.8
		04/08/03	10.67 *	6.16	4.51	10.8	6.3
First	M028-E	09/13/02	10.42	6.27	4.15	10.8	6.6
		12/10/02	10.42	6.03	4.39	10.8	6.4
		04/08/03	10.42	5.83	4.59	10.8	6.2
First	M029-A	06/27/02	9.46 *	5.51	3.95	9.8	5.9
		09/13/02	9.46 *	5.70	3.76	9.8	6.1
		12/10/02	9.46 *	5.23	4.23	9.8	5.6
		04/08/03	9.46 *	5.41	4.05	9.8	5.8
First	M029-E	06/27/02	8.62 *	4.67	3.95	9.1	5.2
		09/13/02	8.62 *	4.80	3.82	9.1	5.3
		12/10/02	8.62 *	4.41	4.21	9.1	4.9
		04/08/03	8.62 *	4.24	4.38	9.1	4.7
First	M030-A	06/27/02	10.08 *	6.12	3.96	10.3	6.3
		09/13/02	10.08 *	6.62	3.46	10.3	6.8
		12/10/02	10.08 *	5.04	5.04	10.3	5.2
		04/08/03	10.08 *	3.79	6.29	10.3	4.0
First	M030-E ‡	09/13/02	9.98	5.59	4.39	10.6	6.2
First	M031-A	06/28/02	8.47 *	3.79	4.68	8.8	4.1
		09/13/02	8.47 *	4.16	4.31	8.8	4.5
		12/10/02	8.47 *	3.54	4.93	8.8	3.9
		04/08/03	8.47 *	2.28	6.19	8.8	2.6
First	M031-E ‡	09/13/02	8.51	4.17	4.34	8.9	4.6
First	M032-A	06/26/02	9.84 *	4.20	5.64	10.2	4.6
		09/13/02	9.84 *	4.70	5.14	10.2	5.1
		12/10/02	9.84 *	4.56	5.28	10.2	4.9
		04/08/03	9.84 *	3.26	6.58	10.2	3.6
First	M033-A	06/28/02	10.14 *	5.78	4.36	10.4	6.0
		09/13/02	10.14 *	6.03	4.11	10.4	6.3
		12/10/02	10.14 *	5.67	4.47	10.4	5.9
		04/08/03	10.14 *	5.05	5.09	10.4	5.3
First	M034-A	06/28/02	8.87 *	4.39	4.48	9.1	4.6
		09/13/02	8.87 *	4.63	4.24	9.1	4.9
		12/10/02	8.87 *	4.32	4.55	9.1	4.6
		04/08/03	8.87 *	3.62	5.25	9.1	3.9

Table 7-2: Summary of Groundwater Level Measurements, Installation Restoration Sites 1 and 32 (Continued)
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Water-Bearing Zone	Well Name	Date	Top of Casing Elevation (feet msl)	Depth to Water (feet BTOC)	Groundwater Elevation (feet msl)	Ground Surface Elevation (feet msl)	Depth to Water (feet BGS)
First	M035-A	06/28/02	10.58 *	6.23	4.35	10.8	6.5
		09/13/02	10.58 *	6.38	4.20	10.8	6.6
		12/30/02	10.58 *	4.12 §	6.46	10.8	4.4
		04/08/03	10.58 *	5.65	4.93	10.8	5.9
Second	M001-B	07/02/02	9.57 *	6.18	3.39	10.0	6.6
		09/13/02	9.57 *	2.35	7.22	10.0	2.8
		12/10/02	9.57 *	5.54	4.03	10.0	6.0
		04/08/03	9.57 *	7.68	1.89	10.0	8.1
Second	M003-B	07/01/02	11.23 *	8.81	2.42	11.2	8.8
		09/13/02	11.23 *	6.95	4.28	11.2	6.9
		12/10/02	11.23 *	7.11	4.12	11.2	7.1
		04/08/03	11.23 *	7.98	3.25	11.2	7.9
Second	M025-C	07/01/02	7.97 *	3.60	4.37	8.4	4.1
		09/13/02	7.97 *	3.46	4.51	8.4	3.9
		12/10/02	7.97 *	3.43	4.54	8.4	3.9
		04/08/03	7.97 *	3.63	4.34	8.4	4.1
Second	M025-E ‡	09/13/02	8.34	4.97	3.37	8.7	5.3
Second	M027-B	07/02/02	9.33 *	6.18	3.15	9.8	6.7
		09/13/02	9.33 *	5.10	4.23	9.8	5.6
		12/10/02	9.33 *	5.00	4.33	9.8	5.5
		04/08/03	9.33 *	5.72	3.61	9.8	6.2
Second	M027-C	07/02/02	8.92 *	5.60	3.32	9.5	6.2
		09/13/02	8.92 *	4.90	4.02	9.5	5.5
		12/10/02	8.92 *	4.78	4.14	9.5	5.4
		04/08/03	8.92 *	5.60	3.32	9.5	6.2
Second	M028-C	07/02/02	10.86 *	7.81	3.05	10.9	7.9
		09/13/02	10.86 *	6.73	4.13	10.9	6.8
		12/10/02	10.86 *	6.65	4.21	10.9	6.7
		04/08/03	10.86 *	7.71	3.15	10.9	7.8
Second	M030-C	07/15/02	10.41 *	7.86	2.55	10.3	7.8
		09/13/02	10.41 *	6.28	4.13	10.3	6.2
		12/10/02	10.41 *	6.60	3.81	10.3	6.5
		04/08/03	10.41 *	7.48	2.93	10.3	7.4
Second	M031-C	07/02/02	8.87 *	5.28	3.59	9.0	5.4
		09/13/02	8.87 *	4.86	4.01	9.0	5.0
		12/10/02	8.87 *	4.93	3.94	9.0	5.1
		04/08/03	8.87 *	5.08	3.79	9.0	5.2

Table 7-2: Summary of Groundwater Level Measurements, Installation Restoration Sites 1 and 32 (Continued)
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

msl	mean sea level
BTOC	below top of casing
BGS	below ground surface
*	Surveyed to NGVD 29 by Calvada Surveying in September 2002 Subsequently converted to NAVD 88 by Shaw Environmental, Inc. using the Corpscon software
**	Converted from Mean Lower Low Water to NAVD 88 by Shaw Environmental, Inc. using the Tidal Datum Epoch (1960-1978) at Tidal Bench Mark 9414750
§	Measured prior to purging well for sampling
‡	Well used only for water level measurements. Not scheduled for sampling in the monitoring program.
NF	Well not found
NF	Well not found
NC	Not calculated

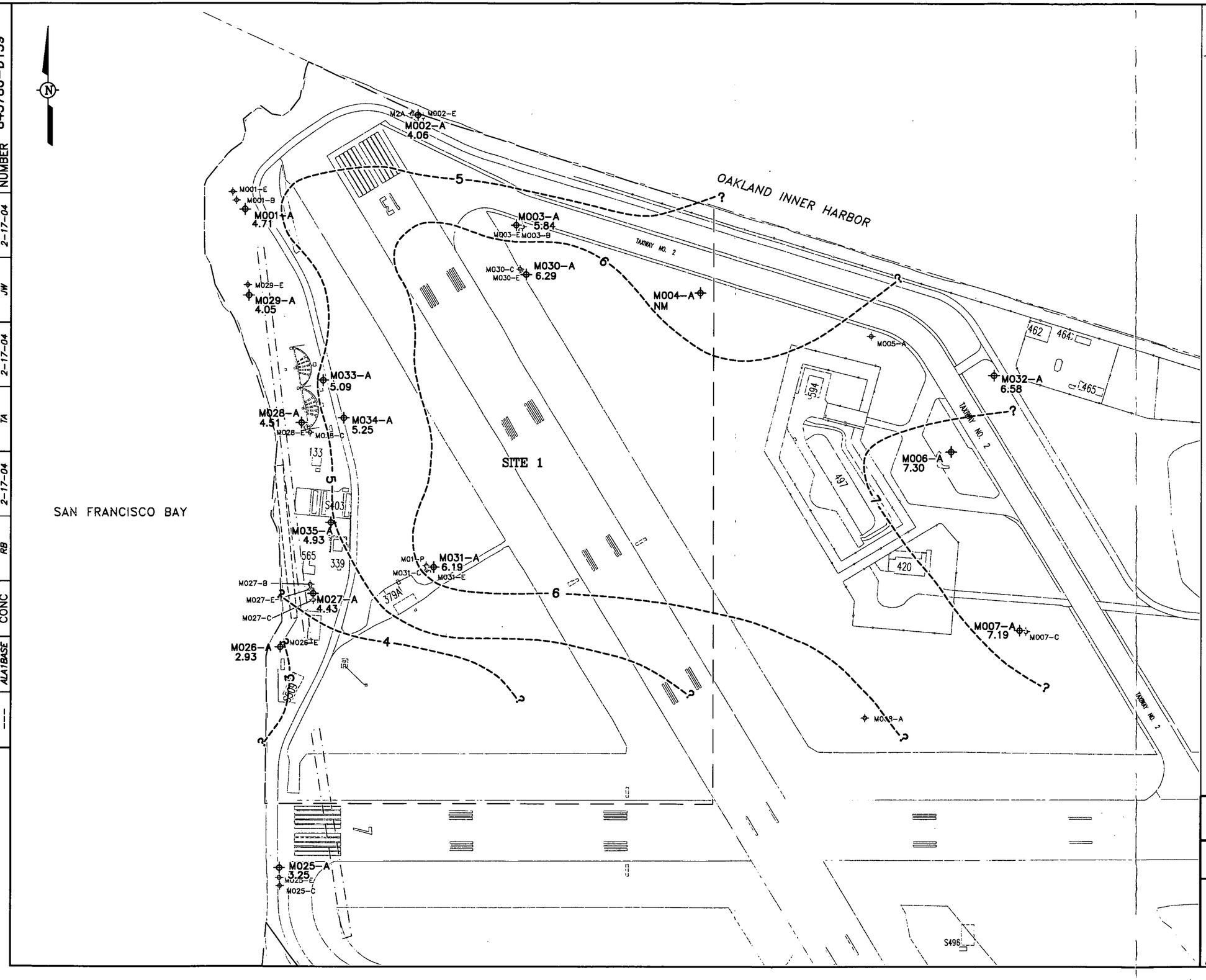
Groundwater levels within the FWBZ for Spring 2003 were approximately 1 to 7 feet below ground surface (bgs) with elevations ranging between 2.9 and 7.3 feet above mean sea level (msl). Groundwater levels within the SWBZ for Spring 2003 were approximately 4 to 8 feet bgs with elevations ranging between 1.9 and 4.3 feet (msl). Figure 7-1, "Groundwater Elevation Map, First Water-Bearing Zone, IR Site 1, Operable Unit 3, Spring 2003," provides a potentiometric surface map for the FWBZ based on water levels measured during the Spring 2003 sampling event. The groundwater gradients and interpreted FWBZ flow directions were outward from the center of Site 1 toward the Oakland Inner Harbor, San Francisco Bay and IR Site 2 (Figure 7-1).

7.2 Analytical Program

The analytical samples were collected and analyzed according to the requirements presented in the Work Plan (Shaw, 2003a). Table 2-3, "Groundwater Monitoring Program, Installation Restoration Site 1, Wells and Analytical Program," summarized the collection frequency for the following analytical parameters collected during the Spring 2003 sampling event:

- Volatile organic compounds (VOCs), including oxygenated additives and naphthalene by U.S. Environmental Protection Agency (EPA) Method 8260B
- Semivolatile organic compounds (SVOCs) by EPA Method 8270C
- Dissolved metals by EPA Methods 6010B/6020/7470
- Cyanide by EPA Method 335.2
- Gross alpha and gross beta by EPA Method 900.0
- Gamma Emitting Radionuclides by EPA Method EPA 901.1
- Radium by EPA Method 903
- Radium 228 by EPA Method 904.0
- Radioactive Strontium by EPA Method 905.0
- Tritium Isotopes by EPS Method 906.0

The samples were analyzed by Curtis and Tompkins, Ltd., which subcontracted the radionuclide analysis to Southwest Laboratories of Oklahoma, Inc. Both laboratories are State of California-certified and have successfully completed the Naval Facilities Engineering Service Center's Laboratory Evaluation Program.



LEGEND

⊕	PROGRAM MONITORING WELL
⊕	MONITORING WELL NOT IN PROGRAM OR NOT SCREENED IN SPECIFIED HYDROLOGIC UNIT
— —	CERCLA SITE BOUNDARY
— · —	BARGE LINES (1949 AERIAL SURVEY)
- - - - -	BARGE LINES (1957 AERIAL SURVEY)
— - - -	GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL, QUERIED WHERE UNCERTAIN
5.28	GROUNDWATER ELEVATION
	CONTOUR INTERVAL 1 FOOT
NM	WATER LEVEL NOT MEASURED

NOTES:

1. POSITION OF BARGE LINES ARE INFERRED.
2. MONITORING WELLS LABELED A & E SCREENED AT DIFFERNT DEPTHS. GROUNDWATER CONTOURS ONLY REFLECT WELLS LABELED A.

SCALE
0 150 300 FEET

Shaw Shaw Environmental, Inc.

DEPARTMENT OF THE NAVY, SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 7-1
GROUNDWATER ELEVATION MAP
FIRST WATER-BEARING ZONE
IR SITE 1 OPERABLE UNIT 3
SPRING 2003

ALAMEDA POINT ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	ALA1BASE	CONC	RB 2-17-04	TA 2-17-04	JW 2-17-04	843780-D139

7.3 Analytical Results Summary

This section presents a brief summary of the analytical results. Analytical data were compared to previous results and to the State of California Maximum Contaminant Levels (MCLs) (California Code of Regulations Title 22). The MCLs were used only for comparison purposes. Criteria for comparison of analytical results are presented in Table 2-2, "Summary of Regulatory Limits, Installation Restoration Site 1." Discussion of the analytical results is limited to observations made relative to regulatory criteria and previous data.

A listing of analytical results is provided on compact disc in Appendix A, "Analytical Data with Data Qualifiers and Reason Code Definitions." The analytical data were validated at EPA Level III by a third-party validator (Laboratory Data Consultants of Carlsbad, California) and reviewed by the Shaw Project Chemist. The findings of the data validation process are also provided on compact disc and presented in Appendix B, "Data Quality Summary Report, Summer 2002 to Spring 2003." Appendix C, "Sample Collection Purge Forms and Chain of Custody," contains sample collection and custody documentation.

7.3.1 Detected Chemicals of Potential Concern Results

Detected analytical results are provided in detected parameters tables, Installation Restoration Site 1, Summer, Fall, Winter 2002, and Spring 2003 (Tables 7-3 through Table 7-158). Detected analytes are bolded and those exceeding the respective California State MCLs are circled on the table. The underlined compounds exceed the background values established for the First Water Bearing Zone (Tetra Tech, 2001). A listing of analytical results is provided on a compact disc in Appendix A.

Constituents detected during the Spring 2003 monitoring event included VOCs, SVOCs, metals, radium, gross alpha and beta. Samples from 10 of the 16 monitoring wells at IR Site 1 had the following constituents above the MCLs:

- Trichloroethene (TCE) was detected above the MCL of 5 micrograms per liter (μg/L) in samples from wells M002-A (24 μg/L), and M035-A (6.8 μg/L).
- Cis-1,2-dichloroethene (cis-1,2-DCE) was detected above the MCL of 6 μg/L in samples from two wells: M028-A (27μg/L), M028-E (14,000 μg/L).
- Trans-1,2-dichloroethene (trans-1,2-DCE) was detected above the MCL of 10 μg/L in samples from one well, M028-E (20 μg/L).
- 1,1-dichloroethene (1,1-DCE) exceeded the MCL of 6 μg/L in a sample from well M028-E at a concentration of 34 μg/L.
- 1,1-dichloroethane (1,1-DCA) exceeded the MCL of 5 μg/L in a sample from well M028-E at a concentration of 35 μg/L.

Table 7-3: Well M001-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U	10 U	10 UJ	10 UJ
Benzene	1		µg/L	**0.7**	**0.8**	0.5 U	**0.2 J**
tert-butyl alcohol			µg/L	20 U	20 U	10 UJ	10 UJ
N-butylbenzene			µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
sec-butylbenzene			µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
tert-butylbenzene			µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
Carbon Disulfide			µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
Carbon Tetrachloride	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Chlorobenzene	70		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane			µg/L	1 U	1 U	1 U	1 U
Chloroform			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	600		µg/L	0.5 U	**0.1 J**	0.5 U	0.5 U
1,3-Dichlorobenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.5		µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
1,1-Dichloroethene	6		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	6		µg/L	**0.4 J**	**0.3 J**	0.5 U	**0.4 J**
trans-1,2-Dichloroethene	10		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	5		µg/L	0.5 U	**0.1 J**	**0.3 J**	0.5 U
Ethylbenzene	300		µg/L	0.5 U	**0.3 J**	0.5 U	0.5 U
2-Hexanone			µg/L	10 U	10 U	10 U	10 U
Isopropyl Ether			µg/L	0.5 U	0.5 U	0.5 UJ	0.5 U
Isopropylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene			µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
Methyl isobutyl ketone			µg/L	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	13		µg/L	0.5 U	**0.1 J**	0.5 U	0.5 U
N-propylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene			µg/L	**0.3 J**	2 U	2 U	2 U
Tetrachloroethene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	150		µg/L	0.5 U	**0.1 J**	0.5 U	0.5 U
1,1,1-Trichloroethane	200		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,2,4-Trimethylbenzene			µg/L	0.5 U	0.5 UJ	0.5 U	0.5 U
1,3,5-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	0.5		µg/L	0.5 U	**0.2 J**	0.5 U	**0.4 J**
M,p-xylene	1,750		µg/L	0.5 U	**0.2 J**	0.5 U	0.5 U
O-xylene	1,750		µg/L	0.5 U	**0.2 J**	0.5 U	0.5 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-4: Well M001-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	10 U	9.9 U	9.7 U	9.4 U
Acenaphthylene			µg/L	10 U	9.9 U	9.7 U	9.4 U
Anthracene			µg/L	10 U	9.9 U	9.7 U	9.4 U
Benzoic acid			µg/L	50 U	50 U	49 U	47 U
bis(2-Chloroethyl)ether			µg/L	10 U	9.9 U	**0.99 J**	**1.7 J**
bis(2-chloroisopropyl) ether			µg/L	10 U	9.9 U	9.7 U	**1.1 J**
bis(2-Ethylhexyl)phthalate	4		µg/L	10 U	9.9 U	9.7 U	9.4 U
Dibenzofuran			µg/L	10 U	9.9 U	9.7 U	9.4 U
1,2-Dichlorobenzene	600		µg/L	10 U	9.9 U	9.7 U	9.4 U
1,3-Dichlorobenzene			µg/L	10 U	9.9 U	9.7 U	9.4 U
1,4-Dichlorobenzene	5		µg/L	10 U	9.9 U	9.7 U	9.4 U
Diethylphthalate			µg/L	10 U	9.9 U	9.7 U	9.4 U
2,4-Dimethylphenol			µg/L	10 U	9.9 U	9.7 U	9.4 U
Dimethylphthalate			µg/L	10 U	9.9 U	9.7 U	9.4 U
2,4-Dinitrophenol			µg/L	50 U	50 U	49 U	47 U
Fluoranthene			µg/L	10 U	9.9 U	9.7 U	9.4 U
Fluorene			µg/L	10 U	9.9 U	9.7 U	9.4 U
2-Methylnaphthalene			µg/L	10 U	9.9 U	9.7 U	9.4 U
2-Methylphenol			µg/L	10 U	9.9 U	9.7 U	9.4 U
4-Methylphenol			µg/L	10 U	9.9 U	9.7 U	9.4 U
N-Nitrosodiphenylamine			µg/L	10 U	9.9 U	9.7 U	9.4 U
Naphthalene			µg/L	10 U	9.9 U	9.7 U	9.4 U
4-Nitrophenol			µg/L	20 U	20 U	19 UJ	19 U
Pentachlorophenol	1		µg/L	20 U	20 U	19 U	19 U
Phenanthrene			µg/L	10 U	9.9 U	9.7 U	9.4 U
2,4,5-Trichlorophenol			µg/L	10 U	9.9 U	9.7 U	9.4 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-5: Well M001-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 U			
Jet Fuel #5 (JP5)			µg/L	50 U			
TPH as motor oil			µg/L	300 U			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-6: Well M001-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	**8.5 J**	100 U	**4.9 J**	**6.4 J**
Antimony	6	46	µg/L	**0.38 J**	**0.4 J**	**10 J**	1 U
Arsenic	50	28	µg/L	**1.3 J**	5 U	5 U	5 U
Barium	1,000	575	µg/L	**160**	**120**	**78**	**250**
Beryllium	4	3.8	µg/L	**0.025 J**	2 U	2 U	2 U
Cadmium	5	5.4	µg/L	5 U	5 U	**0.87 J**	5 U
Chromium	50	14	µg/L	**0.46 J**	10 U	10 U	10 U
Cobalt		12	µg/L	**0.16 J**	10 U	**0.18 J**	10 U
Copper	1,000	27	µg/L	**0.51 J**	10 U	**13**	**4.9 J**
Iron		7,135	µg/L	**300**	**230**	**420**	**920**
Lead	15	3.9	µg/L	**0.42 J**	3 U	**0.55 J**	3 U
Manganese		5,213	µg/L	**92**	**39**	**28**	**210**
Mercury	2	0.15	µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum		12	µg/L	20 U	**2.4 J**	**6.9 J**	20 U
Nickel	100	19	µg/L	**0.83 J**	20 U	**4.2 J**	20 U
Selenium	50	6.0	µg/L	**1 J**	**0.62 J**	**0.91 J**	5 U
Silver		3.3	µg/L	5 UJ	5 U	5 U	5 U
Vanadium		29	µg/L	**0.59 J**	10 U	**8.4 J**	10 U
Zinc		43	µg/L	20 U	20 U	**33 J**	**8.8 J**
Calcium		379	mg/L	**47**	**25**	**89**	**67**
Magnesium		500	mg/L	**26 J**	**26**	**13**	**26**
Potassium		182	mg/L	**25**	**30**	**12**	**17 J**
Sodium		4,540	mg/L	**270**	**370**	**57**	**130**
Cyanide							
Total Cyanide	0.2		mg/L	**0.01 J**	0.01 U	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-7: Well M001-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	0.67 U2	**1.75±0.66**	0.874 U3J	2.26 U1J
Gross Beta	50		pCi/L	**11±2.17**	**37.3±14.2**	**11.4±0.74**	**15.2±1.27**
Radium							
Radium			pCi/L	0.20 U2	0.25 U4J	0.9 U3	1.39 U4
Radium 228							
Radium-228	5		pCi/L				5.65 U4

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-8: Well M001-B, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U		10 U	
Benzene	1		µg/L	0.5 U		0.5 U	
tert-butyl alcohol			µg/L	20 U		10 U	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 U	
tert-butylbenzene			µg/L	0.5 U		0.5 U	
Carbon Disulfide			µg/L	0.5 U		0.5 U	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 U	
Chlorobenzene	70		µg/L	0.5 U		0.5 U	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		0.5 U	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	**0.2 J**		0.5 U	
1,2-Dichloroethane	0.5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	0.5 U		0.5 U	
trans-1,2-Dichloroethene	10		µg/L	0.5 U		0.5 U	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		0.5 U	
2-Hexanone			µg/L	10 U		10 U	
Isopropyl Ether			µg/L	0.5 U		0.5 U	
Isopropylbenzene			µg/L	0.5 U		0.5 U	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		2 U	
Tetrachloroethene	5		µg/L	0.5 U		0.5 U	
Toluene	150		µg/L	**3.3**		0.5 U	
1,1,1-Trichloroethane	200		µg/L	**1.4**		0.5 U	
Trichloroethene	5		µg/L	0.5 U		0.5 U	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	0.5 U		0.5 U	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		0.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-9: Well M001-B, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.4 U		9.4 U	
Acenaphthylene			µg/L	9.4 U		9.4 U	
Anthracene			µg/L	9.4 U		9.4 U	
Benzoic acid			µg/L	47 U		47 U	
bis(2-Chloroethyl)ether			µg/L	9.4 U		9.4 U	
bis(2-chloroisopropyl) ether			µg/L	9.4 U		9.4 U	
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U		9.4 U	
Dibenzofuran			µg/L	9.4 U		9.4 U	
1,2-Dichlorobenzene	600		µg/L	9.4 U		9.4 U	
1,3-Dichlorobenzene			µg/L	9.4 U		9.4 U	
1,4-Dichlorobenzene	5		µg/L	9.4 U		9.4 U	
Diethylphthalate			µg/L	9.4 U		9.4 U	
2,4-Dimethylphenol			µg/L	9.4 U		9.4 U	
Dimethylphthalate			µg/L	**57**		**2 J**	
2,4-Dinitrophenol			µg/L	47 U		47 U	
Fluoranthene			µg/L	9.4 U		9.4 U	
Fluorene			µg/L	9.4 U		9.4 U	
2-Methylnaphthalene			µg/L	9.4 U		9.4 U	
2-Methylphenol			µg/L	9.4 U		9.4 U	
4-Methylphenol			µg/L	9.4 U		9.4 U	
N-Nitrosodiphenylamine			µg/L	9.4 U		9.4 U	
Naphthalene			µg/L	9.4 U		9.4 U	
4-Nitrophenol			µg/L	19 U		19 UJ	
Pentachlorophenol	1		µg/L	19 U		19 U	
Phenanthrene			µg/L	9.4 U		9.4 U	
2,4,5-Trichlorophenol			µg/L	9.4 U		9.4 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-10: Well M001-B, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-11: Well M001-B, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000		µg/L	100 U		**17 J**	
Antimony	6		µg/L	50 U		50 U	
Arsenic	50		µg/L	5 U		5 U	
Barium	1,000		µg/L	**65**		**67**	
Beryllium	4		µg/L	2 U		2 U	
Cadmium	5		µg/L	5 U		5 U	
Chromium	50		µg/L	**3.4 J**		10 U	
Cobalt			µg/L	**9 J**		**8.4 J**	
Copper	1,000		µg/L	**7.8 J**		**6.3 J**	
Iron			µg/L	**1,400**		**2,700**	
Lead	15		µg/L	3 U		**0.057 J**	
Manganese			µg/L	**7,100**		**7,400**	
Mercury	2		µg/L	0.2 U		0.2 U	
Molybdenum			µg/L	20 U		**3.2 J**	
Nickel	100		µg/L	20 U		**12 J**	
Selenium	50		µg/L	5 U		5 U	
Silver			µg/L	**4.8 J**		5 U	
Vanadium			µg/L	**1.6 J**		**2.9 J**	
Zinc			µg/L	28 U		20 U	
Calcium			mg/L	**550**		**510**	
Magnesium			mg/L	**1,000**		**970**	
Potassium			mg/L	**110**		**110**	
Sodium			mg/L	**5,200**		**4,800**	
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-12: Well M001-B, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	**12±3.02**		44.5 U3J	
Gross Beta	50		pCi/L	**139±72.2**		67.4 U4	
Radium							
Radium			pCi/L	0.41 U4		**2.17±0.79**	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-13: Well M001-E, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	20 U	10 U	10 U	10 UJ
Benzene	1		µg/L	**4.9**	**5.4**	**5.6**	**6.4**
tert-butyl alcohol			µg/L	40 U	20 U	10 U	10 UJ
N-butylbenzene			µg/L	1 U	0.5 U	0.5 U	**0.2 J**
sec-butylbenzene			µg/L	1 U	**0.2 J**	**0.4 J**	**0.4 J**
tert-butylbenzene			µg/L	1 U	0.5 U	**0.3 J**	**0.1 J**
Carbon Disulfide			µg/L	1 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	0.5		µg/L	1 U	0.5 U	0.5 UJ	0.5 UJ
Chlorobenzene	70		µg/L	**10**	**10**	**14**	**13**
Chloroethane			µg/L	2 U	1 U	1 U	1 U
Chloroform			µg/L	1 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	600		µg/L	**1.4**	**1.8**	**2.1**	**1.9**
1,3-Dichlorobenzene			µg/L	1 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	5		µg/L	1 U	**0.4 J**	**0.5**	**0.6**
1,1-Dichloroethane	5		µg/L	1 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.5		µg/L	1 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	6		µg/L	1 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	6		µg/L	**0.9 J**	**1.1**	**1**	**1.2**
trans-1,2-Dichloroethene	10		µg/L	1 U	0.5 U	**0.2 J**	**0.2 J**
1,2-Dichloropropane	5		µg/L	1 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	300		µg/L	**2.9**	**3.3**	**4.4**	**4.2**
2-Hexanone			µg/L	20 U	10 U	10 U	10 U
Isopropyl Ether			µg/L	1 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene			µg/L	**0.6 J**	**0.6**	**0.8**	**0.9**
p-Isopropyltoluene			µg/L	1 U	**0.7**	**0.3 J**	**0.5 J**
Methyl isobutyl ketone			µg/L	20 U	10 U	10 U	10 U
Methyl tert-butyl ether	13		µg/L	1 U	0.5 U	0.5 U	0.5 U
N-propylbenzene			µg/L	1 U	**0.3 J**	**0.3 J**	**0.5 J**
Naphthalene			µg/L	**210**	**230**	**300**	**260**
Tetrachloroethene	5		µg/L	1 U	0.5 U	**0.2 J**	0.5 U
Toluene	150		µg/L	**0.8 J**	**0.9**	**0.9**	**1**
1,1,1-Trichloroethane	200		µg/L	1 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5		µg/L	1 U	0.5 U	0.5 U	0.5 UJ
1,2,4-Trimethylbenzene			µg/L	**0.8 J**	**0.8**	**1.2**	**1.4**
1,3,5-Trimethylbenzene			µg/L	1 U	0.5 U	0.5 U	**0.2 J**
Vinyl Chloride	0.5		µg/L	1 U	**0.5 J**	**0.6**	**0.5**
M,p-xylene	1,750		µg/L	**1.3**	**1.8**	**1.9**	**1.9**
O-xylene	1,750		µg/L	**8.4**	**11**	**14**	**13**

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-14: Well M001-E, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	**1.5 J**	**1.3 J**	**5.9 J**	**5.8 J**
Acenaphthylene			µg/L	9.4 U	9.4 U	9.6 U	9.5 U
Anthracene			µg/L	**1.5 J**	9.4 U	9.6 U	**0.55 J**
Benzoic acid			µg/L	47 U	47 U	48 U	48 U
bis(2-Chloroethyl)ether			µg/L	**0.94 J**	9.4 U	**0.97 J**	**1.1 J**
bis(2-chloroisopropyl) ether			µg/L	9.4 U	**2.8 J**	**2.8 J**	**3.1 J**
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U	9.4 U	9.6 U	9.5 U
Dibenzofuran			µg/L	**0.96 J**	9.4 U	**1.4 J**	**1.4 J**
1,2-Dichlorobenzene	600		µg/L	**1.2 J**	9.4 U	**1.5 J**	**1.5 J**
1,3-Dichlorobenzene			µg/L	9.4 U	9.4 U	9.6 U	9.5 U
1,4-Dichlorobenzene	5		µg/L	9.4 U	9.4 U	9.6 U	**0.39 J**
Diethylphthalate			µg/L	9.4 U	9.4 U	9.6 U	9.5 U
2,4-Dimethylphenol			µg/L	**2.2 J**	**2.7 J**	**3.3 J**	**3.6 J**
Dimethylphthalate			µg/L	9.4 U	9.4 U	9.6 U	9.5 U
2,4-Dinitrophenol			µg/L	47 U	47 U	48 U	48 U
Fluoranthene			µg/L	**1.5 J**	9.4 U	9.6 U	9.5 U
Fluorene			µg/L	9.4 U	9.4 U	**2.3 J**	**2.2 J**
2-Methylnaphthalene			µg/L	9.4 U	9.4 U	**6.6 J**	**7.1 J**
2-Methylphenol			µg/L	9.4 U	9.4 U	9.6 U	9.5 U
4-Methylphenol			µg/L	9.4 U	9.4 U	9.6 U	9.5 U
N-Nitrosodiphenylamine			µg/L	9.4 U	9.4 U	9.6 U	9.5 U
Naphthalene			µg/L	**4.1 J**	9.4 U	**230**	**130**
4-Nitrophenol			µg/L	19 U	19 U	19 UJ	19 U
Pentachlorophenol	1		µg/L	19 U	19 U	19 U	19 U
Phenanthrene			µg/L	**1.2 J**	9.4 U	**2.1 J**	**2 J**
2,4,5-Trichlorophenol			µg/L	9.4 U	9.4 U	9.6 U	9.5 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-15: Well M001-E, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 U			
Jet Fuel #5 (JP5)			µg/L	50 U			
TPH as motor oil			µg/L	300 U			
TPH as Gasoline							
TPH as gasoline			µg/L	**140**			
TPH (calculated)							
Total TPH (calculated)			µg/L	**140**			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-16: Well M001-E, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	**10 J**	100 UJ	**20 J**	**11 J**
Antimony	6	46	µg/L	**1.8 J**	**2.4 J**	**3.1 J**	**3.3**
Arsenic	50	28	µg/L	**1.3 J**	5 UJ	**3.3 J**	5 U
Barium	1,000	575	µg/L	**110**	**120**	**140**	**130**
Beryllium	4	3.8	µg/L	**0.077 J**	2 U	2 U	2 U
Cadmium	5	5.4	µg/L	5 U	5 U	5 U	5 U
Chromium	50	14	µg/L	**0.88 J**	10 UJ	10 U	10 U
Cobalt		12	µg/L	**0.21 J**	10 UJ	**0.2 J**	10 U
Copper	1,000	27	µg/L	**0.29 J**	10 UJ	**0.6 J**	10 U
Iron		7,135	µg/L	**160**	**160 J**	260 U	**240**
Lead	15	3.9	µg/L	**0.64 J**	3 U	**0.79 J**	3 U
Manganese		5,213	µg/L	**32 J**	**31 J**	**34**	**38**
Mercury	2	0.15	µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum		12	µg/L	20 U	**5 J**	**5.2 J**	**5.4 J**
Nickel	100	19	µg/L	**0.76 J**	20 UJ	**1.4 J**	20 U
Selenium	50	6.0	µg/L	**1.7 J**	**1.4 J**	5 U	5 U
Silver		3.3	µg/L	5 UJ	5 U	5 U	5 U
Vanadium		29	µg/L	**1.2 J**	10 UJ	**4 J**	10 U
Zinc		43	µg/L	20 U	20 UJ	**7 J**	**5.8 J**
Calcium		379	mg/L	**5.8**	**7.7 J**	**5.2 J**	**5.9**
Magnesium		500	mg/L	**4.8 J**	**5.5 J**	**5**	**6.1**
Potassium		182	mg/L	**46**	**46**	**39**	**44 J**
Sodium		4,540	mg/L	**580**	**560**	**490**	**590**
Cyanide							
Total Cyanide	0.2		mg/L	**0.05**	0.01 U	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-17: Well M001-E, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	2.43 U4	**1.21±0.48**	3.04 U3J	3.82 U3J
Gross Beta	50		pCi/L	2.11 U	**29.9±13.8**	**40.1±2.76**	**38.5±2.66**
Radium							
Radium			pCi/L	0.068 U3	0.12 U2J	1.04 U3	1.08 U1
Radium 228							
Radium-228	5		pCi/L				4.41 U1

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-18: Well M002-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U	10 U	10 U	10 UJ
Benzene	1		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
tert-butyl alcohol			µg/L	20 U	20 U	10 U	10 UJ
N-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
sec-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
tert-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Disulfide			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	0.5		µg/L	0.5 U	0.5 U	0.5 UJ	0.5 UJ
Chlorobenzene	70		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane			µg/L	1 U	1 U	1 U	1 U
Chloroform			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	600		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	6		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	6		µg/L	**6.2**	**7.3**	**15**	**5**
trans-1,2-Dichloroethene	10		µg/L	0.5 U	0.5 U	0.5 U	**0.2 J**
1,2-Dichloropropane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	300		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone			µg/L	10 U	10 U	10 U	10 U
Isopropyl Ether			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Methyl isobutyl ketone			µg/L	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	13		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
N-propylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene			µg/L	2 U	2 U	2 U	2 U
Tetrachloroethene	5		µg/L	0.5 U	0.5 U	0.5 UJ	0.5 U
Toluene	150		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	200		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5		µg/L	**11**	**8.1**	**39**	**24 J**
1,2,4-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
M,p-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
O-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-19: Well M002-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
Acenaphthylene			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
Anthracene			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
Benzoic acid			µg/L	48 U	48 U	48 U	47 U
bis(2-Chloroethyl)ether			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
bis(2-chloroisopropyl) ether			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
bis(2-Ethylhexyl)phthalate	4		µg/L	9.5 U	9.6 U	9.6 U	9.4 U
Dibenzofuran			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
1,2-Dichlorobenzene	600		µg/L	9.5 U	9.6 U	9.6 U	9.4 U
1,3-Dichlorobenzene			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
1,4-Dichlorobenzene	5		µg/L	9.5 U	9.6 U	9.6 U	9.4 U
Diethylphthalate			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
2,4-Dimethylphenol			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
Dimethylphthalate			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
2,4-Dinitrophenol			µg/L	48 U	48 U	48 U	47 U
Fluoranthene			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
Fluorene			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
2-Methylnaphthalene			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
2-Methylphenol			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
4-Methylphenol			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
N-Nitrosodiphenylamine			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
Naphthalene			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
4-Nitrophenol			µg/L	19 U	19 U	19 UJ	19 U
Pentachlorophenol	1		µg/L	19 U	19 U	19 U	19 U
Phenanthrene			µg/L	9.5 U	9.6 U	9.6 U	9.4 U
2,4,5-Trichlorophenol			µg/L	9.5 U	9.6 U	9.6 U	9.4 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-20: Well M002-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 U			
Jet Fuel #5 (JP5)			µg/L	50 U			
TPH as motor oil			µg/L	300 U			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-21: Well M002-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	**8.2 J**	100 U	**4.7 J**	**16 J**
Antimony	6	46	µg/L	**0.29 J**	**0.41 J**	**0.59 J**	1 U
Arsenic	50	28	µg/L	**2.6 J**	5 U	**2.8 J**	5 U
Barium	1,000	575	µg/L	**60**	**110**	**64**	**58**
Beryllium	4	3.8	µg/L	2 U	2 U	2 U	2 U
Cadmium	5	5.4	µg/L	5 U	5 U	5 U	5 U
Chromium	50	14	µg/L	10 U	10 U	10 U	10 U
Cobalt		12	µg/L	**0.69 J**	**1 J**	**0.57 J**	10 U
Copper	1,000	27	µg/L	**1.3 J**	10 U	**2.4 J**	10 U
Iron		7,135	µg/L	**390**	**900**	**720**	**270**
Lead	15	3.9	µg/L	3 U	3 U	**0.098 J**	3 U
Manganese		5,213	µg/L	**57**	**110**	**30**	**77**
Mercury	2	0.15	µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum		12	µg/L	**2 J**	**1.4 J**	**3 J**	20 U
Nickel	100	19	µg/L	**2.7 J**	**4.1 J**	**3.1 J**	**2.7 J**
Selenium	50	6.0	µg/L	**1.1 J**	**1.4 J**	**1.6 J**	5 U
Silver		3.3	µg/L	5 U	5 U	5 U	5 U
Vanadium		29	µg/L	10 U	10 UJ	**3.3 J**	**2.2 J**
Zinc		43	µg/L	**0.73 J**	20 U	**3.5 J**	**6.4 J**
Calcium		379	mg/L	**160**	**250**	**130**	**130**
Magnesium		500	mg/L	**26 J**	**46**	**22**	**31**
Potassium		182	mg/L	**15**	**25**	**12**	**16 J**
Sodium		4,540	mg/L	**220**	**250**	**240**	**180**
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U	0.01 U	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-22: Well M002-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	**3.3±2.03**	**3.59±0.84**	2.7 U4J	2.47 U4J
Gross Beta	50		pCi/L	**22.8±7.26**	**29±14.5**	**12.2±1.79**	**14.3±1.58**
Radium							
Radium			pCi/L	0.28 U2	0.056 U3J	1.02 U4	1.17 U3
Radium 228							
Radium-228	5		pCi/L				5.03 U3

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-23: Well M002-A, Detected Natural Attenuation Data at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Sulfide							
Sulfide			mg/L	0.04 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-24: Well M003-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U	10 U	**1.2 J**	**1.7 J**
Benzene	1		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
tert-butyl alcohol			µg/L	20 U	20 U	10 U	10 UJ
N-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
sec-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
tert-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Carbon Disulfide			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Carbon Tetrachloride	0.5		µg/L	0.5 U	0.5 U	**0.3 J**	0.5 UJ
Chlorobenzene	70		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Chloroethane			µg/L	1 U	1 U	1 U	1 UJ
Chloroform			µg/L	0.5 U	0.5 U	**0.5 J**	0.5 UJ
1,2-Dichlorobenzene	600		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,3-Dichlorobenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,4-Dichlorobenzene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,1-Dichloroethane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,2-Dichloroethane	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,1-Dichloroethene	6		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
cis-1,2-Dichloroethene	6		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
trans-1,2-Dichloroethene	10		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,2-Dichloropropane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Ethylbenzene	300		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
2-Hexanone			µg/L	10 U	10 U	10 U	10 UJ
Isopropyl Ether			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Isopropylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
p-Isopropyltoluene			µg/L	0.5 U	**0.6**	0.5 U	0.5 UJ
Methyl isobutyl ketone			µg/L	10 U	10 U	10 U	10 UJ
Methyl tert-butyl ether	13		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
N-propylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Naphthalene			µg/L	2 U	2 U	2 U	2 UJ
Tetrachloroethene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Toluene	150		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,1,1-Trichloroethane	200		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Trichloroethene	5		µg/L	**0.9**	**1.1**	**1.1**	**0.5 J**
1,2,4-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,3,5-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Vinyl Chloride	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
M,p-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
O-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-25: Well M003-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
Acenaphthylene			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
Anthracene			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
Benzoic acid			µg/L	48 U	48 UJ	48 UJ	48 U
bis(2-Chloroethyl)ether			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
bis(2-chloroisopropyl) ether			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
bis(2-Ethylhexyl)phthalate	4		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
Dibenzofuran			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
1,2-Dichlorobenzene	600		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
1,3-Dichlorobenzene			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
1,4-Dichlorobenzene	5		µg/L	9.5 U	9.6 U	9.5 U	9.6 U
Diethylphthalate			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
2,4-Dimethylphenol			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
Dimethylphthalate			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
2,4-Dinitrophenol			µg/L	48 U	48 U	48 U	48 U
Fluoranthene			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
Fluorene			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
2-Methylnaphthalene			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
2-Methylphenol			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
4-Methylphenol			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
N-Nitrosodiphenylamine			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
Naphthalene			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
4-Nitrophenol			µg/L	19 U	19 U	19 UJ	19 U
Pentachlorophenol	1		µg/L	19 U	19 U	19 U	19 U
Phenanthrene			µg/L	9.5 U	9.6 U	9.5 U	9.6 U
2,4,5-Trichlorophenol			µg/L	9.5 U	9.6 U	9.5 U	9.6 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-26: Well M003-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 U			
Jet Fuel #5 (JP5)			µg/L	50 U			
TPH as motor oil			µg/L	300 U			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-27: Well M003-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	**6 J**	100 U	100 U	100 U
Antimony	6	46	µg/L	**0.22 J**	**0.34 J**	50 U	1 U
Arsenic	50	28	µg/L	5 U	**3 J**	**5.9**	**19**
Barium	1,000	575	µg/L	**30**	**33**	**89**	**44**
Beryllium	4	3.8	µg/L	2 U	2 U	2 U	2 U
Cadmium	5	5.4	µg/L	5 U	5 U	5 U	5 U
Chromium	50	14	µg/L	**1 J**	10 U	10 U	10 U
Cobalt		12	µg/L	**0.97 J**	**6.1 J**	**0.87 J**	**1 J**
Copper	1,000	27	µg/L	**0.25 J**	**0.42 J**	**0.59 J**	**3 J**
Iron		7,135	µg/L	**570**	**1,400**	**600**	**2,100**
Lead	15	3.9	µg/L	3 U	**0.062 J**	**0.037 J**	3 U
Manganese		5,213	µg/L	**40**	**100**	**13**	**67**
Mercury	2	0.15	µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum		12	µg/L	**4.7 J**	**5.1 J**	**4.6 J**	**3.4 J**
Nickel	100	19	µg/L	**1.6 J**	**4.6 J**	**2.3 J**	**1.2 J**
Selenium	50	6.0	µg/L	5 U	5 U	**0.66 J**	5 U
Silver		3.3	µg/L	5 U	5 U	5 U	5 U
Vanadium		29	µg/L	**2.3 J**	**2.9 J**	**10**	**1.4 J**
Zinc		43	µg/L	**3.4 J**	**91**	**0.94 J**	**3.1 J**
Calcium		379	mg/L	**120**	**120**	**130**	**110**
Magnesium		500	mg/L	**9**	**9.9**	**9.8**	**8.7**
Potassium		182	mg/L	**3.5**	**3.9**	**1.8**	**3**
Sodium		4,540	mg/L	**9.9**	**8.9**	**14**	**13**
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U	**0.01**	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-28: Well M003-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	**3.29±1.1**	**2.92±1.32**	**1.36±0.40 J**	2.24 U4J
Gross Beta	50		pCi/L	5.39 U	**3.55±1.69**	**2.02±0.41**	**3.97±0.93**
Radium							
Radium			pCi/L	0.07 U3	0.40 U4J	0.628 U1	0.93 U4
Radium 228							
Radium-228	5		pCi/L				3.91 U4

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-29: Well M003-A, Detected Natural Attenuation Data at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Sulfide							
Sulfide			mg/L	0.04 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-30: Well M003-B, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U		10 U	
Benzene	1		µg/L	0.5 U		0.5 U	
tert-butyl alcohol			µg/L	20 U		10 U	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 U	
tert-butylbenzene			µg/L	0.5 U		0.5 U	
Carbon Disulfide			µg/L	0.5 U		0.5 U	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 U	
Chlorobenzene	70		µg/L	0.5 U		0.5 U	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		0.5 U	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	0.5 U		0.5 U	
1,2-Dichloroethane	0.5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	0.5 U		0.5 U	
trans-1,2-Dichloroethene	10		µg/L	0.5 U		0.5 U	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		0.5 U	
2-Hexanone			µg/L	10 U		10 U	
Isopropyl Ether			µg/L	0.5 U		0.5 U	
Isopropylbenzene			µg/L	0.5 U		0.5 U	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		2 U	
Tetrachloroethene	5		µg/L	0.5 U		0.5 U	
Toluene	150		µg/L	0.5 U		0.5 U	
1,1,1-Trichloroethane	200		µg/L	0.5 U		0.5 U	
Trichloroethene	5		µg/L	0.5 U		0.5 U	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	0.5 U		0.5 U	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		0.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-31: Well M003-B, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.4 U		9.5 U	
Acenaphthylene			µg/L	9.4 U		9.5 U	
Anthracene			µg/L	9.4 U		9.5 U	
Benzoic acid			µg/L	47 U		48 UJ	
bis(2-Chloroethyl)ether			µg/L	9.4 U		9.5 U	
bis(2-chloroisopropyl) ether			µg/L	9.4 U		9.5 U	
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U		9.5 U	
Dibenzofuran			µg/L	9.4 U		9.5 U	
1,2-Dichlorobenzene	600		µg/L	9.4 U		9.5 U	
1,3-Dichlorobenzene			µg/L	9.4 U		9.5 U	
1,4-Dichlorobenzene	5		µg/L	9.4 U		9.5 U	
Diethylphthalate			µg/L	9.4 U		9.5 U	
2,4-Dimethylphenol			µg/L	9.4 U		9.5 U	
Dimethylphthalate			µg/L	9.4 U		9.5 U	
2,4-Dinitrophenol			µg/L	47 U		48 U	
Fluoranthene			µg/L	9.4 U		9.5 U	
Fluorene			µg/L	9.4 U		9.5 U	
2-Methylnaphthalene			µg/L	9.4 U		9.5 U	
2-Methylphenol			µg/L	9.4 U		9.5 U	
4-Methylphenol			µg/L	9.4 U		9.5 U	
N-Nitrosodiphenylamine			µg/L	9.4 U		9.5 U	
Naphthalene			µg/L	9.4 U		9.5 U	
4-Nitrophenol			µg/L	19 U		19 UJ	
Pentachlorophenol	1		µg/L	19 U		19 U	
Phenanthrene			µg/L	9.4 U		9.5 U	
2,4,5-Trichlorophenol			µg/L	9.4 U		9.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-32: Well M003-B, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-33: Well M003-B, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000		µg/L	2500 U		**3.5 J**	
Antimony	6		µg/L	**0.13 J**		50 U	
Arsenic	50		µg/L	5 U		5 U	
Barium	1,000		µg/L	**130**		**130**	
Beryllium	4		µg/L	50 U		2 U	
Cadmium	5		µg/L	**0.089 J**		5 U	
Chromium	50		µg/L	**7.9 J**		10 U	
Cobalt			µg/L	**2.5 J**		**3.3 J**	
Copper	1,000		µg/L	**4.6 J**		**9.8 J**	
Iron			µg/L	**7,300**		**9,200**	
Lead	15		µg/L	3 U		**0.077 J**	
Manganese			µg/L	**7,300**		**7,800**	
Mercury	2		µg/L	**0.061 J**		0.2 U	
Molybdenum			µg/L	20 U		**3.5 J**	
Nickel	100		µg/L	**5.8 J**		**13 J**	
Selenium	50		µg/L	5 U		**58**	
Silver			µg/L	**3 J**		5 U	
Vanadium			µg/L	**2.4 J**		**3.6 J**	
Zinc			µg/L	20 U		20 U	
Calcium			mg/L	**370**		**370**	
Magnesium			mg/L	**1,000**		**1,000**	
Potassium			mg/L	**210**		**230**	
Sodium			mg/L	**6,900**		**7,000**	
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-34: Well M003-B, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	**7.34±3.31**		46 U1J	
Gross Beta	50		pCi/L	**182±41.6**		**194±38.9**	
Radium							
Radium			pCi/L	**0.75±0.44**		**3.13±0.95**	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-35: Well M003-B, Detected Natural Attenuation Data at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Anions							
Chloride			mg/L	**13,000**		**14,000**	
Nitrate	45		mg/L	0.5 U		1.3 U	
Nitrite	1		mg/L	0.5 U		1.3 U	
Sulfate			mg/L	**600**		**630**	
Sulfide							
Sulfide			mg/L	0.04 U		0.04 U	
Alkalinity							
Alkalinity			mg/L	**1,000**		**1,000**	
Dissolved Gases							
Ethane			mg/L	0.01 U		0.01 U	
Ethene			mg/L	0.01 U		0.01 U	
Methane			mg/L	**0.062**		**0.077**	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-36: Well M004-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U		10 U	
Benzene	1		µg/L	0.5 U		0.5 U	
tert-butyl alcohol			µg/L	20 U		10 U	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 U	
tert-butylbenzene			µg/L	0.5 U		0.5 U	
Carbon Disulfide			µg/L	0.5 U		0.5 U	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 U	
Chlorobenzene	70		µg/L	0.5 U		0.5 U	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		0.5 U	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	0.5 U		0.5 U	
1,2-Dichloroethane	0.5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	0.5 U		0.5 U	
trans-1,2-Dichloroethene	10		µg/L	0.5 U		0.5 U	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		0.5 U	
2-Hexanone			µg/L	10 U		10 U	
Isopropyl Ether			µg/L	0.5 U		0.5 U	
Isopropylbenzene			µg/L	0.5 U		0.5 U	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		2 U	
Tetrachloroethene	5		µg/L	0.5 U		0.5 U	
Toluene	150		µg/L	**0.5 J**		0.5 U	
1,1,1-Trichloroethane	200		µg/L	0.5 U		0.5 U	
Trichloroethene	5		µg/L	0.5 U		0.5 U	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	0.5 U		0.5 U	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		0.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-37: Well M004-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.6 U		9.5 U	
Acenaphthylene			µg/L	9.6 U		9.5 U	
Anthracene			µg/L	9.6 U		9.5 U	
Benzoic acid			µg/L	48 U		48 UJ	
bis(2-Chloroethyl)ether			µg/L	9.6 U		9.5 U	
bis(2-chloroisopropyl) ether			µg/L	9.6 U		9.5 U	
bis(2-Ethylhexyl)phthalate	4		µg/L	9.6 U		9.5 U	
Dibenzofuran			µg/L	9.6 U		9.5 U	
1,2-Dichlorobenzene	600		µg/L	9.6 U		9.5 U	
1,3-Dichlorobenzene			µg/L	9.6 U		9.5 U	
1,4-Dichlorobenzene	5		µg/L	9.6 U		9.5 U	
Diethylphthalate			µg/L	9.6 U		9.5 U	
2,4-Dimethylphenol			µg/L	9.6 U		9.5 U	
Dimethylphthalate			µg/L	9.6 U		9.5 U	
2,4-Dinitrophenol			µg/L	48 U		48 U	
Fluoranthene			µg/L	9.6 U		9.5 U	
Fluorene			µg/L	9.6 U		9.5 U	
2-Methylnaphthalene			µg/L	9.6 U		9.5 U	
2-Methylphenol			µg/L	9.6 U		9.5 U	
4-Methylphenol			µg/L	9.6 U		9.5 U	
N-Nitrosodiphenylamine			µg/L	9.6 U		9.5 U	
Naphthalene			µg/L	9.6 U		9.5 U	
4-Nitrophenol			µg/L	19 U		19 UJ	
Pentachlorophenol	1		µg/L	19 U		19 U	
Phenanthrene			µg/L	9.6 U		9.5 U	
2,4,5-Trichlorophenol			µg/L	9.6 U		9.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-38: Well M004-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 U			
Jet Fuel #5 (JP5)			µg/L	50 U			
TPH as motor oil			µg/L	300 U			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-39: Well M004-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	100 U		**4.9 J**	
Antimony	6	46	µg/L	**0.37 J**		50 U	
Arsenic	50	28	µg/L	**4.6 J**		**3.7 J**	
Barium	1,000	575	µg/L	**16**		**10**	
Beryllium	4	3.8	µg/L	2 U		2 U	
Cadmium	5	5.4	µg/L	5 U		5 U	
Chromium	50	14	µg/L	**0.95 J**		10 U	
Cobalt		12	µg/L	**1.1 J**		**0.19 J**	
Copper	1,000	27	µg/L	**0.52 J**		**2.9 J**	
Iron		7,135	µg/L	**140**		**360**	
Lead	15	3.9	µg/L	3 U		**0.036 J**	
Manganese		5,213	µg/L	**98**		**0.33 J**	
Mercury	2	0.15	µg/L	0.2 U		0.2 U	
Molybdenum		12	µg/L	**2.4 J**		**5.4 J**	
Nickel	100	19	µg/L	**2 J**		**2.2 J**	
Selenium	50	6.0	µg/L	**0.81 J**		**0.71 J**	
Silver		3.3	µg/L	**0.27 J**		5 U	
Vanadium		29	µg/L	**3.4 J**		**5.5 J**	
Zinc		43	µg/L	**2.3 J**		**0.72 J**	
Calcium		379	mg/L	**64**		**70**	
Magnesium		500	mg/L	**34 J**		**28**	
Potassium		182	mg/L	**25**		**15**	
Sodium		4,540	mg/L	**240**		**120**	
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-40: Well M004-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	**2.76±1.67**		**2.05±0.78 J**	
Gross Beta	50		pCi/L	**19.3±5.76**		**13.6±0.87**	
Radium							
Radium			pCi/L	0.069 U3		0.637 U1	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-41: Well M004-A, Detected Natural Attenuation Data at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Anions							
Chloride			mg/L	**130**		**53**	
Nitrate	45		mg/L	0.05 U		**2.4**	
Nitrite	1		mg/L	0.05 U		0.05 U	
Sulfate			mg/L	**26**		**63**	
Sulfide							
Sulfide			mg/L	0.04 U		0.04 U	
Alkalinity							
Alkalinity			mg/L	**450**		**450**	
Dissolved Gases							
Ethane			mg/L	0.01 U		0.01 U	
Ethene			mg/L	0.01 U		0.01 U	
Methane			mg/L	**0.2**		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-42: Well M006-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U		10 U	
Benzene	1		µg/L	0.5 U		0.5 U	
tert-butyl alcohol			µg/L	20 U		10 U	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 U	
tert-butylbenzene			µg/L	0.5 U		0.5 U	
Carbon Disulfide			µg/L	0.5 U		0.5 U	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 U	
Chlorobenzene	70		µg/L	0.5 U		0.5 U	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		0.5 U	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	0.5 U		0.5 U	
1,2-Dichloroethane	0.5		µg/L	0.5 U		**0.2 J**	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	0.5 U		0.5 U	
trans-1,2-Dichloroethene	10		µg/L	0.5 U		0.5 U	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		0.5 U	
2-Hexanone			µg/L	10 U		10 U	
Isopropyl Ether			µg/L	0.5 U		0.5 U	
Isopropylbenzene			µg/L	0.5 U		0.5 U	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		2 U	
Tetrachloroethene	5		µg/L	0.5 U		0.5 U	
Toluene	150		µg/L	0.5 U		0.5 U	
1,1,1-Trichloroethane	200		µg/L	0.5 U		0.5 U	
Trichloroethene	5		µg/L	0.5 U		0.5 U	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	0.5 U		0.5 U	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		0.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-43: Well M006-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L			9.5 U	
Acenaphthylene			µg/L			9.5 U	
Anthracene			µg/L			9.5 U	
Benzoic acid			µg/L			48 UJ	
bis(2-Chloroethyl)ether			µg/L			9.5 U	
bis(2-chloroisopropyl) ether			µg/L			9.5 U	
bis(2-Ethylhexyl)phthalate	4		µg/L			4.2 J	
Dibenzofuran			µg/L			9.5 U	
1,2-Dichlorobenzene	600		µg/L			9.5 U	
1,3-Dichlorobenzene			µg/L			9.5 U	
1,4-Dichlorobenzene	5		µg/L			9.5 U	
Diethylphthalate			µg/L			9.5 U	
2,4-Dimethylphenol			µg/L			9.5 U	
Dimethylphthalate			µg/L			9.5 U	
2,4-Dinitrophenol			µg/L			48 U	
Fluoranthene			µg/L			9.5 U	
Fluorene			µg/L			9.5 U	
2-Methylnaphthalene			µg/L			9.5 U	
2-Methylphenol			µg/L			9.5 U	
4-Methylphenol			µg/L			9.5 U	
N-Nitrosodiphenylamine			µg/L			9.5 U	
Naphthalene			µg/L			9.5 U	
4-Nitrophenol			µg/L			19 UJ	
Pentachlorophenol	1		µg/L			19 U	
Phenanthrene			µg/L			9.5 U	
2,4,5-Trichlorophenol			µg/L			9.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-44: Well M006-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 U			
Jet Fuel #5 (JP5)			µg/L	50 U			
TPH as motor oil			µg/L	**54 Jy**			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	**54 J**			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-45: Well M006-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	100 U		100 U	
Antimony	6	46	µg/L	**0.077 J**		50 U	
Arsenic	50	28	µg/L	**2.8 J**		**2.5 J**	
Barium	1,000	575	µg/L	**110**		**180**	
Beryllium	4	3.8	µg/L	2 U		2 U	
Cadmium	5	5.4	µg/L	5 U		5 U	
Chromium	50	14	µg/L	10 U		10 U	
Cobalt		12	µg/L	**0.36 J**		**1.1 J**	
Copper	1,000	27	µg/L	**0.79 J**		**1.3 J**	
Iron		7,135	µg/L	**1,400**		**1,900**	
Lead	15	3.9	µg/L	3 U		**0.12 J**	
Manganese		5,213	µg/L	**910 J**		**1,500**	
Mercury	2	0.15	µg/L	**0.061 J**		0.2 U	
Molybdenum		12	µg/L	**0.51 J**		**0.47 J**	
Nickel	100	19	µg/L	**6.6 J**		**9.4 J**	
Selenium	50	6.0	µg/L	5 U		5 U	
Silver		3.3	µg/L	5 U		5 U	
Vanadium		29	µg/L	10 U		10 U	
Zinc		43	µg/L	**16 J**		**7.2 J**	
Calcium		379	mg/L	**97**		**150**	
Magnesium		500	mg/L	**24 J**		**34**	
Potassium		182	mg/L	**12**		**17**	
Sodium		4,540	mg/L	**31**		**39**	
Cyanide							
Total Cyanide	0.2		mg/L			0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-46: Well M006-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	**2.73±1.59**		1.47 U4J	
Gross Beta	50		pCi/L	9.86 U		**14.5±0.91**	
Radium							
Radium			pCi/L	0.068 U3		1.1 U4	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-47: Well M006-A, Detected Natural Attenuation Data at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Sulfide							
Sulfide			mg/L	0.04 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-48: Well M007-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U		10 U	
Benzene	1		µg/L	0.5 U		0.5 U	
tert-butyl alcohol			µg/L	20 U		10 U	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 U	
tert-butylbenzene			µg/L	0.5 U		0.5 U	
Carbon Disulfide			µg/L	0.5 U		0.5 U	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 U	
Chlorobenzene	70		µg/L	0.5 U		0.5 U	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		0.5 U	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	0.5 U		0.5 U	
1,2-Dichloroethane	0.5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	**3.2**		**2.7**	
trans-1,2-Dichloroethene	10		µg/L	0.5 U		0.5 U	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		0.5 U	
2-Hexanone			µg/L	10 U		10 U	
Isopropyl Ether			µg/L	0.5 U		0.5 U	
Isopropylbenzene			µg/L	0.5 U		0.5 U	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		2 U	
Tetrachloroethene	5		µg/L	0.5 U		0.5 U	
Toluene	150		µg/L	0.5 U		0.5 U	
1,1,1-Trichloroethane	200		µg/L	0.5 U		0.5 U	
Trichloroethene	5		µg/L	**0.5 J**		**0.5**	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	0.5 U		0.5 U	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		0.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-49: Well M007-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.4 U		9.5 U	
Acenaphthylene			µg/L	9.4 U		9.5 U	
Anthracene			µg/L	9.4 U		9.5 U	
Benzoic acid			µg/L	47 U		48 UJ	
bis(2-Chloroethyl)ether			µg/L	9.4 U		9.5 U	
bis(2-chloroisopropyl) ether			µg/L	9.4 U		9.5 U	
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U		**2.4 J**	
Dibenzofuran			µg/L	9.4 U		9.5 U	
1,2-Dichlorobenzene	600		µg/L	9.4 U		9.5 U	
1,3-Dichlorobenzene			µg/L	9.4 U		9.5 U	
1,4-Dichlorobenzene	5		µg/L	9.4 U		9.5 U	
Diethylphthalate			µg/L	9.4 U		9.5 U	
2,4-Dimethylphenol			µg/L	9.4 U		9.5 U	
Dimethylphthalate			µg/L	9.4 U		9.5 U	
2,4-Dinitrophenol			µg/L	47 U		48 U	
Fluoranthene			µg/L	9.4 U		9.5 U	
Fluorene			µg/L	9.4 U		9.5 U	
2-Methylnaphthalene			µg/L	9.4 U		9.5 U	
2-Methylphenol			µg/L	9.4 U		9.5 U	
4-Methylphenol			µg/L	9.4 U		9.5 U	
N-Nitrosodiphenylamine			µg/L	9.4 U		9.5 U	
Naphthalene			µg/L	9.4 U		9.5 U	
4-Nitrophenol			µg/L	19 U		19 UJ	
Pentachlorophenol	1		µg/L	19 U		19 U	
Phenanthrene			µg/L	9.4 U		9.5 U	
2,4,5-Trichlorophenol			µg/L	9.4 U		9.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-50: Well M007-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 U			
Jet Fuel #5 (JP5)			µg/L	50 U			
TPH as motor oil			µg/L	300 U			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-51: Well M007-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	**4 J**		**5.3 J**	
Antimony	6	46	µg/L	**0.081 J**		50 U	
Arsenic	50	28	µg/L	**19**		**16**	
Barium	1,000	575	µg/L	**17**		**12**	
Beryllium	4	3.8	µg/L	2 U		2 U	
Cadmium	5	5.4	µg/L	5 U		5 U	
Chromium	50	14	µg/L	**1.2 J**		10 U	
Cobalt		12	µg/L	**0.2 J**		**0.16 J**	
Copper	1,000	27	µg/L	**0.49 J**		**0.83 J**	
Iron		7,135	µg/L	**230**		**260**	
Lead	15	3.9	µg/L	3 U		**0.094 J**	
Manganese		5,213	µg/L	**570 J**		**420**	
Mercury	2	0.15	µg/L	0.2 U		0.2 U	
Molybdenum		12	µg/L	**1.2 J**		**2.2 J**	
Nickel	100	19	µg/L	**1.4 J**		**1.8 J**	
Selenium	50	6.0	µg/L	5 U		5 U	
Silver		3.3	µg/L	5 U		5 U	
Vanadium		29	µg/L	**2.6 J**		**4.2 J**	
Zinc		43	µg/L	**0.53 J**		**2.7 J**	
Calcium		379	mg/L	**17**		**15**	
Magnesium		500	mg/L	**8.3**		**5.9**	
Potassium		182	mg/L	**10**		**9.7**	
Sodium		4,540	mg/L	**110**		**170**	
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-52: Well M007-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	2.85 U4		0.908 U3J	
Gross Beta	50		pCi/L	12.5 U		**7.74±0.66**	
Radium							
Radium			pCi/L	0.069 U3		1.1 U4	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-53: Well M007-A, Detected Natural Attenuation Data at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Sulfide							
Sulfide			mg/L	0.04 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-54: Well M025-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U		10 U	
Benzene	1		µg/L	**0.6**		0.5 U	
tert-butyl alcohol			µg/L	20 U		10 U	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 U	
tert-butylbenzene			µg/L	0.5 U		0.5 U	
Carbon Disulfide			µg/L	0.5 U		0.5 U	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 U	
Chlorobenzene	70		µg/L	0.5 U		0.5 U	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		0.5 U	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	0.5 U		0.5 U	
1,2-Dichloroethane	0.5		µg/L	**0.5 J**		0.5 U	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	**1.8**		**0.5 J**	
trans-1,2-Dichloroethene	10		µg/L	0.5 U		0.5 U	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		0.5 U	
2-Hexanone			µg/L	10 U		10 U	
Isopropyl Ether			µg/L	0.5 U		0.5 U	
Isopropylbenzene			µg/L	0.5 U		0.5 U	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		2 U	
Tetrachloroethene	5		µg/L	0.5 U		0.5 U	
Toluene	150		µg/L	0.5 U		0.5 U	
1,1,1-Trichloroethane	200		µg/L	0.5 U		0.5 U	
Trichloroethene	5		µg/L	0.5 U		**0.3 J**	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	0.5 U		**0.7**	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		0.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-55: Well M025-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzoic acid			µg/L	47 U	47 U	47 U	47 U
bis(2-Chloroethyl)ether			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-chloroisopropyl) ether			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Dibenzofuran			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,2-Dichlorobenzene	600		µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,3-Dichlorobenzene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,4-Dichlorobenzene	5		µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Diethylphthalate			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Dimethylphthalate			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol			µg/L	47 U	47 U	47 U	**9.7 J**
Fluoranthene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylnaphthalene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylphenol			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Methylphenol			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
N-Nitrosodiphenylamine			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitrophenol			µg/L	19 U	19 U	19 U	**7.1 J**
Pentachlorophenol	1		µg/L	19 U	19 U	19 U	**7.5 J**
Phenanthrene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol			µg/L	9.4 U	9.4 U	9.4 U	**1.1 J**

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-56: Well M025-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-57: Well M025-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	**5.8 J**	100 U	**17 J**	**12 J**
Antimony	6	46	µg/L	**4.1 J**	**0.2 J**	**2.9 J**	1 U
Arsenic	50	28	µg/L	**1.7 J**	5 U	**4.1 J**	5 U
Barium	1,000	575	µg/L	**800**	**250**	180 U	**130**
Beryllium	4	3.8	µg/L	**0.1 J**	2 U	2 U	2 U
Cadmium	5	5.4	µg/L	**0.056 J**	5 U	5 U	5 U
Chromium	50	14	µg/L	**2.3 J**	10 U	10 U	10 U
Cobalt		12	µg/L	10 U	**0.47 J**	**0.39 J**	10 U
Copper	1,000	27	µg/L	**0.95 J**	10 U	**1.6 J**	10 U
Iron		7,135	µg/L	**390**	**920**	**570**	**55 J**
Lead	15	3.9	µg/L	**0.3 J**	3 U	**0.12 J**	3 U
Manganese		5,213	µg/L	**350**	**650**	**130**	**18**
Mercury	2	0.15	µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum		12	µg/L	20 U	**0.83 J**	**1.5 J**	**1.9 J**
Nickel	100	19	µg/L	**0.82 J**	**3.1 J**	**3.5 J**	20 U
Selenium	50	6.0	µg/L	**12**	5 U	**11**	5 U
Silver		3.3	µg/L	5 U	5 U	**0.056 J**	5 U
Vanadium		29	µg/L	**1.7 J**	10 U	10 U	**4.1 J**
Zinc		43	µg/L	20 U	20 U	**19 J**	**2.1 J**
Calcium		379	mg/L	**140**	**360**	**160**	**10**
Magnesium		500	mg/L	**240**	**750**	**230**	**17**
Potassium		182	mg/L	**62**	**180**	**66**	**18 J**
Sodium		4,540	mg/L	**1,100**	**4,700**	**1,900**	**390**
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U	**0.01**	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-58: Well M025-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	**1.26±0.63**		18.9 U3J	
Gross Beta	50		pCi/L	2.8 U3		**95.5±13.4**	
Radium							
Radium			pCi/L	0.27 U2		1.21 U4	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-59: Well M025-C, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U		10 U	
Benzene	1		µg/L	0.5 U		0.5 U	
tert-butyl alcohol			µg/L	20 U		10 U	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 U	
tert-butylbenzene			µg/L	0.5 U		0.5 U	
Carbon Disulfide			µg/L	**0.3 J**		0.5 U	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 UJ	
Chlorobenzene	70		µg/L	0.5 U		0.5 U	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		0.5 U	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	0.5 U		0.5 U	
1,2-Dichloroethane	0.5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	0.5 U		0.5 U	
trans-1,2-Dichloroethene	10		µg/L	0.5 U		0.5 U	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		0.5 U	
2-Hexanone			µg/L	10 U		10 U	
Isopropyl Ether			µg/L	0.5 U		0.5 U	
Isopropylbenzene			µg/L	0.5 U		0.5 U	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		2 U	
Tetrachloroethene	5		µg/L	0.5 U		**0.4 J**	
Toluene	150		µg/L	0.5 U		**0.2 J**	
1,1,1-Trichloroethane	200		µg/L	0.5 U		0.5 U	
Trichloroethene	5		µg/L	0.5 U		0.5 U	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	0.5 U		0.5 U	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		0.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-60: Well M025-C, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
Acenaphthylene			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
Anthracene			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
Benzoic acid			µg/L	47 U	47 U	49 U	47 U
bis(2-Chloroethyl)ether			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
bis(2-chloroisopropyl) ether			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U	**3 J**	9.7 U	9.4 U
Dibenzofuran			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
1,2-Dichlorobenzene	600		µg/L	9.4 U	9.4 U	9.7 U	9.4 U
1,3-Dichlorobenzene			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
1,4-Dichlorobenzene	5		µg/L	9.4 U	9.4 U	9.7 U	9.4 U
Diethylphthalate			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
2,4-Dimethylphenol			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
Dimethylphthalate			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
2,4-Dinitrophenol			µg/L	47 U	47 U	49 U	47 U
Fluoranthene			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
Fluorene			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
2-Methylnaphthalene			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
2-Methylphenol			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
4-Methylphenol			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
N-Nitrosodiphenylamine			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
Naphthalene			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
4-Nitrophenol			µg/L	19 U	19 U	19 UJ	19 U
Pentachlorophenol	1		µg/L	19 U	19 U	19 U	19 U
Phenanthrene			µg/L	9.4 U	9.4 U	9.7 U	9.4 U
2,4,5-Trichlorophenol			µg/L	9.4 U	9.4 U	9.7 U	9.4 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-61: Well M025-C, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-62: Well M025-C, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000		µg/L	100 U	100 U	100 U	100 U
Antimony	6		µg/L	50 U	**0.082 J**	50 U	1 U
Arsenic	50		µg/L	**4.5 J**	**5.7**	**5.3**	**7.8**
Barium	1,000		µg/L	**280**	**230**	**380**	**300**
Beryllium	4		µg/L	2 U	2 U	2 U	2 U
Cadmium	5		µg/L	5 U	5 U	5 U	5 U
Chromium	50		µg/L	**10 J**	10 U	10 U	10 U
Cobalt			µg/L	10 U	**0.48 J**	**0.5 J**	10 U
Copper	1,000		µg/L	**0.95 J**	10 U	**1.1 J**	10 U
Iron			µg/L	**6,300**	**3,100**	**8,900**	**8,500**
Lead	15		µg/L	3 U	3 U	**0.051 J**	3 U
Manganese			µg/L	**2,000**	**2,000**	**2,400**	**1,900**
Mercury	2		µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum			µg/L	20 U	**1.2 J**	**1.3 J**	20 U
Nickel	100		µg/L	20 U	**2.1 J**	**2.4 J**	20 U
Selenium	50		µg/L	5 U	5 U	5 U	**3.7 J**
Silver			µg/L	5 U	5 U	5 U	5 U
Vanadium			µg/L	**2.3 J**	10 UJ	10 U	10 U
Zinc			µg/L	26 U	20 U	20 U	**1.2 J**
Calcium			mg/L	**100**	**110**	**130**	**110**
Magnesium			mg/L	**200**	**190**	**220**	**190**
Potassium			mg/L	**66**	**63**	**73**	**62 J**
Sodium			mg/L	**1,300**	**1,200**	**1,400**	**1,300**
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U	0.01 U	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-63: Well M025-C, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	0.56 U4		6.13 U3J	
Gross Beta	50		pCi/L	31.6 U2		**56.4±6.7**	
Radium							
Radium			pCi/L	0.47 U		**1.77±0.88**	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-64: Well M026-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U		**0.6 J**	
Benzene	1		µg/L	0.5 U		0.5 U	
tert-butyl alcohol			µg/L	20 U		10 U	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 U	
tert-butylbenzene			µg/L	0.5 U		0.5 U	
Carbon Disulfide			µg/L	0.5 U		0.5 U	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 U	
Chlorobenzene	70		µg/L	0.5 U		0.5 U	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		0.5 U	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	0.5 U		0.5 U	
1,2-Dichloroethane	0.5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	**0.3 J**		**0.2 J**	
trans-1,2-Dichloroethene	10		µg/L	0.5 U		0.5 U	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		0.5 U	
2-Hexanone			µg/L	10 U		10 U	
Isopropyl Ether			µg/L	0.5 U		0.5 U	
Isopropylbenzene			µg/L	0.5 U		0.5 U	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		2 U	
Tetrachloroethene	5		µg/L	0.5 U		0.5 U	
Toluene	150		µg/L	0.5 U		0.5 U	
1,1,1-Trichloroethane	200		µg/L	0.5 U		0.5 U	
Trichloroethene	5		µg/L	0.5 U		0.5 U	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	0.5 U		0.5 U	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		0.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-65: Well M026-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.8 U		9.4 U	
Acenaphthylene			µg/L	9.8 U		9.4 U	
Anthracene			µg/L	9.8 U		9.4 U	
Benzoic acid			µg/L	49 U		47 U	
bis(2-Chloroethyl)ether			µg/L	9.8 U		9.4 U	
bis(2-chloroisopropyl) ether			µg/L	9.8 U		9.4 U	
bis(2-Ethylhexyl)phthalate	4		µg/L	9.8 U		9.4 U	
Dibenzofuran			µg/L	9.8 U		9.4 U	
1,2-Dichlorobenzene	600		µg/L	9.8 U		9.4 U	
1,3-Dichlorobenzene			µg/L	9.8 U		9.4 U	
1,4-Dichlorobenzene	5		µg/L	9.8 U		9.4 U	
Diethylphthalate			µg/L	9.8 U		9.4 U	
2,4-Dimethylphenol			µg/L	9.8 U		9.4 U	
Dimethylphthalate			µg/L	9.8 U		9.4 U	
2,4-Dinitrophenol			µg/L	49 U		47 U	
Fluoranthene			µg/L	9.8 U		9.4 U	
Fluorene			µg/L	9.8 U		9.4 U	
2-Methylnaphthalene			µg/L	9.8 U		9.4 U	
2-Methylphenol			µg/L	9.8 U		9.4 U	
4-Methylphenol			µg/L	9.8 U		9.4 U	
N-Nitrosodiphenylamine			µg/L	9.8 U		9.4 U	
Naphthalene			µg/L	9.8 U		9.4 U	
4-Nitrophenol			µg/L	20 U		19 U	
Pentachlorophenol	1		µg/L	20 U		19 U	
Phenanthrene			µg/L	9.8 U		9.4 U	
2,4,5-Trichlorophenol			µg/L	9.8 U		9.4 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-66: Well M026-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-67: Well M026-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	**3.5 J**		**4.9 J**	
Antimony	6	46	µg/L	**0.79 J**		**0.48 J**	
Arsenic	50	28	µg/L	**5.8**		**7.9**	
Barium	1,000	575	µg/L	**46**		**4.9 J**	
Beryllium	4	3.8	µg/L	2 U		2 U	
Cadmium	5	5.4	µg/L	5 U		5 U	
Chromium	50	14	µg/L	**1.8 J**		10 U	
Cobalt		12	µg/L	10 U		**0.27 J**	
Copper	1,000	27	µg/L	**4.8 J**		**5.5 J**	
Iron		7,135	µg/L	**490**		360 U	
Lead	15	3.9	µg/L	3 U		**0.099 J**	
Manganese		5,213	µg/L	**23**		**180**	
Mercury	2	0.15	µg/L	**0.14 J**		0.2 U	
Molybdenum		12	µg/L	**7.3 J**		**5.8 J**	
Nickel	100	19	µg/L	**2.5 J**		**1.8 J**	
Selenium	50	6.0	µg/L	**10**		**6.3**	
Silver		3.3	µg/L	**0.53 J**		5 U	
Vanadium		29	µg/L	**3.2 J**		**6.5 J**	
Zinc		43	µg/L	20 U		**6.9 J**	
Calcium		379	mg/L	**310**		**110**	
Magnesium		500	mg/L	**820**		**140**	
Potassium		182	mg/L	**240**		**56**	
Sodium		4,540	mg/L	**6,700**		**1,300**	
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-68: Well M026-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	0.7 U3		10 U3J	
Gross Beta	50		pCi/L	271 U		59.5±7.84	
Radium							
Radium			pCi/L	0.067 U3		0.675 U3	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-69: Well M026-E, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U		**0.8 J**	
Benzene	1		µg/L	0.5 U		0.5 U	
tert-butyl alcohol			µg/L	20 U		10 U	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 U	
tert-butylbenzene			µg/L	0.5 U		0.5 U	
Carbon Disulfide			µg/L	0.5 U		0.5 U	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 U	
Chlorobenzene	70		µg/L	0.5 U		0.5 U	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		0.5 U	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	0.5 U		0.5 U	
1,2-Dichloroethane	0.5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	**0.4 J**		**0.6**	
trans-1,2-Dichloroethene	10		µg/L	0.5 U		0.5 U	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		0.5 U	
2-Hexanone			µg/L	10 U		10 U	
Isopropyl Ether			µg/L	0.5 U		0.5 U	
Isopropylbenzene			µg/L	0.5 U		0.5 U	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		2 U	
Tetrachloroethene	5		µg/L	0.5 U		0.5 U	
Toluene	150		µg/L	0.5 U		0.5 U	
1,1,1-Trichloroethane	200		µg/L	0.5 U		0.5 U	
Trichloroethene	5		µg/L	0.5 U		0.5 U	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	0.5 U		0.5 U	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		0.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-70: Well M026-E, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.7 U		9.4 U	
Acenaphthylene			µg/L	9.7 U		9.4 U	
Anthracene			µg/L	9.7 U		9.4 U	
Benzoic acid			µg/L	49 U		47 U	
bis(2-Chloroethyl)ether			µg/L	9.7 U		9.4 U	
bis(2-chloroisopropyl) ether			µg/L	9.7 U		9.4 U	
bis(2-Ethylhexyl)phthalate	4		µg/L	9.7 U		5.5 J	
Dibenzofuran			µg/L	9.7 U		9.4 U	
1,2-Dichlorobenzene	600		µg/L	9.7 U		9.4 U	
1,3-Dichlorobenzene			µg/L	9.7 U		9.4 U	
1,4-Dichlorobenzene	5		µg/L	9.7 U		9.4 U	
Diethylphthalate			µg/L	9.7 U		9.4 U	
2,4-Dimethylphenol			µg/L	9.7 U		9.4 U	
Dimethylphthalate			µg/L	9.7 U		9.4 U	
2,4-Dinitrophenol			µg/L	49 U		47 U	
Fluoranthene			µg/L	9.7 U		9.4 U	
Fluorene			µg/L	9.7 U		9.4 U	
2-Methylnaphthalene			µg/L	9.7 U		9.4 U	
2-Methylphenol			µg/L	9.7 U		9.4 U	
4-Methylphenol			µg/L	9.7 U		9.4 U	
N-Nitrosodiphenylamine			µg/L	9.7 U		9.4 U	
Naphthalene			µg/L	9.7 U		9.4 U	
4-Nitrophenol			µg/L	19 U		19 U	
Pentachlorophenol	1		µg/L	19 U		19 U	
Phenanthrene			µg/L	9.7 U		9.4 U	
2,4,5-Trichlorophenol			µg/L	9.7 U		9.4 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-71: Well M026-E, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-72: Well M026-E, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	100 U		**3.1 J**	
Antimony	6	46	µg/L	**0.091 J**		**0.13 J**	
Arsenic	50	28	µg/L	**6**		**13**	
Barium	1,000	575	µg/L	**120**		**200**	
Beryllium	4	3.8	µg/L	2 U		2 U	
Cadmium	5	5.4	µg/L	5 U		5 U	
Chromium	50	14	µg/L	**2.7 J**		10 U	
Cobalt		12	µg/L	10 U		**1.2 J**	
Copper	1,000	27	µg/L	**0.81 J**		**2.5 J**	
Iron		7,135	µg/L	**1,800**		**4,600**	
Lead	15	3.9	µg/L	3 U		**0.058 J**	
Manganese		5,213	µg/L	**860**		**2,900**	
Mercury	2	0.15	µg/L	**0.052 J**		0.2 U	
Molybdenum		12	µg/L	20 U		**1.4 J**	
Nickel	100	19	µg/L	**1.1 J**		**3 J**	
Selenium	50	6.0	µg/L	**7**		**22**	
Silver		3.3	µg/L	**0.055 J**		5 U	
Vanadium		29	µg/L	**1.7 J**		10 U	
Zinc		43	µg/L	20 U		20 U	
Calcium		379	mg/L	**110**		**380**	
Magnesium		500	mg/L	**180**		**620**	
Potassium		182	mg/L	**55**		**160**	
Sodium		4,540	mg/L	**1,600**		**4,200**	
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-73: Well M026-E, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	0.14 U2		38.3 U3J	
Gross Beta	50		pCi/L	64.3 U		**150±24.8**	
Radium							
Radium			pCi/L	**0.87±0.46**		**1.4±0.65**	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-74: Well M027-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U	10 U	**0.7 J**	10 UJ
Benzene	1		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
tert-butyl alcohol			µg/L	20 U	20 U	10 U	10 UJ
N-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
sec-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
tert-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Disulfide			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Chlorobenzene	70		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane			µg/L	1 U	1 U	1 U	1 U
Chloroform			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	600		µg/L	0.5 U	0.5 U	**0.5 J**	0.5 U
1,3-Dichlorobenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	5		µg/L	0.5 U	0.5 U	**0.2 J**	**0.2 J**
1,1-Dichloroethane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.5		µg/L	0.5 U	0.5 U	0.5 U	**0.2 J**
1,1-Dichloroethene	6		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	6		µg/L	**1.4**	**1.6**	**0.3 J**	**2.5**
trans-1,2-Dichloroethene	10		µg/L	0.5 U	0.5 U	0.5 U	**0.2 J**
1,2-Dichloropropane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	300		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone			µg/L	10 U	10 U	10 U	10 U
Isopropyl Ether			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Methyl isobutyl ketone			µg/L	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	13		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
N-propylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene			µg/L	2 U	2 U	2 U	2 U
Tetrachloroethene	5		µg/L	0.5 U	0.5 U	**0.5**	0.5 U
Toluene	150		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	200		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5		µg/L	0.5 U	0.5 U	**0.7**	0.5 UJ
1,2,4-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
M,p-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
O-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-75: Well M027-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzoic acid			µg/L	47 U	47 U	47 UJ	47 U
bis(2-Chloroethyl)ether			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-chloroisopropyl) ether			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U	9.4 U	9.4 U	**7.4 J**
Dibenzofuran			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,2-Dichlorobenzene	600		µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,3-Dichlorobenzene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,4-Dichlorobenzene	5		µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Diethylphthalate			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Dimethylphthalate			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol			µg/L	47 U	47 U	47 UJ	47 U
Fluoranthene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylnaphthalene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylphenol			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Methylphenol			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
N-Nitrosodiphenylamine			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitrophenol			µg/L	19 U	19 U	19 U	19 U
Pentachlorophenol	1		µg/L	19 U	19 U	19 U	**6 J**
Phenanthrene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol			µg/L	9.4 U	9.4 U	9.4 U	9.4 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-76: Well M027-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-77: Well M027-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	100 U	100 U	100 U	100 U
Antimony	6	46	µg/L	**2.2 J**	**2.2 J**	**13 J**	**2.7**
Arsenic	50	28	µg/L	**2.8 J**	5 U	5 U	**4.6 J**
Barium	1,000	575	µg/L	**190**	**180**	**97**	**250**
Beryllium	4	3.8	µg/L	2 U	2 U	2 U	2 U
Cadmium	5	5.4	µg/L	**0.58 J**	**0.5 J**	**3.2 J**	**2.6 J**
Chromium	50	14	µg/L	**0.96 J**	10 U	10 U	10 U
Cobalt		12	µg/L	10 U	10 U	**0.21 J**	10 U
Copper	1,000	27	µg/L	10 U	10 U	**5.2 J**	**2.9 J**
Iron		7,135	µg/L	**900**	**700**	340 U	**1,600**
Lead	15	3.9	µg/L	3 U	3 U	**0.058 J**	3 U
Manganese		5,213	µg/L	**390**	**420**	**63**	**490**
Mercury	2	0.15	µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum		12	µg/L	20 U	**2.4 J**	**1.7 J**	**2.3 J**
Nickel	100	19	µg/L	**1.6 J**	20 U	**2.1 J**	20 U
Selenium	50	6.0	µg/L	**1.9 J**	**0.88 J**	**0.65 J**	**2.7 J**
Silver		3.3	µg/L	5 UR	5 U	5 U	5 U
Vanadium		29	µg/L	**0.74 J**	10 U	10 U	10 U
Zinc		43	µg/L	**6.3 J**	20 U	**22 J**	**10 J**
Calcium		379	mg/L	**97**	**110**	**100**	**120**
Magnesium		500	mg/L	**57**	**55**	**53**	**55**
Potassium		182	mg/L	**42**	**44**	**33**	**43 J**
Sodium		4,540	mg/L	**370**	**370**	**130**	**760**
Cyanide							
Total Cyanide	0.2		mg/L		0.01 U	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-78: Well M027-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	**7.47±3.69**	**1.87±0.85**	1.78 U3J	5.69 U3J
Gross Beta	50		pCi/L	**30.2±7.37**	**58.1±15.9**	**33.5±1.53**	**40.6±4.53**
Radium							
Radium			pCi/L	0.13 U2	0.37 UJ	1.3 U4	1.33 U4
Radium 228							
Radium-228	5		pCi/L				5.31 U3

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-79: Well M027-A, Detected Natural Attenuation Data at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Anions							
Chloride			mg/L	**420**		**110**	
Nitrate	45		mg/L	0.1 U		**3.2**	
Nitrite	1		mg/L	0.1 U		**0.03 J**	
Sulfate			mg/L	**190**		**260**	
Sulfide							
Sulfide			mg/L			0.04 U	
Alkalinity							
Alkalinity			mg/L	**570**		**510**	
Dissolved Gases							
Ethane			mg/L	0.01 U		0.01 U	
Ethene			mg/L	0.01 U		0.01 U	
Methane			mg/L	**0.025**		**0.018**	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-80: Well M027-B, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U		10 U	
Benzene	1		µg/L	0.5 U		0.5 U	
tert-butyl alcohol			µg/L	20 U		10 U	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 U	
tert-butylbenzene			µg/L	0.5 U		0.5 U	
Carbon Disulfide			µg/L	0.5 U		0.5 U	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 U	
Chlorobenzene	70		µg/L	0.5 U		0.5 U	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		**0.7**	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	0.5 U		0.5 U	
1,2-Dichloroethane	0.5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	0.5 U		0.5 U	
trans-1,2-Dichloroethene	10		µg/L	0.5 U		0.5 U	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		0.5 U	
2-Hexanone			µg/L	10 U		10 U	
Isopropyl Ether			µg/L	0.5 U		0.5 U	
Isopropylbenzene			µg/L	0.5 U		0.5 U	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		**1 J**	
Tetrachloroethene	5		µg/L	0.5 U		0.5 U	
Toluene	150		µg/L	**0.4 J**		0.5 U	
1,1,1-Trichloroethane	200		µg/L	0.5 U		0.5 U	
Trichloroethene	5		µg/L	0.5 U		0.5 U	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	0.5 U		0.5 U	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		0.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-81: Well M027-B, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.4 U		9.4 U	
Acenaphthylene			µg/L	9.4 U		9.4 U	
Anthracene			µg/L	9.4 U		9.4 U	
Benzoic acid			µg/L	47 U		47 UJ	
bis(2-Chloroethyl)ether			µg/L	9.4 U		9.4 U	
bis(2-chloroisopropyl) ether			µg/L	9.4 U		9.4 U	
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U		9.4 U	
Dibenzofuran			µg/L	9.4 U		9.4 U	
1,2-Dichlorobenzene	600		µg/L	9.4 U		9.4 U	
1,3-Dichlorobenzene			µg/L	9.4 U		9.4 U	
1,4-Dichlorobenzene	5		µg/L	9.4 U		9.4 U	
Diethylphthalate			µg/L	9.4 U		9.4 U	
2,4-Dimethylphenol			µg/L	9.4 U		9.4 U	
Dimethylphthalate			µg/L	**6.6 J**		9.4 U	
2,4-Dinitrophenol			µg/L	47 U		47 UJ	
Fluoranthene			µg/L	9.4 U		9.4 U	
Fluorene			µg/L	9.4 U		9.4 U	
2-Methylnaphthalene			µg/L	9.4 U		9.4 U	
2-Methylphenol			µg/L	9.4 U		9.4 U	
4-Methylphenol			µg/L	9.4 U		9.4 U	
N-Nitrosodiphenylamine			µg/L	9.4 U		9.4 U	
Naphthalene			µg/L	9.4 U		9.4 U	
4-Nitrophenol			µg/L	19 U		19 U	
Pentachlorophenol	1		µg/L	19 U		19 U	
Phenanthrene			µg/L	9.4 U		9.4 U	
2,4,5-Trichlorophenol			µg/L	9.4 U		9.4 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-82: Well M027-B, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-83: Well M027-B, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000		µg/L	100 U		**4.5 J**	
Antimony	6		µg/L	50 U		50 U	
Arsenic	50		µg/L	**40**		**42**	
Barium	1,000		µg/L	**500**		**400**	
Beryllium	4		µg/L	2 U		2 U	
Cadmium	5		µg/L	5 U		5 U	
Chromium	50		µg/L	**5.6 J**		10 U	
Cobalt			µg/L	10 U		**0.53 J**	
Copper	1,000		µg/L	**2.6 J**		**2.2 J**	
Iron			µg/L	**11,000**		**9,700**	
Lead	15		µg/L	3 U		**0.036 J**	
Manganese			µg/L	**5,600**		**4,600**	
Mercury	2		µg/L	0.2 U		0.2 U	
Molybdenum			µg/L	20 U		**2.1 J**	
Nickel	100		µg/L	20 U		**2.6 J**	
Selenium	50		µg/L	5 U		**18**	
Silver			µg/L	**0.92 J**		5 U	
Vanadium			µg/L	**1.3 J**		10 U	
Zinc			µg/L	**260**		20 U	
Calcium			mg/L	**260**		**230**	
Magnesium			mg/L	**550**		**490**	
Potassium			mg/L	**63**		**54**	
Sodium			mg/L	**3,000**		**2,800**	
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-84: Well M027-B, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	2.8 U		25.8 U3J	
Gross Beta	50		pCi/L	173±67.6		35.9 U4	
Radium							
Radium			pCi/L	0.28 U2		1.2 U4	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-85: Well M027-C, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U		10 U	
Benzene	1		µg/L	0.5 U		0.5 U	
tert-butyl alcohol			µg/L	20 U		10 U	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 U	
tert-butylbenzene			µg/L	0.5 U		0.5 U	
Carbon Disulfide			µg/L	0.5 U		0.5 U	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 U	
Chlorobenzene	70		µg/L	0.5 U		0.5 U	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		**0.7**	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	0.5 U		0.5 U	
1,2-Dichloroethane	0.5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	0.5 U		0.5 U	
trans-1,2-Dichloroethene	10		µg/L	0.5 U		0.5 U	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		0.5 U	
2-Hexanone			µg/L	10 U		10 U	
Isopropyl Ether			µg/L	0.5 U		0.5 U	
Isopropylbenzene			µg/L	0.5 U		0.5 U	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		2 U	
Tetrachloroethene	5		µg/L	0.5 U		0.5 U	
Toluene	150		µg/L	**0.2 J**		0.5 U	
1,1,1-Trichloroethane	200		µg/L	0.5 U		0.5 U	
Trichloroethene	5		µg/L	0.5 U		0.5 U	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	0.5 U		0.5 U	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		0.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-86: Well M027-C, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.5 U		9.4 U	
Acenaphthylene			µg/L	9.5 U		9.4 U	
Anthracene			µg/L	9.5 U		9.4 U	
Benzoic acid			µg/L	48 U		47 UJ	
bis(2-Chloroethyl)ether			µg/L	9.5 U		9.4 U	
bis(2-chloroisopropyl) ether			µg/L	9.5 U		9.4 U	
bis(2-Ethylhexyl)phthalate	4		µg/L	9.5 U		9.4 U	
Dibenzofuran			µg/L	9.5 U		9.4 U	
1,2-Dichlorobenzene	600		µg/L	9.5 U		9.4 U	
1,3-Dichlorobenzene			µg/L	9.5 U		9.4 U	
1,4-Dichlorobenzene	5		µg/L	9.5 U		9.4 U	
Diethylphthalate			µg/L	9.5 U		9.4 U	
2,4-Dimethylphenol			µg/L	9.5 U		9.4 U	
Dimethylphthalate			µg/L	**1.3 J**		9.4 U	
2,4-Dinitrophenol			µg/L	48 U		47 UJ	
Fluoranthene			µg/L	9.5 U		9.4 U	
Fluorene			µg/L	9.5 U		9.4 U	
2-Methylnaphthalene			µg/L	9.5 U		9.4 U	
2-Methylphenol			µg/L	9.5 U		9.4 U	
4-Methylphenol			µg/L	9.5 U		9.4 U	
N-Nitrosodiphenylamine			µg/L	9.5 U		9.4 U	
Naphthalene			µg/L	9.5 U		9.4 U	
4-Nitrophenol			µg/L	19 U		19 U	
Pentachlorophenol	1		µg/L	19 U		19 U	
Phenanthrene			µg/L	9.5 U		9.4 U	
2,4,5-Trichlorophenol			µg/L	9.5 U		9.4 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-87: Well M027-C, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-88: Well M027-C, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000		µg/L	100 U		100 U	
Antimony	6		µg/L	50 U		50 U	
Arsenic	50		µg/L	**6**		**11**	
Barium	1,000		µg/L	**75 J**		**88**	
Beryllium	4		µg/L	2 U		2 U	
Cadmium	5		µg/L	5 U		5 U	
Chromium	50		µg/L	**3.6 J**		10 U	
Cobalt			µg/L	10 U		**1.3 J**	
Copper	1,000		µg/L	**2.8 J**		**2.7 J**	
Iron			µg/L	**2,500**		**3,200**	
Lead	15		µg/L	3 U		**0.09 J**	
Manganese			µg/L	**6,100**		**6,400**	
Mercury	2		µg/L	0.2 U		0.2 U	
Molybdenum			µg/L	20 U		**2.2 J**	
Nickel	100		µg/L	20 U		**3.4 J**	
Selenium	50		µg/L	5 U		**22**	
Silver			µg/L	**3.5 J**		5 U	
Vanadium			µg/L	**1.1 J**		10 U	
Zinc			µg/L	20 U		20 U	
Calcium			mg/L	**390**		**370**	
Magnesium			mg/L	**830 J**		**780**	
Potassium			mg/L	**95**		**87**	
Sodium			mg/L	**4,200**		**4,000**	
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-89: Well M027-C, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	1.12 U2		30.4 U3J	
Gross Beta	50		pCi/L	117 U		**101±22.2**	
Radium							
Radium			pCi/L	0.55 U		**2.51±0.92**	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-90: Well M028-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U	10 U	**0.8 J**	10 UJ
Benzene	1		µg/L	**10**	**53**	0.5 U	**6.7**
tert-butyl alcohol			µg/L	20 U	20 U	10 UJ	10 UJ
N-butylbenzene			µg/L	**0.4 J**	**1.4**	0.5 U	**0.1 J**
sec-butylbenzene			µg/L	**1.2**	**2.3**	0.5 UJ	**0.4 J**
tert-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	**0.1 J**
Carbon Disulfide			µg/L	**1.1**	**4.9**	0.5 U	0.5 U
Carbon Tetrachloride	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Chlorobenzene	70		µg/L	**21**	**77**	**1.1**	**8.7**
Chloroethane			µg/L	1 U	**2.4**	1 U	1 U
Chloroform			µg/L	0.5 U	0.5 U	**0.4 J**	0.5 U
1,2-Dichlorobenzene	600		µg/L	**5.1**	**9.6**	**0.3 J**	**3**
1,3-Dichlorobenzene			µg/L	**0.4 J**	**0.8**	0.5 U	**0.2 J**
1,4-Dichlorobenzene	5		µg/L	**2.7**	**6.5**	0.5 U	**1.2**
1,1-Dichloroethane	5		µg/L	**3.1**	**21**	**0.4 J**	**1.3**
1,2-Dichloroethane	0.5		µg/L	0.5 U	**0.4 J**	0.5 U	0.5 U
1,1-Dichloroethene	6		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	6		µg/L	**7.7**	**1.7**	**43**	**27**
trans-1,2-Dichloroethene	10		µg/L	0.5 U	0.5 U	0.5 U	**0.2 J**
1,2-Dichloropropane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	300		µg/L	**2.8**	**20**	**0.5 J**	**0.3 J**
2-Hexanone			µg/L	10 U	10 U	10 U	10 U
Isopropyl Ether			µg/L	0.5 U	**0.9**	0.5 UJ	**0.2 J**
Isopropylbenzene			µg/L	**2.1**	**5.4**	0.5 U	**0.6**
p-Isopropyltoluene			µg/L	0.5 U	**1.7**	0.5 U	**0.06 J**
Methyl isobutyl ketone			µg/L	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	13		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
N-propylbenzene			µg/L	**0.9**	**5**	0.5 U	**0.3 J**
Naphthalene			µg/L	2 U	**11**	**1.3 J**	2 U
Tetrachloroethene	5		µg/L	0.5 U	0.5 U	**0.3 J**	**0.2 J**
Toluene	150		µg/L	**0.6**	**15**	**3.9**	**0.3 J**
1,1,1-Trichloroethane	200		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5		µg/L	0.5 U	0.5 U	**3.8**	**0.8 J**
1,2,4-Trimethylbenzene			µg/L	**1**	**41**	**1.1**	**0.9**
1,3,5-Trimethylbenzene			µg/L	**0.4 J**	**8.8**	**0.3 J**	**0.3 J**
Vinyl Chloride	0.5		µg/L	**12**	**2.2**	**3.6**	**15**
M,p-xylene	1,750		µg/L	**1.4**	**56**	**1.6**	**0.3 J**
O-xylene	1,750		µg/L	**1.3**	**30**	**0.7**	**0.2 J**

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-91: Well M028-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.7 U	14 U	9.6 U	9.4 U
Acenaphthylene			µg/L	9.7 U	14 U	9.6 U	**4.7 J**
Anthracene			µg/L	9.7 U	14 U	9.6 U	9.4 U
Benzoic acid			µg/L	49 U	72 U	48 U	47 U
bis(2-Chloroethyl)ether			µg/L	9.7 U	14 U	9.6 U	9.4 U
bis(2-chloroisopropyl) ether			µg/L	9.7 U	**1.9 J**	9.6 U	9.4 U
bis(2-Ethylhexyl)phthalate	4		µg/L	9.7 U	14 U	9.6 U	9.4 U
Dibenzofuran			µg/L	9.7 U	14 U	9.6 U	9.4 U
1,2-Dichlorobenzene	600		µg/L	**3.2 J**	**7.3 J**	9.6 U	**2.4 J**
1,3-Dichlorobenzene			µg/L	9.7 U	14 U	9.6 U	9.4 U
1,4-Dichlorobenzene	5		µg/L	**1.6 J**	**4.9 J**	9.6 U	**0.95 J**
Diethylphthalate			µg/L	9.7 U	14 U	9.6 U	9.4 U
2,4-Dimethylphenol			µg/L	9.7 U	**290**	9.6 U	9.4 U
Dimethylphthalate			µg/L	9.7 U	14 U	9.6 U	9.4 U
2,4-Dinitrophenol			µg/L	49 U	72 U	48 U	47 U
Fluoranthene			µg/L	9.7 U	14 U	9.6 U	9.4 U
Fluorene			µg/L	9.7 U	14 U	9.6 U	9.4 U
2-Methylnaphthalene			µg/L	9.7 U	14 U	9.6 U	9.4 U
2-Methylphenol			µg/L	9.7 U	**4.6 J**	9.6 U	9.4 U
4-Methylphenol			µg/L	9.7 U	14 U	9.6 U	9.4 U
N-Nitrosodiphenylamine			µg/L	9.7 U	14 U	9.6 U	9.4 U
Naphthalene			µg/L	9.7 U	**8.4 J**	9.6 U	9.4 U
4-Nitrophenol			µg/L	19 U	29 U	19 U	19 U
Pentachlorophenol	1		µg/L	19 U	29 U	19 U	19 U
Phenanthrene			µg/L	9.7 U	14 U	9.6 U	9.4 U
2,4,5-Trichlorophenol			µg/L	9.7 U	14 U	9.6 U	9.4 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-92: Well M028-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	150 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-93: Well M028-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	100 U	100 U	**3.4 J**	**110**
Antimony	6	46	µg/L	**0.17 J**	**0.2 J**	**5.9 J**	1 U
Arsenic	50	28	µg/L	**4.7 J**	**14**	5 U	**5.6**
Barium	1,000	575	µg/L	**170**	**240**	**91**	**120**
Beryllium	4	3.8	µg/L	2 U	2 U	2 U	2 U
Cadmium	5	5.4	µg/L	5 U	5 U	**3.5 J**	5 U
Chromium	50	14	µg/L	**2.2 J**	10 U	10 U	10 U
Cobalt		12	µg/L	10 U	**0.53 J**	**0.16 J**	10 U
Copper	1,000	27	µg/L	**0.59 J**	10 U	**12**	10 U
Iron		7,135	µg/L	**4,700**	**12,000**	270 U	**3,500**
Lead	15	3.9	µg/L	3 U	3 U	**0.43 J**	3 U
Manganese		5,213	µg/L	**350**	**810**	**25**	**240**
Mercury	2	0.15	µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum		12	µg/L	20 U	20 U	**2.2 J**	20 U
Nickel	100	19	µg/L	**0.48 J**	20 U	**8.7 J**	20 U
Selenium	50	6.0	µg/L	**0.63 J**	5 U	**0.35 J**	5 U
Silver		3.3	µg/L	5 U	5 U	5 U	5 U
Vanadium		29	µg/L	**0.47 J**	10 U	10 U	10 U
Zinc		43	µg/L	20 U	20 U	**100 J**	**15 J**
Calcium		379	mg/L	**67**	**100**	**100**	**75**
Magnesium		500	mg/L	**30**	**41**	**34**	**32**
Potassium		182	mg/L	**33**	**47**	**23**	**26 J**
Sodium		4,540	mg/L	**74**	**88**	**78**	**76**
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U	0.01 U	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-94: Well M028-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	0.89 U2	2.88 U	1.18 U1J	1.55 U3J
Gross Beta	50		pCi/L	**30.1±4.7**	**44.3±8.32**	**22.6±1.1**	**23.4±1.38**
Radium							
Radium			pCi/L	**0.67±0.41**	**0.87±0.34 J**	0.76 U4	**1.87±0.80**
Radium 228							
Radium-228	5		pCi/L				4.25 U4

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-95: Well M028-A, Detected Natural Attenuation Data at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Anions							
Chloride			mg/L	**74**		**67**	
Nitrate	45		mg/L	0.05 U		**2**	
Nitrite	1		mg/L	0.05 U		0.05 U	
Sulfate			mg/L	**10**		**160**	
Sulfide							
Sulfide			mg/L	**0.09**		0.04 U	
Alkalinity							
Alkalinity			mg/L	**350**		**380**	
Dissolved Gases							
Ethane			mg/L	**0.83**		0.01 U	
Ethene			mg/L	**0.13**		0.01 U	
Methane			mg/L	**3.2**		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-96: Well M028-C, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U	10 U	10 U	**1.8 J**
Benzene	1		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
tert-butyl alcohol			µg/L	20 U	20 U	10 UJ	10 U
N-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
sec-butylbenzene			µg/L	0.5 U	0.5 U	0.5 UJ	0.5 U
tert-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Disulfide			µg/L	0.5 U	0.5 U	**2.5**	0.5 U
Carbon Tetrachloride	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	70		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane			µg/L	1 U	1 U	1 U	1 U
Chloroform			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	600		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	6		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	6		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	10		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	300		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone			µg/L	10 U	10 U	10 U	10 U
Isopropyl Ether			µg/L	0.5 U	0.5 U	0.5 UJ	0.5 U
Isopropylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Methyl isobutyl ketone			µg/L	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	13		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
N-propylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene			µg/L	2 U	2 U	2 U	2 U
Tetrachloroethene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	150		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	200		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
M,p-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
O-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-97: Well M028-C, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
Acenaphthylene			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
Anthracene			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
Benzoic acid			µg/L	47 U	48 U	48 U	49 U
bis(2-Chloroethyl)ether			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
bis(2-chloroisopropyl) ether			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U	9.6 U	9.6 U	9.8 U
Dibenzofuran			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
1,2-Dichlorobenzene	600		µg/L	9.4 U	9.6 U	9.6 U	9.8 U
1,3-Dichlorobenzene			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
1,4-Dichlorobenzene	5		µg/L	9.4 U	9.6 U	9.6 U	9.8 U
Diethylphthalate			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
2,4-Dimethylphenol			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
Dimethylphthalate			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
2,4-Dinitrophenol			µg/L	47 U	48 U	48 U	49 U
Fluoranthene			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
Fluorene			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
2-Methylnaphthalene			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
2-Methylphenol			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
4-Methylphenol			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
N-Nitrosodiphenylamine			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
Naphthalene			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
4-Nitrophenol			µg/L	19 U	19 U	19 U	20 U
Pentachlorophenol	1		µg/L	19 U	19 U	19 U	20 U
Phenanthrene			µg/L	9.4 U	9.6 U	9.6 U	9.8 U
2,4,5-Trichlorophenol			µg/L	9.4 U	9.6 U	9.6 U	9.8 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-98: Well M028-C, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-99: Well M028-C, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000		µg/L	100 U	100 U	100 U	100 U
Antimony	6		µg/L	50 U	50 U	50 U	1 U
Arsenic	50		µg/L	**0.52 J**	5 U	**15 J**	5 U
Barium	1,000		µg/L	**150**	**200**	270 U	**200**
Beryllium	4		µg/L	2 U	2 U	2 U	2 U
Cadmium	5		µg/L	5 U	5 U	5 U	5 U
Chromium	50		µg/L	**2.9 J**	10 U	10 UJ	10 U
Cobalt			µg/L	10 U	**0.59 J**	**0.47 J**	10 U
Copper	1,000		µg/L	**4.2 J**	10 U	**3.3 J**	**3.1 J**
Iron			µg/L	**6,300**	**7,200**	**6,100 J**	**7,700**
Lead	15		µg/L	3 U	3 U	**0.035 J**	3 U
Manganese			µg/L	**6,100**	**5,400**	**6,500**	**6,800**
Mercury	2		µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum			µg/L	20 U	**2.1 J**	**1.5 J**	20 U
Nickel	100		µg/L	20 U	**3.7 J**	**2.7 J**	**4.7 J**
Selenium	50		µg/L	5 U	5 U	**28 J**	5 U
Silver			µg/L	**1.5 J**	5 U	5 U	5 U
Vanadium			µg/L	**1.3 J**	10 U	10 UJ	10 U
Zinc			µg/L	20 U	20 U	20 U	20 U
Calcium			mg/L	**530**	**620**	**660**	**620**
Magnesium			mg/L	**1,000**	**940**	**950**	**1,100**
Potassium			mg/L	**110**	**100**	**110**	**100**
Sodium			mg/L	**5,700**	**5,300**	**5,600**	**5,800**
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U	0.01 U	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-100: Well M028-C, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	2.1 U	**5.68±2.1**	31.5 U3J	51.7 U3J
Gross Beta	50		pCi/L	**265±87.2**	**92.9±46.6**	**119±31.1**	**137±30.7**
Radium							
Radium			pCi/L	0.46 U	**0.91±0.35 J**	**1.92±0.76**	**3.24±1.2**
Radium 228							
Radium-228	5		pCi/L				**9.67±3.82**

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-101: Well M028-C, Detected Natural Attenuation Data at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Anions							
Chloride			mg/L	**12,000**		**11,000**	
Nitrate	45		mg/L	0.5 U		1.3 U	
Nitrite	1		mg/L	0.5 U		1.3 U	
Sulfate			mg/L	**1,300**		**1,400**	
Sulfide							
Sulfide			mg/L	0.04 U		**0.18**	
Alkalinity							
Alkalinity			mg/L	**450**		**440**	
Dissolved Gases							
Ethane			mg/L	0.01 U		0.01 U	
Ethene			mg/L	0.01 U		0.01 U	
Methane			mg/L	0.01 U		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-102: Well M028-E, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L			**24 J**	**57 J**
Benzene	1		µg/L			**66**	**85**
tert-butyl alcohol			µg/L			250 U	710 U
N-butylbenzene			µg/L			13 U	36 U
sec-butylbenzene			µg/L			**13**	36 U
tert-butylbenzene			µg/L			13 U	36 U
Carbon Disulfide			µg/L			13 U	36 U
Carbon Tetrachloride	0.5		µg/L			13 U	36 U
Chlorobenzene	70		µg/L			**66**	**60**
Chloroethane			µg/L			25 U	71 U
Chloroform			µg/L			13 U	36 U
1,2-Dichlorobenzene	600		µg/L			**53**	**65**
1,3-Dichlorobenzene			µg/L			13 U	36 U
1,4-Dichlorobenzene	5		µg/L			**13**	**12 J**
1,1-Dichloroethane	5		µg/L			**18**	**35 J**
1,2-Dichloroethane	0.5		µg/L			13 U	36 U
1,1-Dichloroethene	6		µg/L			**4.9 J**	**34 J**
cis-1,2-Dichloroethene	6		µg/L			**6,400**	**14,000**
trans-1,2-Dichloroethene	10		µg/L			**8.5 J**	**20 J**
1,2-Dichloropropane	5		µg/L			13 U	36 U
Ethylbenzene	300		µg/L			**72**	**59**
2-Hexanone			µg/L			250 U	710 U
Isopropyl Ether			µg/L			13 U	36 U
Isopropylbenzene			µg/L			**20**	**40**
p-Isopropyltoluene			µg/L			15 U	36 U
Methyl isobutyl ketone			µg/L			250 U	710 U
Methyl tert-butyl ether	13		µg/L			13 U	36 U
N-propylbenzene			µg/L			**15**	**39**
Naphthalene			µg/L			200 U	**39 J**
Tetrachloroethene	5		µg/L			13 U	36 U
Toluene	150		µg/L			**1,400**	**2,800**
1,1,1-Trichloroethane	200		µg/L			13 U	36 U
Trichloroethene	5		µg/L			**13**	36 UJ
1,2,4-Trimethylbenzene			µg/L			**160**	**88**
1,3,5-Trimethylbenzene			µg/L			**30**	**28 J**
Vinyl Chloride	0.5		µg/L			**11,000**	**35,000**
M,p-xylene	1,750		µg/L			**240**	**220**
O-xylene	1,750		µg/L			**110**	**100**

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-103: Well M028-E, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L			240 U	95 U
Acenaphthylene			µg/L			240 UJ	95 U
Anthracene			µg/L			240 U	95 U
Benzoic acid			µg/L			**1,600 J**	480 U
bis(2-Chloroethyl)ether			µg/L			240 U	95 U
bis(2-chloroisopropyl) ether			µg/L			240 U	95 U
bis(2-Ethylhexyl)phthalate	4		µg/L			240 U	95 U
Dibenzofuran			µg/L			240 U	95 U
1,2-Dichlorobenzene	600		µg/L			240 U	**80 J**
1,3-Dichlorobenzene			µg/L			240 U	95 U
1,4-Dichlorobenzene	5		µg/L			240 U	**13 J**
Diethylphthalate			µg/L			240 U	**12 J**
2,4-Dimethylphenol			µg/L			**2,200**	**3,900**
Dimethylphthalate			µg/L			240 U	95 U
2,4-Dinitrophenol			µg/L			1200 U	480 U
Fluoranthene			µg/L			240 U	95 U
Fluorene			µg/L			240 U	95 U
2-Methylnaphthalene			µg/L			240 U	95 U
2-Methylphenol			µg/L			**410**	**850**
4-Methylphenol			µg/L			**38 J**	95 U
N-Nitrosodiphenylamine			µg/L			240 U	95 U
Naphthalene			µg/L			**64 J**	**56 J**
4-Nitrophenol			µg/L			490 UJ	190 U
Pentachlorophenol	1		µg/L			490 U	190 U
Phenanthrene			µg/L			240 U	95 U
2,4,5-Trichlorophenol			µg/L			240 U	95 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-104: Well M028-E, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L			**34 J**	100 U
Antimony	6	46	µg/L			**0.34 J**	1 U
Arsenic	50	28	µg/L			**20**	**27**
Barium	1,000	575	µg/L			**140**	**170**
Beryllium	4	3.8	µg/L			2 U	2 U
Cadmium	5	5.4	µg/L			5 U	5 U
Chromium	50	14	µg/L			10 U	10 U
Cobalt		12	µg/L			**0.72 J**	10 U
Copper	1,000	27	µg/L			**0.52 J**	10 U
Iron		7,135	µg/L			**18,000**	**22,000**
Lead	15	3.9	µg/L			**0.078 J**	3 U
Manganese		5,213	µg/L			**1,700**	**1,900**
Mercury	2	0.15	µg/L			0.2 U	0.2 U
Molybdenum		12	µg/L			20 U	20 U
Nickel	100	19	µg/L			**1.5 J**	20 U
Selenium	50	6.0	µg/L			5 U	5 U
Silver		3.3	µg/L			5 U	5 U
Vanadium		29	µg/L			10 UJ	10 U
Zinc		43	µg/L			**7.4 J**	**2.5 J**
Calcium		379	mg/L			**130**	**160**
Magnesium		500	mg/L			**35**	**42**
Potassium		182	mg/L			**42**	**44**
Sodium		4,540	mg/L			**79**	**67**
Cyanide							
Total Cyanide	0.2		mg/L			0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-105: Well M028-E, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L			1.49 U3J	2.18 U3J
Gross Beta	50		pCi/L			**36.3±1.63**	**40±2.04**
Radium							
Radium			pCi/L			**0.94±0.37**	0.738 U1
Radium 228							
Radium-228	5		pCi/L				5.94 U3

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-106: Well M028-E, Detected Natural Attenuation Data at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Anions							
Chloride			mg/L			**190**	
Nitrate	45		mg/L			0.05 U	
Nitrite	1		mg/L			0.05 U	
Sulfate			mg/L			0.5 U	
Sulfide							
Sulfide			mg/L			**0.11**	
Alkalinity							
Alkalinity			mg/L			**360**	
Dissolved Gases							
Ethane			mg/L			**1.9**	
Ethene			mg/L			**9.2**	
Methane			mg/L			**14**	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-107: Well M029-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U	10 U	10 U	10 UJ
Benzene	1		µg/L	**2.4**	**2**	**3**	**2.4**
tert-butyl alcohol			µg/L	20 U	20 U	10 U	10 UJ
N-butylbenzene			µg/L	**0.8**	0.5 U	0.5 U	**0.2 J**
sec-butylbenzene			µg/L	**0.7**	**0.7**	**0.8**	**1.2**
tert-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	**0.3 J**
Carbon Disulfide			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Chlorobenzene	70		µg/L	**0.3 J**	**0.5**	**0.5**	**0.4 J**
Chloroethane			µg/L	1 U	1 U	1 U	1 U
Chloroform			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	600		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.5		µg/L	0.5 U	0.5 U	**0.2 J**	**0.2 J**
1,1-Dichloroethene	6		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	6		µg/L	**0.3 J**	0.5 U	**0.3 J**	**0.4 J**
trans-1,2-Dichloroethene	10		µg/L	**0.2 J**	0.5 U	**0.3 J**	**0.3 J**
1,2-Dichloropropane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	300		µg/L	0.5 U	0.5 U	0.5 U	**0.1 J**
2-Hexanone			µg/L	10 U	10 U	10 U	10 U
Isopropyl Ether			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene			µg/L	**0.7**	**0.7**	**0.9**	**1**
p-Isopropyltoluene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Methyl isobutyl ketone			µg/L	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	13		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
N-propylbenzene			µg/L	**0.7**	**0.7**	**0.6**	**1**
Naphthalene			µg/L	2 U	2 U	2 U	2 U
Tetrachloroethene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	150		µg/L	0.5 U	0.5 U	0.5 U	**0.1 J**
1,1,1-Trichloroethane	200		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,2,4-Trimethylbenzene			µg/L	0.5 U	0.5 U	**0.5 J**	**0.1 J**
1,3,5-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	0.5		µg/L	0.5 U	**0.4 J**	0.5 U	**0.4 J**
M,p-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	**0.2 J**
O-xylene	1,750		µg/L	0.5 U	0.5 U	**0.2 J**	0.5 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-108: Well M029-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	**4.1 J**	**6.6 J**	**6 J**	**5.5 J**
Acenaphthylene			µg/L	9.4 U	9.6 U	9.4 U	**4.6 J**
Anthracene			µg/L	**1.4 J**	9.6 U	9.4 U	9.4 U
Benzoic acid			µg/L	47 U	48 U	47 UJ	47 U
bis(2-Chloroethyl)ether			µg/L	**1.2 J**	9.6 U	9.4 U	9.4 U
bis(2-chloroisopropyl) ether			µg/L	**1.9 J**	**1.9 J**	**1.2 J**	**1.5 J**
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U	9.6 U	9.4 U	9.4 U
Dibenzofuran			µg/L	**1.2 J**	**0.8 J**	9.4 U	9.4 U
1,2-Dichlorobenzene	600		µg/L	9.4 U	9.6 U	9.4 U	9.4 U
1,3-Dichlorobenzene			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
1,4-Dichlorobenzene	5		µg/L	9.4 U	9.6 U	9.4 U	9.4 U
Diethylphthalate			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
2,4-Dimethylphenol			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
Dimethylphthalate			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
2,4-Dinitrophenol			µg/L	47 U	48 U	47 U	47 U
Fluoranthene			µg/L	**1.3 J**	9.6 U	9.4 U	9.4 U
Fluorene			µg/L	**0.75 J**	**1.4 J**	**1.4 J**	**1.3 J**
2-Methylnaphthalene			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
2-Methylphenol			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
4-Methylphenol			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
N-Nitrosodiphenylamine			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
Naphthalene			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
4-Nitrophenol			µg/L	19 U	19 U	19 UJ	19 U
Pentachlorophenol	1		µg/L	19 U	19 U	19 U	19 U
Phenanthrene			µg/L	**0.96 J**	**0.88 J**	9.4 U	9.4 U
2,4,5-Trichlorophenol			µg/L	9.4 U	9.6 U	9.4 U	9.4 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-109: Well M029-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 U			
Jet Fuel #5 (JP5)			µg/L	50 U			
TPH as motor oil			µg/L	300 U			
TPH as Gasoline							
TPH as gasoline			µg/L	79 Uh			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-110: Well M029-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	**34 J**	100 U	**39 J**	**36 J**
Antimony	6	46	µg/L	**0.054 J**	50 U	**0.34 J**	1 U
Arsenic	50	28	µg/L	**0.71 J**	5 U	5 U	5 U
Barium	1,000	575	µg/L	**260**	**220**	**200**	**220**
Beryllium	4	3.8	µg/L	2 U	2 U	2 U	2 U
Cadmium	5	5.4	µg/L	5 U	5 U	5 U	5 U
Chromium	50	14	µg/L	**0.66 J**	10 U	10 U	10 U
Cobalt		12	µg/L	**0.081 J**	10 U	**0.14 J**	10 U
Copper	1,000	27	µg/L	**0.19 J**	10 U	**0.59 J**	10 U
Iron		7,135	µg/L	**230**	**190**	300 U	**300**
Lead	15	3.9	µg/L	3 U	3 U	**0.081 J**	3 U
Manganese		5,213	µg/L	**49**	**51**	**64**	**55**
Mercury	2	0.15	µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum		12	µg/L	20 U	**0.64 J**	**0.79 J**	20 U
Nickel	100	19	µg/L	**0.21 J**	20 U	**1.7 J**	20 U
Selenium	50	6.0	µg/L	**0.55 J**	5 U	5 U	5 U
Silver		3.3	µg/L	5 UJ	5 U	5 U	5 U
Vanadium		29	µg/L	**0.17 J**	10 U	10 U	10 U
Zinc		43	µg/L	20 U	20 U	**4.5 J**	20 U
Calcium		379	mg/L	**23**	**20**	**23**	**23**
Magnesium		500	mg/L	**52 J**	**50**	**41**	**56**
Potassium		182	mg/L	**30**	**30**	**25**	**28 J**
Sodium		4,540	mg/L	**180**	**170**	**150**	**150**
Cyanide							
Total Cyanide	0.2		mg/L	**0.03**	0.01 U	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-111: Well M029-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	0.93 U	0.77 U2	1.37 U4J	1.89 U3J
Gross Beta	50		pCi/L	**15.1±2.33**	**30.8±7.75**	**26.4±1.28**	**25.1±1.49**
Radium							
Radium			pCi/L	0.067 U3	0.25 U4J	0.83 U4	0.94 U4
Radium 228							
Radium-228	5		pCi/L				3.87 U4

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-112: Well M029-E, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U		10 U	
Benzene	1		µg/L	**1.2**		**1**	
tert-butyl alcohol			µg/L	20 U		10 U	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 U	
tert-butylbenzene			µg/L	0.5 U		0.5 U	
Carbon Disulfide			µg/L	**1.5**		0.5 U	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 U	
Chlorobenzene	70		µg/L	0.5 U		**0.3 J**	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		0.5 U	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	0.5 U		0.5 U	
1,2-Dichloroethane	0.5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	**0.4 J**		**0.4 J**	
trans-1,2-Dichloroethene	10		µg/L	**0.4 J**		**0.3 J**	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		**0.2 J**	
2-Hexanone			µg/L	10 U		10 U	
Isopropyl Ether			µg/L	0.5 U		0.5 U	
Isopropylbenzene			µg/L	0.5 U		**0.5 J**	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		**1 J**	
Tetrachloroethene	5		µg/L	0.5 U		0.5 U	
Toluene	150		µg/L	0.5 U		0.5 U	
1,1,1-Trichloroethane	200		µg/L	0.5 U		0.5 U	
Trichloroethene	5		µg/L	0.5 U		0.5 U	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	0.5 U		**0.6**	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		**0.2 J**	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-113: Well M029-E, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	**1.1 J**		9.4 U	
Acenaphthylene			µg/L	9.4 U		9.4 U	
Anthracene			µg/L	**1.4 J**		9.4 U	
Benzoic acid			µg/L	47 U		47 U	
bis(2-Chloroethyl)ether			µg/L	**0.79 J**		9.4 U	
bis(2-chloroisopropyl) ether			µg/L	9.4 U		9.4 U	
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U		**20**	
Dibenzofuran			µg/L	**0.89 J**		9.4 U	
1,2-Dichlorobenzene	600		µg/L	9.4 U		9.4 U	
1,3-Dichlorobenzene			µg/L	9.4 U		9.4 U	
1,4-Dichlorobenzene	5		µg/L	9.4 U		9.4 U	
Diethylphthalate			µg/L	9.4 U		9.4 U	
2,4-Dimethylphenol			µg/L	9.4 U		9.4 U	
Dimethylphthalate			µg/L	9.4 U		9.4 U	
2,4-Dinitrophenol			µg/L	47 U		47 U	
Fluoranthene			µg/L	**1.6 J**		9.4 U	
Fluorene			µg/L	9.4 U		9.4 U	
2-Methylnaphthalene			µg/L	9.4 U		9.4 U	
2-Methylphenol			µg/L	9.4 U		9.4 U	
4-Methylphenol			µg/L	9.4 U		9.4 U	
N-Nitrosodiphenylamine			µg/L	9.4 U		9.4 U	
Naphthalene			µg/L	**4.1 J**		9.4 U	
4-Nitrophenol			µg/L	19 U		19 U	
Pentachlorophenol	1		µg/L	19 U		19 U	
Phenanthrene			µg/L	**0.99 J**		9.4 U	
2,4,5-Trichlorophenol			µg/L	9.4 U		9.4 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-114: Well M029-E, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 U			
Jet Fuel #5 (JP5)			µg/L	50 U			
TPH as motor oil			µg/L	300 U			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-115: Well M029-E, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	100 U		**5.2 J**	
Antimony	6	46	µg/L	**0.077 J**		**0.25 J**	
Arsenic	50	28	µg/L	**0.8 J**		5 U	
Barium	1,000	575	µg/L	**390**		**310**	
Beryllium	4	3.8	µg/L	2 U		2 U	
Cadmium	5	5.4	µg/L	5 U		5 U	
Chromium	50	14	µg/L	**0.47 J**		10 U	
Cobalt		12	µg/L	**0.049 J**		**0.057 J**	
Copper	1,000	27	µg/L	**0.088 J**		**0.44 J**	
Iron		7,135	µg/L	**280**		290 U	
Lead	15	3.9	µg/L	3 U		**0.051 J**	
Manganese		5,213	µg/L	**25**		**24**	
Mercury	2	0.15	µg/L	0.2 U		**0.095 J**	
Molybdenum		12	µg/L	20 U		**0.89 J**	
Nickel	100	19	µg/L	**0.23 J**		**0.16 J**	
Selenium	50	6.0	µg/L	**1.2 J**		**0.41 J**	
Silver		3.3	µg/L	5 UJ		5 U	
Vanadium		29	µg/L	**0.11 J**		10 U	
Zinc		43	µg/L	20 U		**0.92 J**	
Calcium		379	mg/L	**23**		**19**	
Magnesium		500	mg/L	**33 J**		**27**	
Potassium		182	mg/L	**26**		**22**	
Sodium		4,540	mg/L	**270**		**220**	
Cyanide							
Total Cyanide	0.2		mg/L	**0.03**		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-116: Well M029-E, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	0.62 U2		1.41 U4J	
Gross Beta	50		pCi/L	**9.49±1.94**		**22.1±1.47**	
Radium							
Radium			pCi/L	0.33 U2		1.11 U4	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-117: Well M030-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U	10 U	10 U	10 UJ
Benzene	1		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
tert-butyl alcohol			µg/L	20 U	20 U	10 U	10 UJ
N-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
sec-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
tert-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Disulfide			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	0.5		µg/L	0.5 U	0.5 U	0.5 UJ	0.5 UJ
Chlorobenzene	70		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane			µg/L	1 U	1 U	1 U	1 U
Chloroform			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	600		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	6		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	6		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	10		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	300		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone			µg/L	10 U	10 U	10 U	10 U
Isopropyl Ether			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Methyl isobutyl ketone			µg/L	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	13		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
N-propylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene			µg/L	**0.7 J**	2 U	2 U	2 U
Tetrachloroethene	5		µg/L	0.5 U	0.5 U	0.5 UJ	0.5 U
Toluene	150		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	200		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,2,4-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
M,p-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
O-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-118: Well M030-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
Acenaphthylene			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
Anthracene			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
Benzoic acid			µg/L	47 U	47 UJ	48 U	47 U
bis(2-Chloroethyl)ether			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
bis(2-chloroisopropyl) ether			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U	350	9.6 U	9.4 U
Dibenzofuran			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
1,2-Dichlorobenzene	600		µg/L	9.4 U	9.4 U	9.6 U	9.4 U
1,3-Dichlorobenzene			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
1,4-Dichlorobenzene	5		µg/L	9.4 U	9.4 U	9.6 U	9.4 U
Diethylphthalate			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
2,4-Dimethylphenol			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
Dimethylphthalate			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
2,4-Dinitrophenol			µg/L	47 U	47 U	48 U	47 U
Fluoranthene			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
Fluorene			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
2-Methylnaphthalene			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
2-Methylphenol			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
4-Methylphenol			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
N-Nitrosodiphenylamine			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
Naphthalene			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
4-Nitrophenol			µg/L	19 U	19 U	19 UJ	19 U
Pentachlorophenol	1		µg/L	19 U	19 U	19 U	19 U
Phenanthrene			µg/L	9.4 U	9.4 U	9.6 U	9.4 U
2,4,5-Trichlorophenol			µg/L	9.4 U	9.4 U	9.6 U	9.4 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-119: Well M030-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 U			
Jet Fuel #5 (JP5)			µg/L	50 U			
TPH as motor oil			µg/L	300 U			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-120: Well M030-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	**3.4 J**	100 U	**27 J**	**12 J**
Antimony	6	46	µg/L	**0.89 J**	**0.72 J**	50 U	**2.7**
Arsenic	50	28	µg/L	**2.2 J**	5 U	**2.6 J**	5 U
Barium	1,000	575	µg/L	**26**	**33**	**26**	**30**
Beryllium	4	3.8	µg/L	2 U	2 U	2 U	2 U
Cadmium	5	5.4	µg/L	5 U	5 U	5 U	5 U
Chromium	50	14	µg/L	**0.22 J**	10 U	10 U	10 U
Cobalt		12	µg/L	**0.042 J**	10 U	**0.59 J**	10 U
Copper	1,000	27	µg/L	**1.4 J**	**5.3 J**	**4.8 J**	**5.2 J**
Iron		7,135	µg/L	**57 J**	110 U	**250**	**100**
Lead	15	3.9	µg/L	3 U	3 U	**0.36 J**	3 U
Manganese		5,213	µg/L	**1.7 J**	**29**	**2.7 J**	10 U
Mercury	2	0.15	µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum		12	µg/L	20 U	**2.2 J**	**1.8 J**	20 U
Nickel	100	19	µg/L	**2.5 J**	**2.6 J**	**7.4 J**	**8.3 J**
Selenium	50	6.0	µg/L	**0.36 J**	5 U	**0.46 J**	5 U
Silver		3.3	µg/L	5 UJ	5 U	5 U	5 U
Vanadium		29	µg/L	**3.1 J**	10 UJ	**4.4 J**	**3.2 J**
Zinc		43	µg/L	20 U	20 U	**11 J**	**6.8 J**
Calcium		379	mg/L	**30**	**33**	**36**	**40**
Magnesium		500	mg/L	**6.2**	**8.5**	**8.6**	**9.1**
Potassium		182	mg/L	**6.9**	**8.9**	**3.7**	**4.3 J**
Sodium		4,540	mg/L	**17**	17 U	**15**	**13**
Cyanide							
Total Cyanide	0.2		mg/L	**0.02**	0.01 U	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-121: Well M030-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	0.11 U2	1.01 U4	0.47 U4J	0.488 U3J
Gross Beta	50		pCi/L	**3.56±1.77**	**9.21±2.1**	**3±0.30**	**4.39±0.35**
Radium							
Radium			pCi/L	0.068 U3	0.06 U3J	1.34 U4	0.93 U3
Radium 228							
Radium-228	5		pCi/L				3.53 U1

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-122: Well M030-C, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	**1.5 J**		10 U	
Benzene	1		µg/L	0.5 U		0.5 U	
tert-butyl alcohol			µg/L	**8.4 J**		10 U	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 U	
tert-butylbenzene			µg/L	0.5 U		0.5 U	
Carbon Disulfide			µg/L	0.5 U		0.5 U	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 UJ	
Chlorobenzene	70		µg/L	0.5 U		0.5 U	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		0.5 U	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	0.5 U		0.5 U	
1,2-Dichloroethane	0.5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	0.5 U		0.5 U	
trans-1,2-Dichloroethene	10		µg/L	0.5 U		0.5 U	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		0.5 U	
2-Hexanone			µg/L	10 UJ		10 U	
Isopropyl Ether			µg/L	0.5 U		0.5 U	
Isopropylbenzene			µg/L	0.5 U		0.5 U	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		2 U	
Tetrachloroethene	5		µg/L	0.5 U		0.5 UJ	
Toluene	150		µg/L	0.5 U		0.5 U	
1,1,1-Trichloroethane	200		µg/L	0.5 U		0.5 U	
Trichloroethene	5		µg/L	0.5 U		0.5 U	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	0.5 U		0.5 U	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		0.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-123: Well M030-C, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.7 U		9.4 U	
Acenaphthylene			µg/L	9.7 U		9.4 U	
Anthracene			µg/L	9.7 U		9.4 U	
Benzoic acid			µg/L	49 U		47 U	
bis(2-Chloroethyl)ether			µg/L	9.7 U		9.4 U	
bis(2-chloroisopropyl) ether			µg/L	9.7 U		9.4 U	
bis(2-Ethylhexyl)phthalate	4		µg/L	9.7 U		**4.8 J**	
Dibenzofuran			µg/L	9.7 U		9.4 U	
1,2-Dichlorobenzene	600		µg/L	9.7 U		9.4 U	
1,3-Dichlorobenzene			µg/L	9.7 U		9.4 U	
1,4-Dichlorobenzene	5		µg/L	9.7 U		9.4 U	
Diethylphthalate			µg/L	9.7 U		9.4 U	
2,4-Dimethylphenol			µg/L	9.7 U		9.4 U	
Dimethylphthalate			µg/L	9.7 U		9.4 U	
2,4-Dinitrophenol			µg/L	49 U		47 U	
Fluoranthene			µg/L	9.7 U		9.4 U	
Fluorene			µg/L	9.7 U		9.4 U	
2-Methylnaphthalene			µg/L	9.7 U		9.4 U	
2-Methylphenol			µg/L	9.7 U		9.4 U	
4-Methylphenol			µg/L	9.7 U		9.4 U	
N-Nitrosodiphenylamine			µg/L	9.7 U		9.4 U	
Naphthalene			µg/L	9.7 U		9.4 U	
4-Nitrophenol			µg/L	19 U		19 UJ	
Pentachlorophenol	1		µg/L	19 U		19 U	
Phenanthrene			µg/L	9.7 U		9.4 U	
2,4,5-Trichlorophenol			µg/L	9.7 U		9.4 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-124: Well M030-C, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-125: Well M030-C, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000		µg/L	100 UJ		**4.9 J**	
Antimony	6		µg/L	50 U		50 U	
Arsenic	50		µg/L	5 U		5 U	
Barium	1,000		µg/L	**53**		**69**	
Beryllium	4		µg/L	2 U		2 U	
Cadmium	5		µg/L	5 U		5 U	
Chromium	50		µg/L	10 U		10 U	
Cobalt			µg/L	10 U		**1.5 J**	
Copper	1,000		µg/L	10 U		**9.1 J**	
Iron			µg/L	**370**		**2,100**	
Lead	15		µg/L	3 U		**0.071 J**	
Manganese			µg/L	**3,900**		**3,500**	
Mercury	2		µg/L	**0.27**		0.2 U	
Molybdenum			µg/L	20 U		**4.9 J**	
Nickel	100		µg/L	20 U		**9.1 J**	
Selenium	50		µg/L	5 U		**54**	
Silver			µg/L	5 U		5 U	
Vanadium			µg/L	**6.8 J**		**4.4 J**	
Zinc			µg/L	20 U		20 U	
Calcium			mg/L	**390**		**370**	
Magnesium			mg/L	**1,000**		**980**	
Potassium			mg/L	**150**		**170**	
Sodium			mg/L	**8,100**		**7,700**	
Cyanide							
Total Cyanide	0.2		mg/L	0.01 UR		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-126: Well M030-C, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	**8.12±3.25**		66.8 U3J	
Gross Beta	50		pCi/L	**261±113**		**142±42**	
Radium							
Radium			pCi/L	**0.75±0.41**		**1.55±0.69**	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-127: Well M031-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U	10 U	10 U	10 UJ
Benzene	1		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
tert-butyl alcohol			µg/L	20 U	20 U	10 UJ	10 U
N-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
sec-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
tert-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Disulfide			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	70		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane			µg/L	1 U	1 U	1 U	1 U
Chloroform			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	600		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	6		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	6		µg/L	**0.8**	**0.6**	**0.6**	**0.6**
trans-1,2-Dichloroethene	10		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	300		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone			µg/L	10 U	10 U	10 U	10 U
Isopropyl Ether			µg/L	0.5 U	0.5 U	0.5 UJ	0.5 U
Isopropylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Methyl isobutyl ketone			µg/L	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	13		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
N-propylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene			µg/L	2 U	2 U	2 U	2 U
Tetrachloroethene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	150		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	200		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
M,p-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
O-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-128: Well M031-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
Acenaphthylene			µg/L	9.4 U	9.6 U	9.4 UJ	9.4 U
Anthracene			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
Benzoic acid			µg/L	47 U	48 U	47 UJ	47 U
bis(2-Chloroethyl)ether			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
bis(2-chloroisopropyl) ether			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U	9.6 U	9.4 U	9.4 U
Dibenzofuran			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
1,2-Dichlorobenzene	600		µg/L	9.4 U	9.6 U	9.4 U	9.4 U
1,3-Dichlorobenzene			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
1,4-Dichlorobenzene	5		µg/L	9.4 U	9.6 U	9.4 U	9.4 U
Diethylphthalate			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
2,4-Dimethylphenol			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
Dimethylphthalate			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
2,4-Dinitrophenol			µg/L	47 U	48 U	47 U	47 U
Fluoranthene			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
Fluorene			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
2-Methylnaphthalene			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
2-Methylphenol			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
4-Methylphenol			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
N-Nitrosodiphenylamine			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
Naphthalene			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
4-Nitrophenol			µg/L	19 U	19 U	19 UJ	19 U
Pentachlorophenol	1		µg/L	19 U	19 U	19 U	19 U
Phenanthrene			µg/L	9.4 U	9.6 U	9.4 U	9.4 U
2,4,5-Trichlorophenol			µg/L	9.4 U	9.6 U	9.4 U	9.4 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-129: Well M031-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-130: Well M031-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	100 U	100 U	**54 J**	**4.2 J**
Antimony	6	46	µg/L	50 U	50 U	**0.86 J**	**1**
Arsenic	50	28	µg/L	**3 J**	**3.5 J**	**3.3 J**	**3.8 J**
Barium	1,000	575	µg/L	**34**	**39**	**46**	31 U
Beryllium	4	3.8	µg/L	2 U	2 U	2 U	**0.87 J**
Cadmium	5	5.4	µg/L	5 U	5 U	5 U	**0.96 J**
Chromium	50	14	µg/L	**0.35 J**	10 U	10 U	**1.3 J**
Cobalt		12	µg/L	10 U	10 U	**0.22 J**	**1 J**
Copper	1,000	27	µg/L	10 U	10 U	**7.1 J**	**3.9 J**
Iron		7,135	µg/L	**150**	**200**	210 U	**410**
Lead	15	3.9	µg/L	3 U	3 U	**0.11 J**	3 U
Manganese		5,213	µg/L	**330**	**210**	**300**	**510**
Mercury	2	0.15	µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum		12	µg/L	**3.4 J**	**2.9 J**	**3.1 J**	**4.6 J**
Nickel	100	19	µg/L	**1.4 J**	20 U	**2.2 J**	**2.3 J**
Selenium	50	6.0	µg/L	**0.37 J**	5 U	5 U	**0.95 J**
Silver		3.3	µg/L	5 UR	5 U	5 U	5 U
Vanadium		29	µg/L	**1 J**	**6.4 J**	**2.7 J**	**2.3 J**
Zinc		43	µg/L	20 U	20 UJ	**3.8 J**	**2.7 J**
Calcium		379	mg/L	**33**	**30**	**48**	**53**
Magnesium		500	mg/L	**12**	**11**	**15**	**14**
Potassium		182	mg/L	**13**	**16**	**12**	**14**
Sodium		4,540	mg/L	**65**	**72**	**50**	**71**
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U	0.01 U	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-131: Well M031-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	0.87 U2	0.19 U2	0.79 U4J	0.557 U1J
Gross Beta	50		pCi/L	**14.9±3.81**	**17.6±3.96**	**10.7±0.48**	**12.6±0.55**
Radium							
Radium			pCi/L	0.066 U3	0.28 U2J	0.696 U3	1.08 U4
Radium 228							
Radium-228	5		pCi/L				3.63 U1

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-132: Well M031-C, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U		10 U	
Benzene	1		µg/L	0.5 U		0.5 U	
tert-butyl alcohol			µg/L	20 U		10 UJ	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 UJ	
tert-butylbenzene			µg/L	0.5 U		0.5 U	
Carbon Disulfide			µg/L	0.5 U		**2.6**	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 U	
Chlorobenzene	70		µg/L	0.5 U		0.5 U	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		0.5 U	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	0.5 U		0.5 U	
1,2-Dichloroethane	0.5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	0.5 U		0.5 U	
trans-1,2-Dichloroethene	10		µg/L	0.5 U		0.5 U	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		0.5 U	
2-Hexanone			µg/L	10 U		**0.5 J**	
Isopropyl Ether			µg/L	0.5 U		0.5 UJ	
Isopropylbenzene			µg/L	0.5 U		0.5 U	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		**0.9 J**	
Tetrachloroethene	5		µg/L	0.5 U		0.5 U	
Toluene	150		µg/L	0.5 U		0.5 U	
1,1,1-Trichloroethane	200		µg/L	0.5 U		0.5 U	
Trichloroethene	5		µg/L	0.5 U		0.5 U	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	0.5 U		0.5 U	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		0.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-133: Well M031-C, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.5 U		9.6 U	
Acenaphthylene			µg/L	9.5 U		9.6 U	
Anthracene			µg/L	9.5 U		9.6 U	
Benzoic acid			µg/L	48 U		48 U	
bis(2-Chloroethyl)ether			µg/L	9.5 U		9.6 U	
bis(2-chloroisopropyl) ether			µg/L	9.5 U		9.6 U	
bis(2-Ethylhexyl)phthalate	4		µg/L	9.5 U		9.6 U	
Dibenzofuran			µg/L	9.5 U		9.6 U	
1,2-Dichlorobenzene	600		µg/L	9.5 U		9.6 U	
1,3-Dichlorobenzene			µg/L	9.5 U		9.6 U	
1,4-Dichlorobenzene	5		µg/L	9.5 U		9.6 U	
Diethylphthalate			µg/L	9.5 U		9.6 U	
2,4-Dimethylphenol			µg/L	9.5 U		9.6 U	
Dimethylphthalate			µg/L	9.5 U		9.6 U	
2,4-Dinitrophenol			µg/L	48 U		48 U	
Fluoranthene			µg/L	9.5 U		9.6 U	
Fluorene			µg/L	9.5 U		9.6 U	
2-Methylnaphthalene			µg/L	9.5 U		9.6 U	
2-Methylphenol			µg/L	9.5 U		9.6 U	
4-Methylphenol			µg/L	9.5 U		9.6 U	
N-Nitrosodiphenylamine			µg/L	9.5 U		9.6 U	
Naphthalene			µg/L	9.5 U		9.6 U	
4-Nitrophenol			µg/L	19 U		19 U	
Pentachlorophenol	1		µg/L	19 U		19 U	
Phenanthrene			µg/L	9.5 U		9.6 U	
2,4,5-Trichlorophenol			µg/L	9.5 U		9.6 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-134: Well M031-C, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-135: Well M031-C, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000		µg/L	100 U		100 U	
Antimony	6		µg/L	50 U		50 U	
Arsenic	50		µg/L	**0.94 J**		**9.7 J**	
Barium	1,000		µg/L	**92**		**99**	
Beryllium	4		µg/L	2 U		2 U	
Cadmium	5		µg/L	5 U		5 U	
Chromium	50		µg/L	**2.8 J**		10 UJ	
Cobalt			µg/L	10 U		**0.64 J**	
Copper	1,000		µg/L	**3.6 J**		**2.6 J**	
Iron			µg/L	**2,900**		**2,400 J**	
Lead	15		µg/L	3 U		**0.048 J**	
Manganese			µg/L	**5,700**		**6,800**	
Mercury	2		µg/L	0.2 U		0.2 U	
Molybdenum			µg/L	20 U		**1.4 J**	
Nickel	100		µg/L	20 U		**3.8 J**	
Selenium	50		µg/L	5 U		**27 J**	
Silver			µg/L	**1.6 J**		5 U	
Vanadium			µg/L	**1.1 J**		10 UJ	
Zinc			µg/L	**470**		20 U	
Calcium			mg/L	**450**		**510**	
Magnesium			mg/L	**860**		**960**	
Potassium			mg/L	**100**		**110**	
Sodium			mg/L	**5,000**		**6,200**	
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-136: Well M031-C, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	**4.19±1.79**		38.6 U3J	
Gross Beta	50		pCi/L	250 U		**108±32.2**	
Radium							
Radium			pCi/L	0.62 U		**1.56±0.73**	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-137: Well M032-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U		10 U	
Benzene	1		µg/L	0.5 U		0.5 U	
tert-butyl alcohol			µg/L	20 U		10 U	
N-butylbenzene			µg/L	0.5 U		0.5 U	
sec-butylbenzene			µg/L	0.5 U		0.5 U	
tert-butylbenzene			µg/L	**0.2 J**		0.5 U	
Carbon Disulfide			µg/L	0.5 U		0.5 U	
Carbon Tetrachloride	0.5		µg/L	0.5 U		0.5 U	
Chlorobenzene	70		µg/L	0.5 U		0.5 U	
Chloroethane			µg/L	1 U		1 U	
Chloroform			µg/L	0.5 U		0.5 U	
1,2-Dichlorobenzene	600		µg/L	0.5 U		0.5 U	
1,3-Dichlorobenzene			µg/L	0.5 U		0.5 U	
1,4-Dichlorobenzene	5		µg/L	0.5 U		0.5 U	
1,1-Dichloroethane	5		µg/L	0.5 U		0.5 U	
1,2-Dichloroethane	0.5		µg/L	**0.8**		**0.8**	
1,1-Dichloroethene	6		µg/L	0.5 U		0.5 U	
cis-1,2-Dichloroethene	6		µg/L	**1**		**0.9**	
trans-1,2-Dichloroethene	10		µg/L	0.5 U		0.5 U	
1,2-Dichloropropane	5		µg/L	0.5 U		0.5 U	
Ethylbenzene	300		µg/L	0.5 U		0.5 U	
2-Hexanone			µg/L	10 U		10 U	
Isopropyl Ether			µg/L	0.5 U		0.5 U	
Isopropylbenzene			µg/L	0.5 U		0.5 U	
p-Isopropyltoluene			µg/L	0.5 U		0.5 U	
Methyl isobutyl ketone			µg/L	10 U		10 U	
Methyl tert-butyl ether	13		µg/L	0.5 U		0.5 U	
N-propylbenzene			µg/L	0.5 U		0.5 U	
Naphthalene			µg/L	2 U		2 U	
Tetrachloroethene	5		µg/L	0.5 U		0.5 U	
Toluene	150		µg/L	0.5 U		0.5 U	
1,1,1-Trichloroethane	200		µg/L	0.5 U		0.5 U	
Trichloroethene	5		µg/L	0.5 U		0.5 U	
1,2,4-Trimethylbenzene			µg/L	0.5 U		0.5 U	
1,3,5-Trimethylbenzene			µg/L	0.5 U		0.5 U	
Vinyl Chloride	0.5		µg/L	**1**		**1.1**	
M,p-xylene	1,750		µg/L	0.5 U		0.5 U	
O-xylene	1,750		µg/L	0.5 U		0.5 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-138: Well M032-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.4 U		9.4 U	
Acenaphthylene			µg/L	9.4 U		9.4 U	
Anthracene			µg/L	9.4 U		9.4 U	
Benzoic acid			µg/L	47 U		47 UJ	
bis(2-Chloroethyl)ether			µg/L	9.4 U		9.4 U	
bis(2-chloroisopropyl) ether			µg/L	9.4 U		9.4 U	
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U		9.4 U	
Dibenzofuran			µg/L	9.4 U		9.4 U	
1,2-Dichlorobenzene	600		µg/L	9.4 U		9.4 U	
1,3-Dichlorobenzene			µg/L	9.4 U		9.4 U	
1,4-Dichlorobenzene	5		µg/L	9.4 U		9.4 U	
Diethylphthalate			µg/L	9.4 U		9.4 U	
2,4-Dimethylphenol			µg/L	9.4 U		9.4 U	
Dimethylphthalate			µg/L	9.4 U		9.4 U	
2,4-Dinitrophenol			µg/L	47 U		47 U	
Fluoranthene			µg/L	**1.2 J**		9.4 U	
Fluorene			µg/L	9.4 U		9.4 U	
2-Methylnaphthalene			µg/L	9.4 U		9.4 U	
2-Methylphenol			µg/L	9.4 U		9.4 U	
4-Methylphenol			µg/L	9.4 U		9.4 U	
N-Nitrosodiphenylamine			µg/L	9.4 U		9.4 U	
Naphthalene			µg/L	9.4 U		9.4 U	
4-Nitrophenol			µg/L	19 U		19 UJ	
Pentachlorophenol	1		µg/L	19 U		19 U	
Phenanthrene			µg/L	9.4 U		9.4 U	
2,4,5-Trichlorophenol			µg/L	9.4 U		9.4 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-139: Well M032-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 U			
Jet Fuel #5 (JP5)			µg/L	50 U			
TPH as motor oil			µg/L	300 U			
TPH as Gasoline							
TPH as gasoline			µg/L	**17 J**			
TPH (calculated)							
Total TPH (calculated)			µg/L	**17 J**			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-140: Well M032-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	100 U		100 U	
Antimony	6	46	µg/L	**0.059 J**		**0.064 J**	
Arsenic	50	28	µg/L	5 U		**1.6 J**	
Barium	1,000	575	µg/L	**83**		**110**	
Beryllium	4	3.8	µg/L	2 U		2 U	
Cadmium	5	5.4	µg/L	5 U		5 U	
Chromium	50	14	µg/L	10 U		10 U	
Cobalt		12	µg/L	**0.18 J**		**0.24 J**	
Copper	1,000	27	µg/L	**0.28 J**		**0.56 J**	
Iron		7,135	µg/L	**1,800**		**1,800**	
Lead	15	3.9	µg/L	3 U		**0.052 J**	
Manganese		5,213	µg/L	**530 J**		**560**	
Mercury	2	0.15	µg/L	0.2 U		0.2 U	
Molybdenum		12	µg/L	**1.7 J**		20 U	
Nickel	100	19	µg/L	**0.77 J**		**1.4 J**	
Selenium	50	6.0	µg/L	5 U		5 U	
Silver		3.3	µg/L	5 U		5 U	
Vanadium		29	µg/L	10 U		**0.66 J**	
Zinc		43	µg/L	**7.4 J**		**3.3 J**	
Calcium		379	mg/L	**74**		**81**	
Magnesium		500	mg/L	**30 J**		**33**	
Potassium		182	mg/L	**16**		**17**	
Sodium		4,540	mg/L	**27**		**38**	
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U		0.01 U	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-141: Well M032-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	**15.1±3.84**		7.29 U3	
Gross Beta	50		pCi/L	**13.6±6.94**		**158±7.17**	
Radium							
Radium			pCi/L	0.28 U2		0.45 U4	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-142: Well M032-A, Detected Natural Attenuation Data at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Sulfide							
Sulfide			mg/L	0.04 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-143: Well M033-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U	10 U	10 U	10 U
Benzene	1		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
tert-butyl alcohol			µg/L	20 U	20 U	10 UJ	10 U
N-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
sec-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
tert-butylbenzene			µg/L	**0.2 J**	**0.2 J**	0.5 U	**0.7**
Carbon Disulfide			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	70		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane			µg/L	1 U	1 U	1 U	1 U
Chloroform			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	600		µg/L	0.5 U	0.5 U	**0.5 J**	0.5 U
1,3-Dichlorobenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.5		µg/L	**0.3 J**	**0.3 J**	0.5 U	0.5 U
1,1-Dichloroethene	6		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	6		µg/L	**7.9**	**5**	**16**	**2.5**
trans-1,2-Dichloroethene	10		µg/L	**0.5 J**	0.5 U	**0.8**	**0.2 J**
1,2-Dichloropropane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	300		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone			µg/L	10 U	10 U	10 U	10 U
Isopropyl Ether			µg/L	0.5 U	0.5 U	0.5 UJ	0.5 U
Isopropylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Methyl isobutyl ketone			µg/L	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	13		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
N-propylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene			µg/L	2 U	2 U	2 U	**0.5 J**
Tetrachloroethene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	150		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	200		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,2,4-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	0.5		µg/L	**2.2**	**1.5**	**1.7**	0.5 U
M,p-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 U
O-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-144: Well M033-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.4 U	**1 J**	9.4 U	**0.78 J**
Acenaphthylene			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
Anthracene			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
Benzoic acid			µg/L	47 U	47 U	47 UJ	48 U
bis(2-Chloroethyl)ether			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
bis(2-chloroisopropyl) ether			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U	9.4 U	**4.6 J**	9.5 U
Dibenzofuran			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
1,2-Dichlorobenzene	600		µg/L	9.4 U	9.4 U	9.4 U	9.5 U
1,3-Dichlorobenzene			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
1,4-Dichlorobenzene	5		µg/L	9.4 U	9.4 U	9.4 U	9.5 U
Diethylphthalate			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
2,4-Dimethylphenol			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
Dimethylphthalate			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
2,4-Dinitrophenol			µg/L	47 U	47 U	47 U	48 U
Fluoranthene			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
Fluorene			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
2-Methylnaphthalene			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
2-Methylphenol			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
4-Methylphenol			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
N-Nitrosodiphenylamine			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
Naphthalene			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
4-Nitrophenol			µg/L	19 U	19 U	19 UJ	**2.7 J**
Pentachlorophenol	1		µg/L	19 U	19 U	19 U	19 U
Phenanthrene			µg/L	9.4 U	9.4 U	9.4 U	9.5 U
2,4,5-Trichlorophenol			µg/L	9.4 U	9.4 U	9.4 U	9.5 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-145: Well M033-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	140 Uly			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-146: Well M033-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	100 U	100 U	**4.7 J**	100 U
Antimony	6	46	µg/L	50 U	50 U	**0.12 J**	1 U
Arsenic	50	28	µg/L	**5 J**	**4 J**	**4.6 J**	**3.2 J**
Barium	1,000	575	µg/L	**23**	**27**	**31**	**31**
Beryllium	4	3.8	µg/L	2 U	2 U	2 U	2 U
Cadmium	5	5.4	µg/L	5 U	5 U	5 U	5 U
Chromium	50	14	µg/L	**0.44 J**	10 U	10 U	10 U
Cobalt		12	µg/L	10 U	10 U	**0.13 J**	10 U
Copper	1,000	27	µg/L	10 U	10 U	**0.29 J**	10 U
Iron		7,135	µg/L	**960**	**1,100**	**890**	**790**
Lead	15	3.9	µg/L	**0.026 J**	3 U	**0.044 J**	3 U
Manganese		5,213	µg/L	**320**	**410**	**420**	**360**
Mercury	2	0.15	µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum		12	µg/L	20 U	**2.2 J**	**2.6 J**	20 U
Nickel	100	19	µg/L	**0.59 J**	20 U	**0.35 J**	20 U
Selenium	50	6.0	µg/L	5 U	5 U	5 U	5 U
Silver		3.3	µg/L	5 UR	5 U	5 U	5 U
Vanadium		29	µg/L	**0.48 J**	10 U	10 U	10 U
Zinc		43	µg/L	20 U	20 UJ	**0.78 J**	**9 J**
Calcium		379	mg/L	**51**	**65**	**69**	**66**
Magnesium		500	mg/L	**15**	**25**	**27**	**28**
Potassium		182	mg/L	**14**	**18**	**16**	**16**
Sodium		4,540	mg/L	**100**	**66**	**100**	**67**
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U	0.01 U	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-147: Well M033-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	1 U	0.19 U3	0.972 U1J	1.35 U3J
Gross Beta	50		pCi/L	**18.2±3.94**	**11.7±3.86**	**15.9±0.93**	**15.3±1.02**
Radium							
Radium			pCi/L	0.066 U3	0.068 U3J	0.849 U3	0.857 U1
Radium 228							
Radium-228	5		pCi/L				5.02 U3

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-148: Well M033-A, Detected Natural Attenuation Data at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Anions							
Chloride			mg/L	**58**		**57**	
Nitrate	45		mg/L	0.05 U		0.05 U	
Nitrite	1		mg/L	0.05 U		0.05 U	
Sulfate			mg/L	**2.5**		**15**	
Sulfide							
Sulfide			mg/L	0.04 U		**0.06**	
Alkalinity							
Alkalinity			mg/L	**340**		**440**	
Dissolved Gases							
Ethane			mg/L	0.01 U		0.01 U	
Ethene			mg/L	0.01 U		0.01 U	
Methane			mg/L	**2.5**		**2.1**	

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-149: Well M034-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U	10 U	20 U	10 U
Benzene	1		µg/L	**30**	**45**	**35**	**19**
tert-butyl alcohol			µg/L	20 U	20 U	20 U	10 U
N-butylbenzene			µg/L	0.5 U	**2.3**	**3.2**	**1.9**
sec-butylbenzene			µg/L	**3.4**	**3.9**	**3.9**	**3.3**
tert-butylbenzene			µg/L	**0.4 J**	**0.4 J**	1 U	**0.9**
Carbon Disulfide			µg/L	0.5 U	**0.8**	1 U	0.5 U
Carbon Tetrachloride	0.5		µg/L	0.5 U	0.5 U	1 U	0.5 U
Chlorobenzene	70		µg/L	**13**	**28**	**25**	**12**
Chloroethane			µg/L	1 U	1 U	2 U	1 U
Chloroform			µg/L	0.5 U	0.5 U	1 U	0.5 U
1,2-Dichlorobenzene	600		µg/L	**2.6**	**3.4**	**9.2**	**4.3**
1,3-Dichlorobenzene			µg/L	**0.6**	**0.8**	**1**	**0.8**
1,4-Dichlorobenzene	5		µg/L	**2.6**	**4.5**	**5.4**	**3.3**
1,1-Dichloroethane	5		µg/L	**0.5 J**	**2.2**	**2**	0.5 U
1,2-Dichloroethane	0.5		µg/L	0.5 U	0.5 U	1 U	0.5 U
1,1-Dichloroethene	6		µg/L	0.5 U	0.5 U	**2.9**	0.5 U
cis-1,2-Dichloroethene	6		µg/L	**0.4 J**	0.5 U	**32**	**0.9**
trans-1,2-Dichloroethene	10		µg/L	**0.3 J**	**0.4 J**	**1 J**	**0.4 J**
1,2-Dichloropropane	5		µg/L	0.5 U	0.5 U	**2.2**	0.5 U
Ethylbenzene	300		µg/L	**4**	**6.5**	**16**	**7.7**
2-Hexanone			µg/L	10 U	10 U	20 U	10 U
Isopropyl Ether			µg/L	**0.7**	**0.3 J**	1 U	0.5 U
Isopropylbenzene			µg/L	**4.9**	**6.2**	**5.6**	**3.7**
p-Isopropyltoluene			µg/L	**1.6**	**2.3**	**2.8**	**1.5**
Methyl isobutyl ketone			µg/L	10 U	10 U	**4.4 J**	10 U
Methyl tert-butyl ether	13		µg/L	0.5 U	0.5 U	1 U	0.5 U
N-propylbenzene			µg/L	**4.6**	**6.6**	**5.3**	**4.1**
Naphthalene			µg/L	**82**	**46**	**63**	**17 J**
Tetrachloroethene	5		µg/L	0.5 U	0.5 U	1 U	0.5 U
Toluene	150		µg/L	**1.2**	**1.7**	**530**	**0.9**
1,1,1-Trichloroethane	200		µg/L	0.5 U	0.5 U	1 U	0.5 U
Trichloroethene	5		µg/L	0.5 U	0.5 U	**0.7 J**	0.5 UJ
1,2,4-Trimethylbenzene			µg/L	**17**	**27**	**31**	**17**
1,3,5-Trimethylbenzene			µg/L	**0.4 J**	**1.9**	**4.2**	**1.9**
Vinyl Chloride	0.5		µg/L	**0.5 J**	0.5 U	**65**	**0.5**
M,p-xylene	1,750		µg/L	**10**	**29**	**50**	**19**
O-xylene	1,750		µg/L	**0.4 J**	**1.6**	**22**	**1.1**

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-150: Well M034-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	**3.4 J**	**1.9 J**	**1.7 J**	**1.4 J**
Acenaphthylene			µg/L	9.4 U	9.6 U	9.4 UJ	9.5 U
Anthracene			µg/L	9.4 U	9.6 U	9.4 U	9.5 U
Benzoic acid			µg/L	47 U	48 U	47 UJ	48 U
bis(2-Chloroethyl)ether			µg/L	9.4 U	9.6 U	9.4 U	9.5 U
bis(2-chloroisopropyl) ether			µg/L	**1.8 J**	**1.9 J**	9.4 U	9.5 U
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U	9.6 U	9.4 U	9.5 UJ
Dibenzofuran			µg/L	**1.4 J**	9.6 U	**0.63 J**	9.5 U
1,2-Dichlorobenzene	600		µg/L	**1.9 J**	**2.5 J**	**4 J**	**3.3 J**
1,3-Dichlorobenzene			µg/L	9.4 U	**0.57 J**	9.4 U	**0.58 J**
1,4-Dichlorobenzene	5		µg/L	**1.8 J**	**3.2 J**	**5 J**	**2.6 J**
Diethylphthalate			µg/L	9.4 U	9.6 U	9.4 U	9.5 U
2,4-Dimethylphenol			µg/L	9.4 U	9.6 U	**25**	9.5 U
Dimethylphthalate			µg/L	9.4 U	9.6 U	9.4 U	9.5 U
2,4-Dinitrophenol			µg/L	47 U	48 U	47 U	48 UJ
Fluoranthene			µg/L	9.4 U	9.6 U	9.4 U	9.5 U
Fluorene			µg/L	9.4 U	**0.85 J**	9.4 U	9.5 U
2-Methylnaphthalene			µg/L	**3.8 J**	**6.7 J**	**7.8 J**	**5.1 J**
2-Methylphenol			µg/L	9.4 U	9.6 U	**1.4 J**	9.5 U
4-Methylphenol			µg/L	9.4 U	9.6 U	**2.9 J**	9.5 U
N-Nitrosodiphenylamine			µg/L	9.4 U	9.6 U	**1.9 J**	9.5 U
Naphthalene			µg/L	**59**	**32**	**50**	**18**
4-Nitrophenol			µg/L	19 U	19 U	19 UJ	19 UJ
Pentachlorophenol	1		µg/L	19 U	19 U	19 U	19 U
Phenanthrene			µg/L	9.4 U	9.6 U	9.4 U	9.5 U
2,4,5-Trichlorophenol			µg/L	9.4 U	9.6 U	9.4 U	9.5 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-151: Well M034-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	**46 Jly**			
Jet Fuel #5 (JP5)			µg/L	**190 J**			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	**490 h**			
TPH (calculated)							
Total TPH (calculated)			µg/L	**726 J**			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-152: Well M034-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	100 U	100 U	100 U	100 U
Antimony	6	46	µg/L	50 U	50 U	**0.17 J**	1 U
Arsenic	50	28	µg/L	**12**	**13**	**13**	**10**
Barium	1,000	575	µg/L	**120**	**110**	**100**	**87**
Beryllium	4	3.8	µg/L	2 U	2 U	2 U	2 U
Cadmium	5	5.4	µg/L	5 U	5 U	**0.091 J**	5 U
Chromium	50	14	µg/L	**0.8 J**	10 U	10 U	10 U
Cobalt		12	µg/L	**0.61 J**	**0.73 J**	**0.82 J**	10 U
Copper	1,000	27	µg/L	10 U	10 U	**0.33 J**	10 U
Iron		7,135	µg/L	**5,800**	**5,900**	**4,700**	**4,500**
Lead	15	3.9	µg/L	**0.031 J**	3 U	**0.046 J**	3 U
Manganese		5,213	µg/L	**720**	**570**	**510**	**440**
Mercury	2	0.15	µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum		12	µg/L	20 U	**0.8 J**	20 U	20 U
Nickel	100	19	µg/L	**0.59 J**	20 U	**0.97 J**	20 U
Selenium	50	6.0	µg/L	**0.76 J**	5 U	5 U	5 U
Silver		3.3	µg/L	5 UR	5 U	5 U	5 U
Vanadium		29	µg/L	**0.44 J**	**6.4 J**	**0.72 J**	10 U
Zinc		43	µg/L	**4.6 J**	20 UJ	**1.3 J**	20 UJ
Calcium		379	mg/L	**59**	**56**	**56**	**49**
Magnesium		500	mg/L	**15**	**11**	**9.2**	**9.8**
Potassium		182	mg/L	**21**	**18**	**16**	**14**
Sodium		4,540	mg/L	**70**	**53**	**56**	**48**
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U	0.01 U	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-153: Well M034-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	**2.6±1.46**	**29.3±4.02**	0.823 U3	0.568 U1J
Gross Beta	50		pCi/L	**26.2±4.58**	**27.7±4.84**	**18.3±0.70**	**15.4±0.61**
Radium							
Radium			pCi/L	0.066 U3	0.068 U3J	0.64 U4	1.04 U4
Radium 228							
Radium-228	5		pCi/L				4.15 U1

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-154: Well M035-A, Detected Volatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Volatile Organic Compounds							
Acetone			µg/L	10 U	10 U	10 U	10 UJ
Benzene	1		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
tert-butyl alcohol			µg/L	20 U	20 U	10 U	10 UJ
N-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
sec-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
tert-butylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Carbon Disulfide			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Carbon Tetrachloride	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Chlorobenzene	70		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Chloroethane			µg/L	1 U	1 U	1 U	1 UJ
Chloroform			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,2-Dichlorobenzene	600		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,3-Dichlorobenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,4-Dichlorobenzene	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,1-Dichloroethane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,2-Dichloroethane	0.5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,1-Dichloroethene	6		µg/L	**0.5 J**	**0.5**	0.5 U	**0.4 J**
cis-1,2-Dichloroethene	6		µg/L	**4.9**	**5.5**	**2.7**	**3.9 J**
trans-1,2-Dichloroethene	10		µg/L	**2.9**	**3.8**	**0.8**	**2.4 J**
1,2-Dichloropropane	5		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Ethylbenzene	300		µg/L	0.5 U	0.5 U	**0.2 J**	0.5 UJ
2-Hexanone			µg/L	10 U	10 U	10 U	10 UJ
Isopropyl Ether			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Isopropylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
p-Isopropyltoluene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Methyl isobutyl ketone			µg/L	10 U	10 U	10 U	10 UJ
Methyl tert-butyl ether	13		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
N-propylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Naphthalene			µg/L	2 U	2 U	**1.9 J**	2 UJ
Tetrachloroethene	5		µg/L	**0.3 J**	0.5 U	**0.3 J**	**0.4 J**
Toluene	150		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
1,1,1-Trichloroethane	200		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Trichloroethene	5		µg/L	**6.5**	**5.2**	**7.2**	**6.8 J**
1,2,4-Trimethylbenzene			µg/L	0.5 U	0.5 U	**0.8**	0.5 UJ
1,3,5-Trimethylbenzene			µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
Vinyl Chloride	0.5		µg/L	0.5 U	**0.5 J**	0.5 U	0.5 UJ
M,p-xylene	1,750		µg/L	0.5 U	0.5 U	0.5 U	0.5 UJ
O-xylene	1,750		µg/L	0.5 U	0.5 U	**0.4 J**	0.5 UJ

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-155: Well M035-A, Detected Semivolatile Organic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Semivolatile Organic Compounds							
Acenaphthene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzoic acid			µg/L	47 U	47 U	47 UJ	47 U
bis(2-Chloroethyl)ether			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-chloroisopropyl) ether			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate	4		µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Dibenzofuran			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,2-Dichlorobenzene	600		µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,3-Dichlorobenzene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,4-Dichlorobenzene	5		µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Diethylphthalate			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Dimethylphthalate			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol			µg/L	47 U	47 U	47 U	47 U
Fluoranthene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylnaphthalene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylphenol			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Methylphenol			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
N-Nitrosodiphenylamine			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitrophenol			µg/L	19 U	19 U	19 UJ	19 U
Pentachlorophenol	1		µg/L	19 U	19 U	19 U	19 U
Phenanthrene			µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol			µg/L	9.4 U	9.4 U	9.4 U	9.4 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-156: Well M035-A, Detected Total Petroleum Hydrocarbons at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
TPH as Diesel							
TPH as diesel fuel			µg/L	50 UJ			
Jet Fuel #5 (JP5)			µg/L	50 UJ			
TPH as motor oil			µg/L	300 UJ			
TPH as Gasoline							
TPH as gasoline			µg/L	50 U			
TPH (calculated)							
Total TPH (calculated)			µg/L	300 U			

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-157: Well M035-A, Detected Inorganic Compounds at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Metals							
Aluminum	1,000	439	µg/L	100 U	100 U	100 U	100 U
Antimony	6	46	µg/L	**0.34 J**	50 U	**1.7 J**	**0.34 J**
Arsenic	50	28	µg/L	**11**	**11**	**3.3 J**	**8**
Barium	1,000	575	µg/L	**55**	**50**	**38**	**42**
Beryllium	4	3.8	µg/L	2 U	2 U	**0.043 J**	2 U
Cadmium	5	5.4	µg/L	5 U	5 U	**0.28 J**	5 U
Chromium	50	14	µg/L	**0.42 J**	10 U	10 U	10 U
Cobalt		12	µg/L	**0.53 J**	10 U	**0.24 J**	10 U
Copper	1,000	27	µg/L	10 U	10 U	**12**	**1.6 J**
Iron		7,135	µg/L	**470**	**690**	**460**	**250**
Lead	15	3.9	µg/L	3 U	3 U	**0.13 J**	3 U
Manganese		5,213	µg/L	**920**	**770**	**24**	**330**
Mercury	2	0.15	µg/L	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum		12	µg/L	20 U	**1.7 J**	20 U	**2.2 J**
Nickel	100	19	µg/L	**2.5 J**	20 U	**4.3 J**	**2.7 J**
Selenium	50	6.0	µg/L	5 U	5 U	5 U	5 U
Silver		3.3	µg/L	5 UR	5 U	5 U	5 U
Vanadium		29	µg/L	**1.3 J**	10 U	**2 J**	**1.2 J**
Zinc		43	µg/L	**11 J**	20 UJ	**11 J**	**1.6 J**
Calcium		379	mg/L	**99**	**94**	**92**	**76**
Magnesium		500	mg/L	**28**	**27**	**13**	**20**
Potassium		182	mg/L	**8.3**	**8.7**	**2.4**	**7.2**
Sodium		4,540	mg/L	**32**	**36**	**27**	**24**
Cyanide							
Total Cyanide	0.2		mg/L	0.01 U	0.01 U	0.01 U	0.01 U

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

Table 7-158: Well M035-A, Detected Radionuclides at Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Compound	MCL	BV	Units	Summer 2002	Fall 2002	Winter 2002	Spring 2003
Gross Alpha/Beta							
Gross Alpha	15		pCi/L	1.76 U4	0.41 U2	1.24 U4	1.29 U3J
Gross Beta	50		pCi/L	**9.64±3.06**	**8.73±3.49**	**2.74±0.52**	**6.62±0.74**
Radium							
Radium			pCi/L	0.26 U2	0.069 U3J	**0.70±0.30**	0.737 U3
Radium 228							
Radium-228	5		pCi/L				4.15 U4

See "Notes for Tables 7-3 through 7-158 at Installation Restoration Site 1" located behind Table 7-158 for notes and definitions.

MCL	California maximum contaminant level
BV	Background value (Tetra Tech Environmental Management, Inc., November, 2001)
TPH	total petroleum hydrocarbons
µg/L	micrograms per liter
mg/L	milligrams per liter
pCi/L	pico curies per liter
U	Not detected at or above the indicated reporting limit.
UJ	Not detected at or above the indicated reporting limit. The reporting limit is an estimate.
U1	The reported value is <= the minimum detected activity.
U2	The reported value is <= the reported analytical uncertainty.
U3	The reported value is <= both the minimum detected activity and the analytical uncertainty.
U4	The reported value is <= the sum of the minimum detected activity and the analytical uncertainty.
J	Estimated value.
h	Heavier hydrocarbons contributed to the quantitation.
l	Lighter hydrocarbons contributed to the quantitation.
y	Sample exhibits fuel pattern which does not resemble standard.

Detected values are bolded.

Detected values greater than the California maximum contaminant level are circled.

Detected values greater than the background value are underlined.

Total TPH (calculated) is the sum of all reported TPH results. Where all results are less than reporting limits, the highest reporting limit is used as the Total TPH value.

Blank entries in results section indicate compound not analyzed. Blank entries under MCL and BV indicate no regulatory limits or background values available, respectively.

- 1,4-dichlorobenzene was detected above the MCL of 5 µg/L in a sample from one well, M028-E at a concentration of 12 µg/L.
- Vinyl chloride was detected above the MCL of 0.5 µg/L in samples from two wells, M028-E (15 µg/L) and M028-E (35,000 µg/L).
- Benzene was detected above the MCL of 1 µg/L in samples from 5 wells (M001-E, M028-A, M028-E, M029-A, and M034-A) at concentrations ranging from 6.4 to 85 µg/L.
- Toluene was detected above the MCL of 150 µg/L in samples from well M028-E (2,800 µg/L).
- Bis(2-ethylhexyl)phthalate was detected at levels above the MCL of 4 µg/L in a sample from one well M027-A (7.4 µg/L).
- Gross beta was detected above the MCL of 50 picocuries per liter (pCi/L) in a sample from one well, M028-C (137 pCi/L).
- Radium 228 was detected at a concentration above the MCL of 5 pCi/L in a sample from well M028-C (9.67 pCi/L).
- Pentachlorophenol was detected at levels above the MCL of 1 µg/L in a sample from two wells M025-A (7.5 µg/L) and M027-A (6 µg/L).

Concentration contours for selected VOCs are presented in this report on the following figures:

- Figure 7-2, "Trichloroethene, First Water-Bearing Zone, IR Site 1 Operable Unit 3, Spring 2003"
- Figure 7-3, "Cis-1,2-Dichloroethene, First Water-Bearing Zone, IR Site 1, Operable Unit 3, Spring 2003"
- Figure 7-4, "Vinyl Chloride, First Water-Bearing Zone, IR Site 1, Operable Unit 3, Spring 2003"
- Figure 7-5, "Benzene, First Water-Bearing Zone, IR Site 1, Operable Unit 3, Spring 2003"

Trichloroethene contours in the FWBZ are presented on Figure 7-2. Trichloroethene was detected in samples from 4 of the 15 monitoring wells at IR Site 1 sampled for VOCs during the Spring 2003 sampling. Samples from wells M002-A and M035-A contained TCE concentrations above the MCL of 5 µg/L. These two wells are located in the northern and west-central portion of IR Site 1. Figure 7-2 shows where TCE concentrations are above the MCL in the west-central part of the site, near well M035-A, and to the north at well M002-A, (adjacent to the Oakland Inner Harbor). TCE concentrations exceeded the MCL in samples from wells M002-A and M035-A, which is consistent with the Summer, Fall and Winter 2002 sampling results. A third

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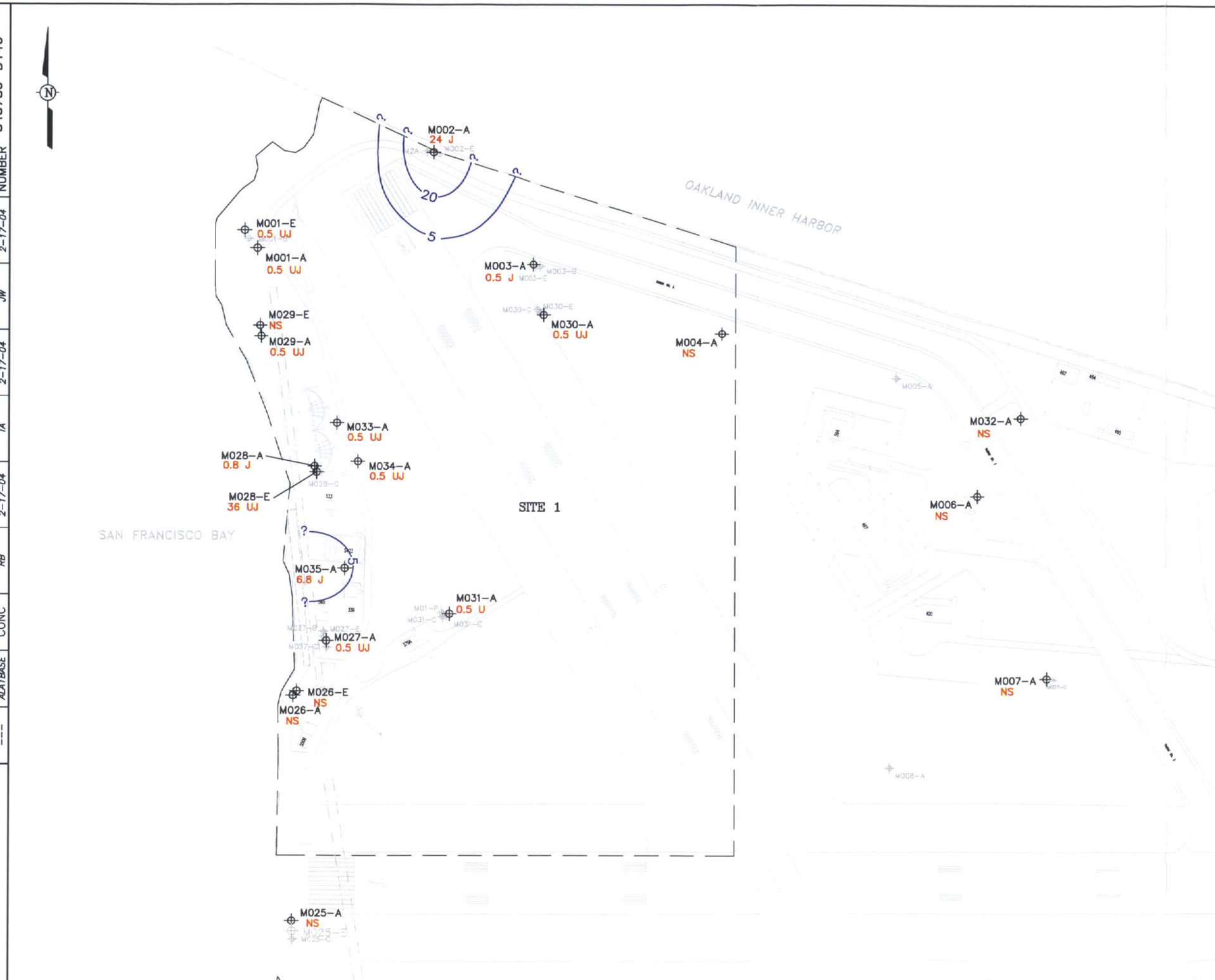


LEGEND

⌖	PROGRAM MONITORING WELL
⌖	MONITORING WELL NOT IN PROGRAM OR NOT SCREENED IN SPECIFIED HYDROLOGIC UNIT
—5—	TRICHLOROETHENE CONCENTRATION CONTOUR, QUERIED WHERE UNCERTAIN
13 U	RESULT (MICROGRAMS PER LITER)/QUALIFIER
— —	CERCLA BOUNDARY
— —	BARGE LINES (1949 AERIAL SURVEY)
— —	BARGE LINES (1957 AERIAL SURVEY)
J	ESTIMATED RESULT (QUALIFIER)
U	NOT DETECTED AT SPECIFIED REPORTING LIMIT (QUALIFIER)
NS	NOT SAMPLED (IN ACCORDANCE WITH SCHEDULE)

NOTES:

1. POSITION OF BARGE LINES ARE INFERRED.
2. MCL IS 5 MICROGRAMS PER LITER (TITLE 22 CALIFORNIA CODE OF REGULATIONS, 2002).

SCALE
0 150 300 FEET

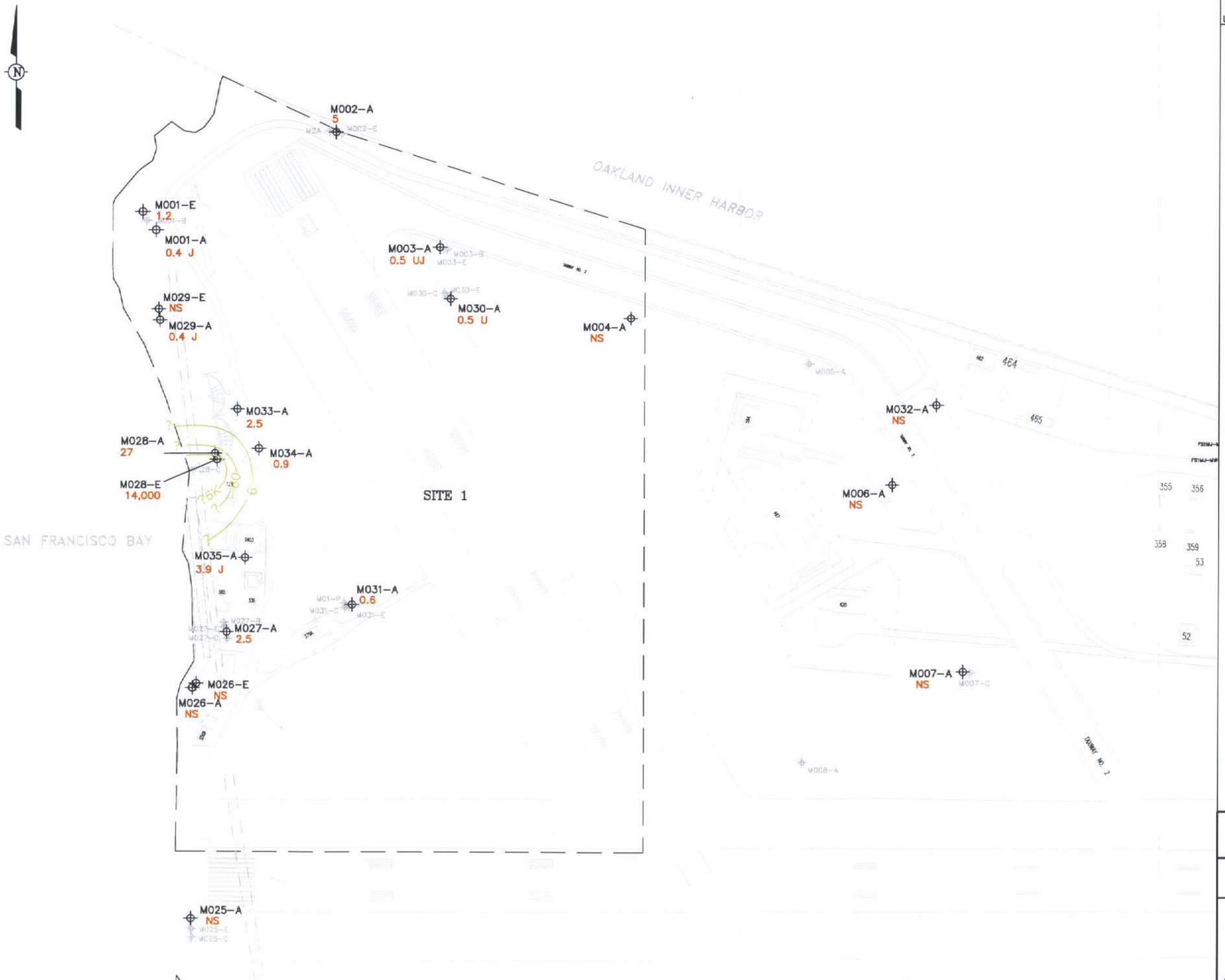
Shaw™ Shaw Environmental, Inc.

DEPARTMENT OF THE NAVY, SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 7-2
TRICHLOROETHENE
FIRST WATER-BEARING ZONE
IR SITE 1 OPERABLE UNIT 3
SPRING 2003

ALAMEDA POINT ALAMEDA, CALIFORNIA

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN	OFFICE	X-REF	IMAGE
843780-D140	JW 2-17-04	TA 2-17-04	RB 2-17-04	CONC	ALA1BASE	---



LEGEND

⌖	PROGRAM MONITORING WELL
⌖	MONITORING WELL NOT IN PROGRAM OR NOT SCREENED IN SPECIFIED HYDROLOGIC UNIT
—6—?—	CIS-1,2-DICHLOROETHENE CONCENTRATION CONTOUR, QUERIED WHERE UNCERTAIN
0.5 U	RESULT (MICROGRAMS PER LITER)/QUALIFIER
— —	CERCLA BOUNDARY
— —	BARGE LINES (1949 AERIAL SURVEY)
- - - -	BARGE LINES (1957 AERIAL SURVEY)

J	ESTIMATED RESULT	QUALIFIER
U	NOT DETECTED AT SPECIFIED REPORTING LIMIT	QUALIFIER
NS	NOT SAMPLED (IN ACCORDANCE WITH SCHEDULE)	

NOTES:

1. POSITION OF BARGE LINES ARE INFERRED.
2. MCL IS 6 MICROGRAMS PER LITER (TITLE 22 CALIFORNIA CODE OF REGULATIONS, 2002).

SCALE
0 150 300 FEET

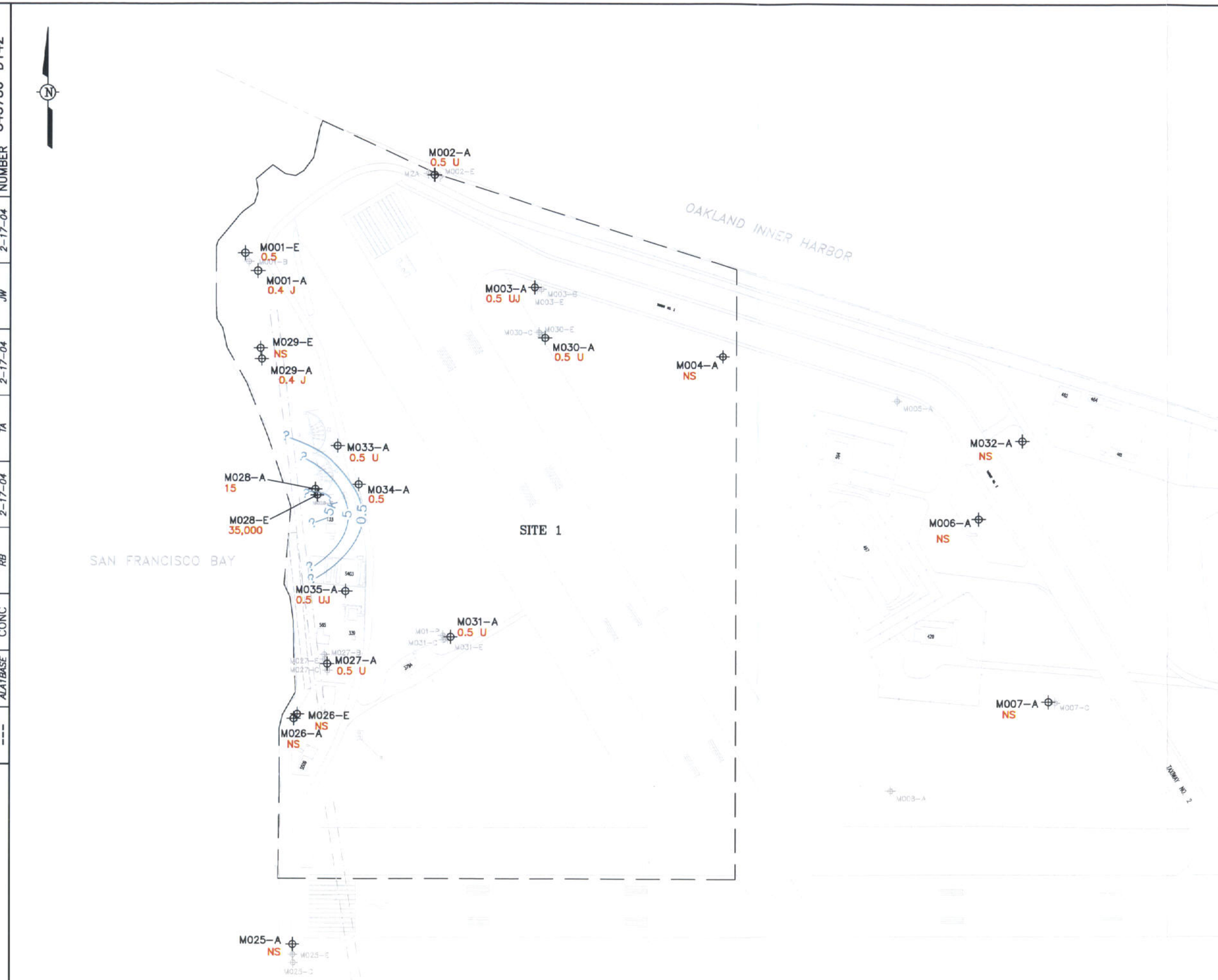
Shaw™ Shaw Environmental, Inc.

DEPARTMENT OF THE NAVY, SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 7-3
CIS-1,2-DICHLOROETHENE
FIRST WATER-BEARING ZONE
IR SITE 1 OPERABLE UNIT 3
SPRING 2003

ALAMEDA POINT ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	ALA1BASE	CONC	RB 2-17-04	TA 2-17-04	JW 2-17-04	843780-D141



LEGEND

⌖	PROGRAM MONITORING WELL
⌖	MONITORING WELL NOT IN PROGRAM OR NOT SCREENED IN SPECIFIED HYDROLOGIC UNIT
—0.5—?—	VINYL CHLORIDE CONCENTRATION CONTOUR, QUERIED WHERE UNCERTAIN
11,000 U	RESULT (MICROGRAMS PER LITER)/QUALIFIER
— —	CERCLA BOUNDARY
— —	BARGE LINES (1949 AERIAL SURVEY)
- - - -	BARGE LINES (1957 AERIAL SURVEY)
J	ESTIMATED RESULT (QUALIFIER)
U	NOT DETECTED AT SPECIFIED REPORTING LIMIT (QUALIFIER)
NS	NOT SAMPLED (IN ACCORDANCE WITH SCHEDULE)

NOTES:

1. POSITION OF BARGE LINES ARE INFERRED.
2. MCL IS 0.5 MICROGRAM PER LITER (TITLE 22 CALIFORNIA CODE OF REGULATIONS, 2002).

SCALE
0 150 300 FEET

Shaw™ Shaw Environmental, Inc.

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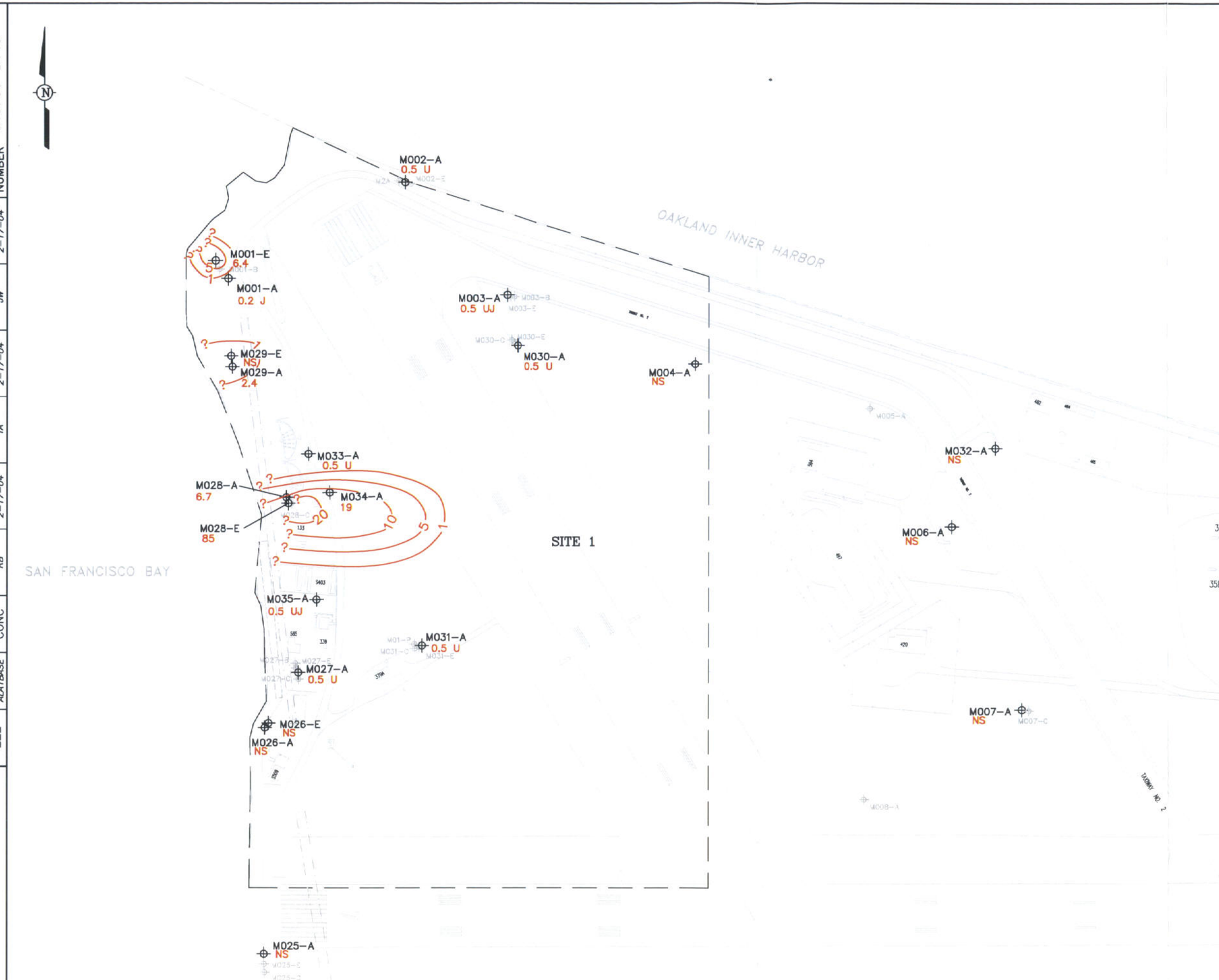
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 7-4
VINYL CHLORIDE
FIRST WATER-BEARING ZONE
IR SITE 1 OPERABLE UNIT 3
SPRING 2003
ALAMEDA POINT ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	ALA1BASE	CONC	RB 2-17-04	TA 2-17-04	JW 2-17-04	843780-D142



LEGEND

- PROGRAM MONITORING WELL
- MONITORING WELL NOT IN PROGRAM OR NOT SCREENED IN SPECIFIED HYDROLOGIC UNIT
- BENZENE CONCENTRATION CONTOUR, QUERIED WHERE UNCERTAIN
- 66 U — RESULT (MICROGRAMS PER LITER)/QUALIFIER
- CERCLA BOUNDARY
- BARGE LINES (1949 AERIAL SURVEY)
- BARGE LINES (1957 AERIAL SURVEY)
- J — ESTIMATED RESULT
- U — NOT DETECTED AT SPECIFIED REPORTING LIMIT
- QUALIFIER
- NS — NOT SAMPLED (IN ACCORDANCE WITH SCHEDULE)

NOTES:

1. POSITION OF BARGE LINES ARE INFERRED.
2. MCL IS 1 MICROGRAM PER LITER (TITLE 22 CALIFORNIA CODE OF REGULATIONS, 2002).

SCALE
0 150 300 FEET

Shaw™ Shaw Environmental, Inc.

DEPARTMENT OF THE NAVY, SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 7–5
BENZENE
FIRST WATER–BEARING ZONE
IR SITE 1 OPERABLE UNIT 3
SPRING 2003
ALAMEDA POINT ALAMEDA, CALIFORNIA

DRAWING NUMBER	APPROVED BY		CHECKED BY		DRAWN		OFFICE	X-REF	IMAGE
843780–D143	JW	2–17–04	TA	2–17–04	RB	2–17–04	CONC	ALA1BASE	---

well, M028-E, which produced samples that contained 13 µg/L of TCE when first sampled in Winter 2002, contained no detectable TCE in the Spring 2003 sampling event.

Figure 7-3 presents contours for cis-1,2-dichloroethene (cis-1,2-DCE) within the FWBZ. Cis-1,2-dichlroethene was detected in 11 of the 15 wells sampled for VOCs during the Spring of 2003. Concentrations above the MCL of 6 µg/L were detected in samples from M028-A (27 µg/L) and M028-E (14,000 µg/L in the west-central site. The extent of cis-1,2-DCE is less extensive when compared to the previous Groundwater Monitoring Program sampling events. The sample from well M002-A, which previously exceeded the MCL for 1,2 DCE, contained the analyte but below the MCL. The extent of the cis-1,2-DCE plume, in the wells surrounding well M028-E was less extensive laterally than in the previous quarter. but the concentration from well M028-E itself increased to greater than twice the Winter 2002 concentration

Trans-1,2-dichloroethene (trans-1,2-DCE) was detected in nine samples collected from IR Site 1, although the only trans-1,2-DCE concentration that exceeded the MCL (10 µg/L) was detected in the sample from M028-E at a concentration of 20 µg/L. Samples from this well contained 14,000 µg/L of the cis-1,2-DCE isomer demonstrating the predominance of the cis-1,2-DCE isomer over the trans-1,2-DCE isomer. The trans-1,2 DCE isomer normally predominates in locations where DCE was the primary material disposed. The presence of cis-1,2-DCE indicates that the compound is present as a result of the decomposition of another chlorinated solvent.

Vinyl chloride was detected in 6 of the 15 samples collected for VOC analysis during the Spring 2003 sampling event (Figure 7-4). The Spring 2003 sampling included only two of the four areas where vinyl chloride was previously detected above the MCL. Well clusters M028 and M029 were included in this quarterly sampling but samples were not scheduled for collected from wells in two other areas where vinyl chloride was found (near wells M032-A and M025-A). Vinyl chloride exceeded the MCL of 0.5 µg/L in only two samples from adjacent wells M028-A and M028-E during the Spring sampling event. The extent of vinyl chloride, as depicted on Figure 7-4, is less extensive than depicted in the Winter 2002 contour maps. This is largely a contouring limitation due to the limited number of wells being sampled during the quarterly events.

The two samples reported having vinyl chloride concentrations exceeding the MCL (Figure 7-4) were from the well M028-series cluster at the west-center of the site. Wells from a second area to the north near wells M029-A and M029-E that previously had samples exceeding the vinyl chloride MCL had detections at levels below the MCL during the Spring 2003 sampling event. Wells at two other areas, one near Building 594 (well M032-A), and the other at the southwest site boundary near M025-A, were not sampled for VOCs during the Spring 2003 sampling event.

Vinyl chloride was detected at higher concentrations during the Spring 2003 sampling event than in previous Groundwater Monitoring Program events. The Spring 2003 sample from well M028-E contained 35,000 µg/L of vinyl chloride. This concentration exceeds the previous high of 11,000 µg/L observed in a sample from the same well collected during the Winter 2002 sampling event. The concentration of vinyl chloride indicates ongoing chemical degradation. The degradation is probably related to the existing Funnel and Gate remediation system that is near wells M028-A and M028-E (Tetra Tech EM Inc, 1999). The presence of vinyl chloride at the site and implications relative to the attenuation of chlorinated hydrocarbons is presented in Section 7.4 "Natural Attenuation Data."

Benzene was detected in samples from 6 of the 15 monitoring wells analyzed for VOCs during the Spring 2003 event (Figure 7-5). Five of those samples exceeded the benzene MCL of 1.0 µg/L. Benzene is found in samples from predominantly at the western section of the site, adjacent to the shoreline wells M028 well cluster and well M034-A. The highest concentration of benzene was detected in a sample from well M028-E (85 µg/L), although benzene was found at lower concentrations near wells M029-A and well M001-E to the north at concentrations exceeding the MCL of 1.0 µg/L.

Generally, the detections of organic constituents at IR Site 1 were similar to those observed in the Summer, Fall, and Winter 2002 sampling events, although a restriction of lateral extent and an increase in concentration of some VOC compounds was observed. The character of the constituent contours was similar to previous quarters. Contour maps for analytes detected at levels above the MCL, but with limited distribution or erratic detection, were not included in figures of this report. These include trans-1,2-DCE, 1,4-dichlorobenzene, 1,1-DCA, 1,1-DCE, toluene, bis(2-ethylhexyl)phthalate, pentachlorophenol, gross beta, radium 228, antimony and selenium.

The detection of gross beta above MCLs during previous sampling events at IR Site 1 prompted the expansion of analytical suites to include additional radionuclide analytes. The expanded analytical suite included gamma emitting radionuclides, radium 228, radioactive strontium and tritium. Gross beta and radium 228 activity from one sample (well M028-C) exceeded MCLs during the Spring 2003 monitoring event. This is in contrast to ten exceedances detected during the Winter 2002 sampling. The reduced number of detections is due largely to the exclusion of most B and C Zone wells in the quarterly sampling (e.g. Spring 2003) and their inclusion in the semiannual events such as the Winter 2002. The gross beta content of the samples from the shallower A and E wells is lower than from the deeper B and C zones. The one deep well sampled during the Spring 2003 event M028-C screened in the Upper San Antonio Formation typically produces samples that exceed the gross beta MCL of 50 pCi./L.

The data from the Spring 2003 sampling were evaluated (*Memorandum: Evaluation of Alameda NAS Spring 2003 Radiological Data* [Shaw, 2003c]) to determine if elevated measurements of gross beta observed in some samples could be attributed to the natural presence of the beta-emitting isotope potassium-40 (K-40). Similar analyses conducted for the Summer, Fall and Winter 2002 event suggested that this was the case for the majority of the samples. The evaluation of the current data set, which includes the expanded analytical suite, yields the same conclusion. The one exception cited in previous evaluations well M032-A, which had higher gross beta than could be accounted for by natural potassium-40 was not included in the Spring 2003 sampling event. The conclusions of the radiological data evaluation suggested the analysis of Uranium 234 and Uranium 238 to further characterize the origin of the radionuclides. The evaluation of suspended solids content by the analysis of unfiltered metal samples at locations where radionuclides are analyzed was also recommended as part of this evaluation.

7.3.2 Analyte Concentration versus Water Level Elevation Summary

Combined plots of groundwater elevations and chemicals of detected potential concern (COPCs) above MCLs versus time for wells are provided as Figures 7-6 through 7-27. These plots are used to help evaluate if variations in analyte concentrations are related to changes in groundwater elevations. Time series plots are included for organic, inorganic and radiological constituents and for wells sampled both quarterly and semiannually.

Groundwater elevations at IR Site 1 wells showed both increases and decreases between the Winter 2002 and Spring 2003 sampling events. The water levels increased in 12 wells but decreased in 16 of the wells where water levels were measured. Well M006-A showed the greatest increase with a 1.79 feet rise in groundwater elevation. The groundwater level in well M001-A decreased the largest amount of any well at the site with a decrease of 2.14 feet. Changes in groundwater elevation in the remaining wells at the site were distributed between these extremes.

The relationship of analyte concentrations to groundwater elevation was mixed, with positive and negative changes in response to water table variation. Few wells show correlation between groundwater elevations and groundwater analyte concentrations. Analytes in samples from some wells increase with increasing groundwater elevation and some show the reverse trends. No definitive conclusions can be drawn although continued sampling will provide a more extensive data set from which to evaluate trends.

A positive response was observed between TCE and Cis-1,2-DCE concentrations and water levels in well M002-A between the Summer and Winter 2002 sampling events. This relationship is also observed in the results of the Spring 2003 monitoring event. The concentration of TCE decreased in samples collected from well M002-A from 15 μg/L to 5 μg/L between the Winter 2002 and Spring 2003 events. This corresponded to a decrease in the groundwater table

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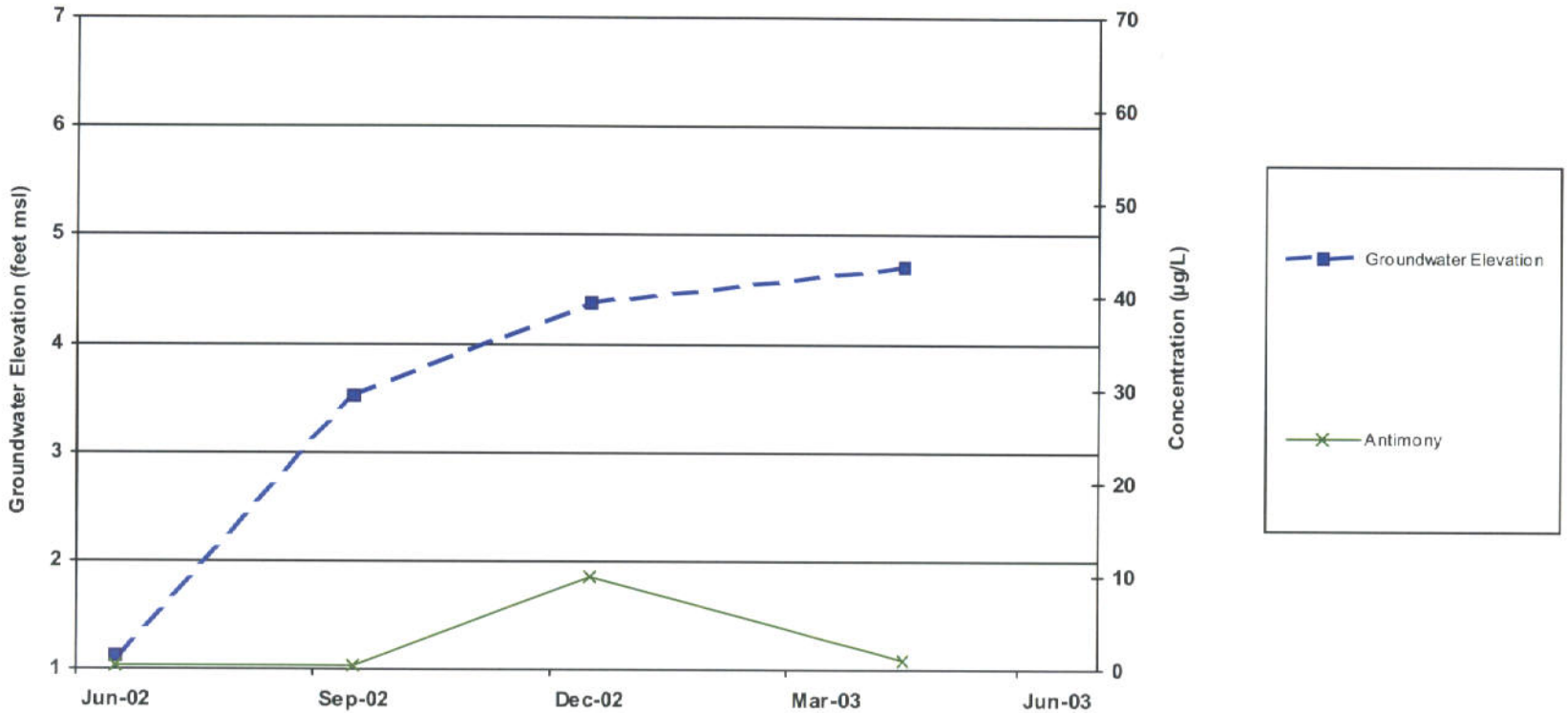
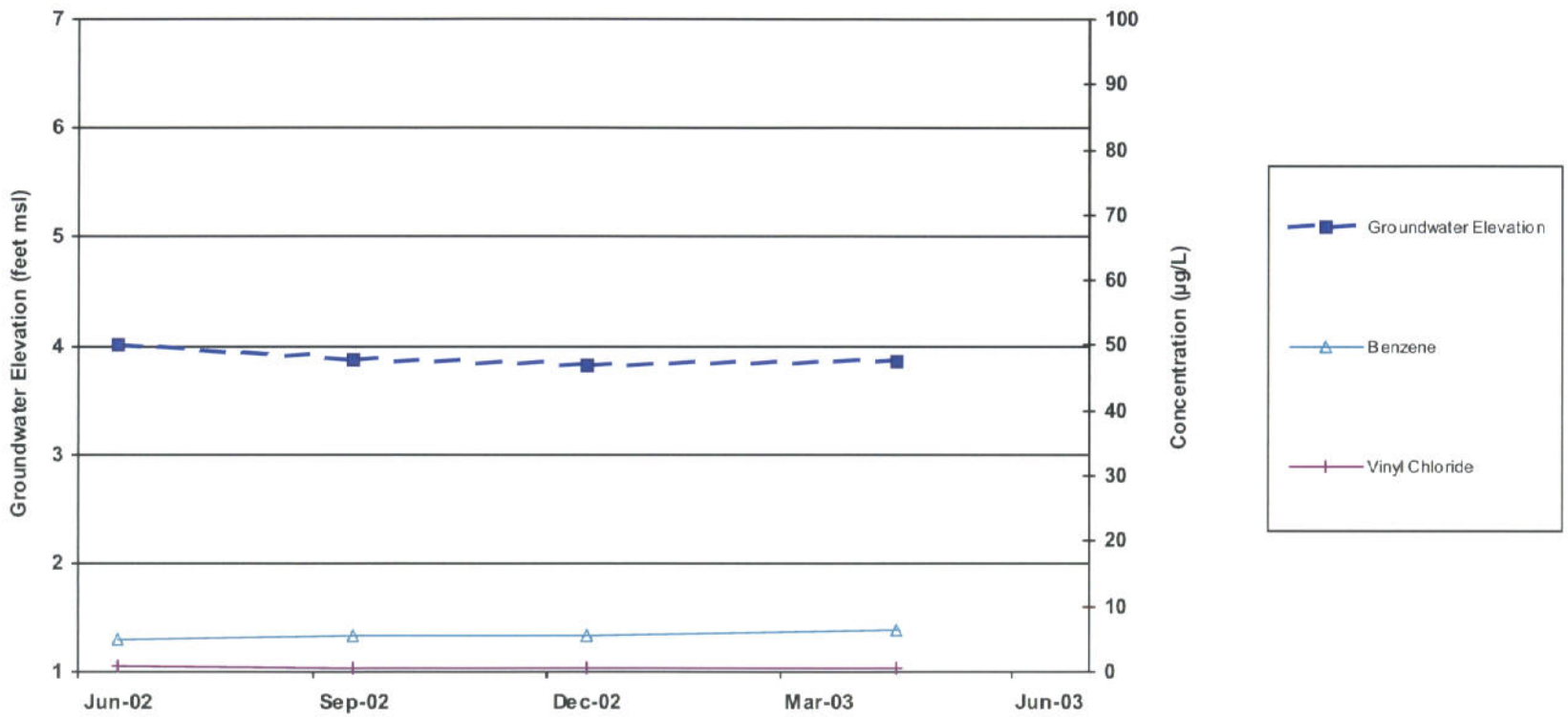
Figure 7-6
Time Series, Groundwater Elevations and Inorganic Concentrations at M001-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



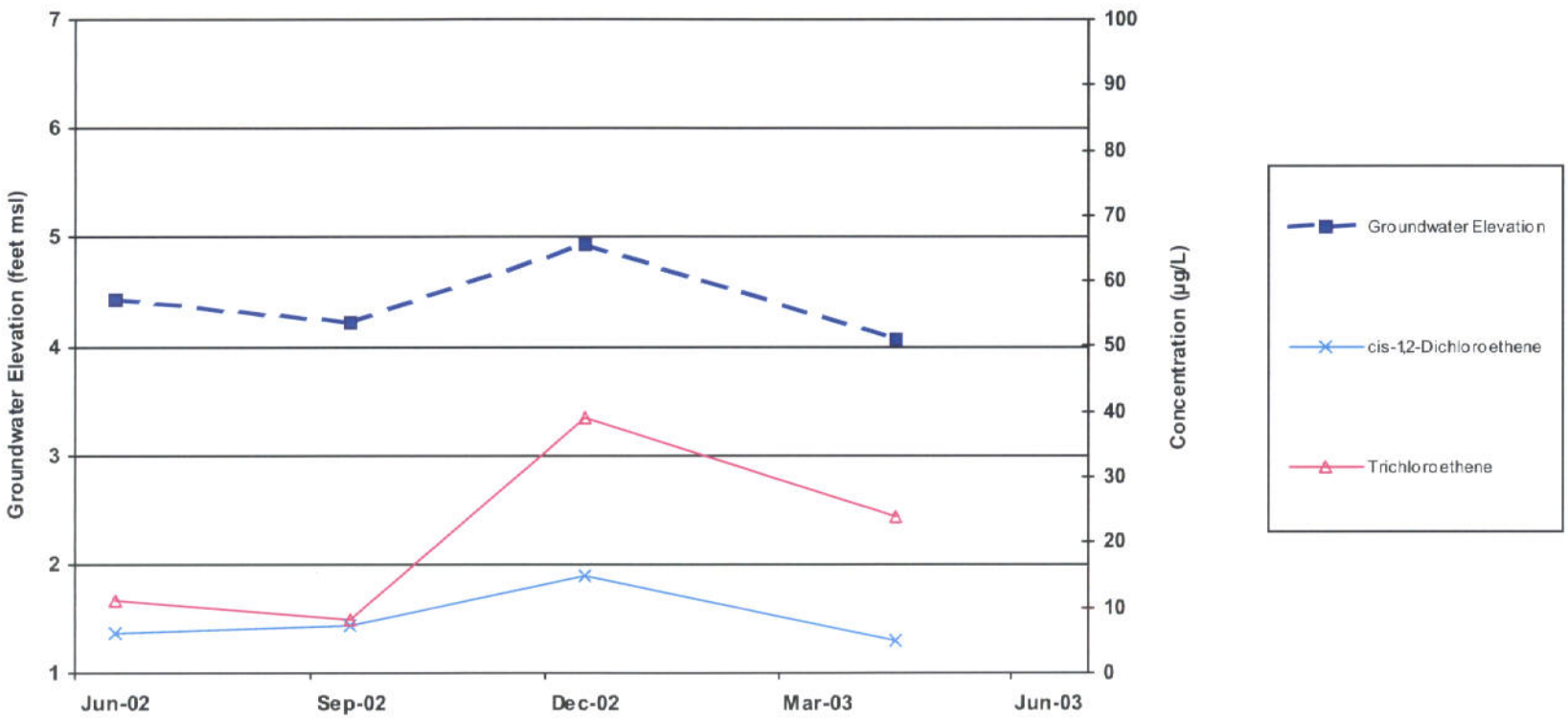
msl mean sea level
µg/L micrograms per liter

Figure 7-7
Time Series, Groundwater Elevations and Organic Concentrations at M001-E
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



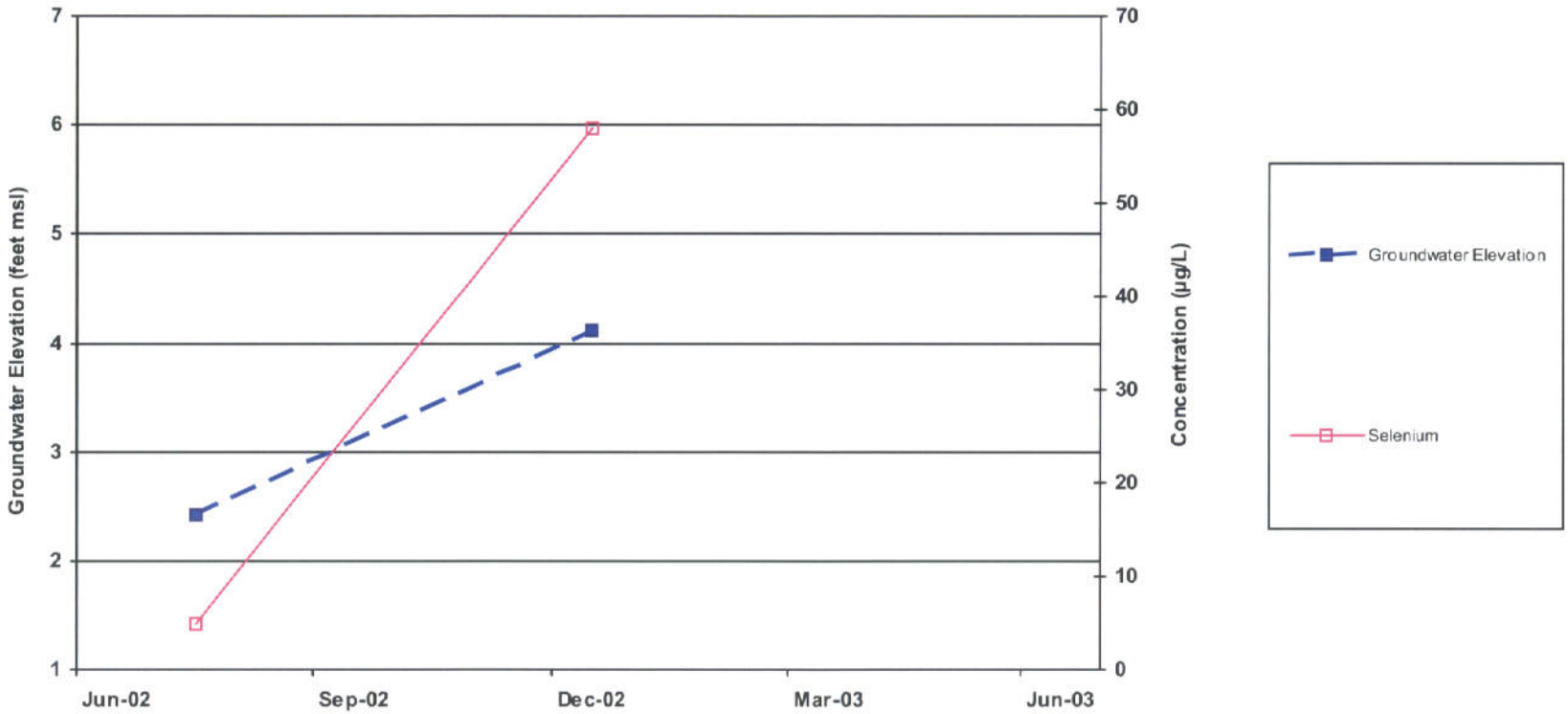
msl mean sea level
µg/L micrograms per liter

Figure 7-8
Time Series, Groundwater Elevations and Organic Concentrations at M002-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



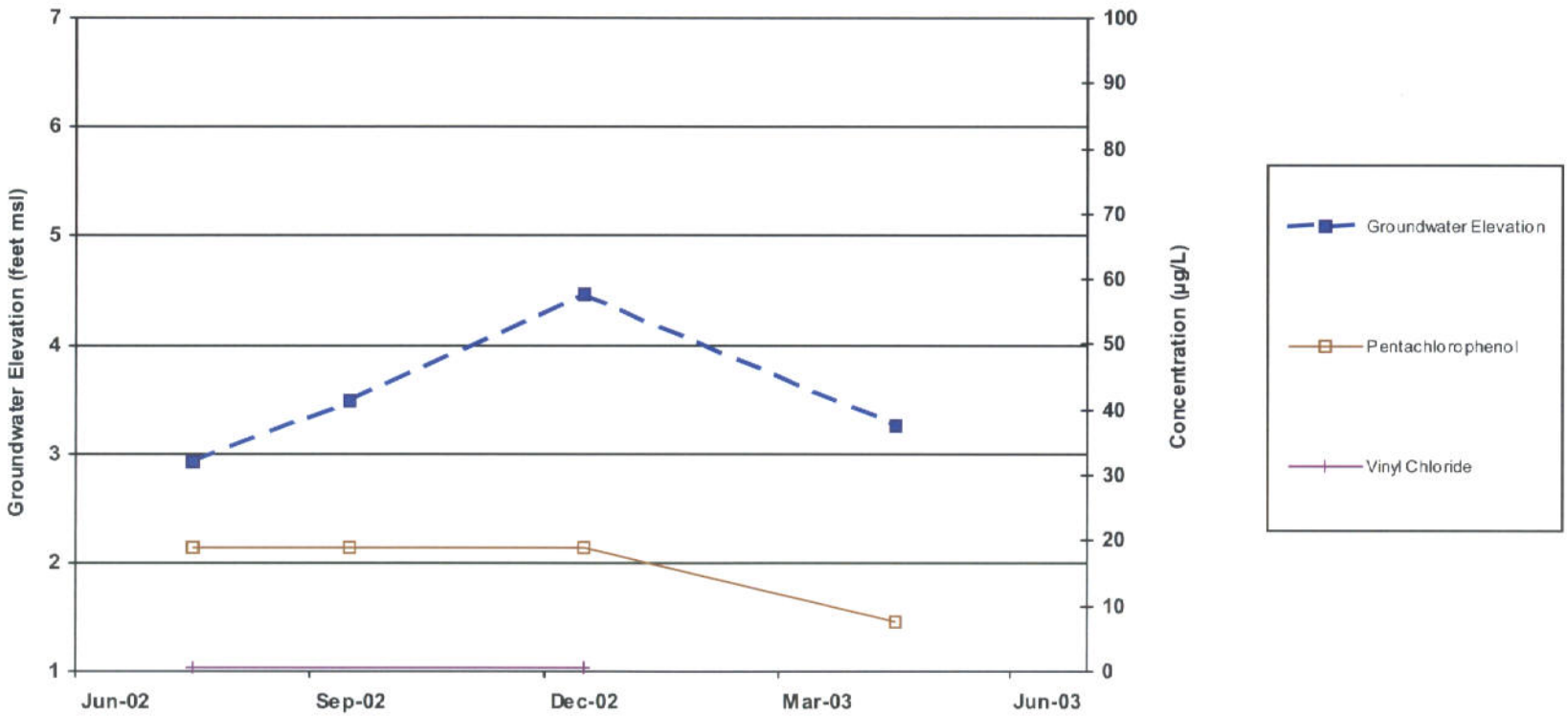
msl mean sea level
µg/L micrograms per liter

Figure 7-9
Time Series, Groundwater Elevations and Inorganic Concentrations at M003-B
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



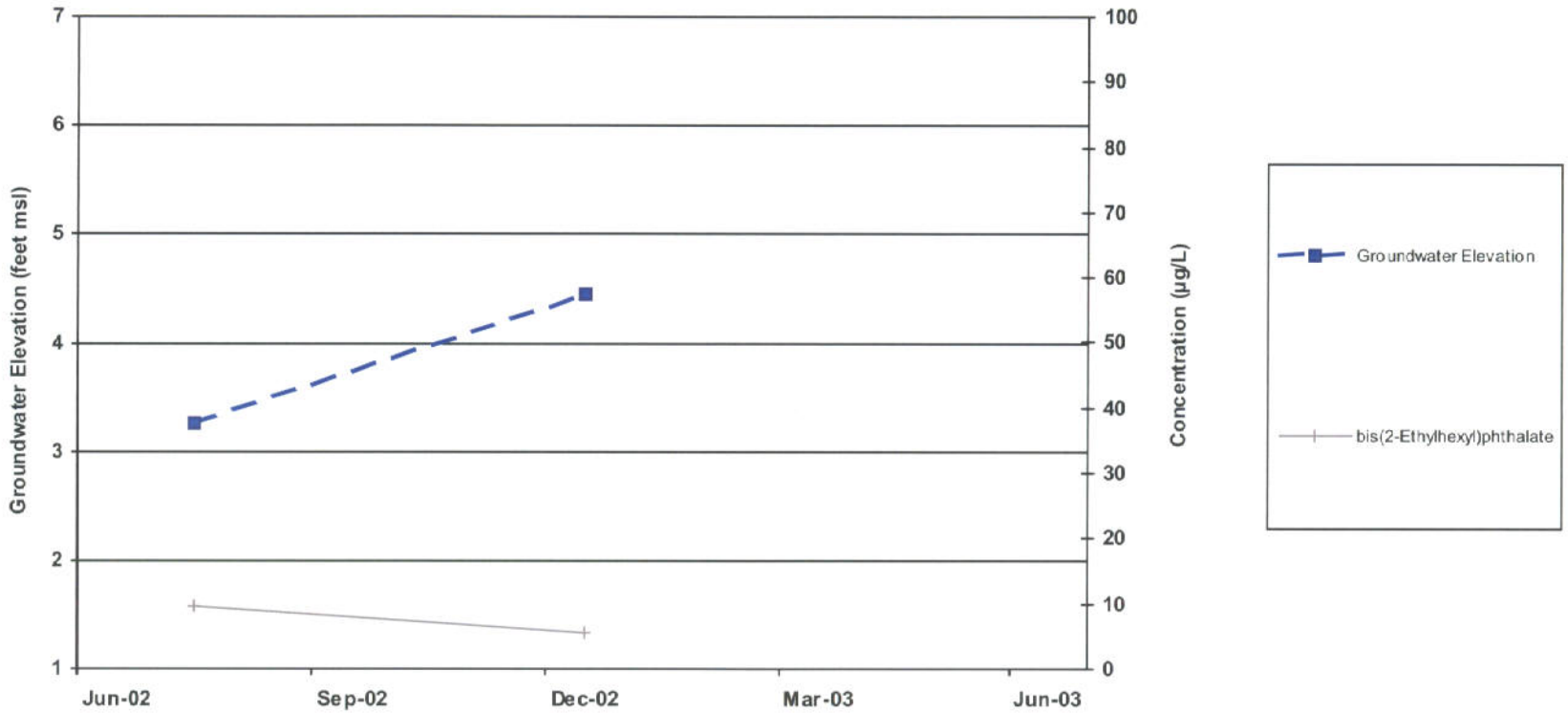
msl mean sea level
µg/L micrograms per liter

Figure 7-10
Time Series, Groundwater Elevations and Organic Concentrations at M025-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



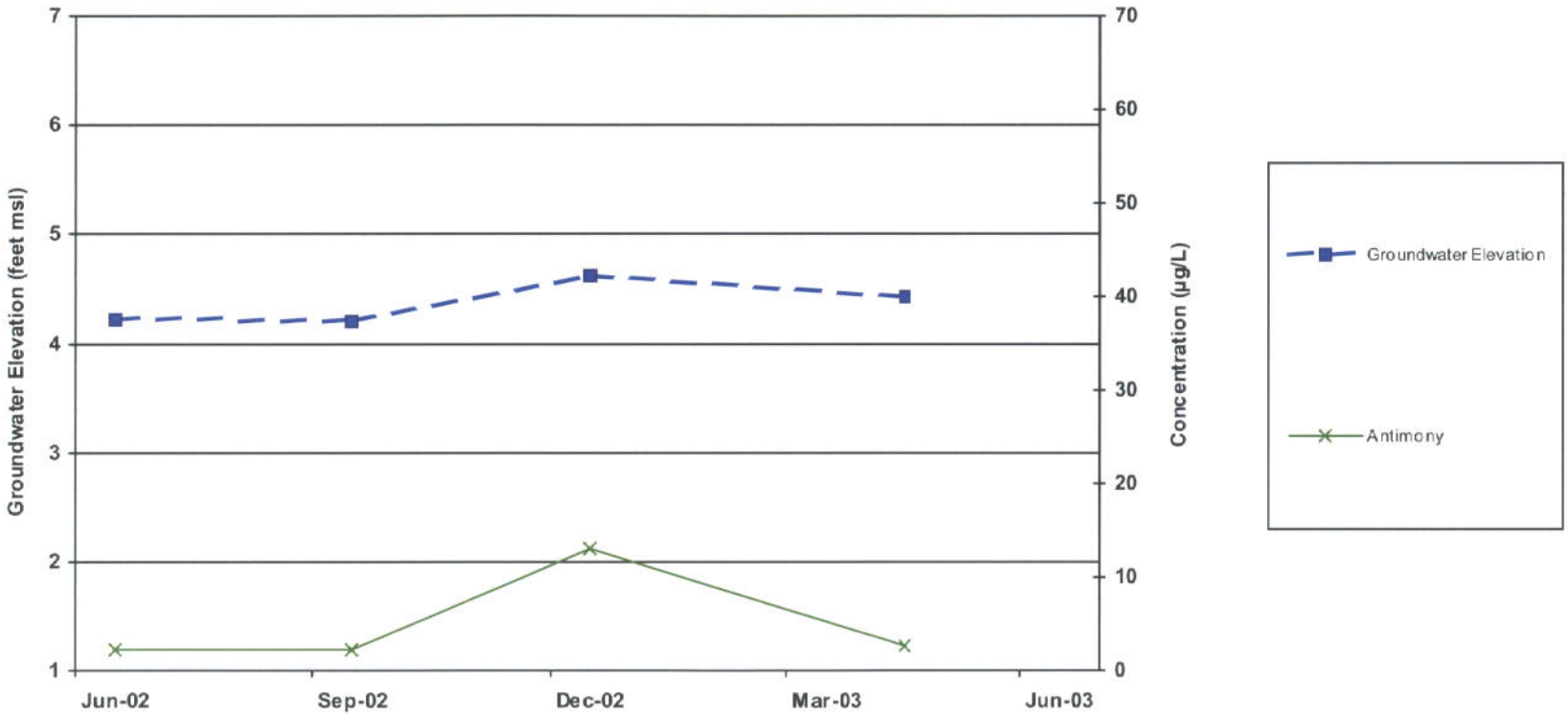
msl mean sea level
µg/L micrograms per liter

Figure 7-11
Time Series, Groundwater Elevations and Organic Concentrations at M026-E
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



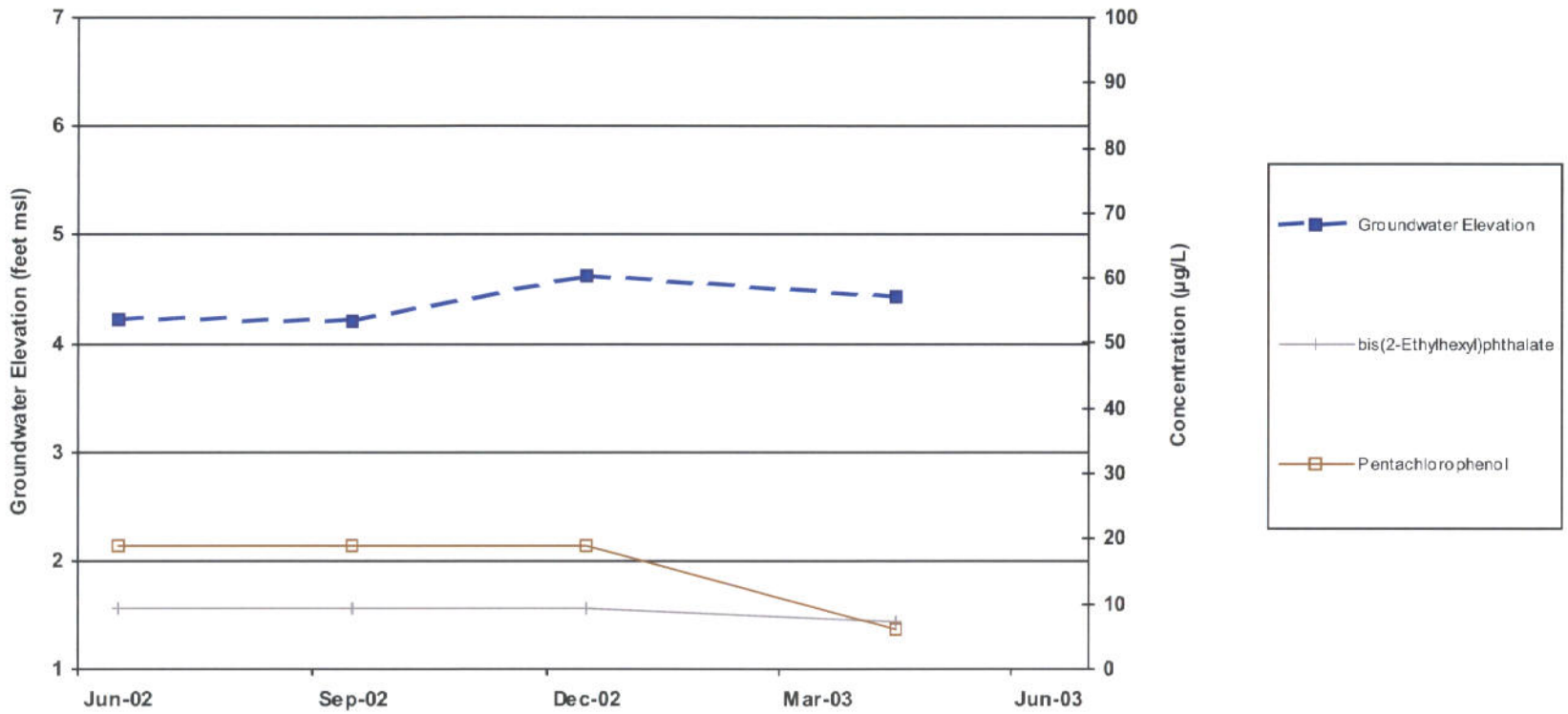
msl mean sea level
µg/L micrograms per liter

Figure 7-12
Time Series, Groundwater Elevations and Inorganic Concentrations at M027-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



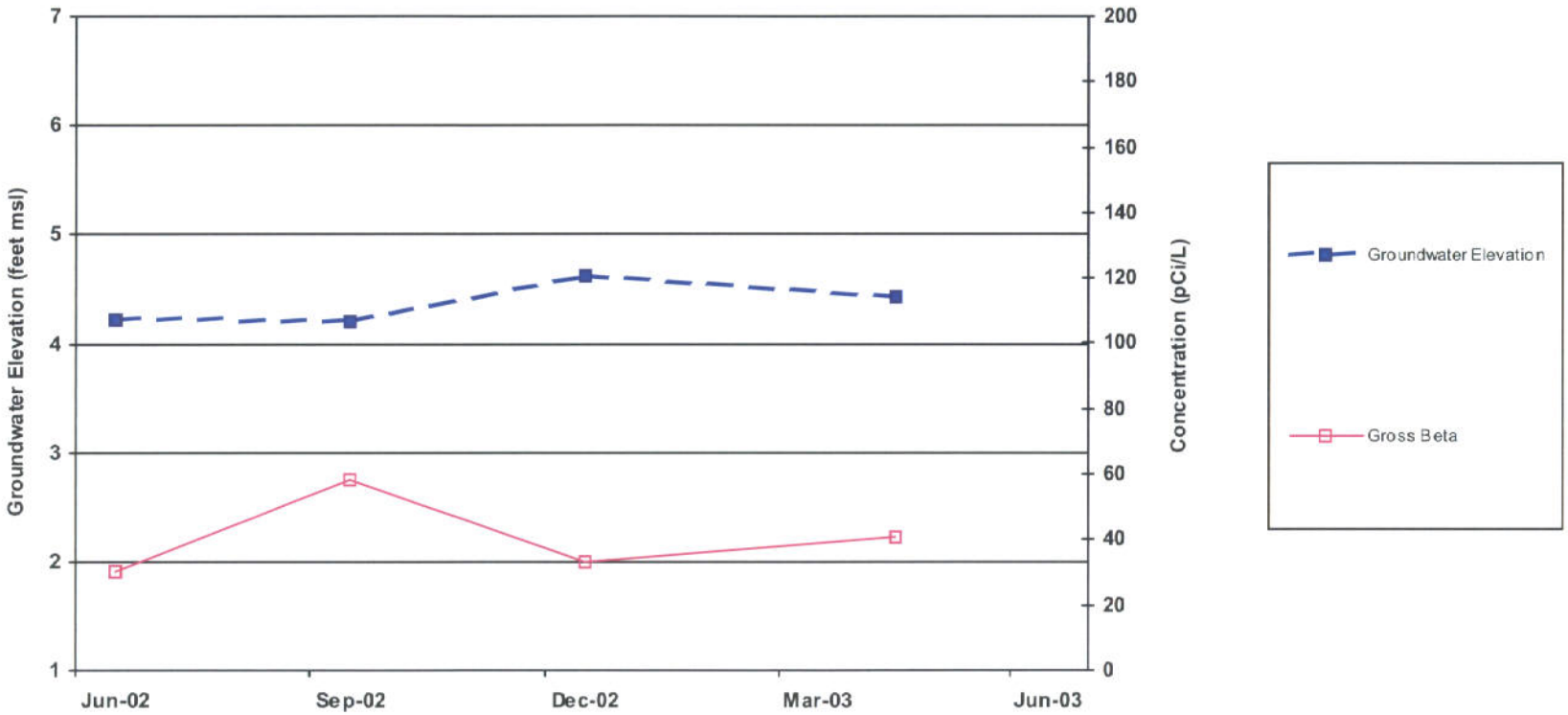
msl mean sea level
µg/L micrograms per liter

Figure 7-13
Time Series, Groundwater Elevations and Organic Concentrations at M027-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



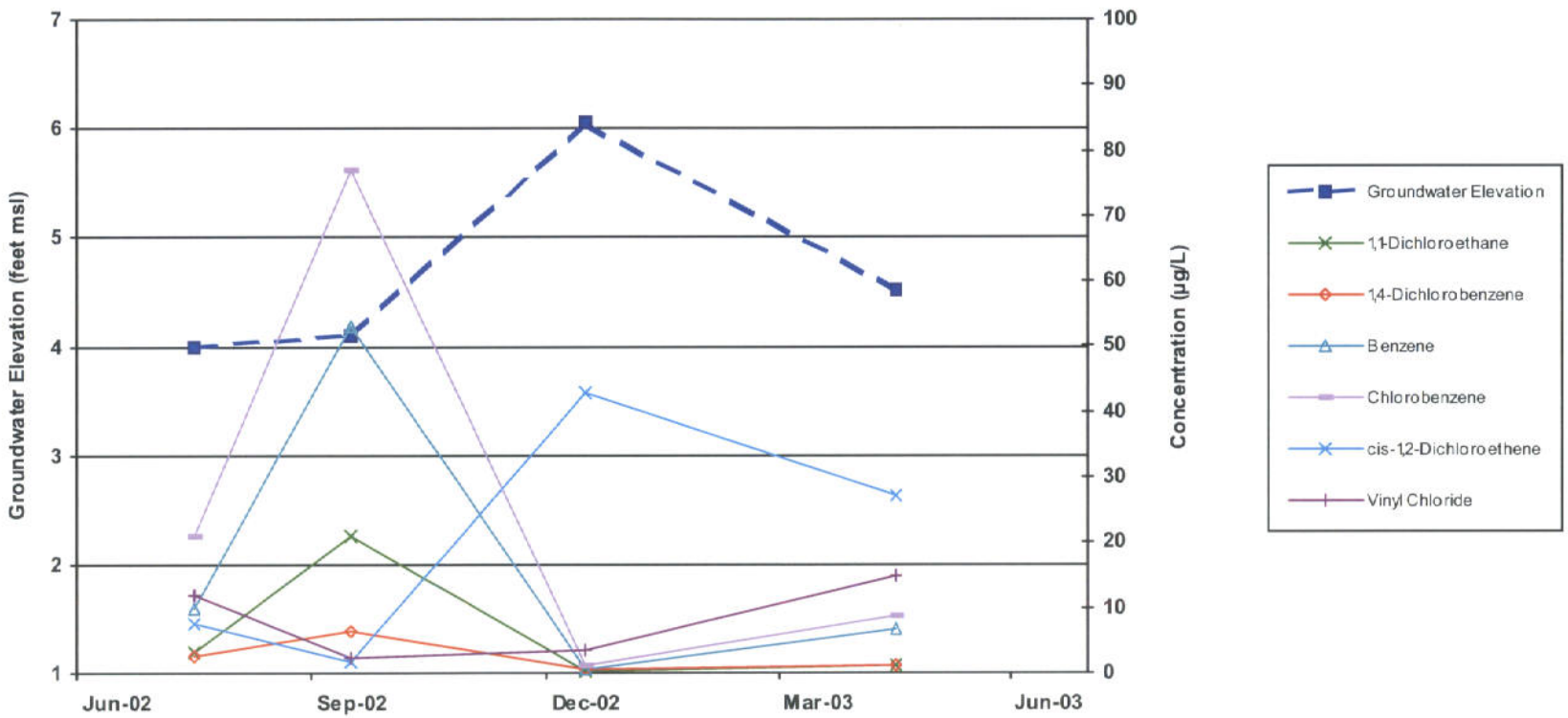
msl mean sea level
µg/L micrograms per liter

Figure 7-14
Time Series, Groundwater Elevations and Radiological Concentrations at M027-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



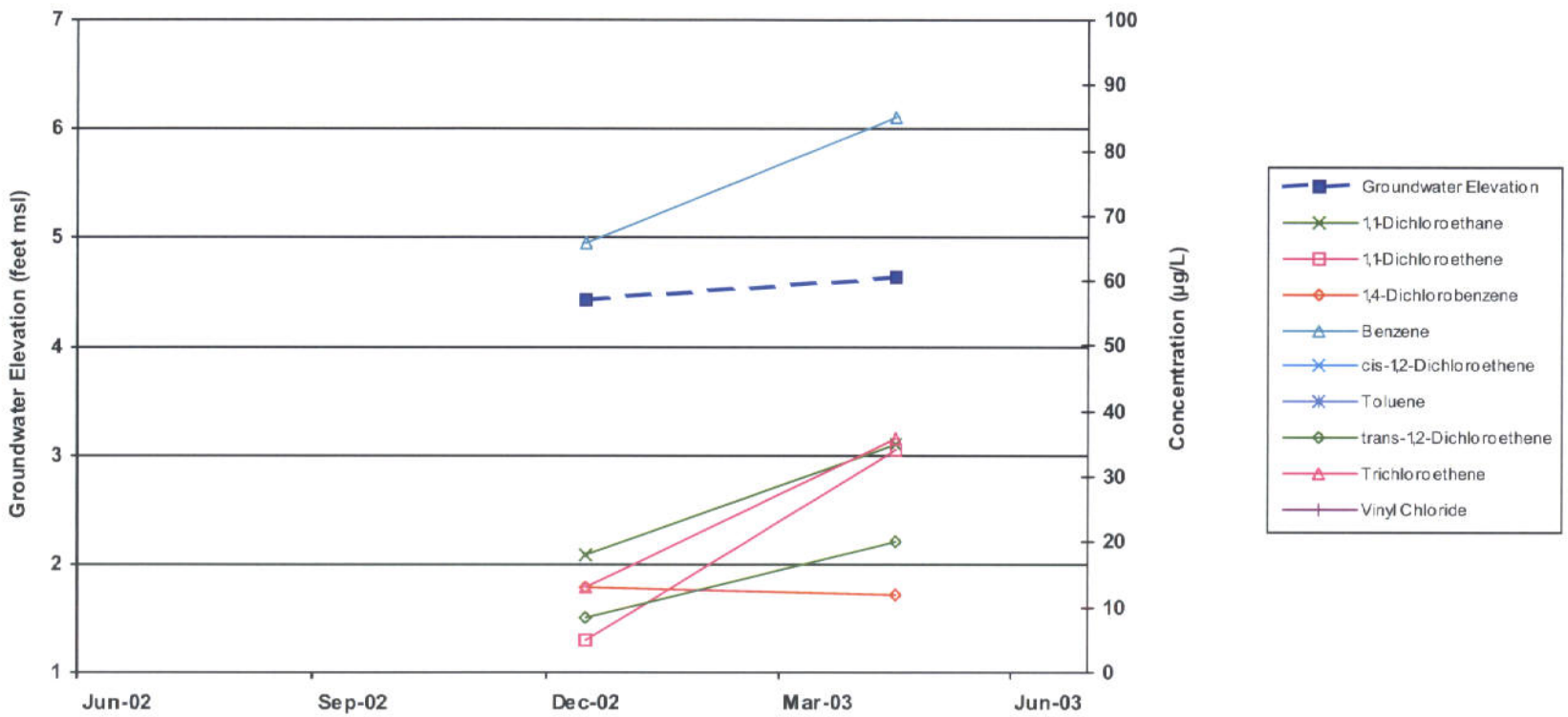
msl mean sea level
pCi/L pico curies per liter

Figure 7-15
Time Series, Groundwater Elevations and Organic Concentrations at M028-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



msl mean sea level
µg/L micrograms per liter

Figure 7-16
Time Series, Groundwater Elevations and Organic Concentrations at M028-E
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

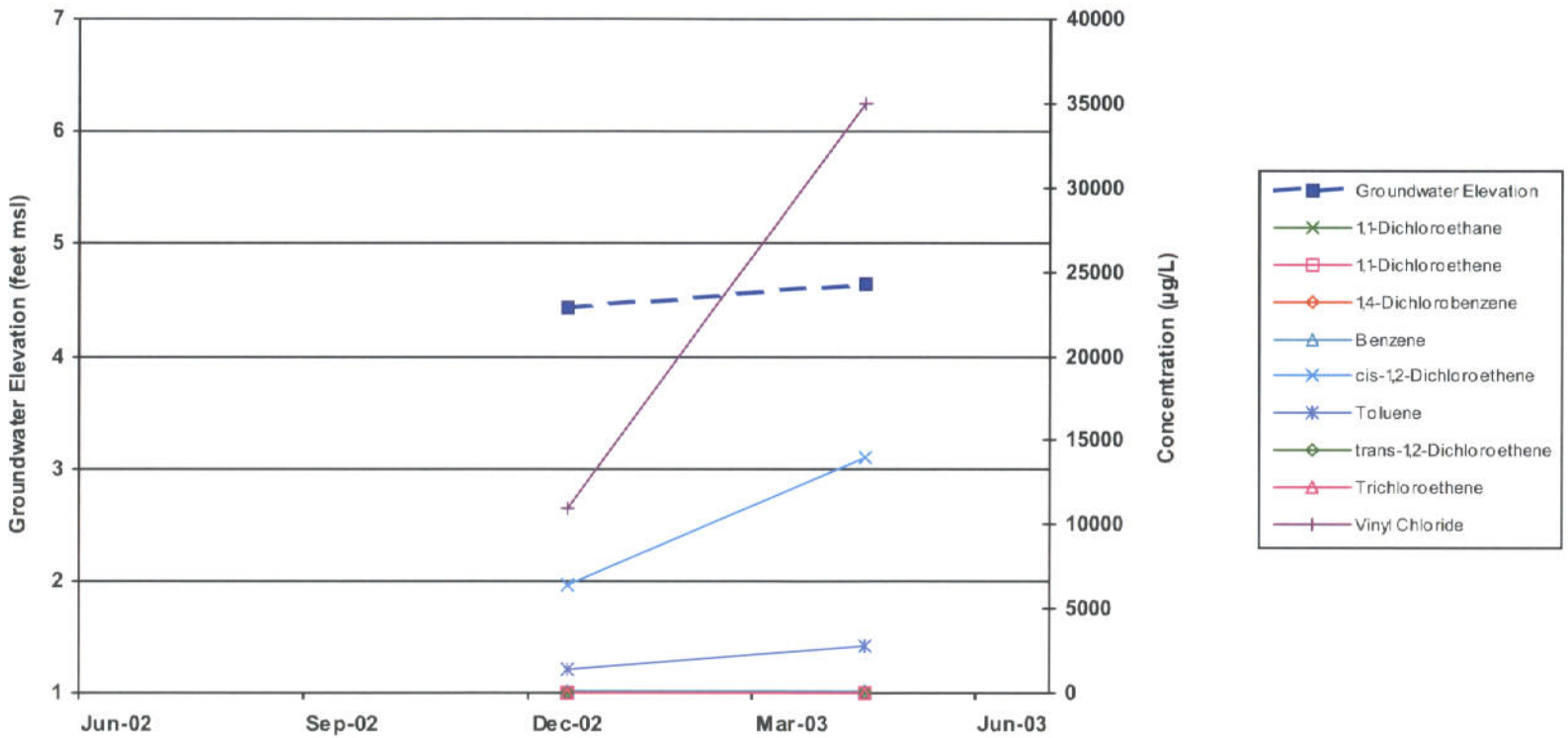


msl mean sea level
µg/L micrograms per liter

Note: Concentration axis restricted to less than observed maximum. Out-of-range compound(s) plotted on an auxiliary view on the subsequent figure.

Results for Out-of-Range Compound(s)	Winter 2002	Spring 2003	Unit
cis-1,2-Dichloroethene	6,400	14,000	µg/L
Toluene	1,400	2,800	µg/L
Vinyl Chloride	11,000	35,000	µg/L

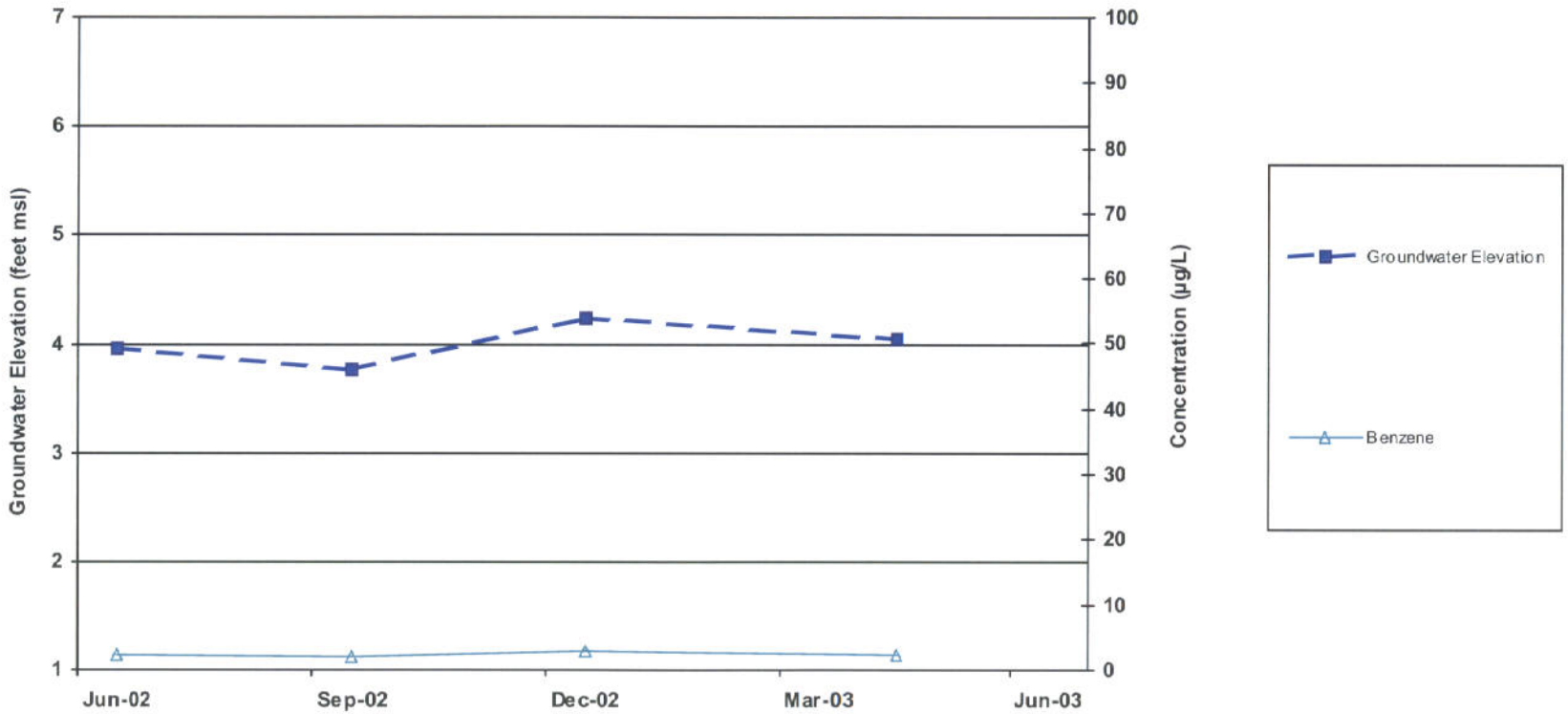
Figure 7-16a
Time Series, Groundwater Elevations and Organic Concentrations at M028-E (Auxiliary View)
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



msl mean sea level
µg/L micrograms per liter

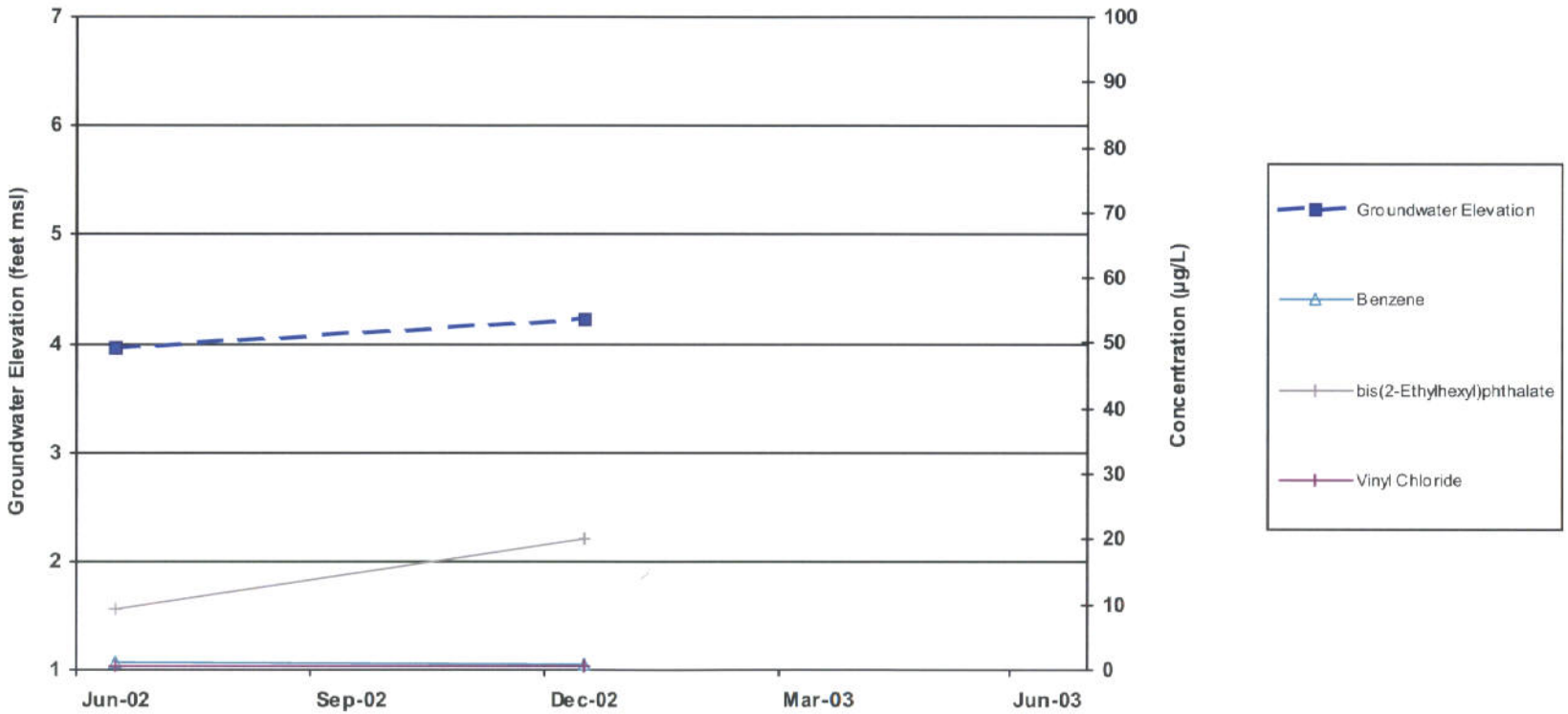
Note: This graph is a secondary plot with a rescaled concentration axis.

Figure 7-17
Time Series, Groundwater Elevations and Organic Concentrations at M029-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



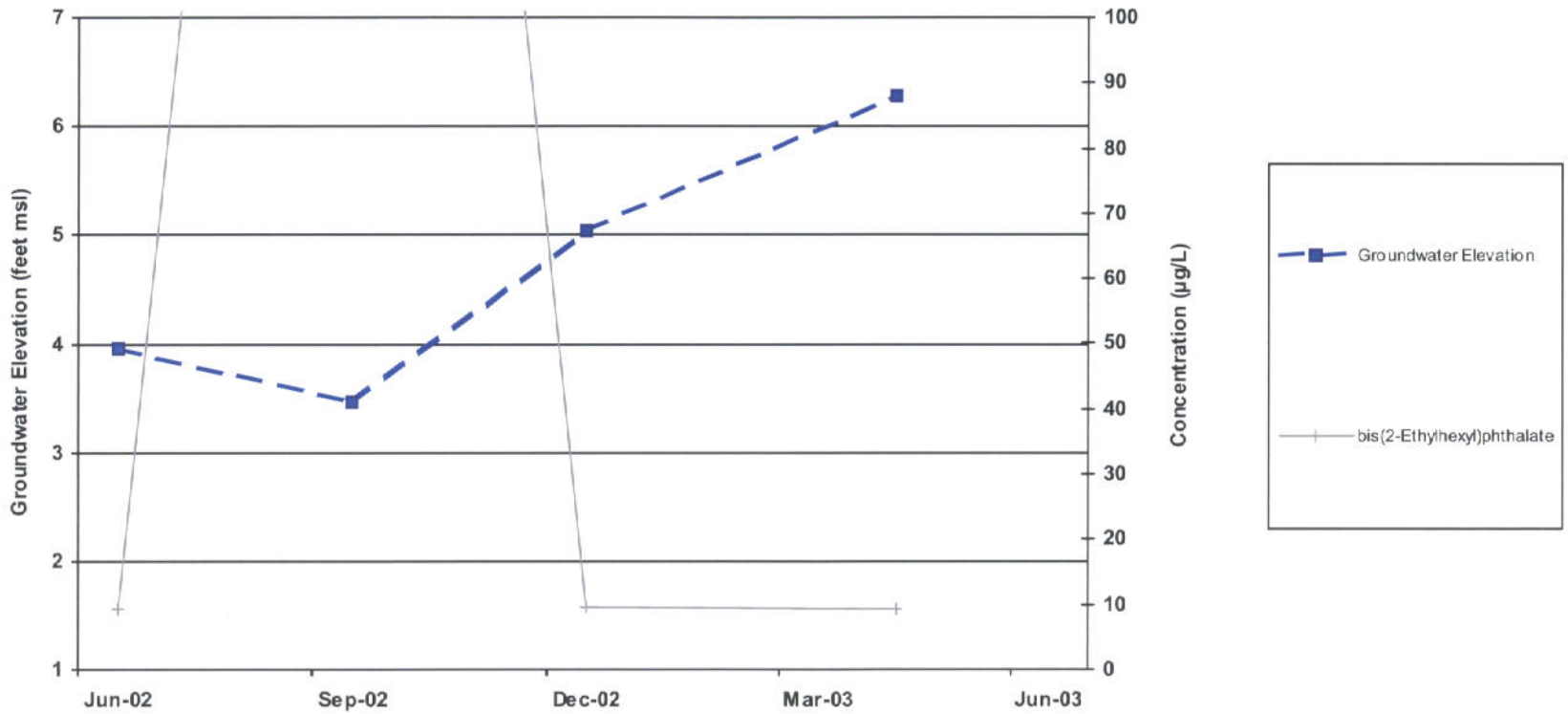
msl mean sea level
µg/L micrograms per liter

Figure 7-18
Time Series, Groundwater Elevations and Organic Concentrations at M029-E
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



msl mean sea level
µg/L micrograms per liter

Figure 7-19
Time Series, Groundwater Elevations and Organic Concentrations at M030-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

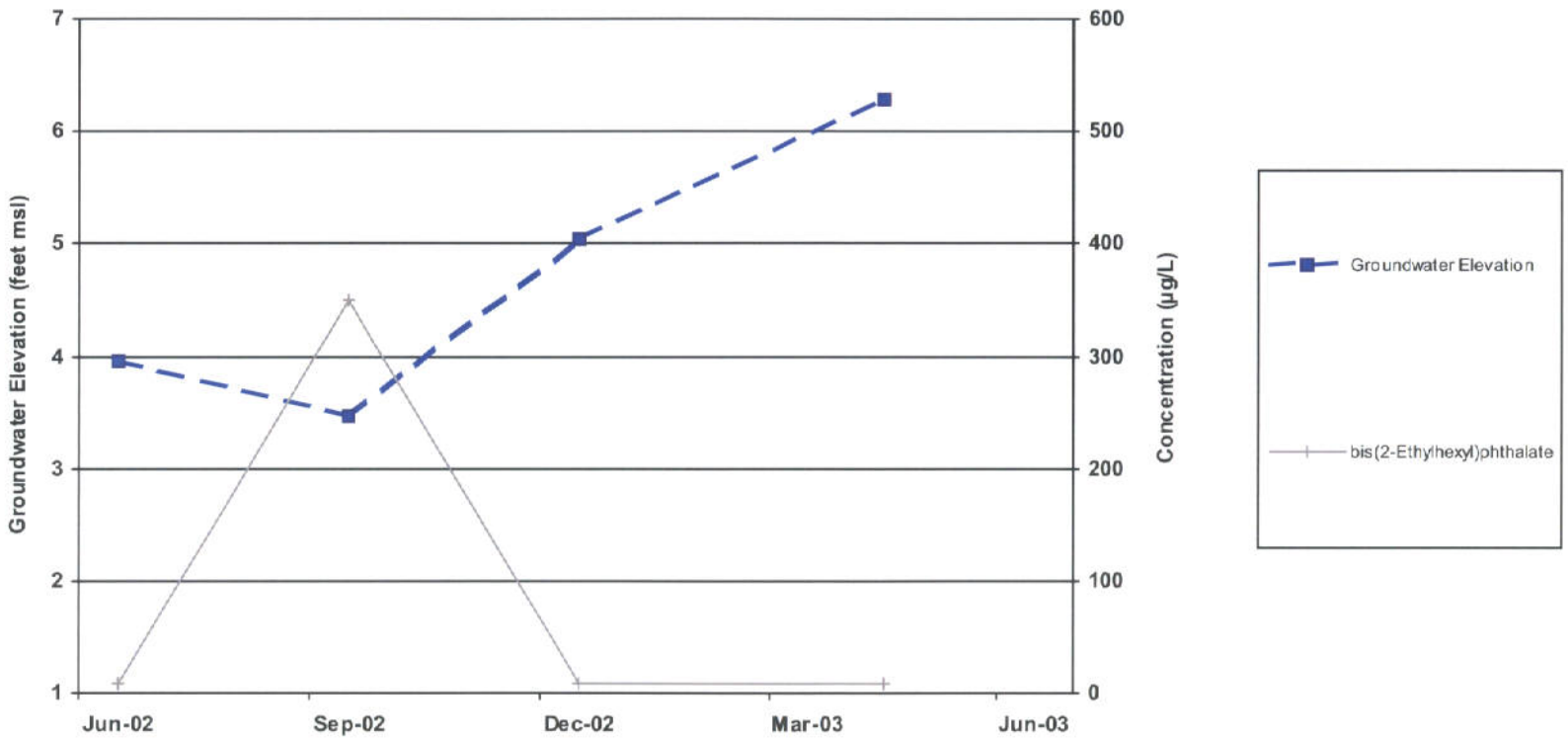


msl mean sea level
µg/L micrograms per liter

Note: Concentration axis restricted to less than observed maximum. Out-of-range compound(s) plotted on an auxiliary view on the subsequent figure.

Results for Out-of-Range Compound(s)	Summer 2002	Fall 2002	Winter 2002	Spring 2003	Unit
bis(2-Ethylhexyl)phthalate	9.4 U	350	9.6 U	9.4 U	µg/L

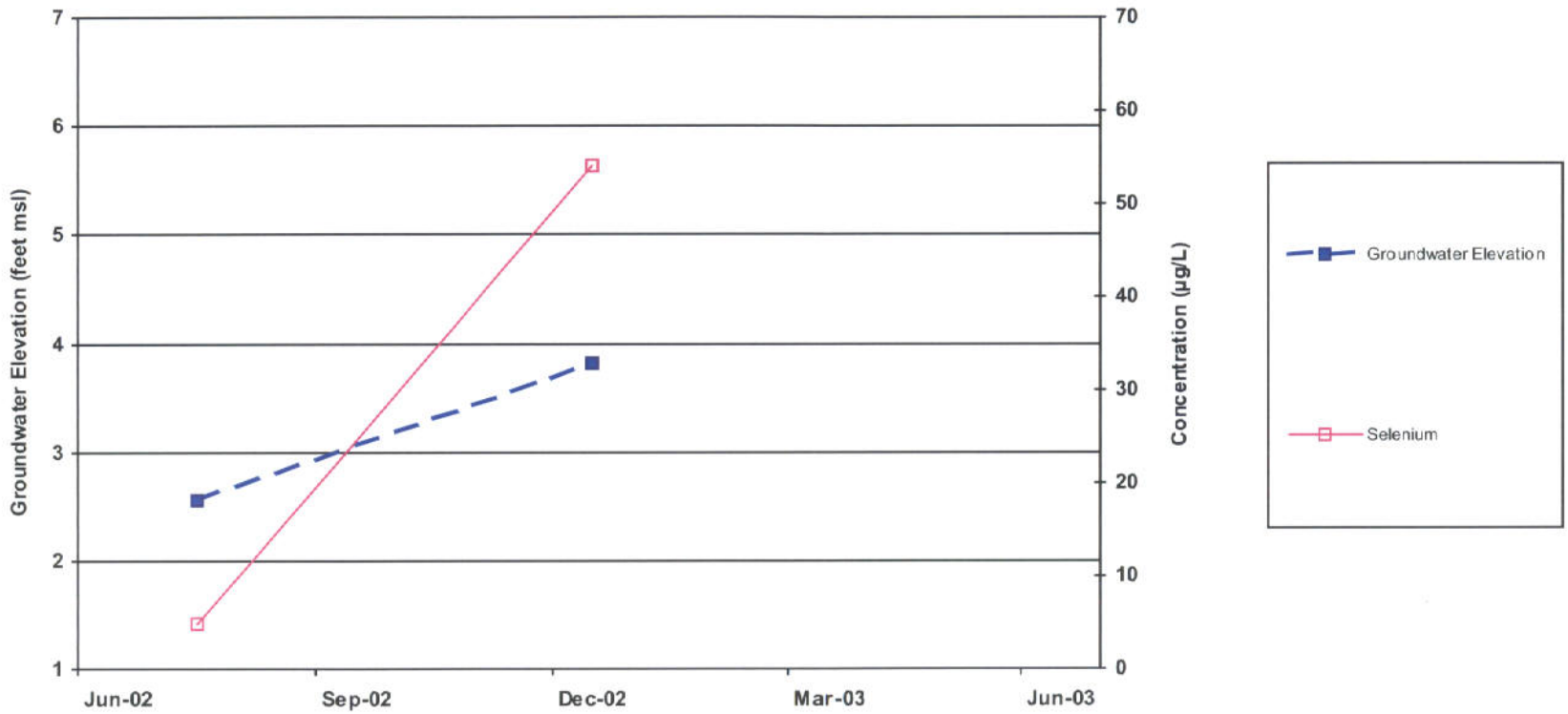
Figure 7-19a
Time Series, Groundwater Elevations and Organic Concentrations at M030-A (Auxiliary View)
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



msl mean sea level
µg/L micrograms per liter

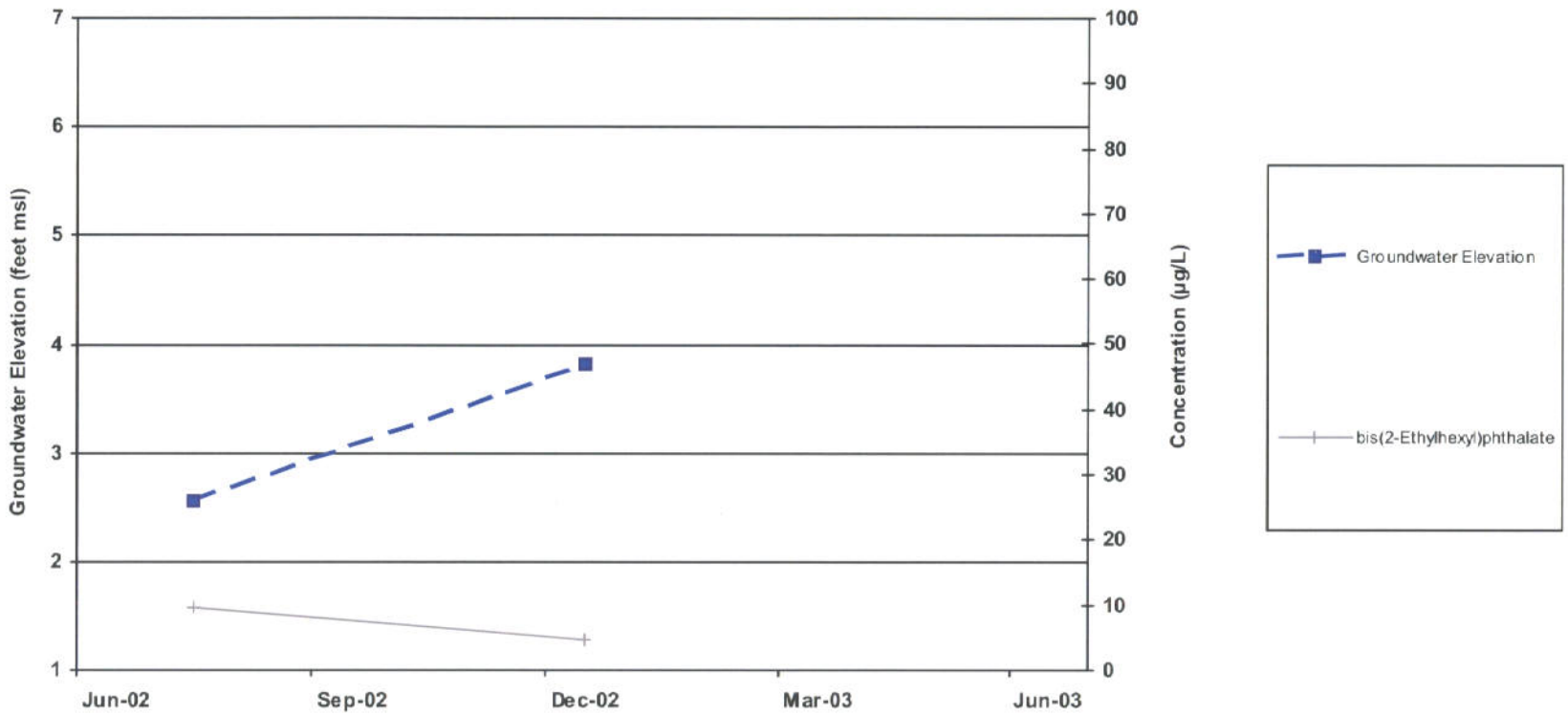
Note: This graph is a secondary plot with a rescaled concentration axis.

Figure 7-20
Time Series, Groundwater Elevations and Inorganic Concentrations at M030-C
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



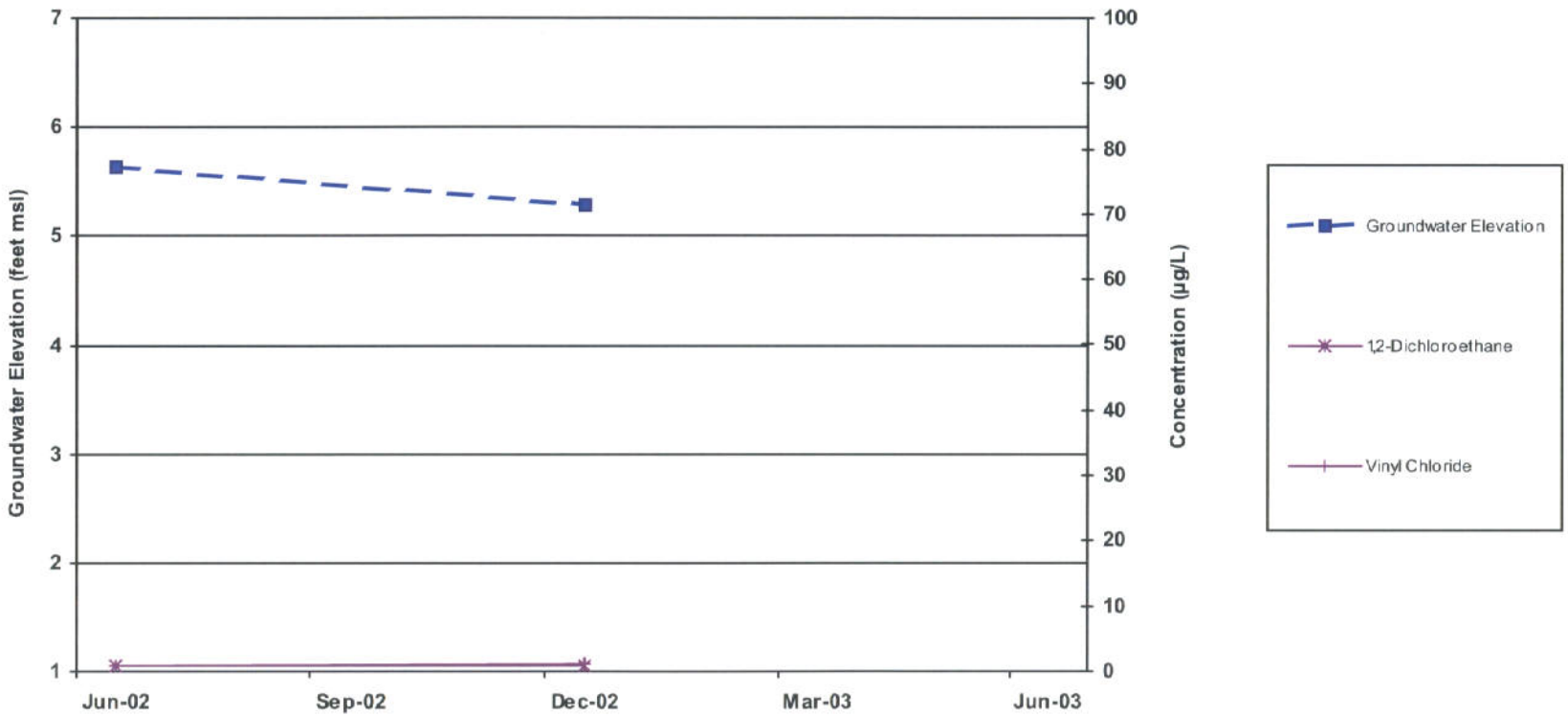
msl mean sea level
µg/L micrograms per liter

Figure 7-21
Time Series, Groundwater Elevations and Organic Concentrations at M030-C
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



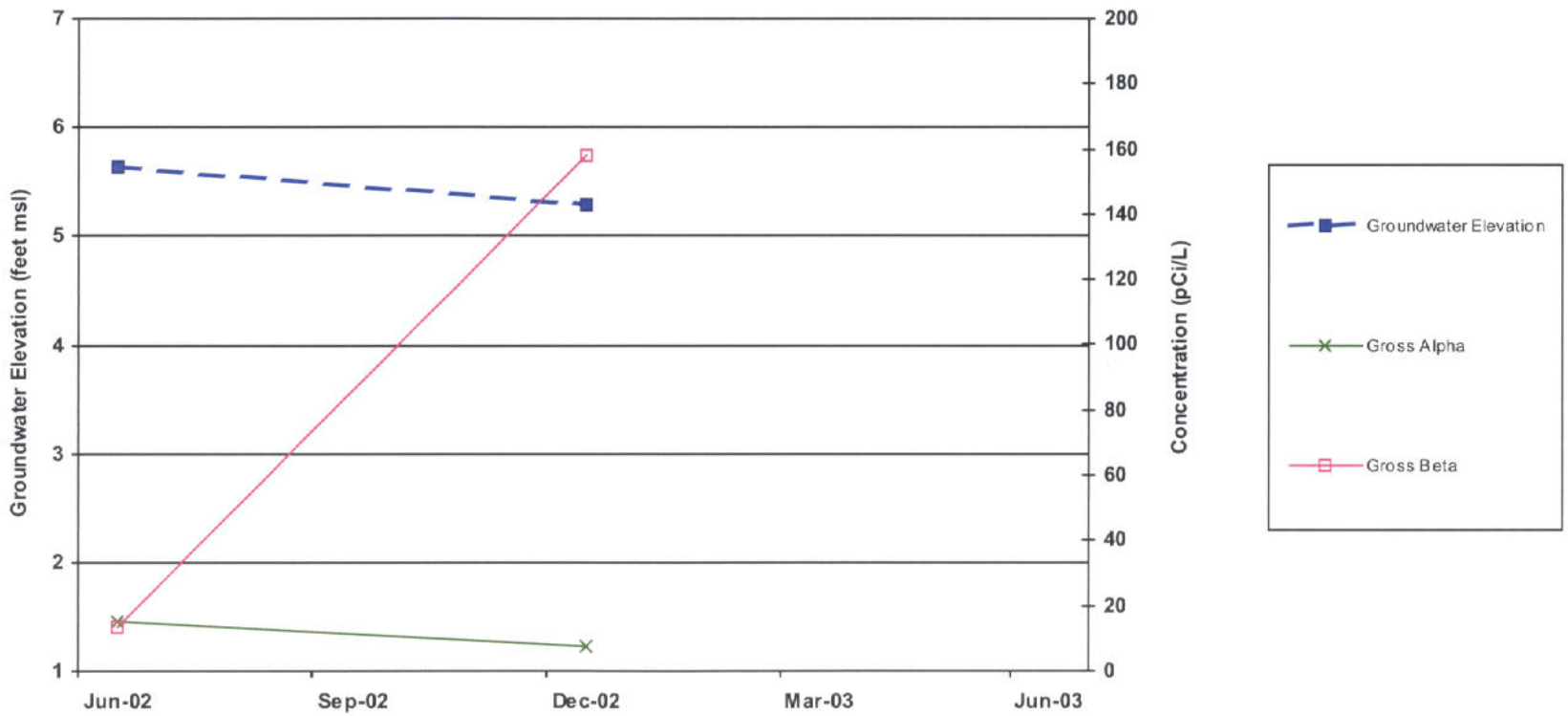
msl mean sea level
µg/L micrograms per liter

Figure 7-22
Time Series, Groundwater Elevations and Organic Concentrations at M032-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



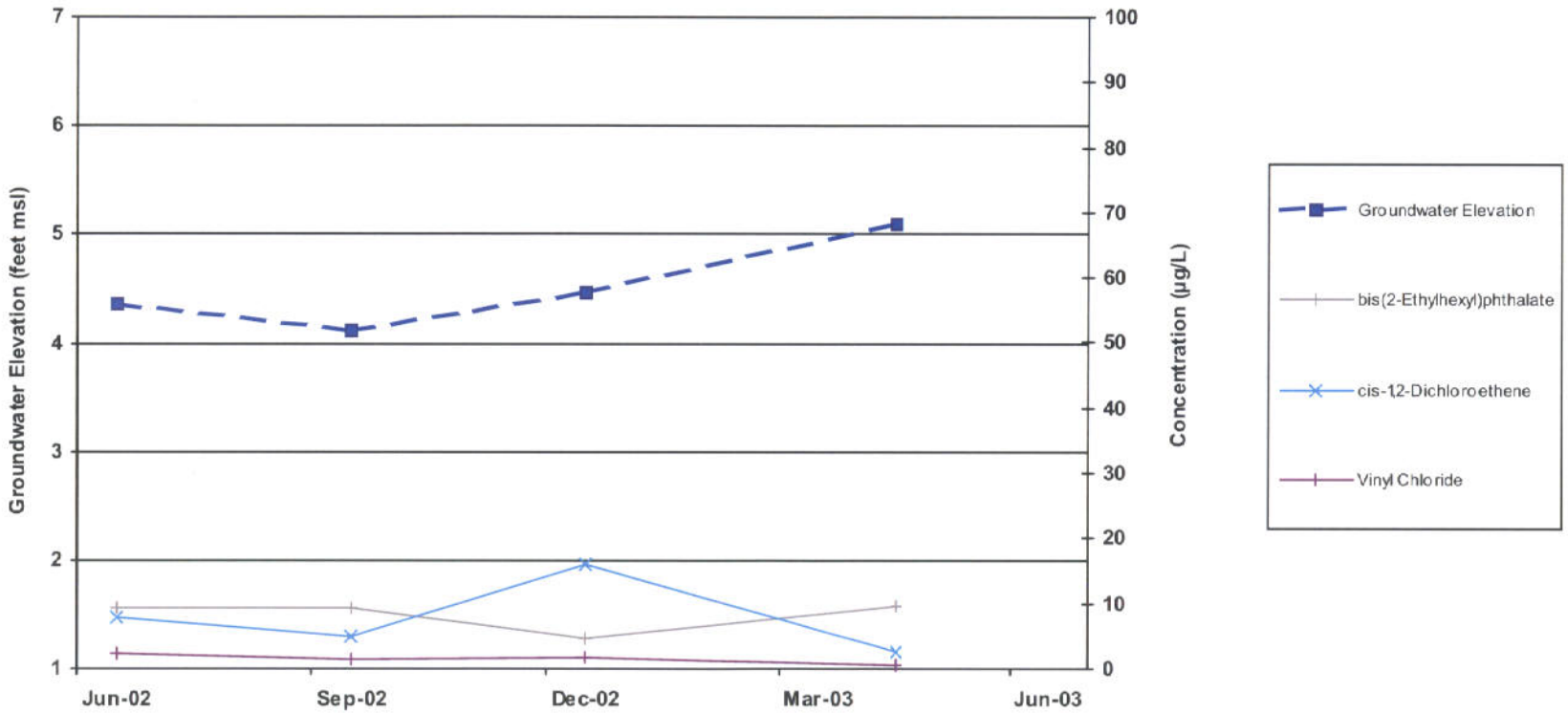
msl mean sea level
µg/L micrograms per liter

Figure 7-23
Time Series, Groundwater Elevations and Radiological Concentrations at M032-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



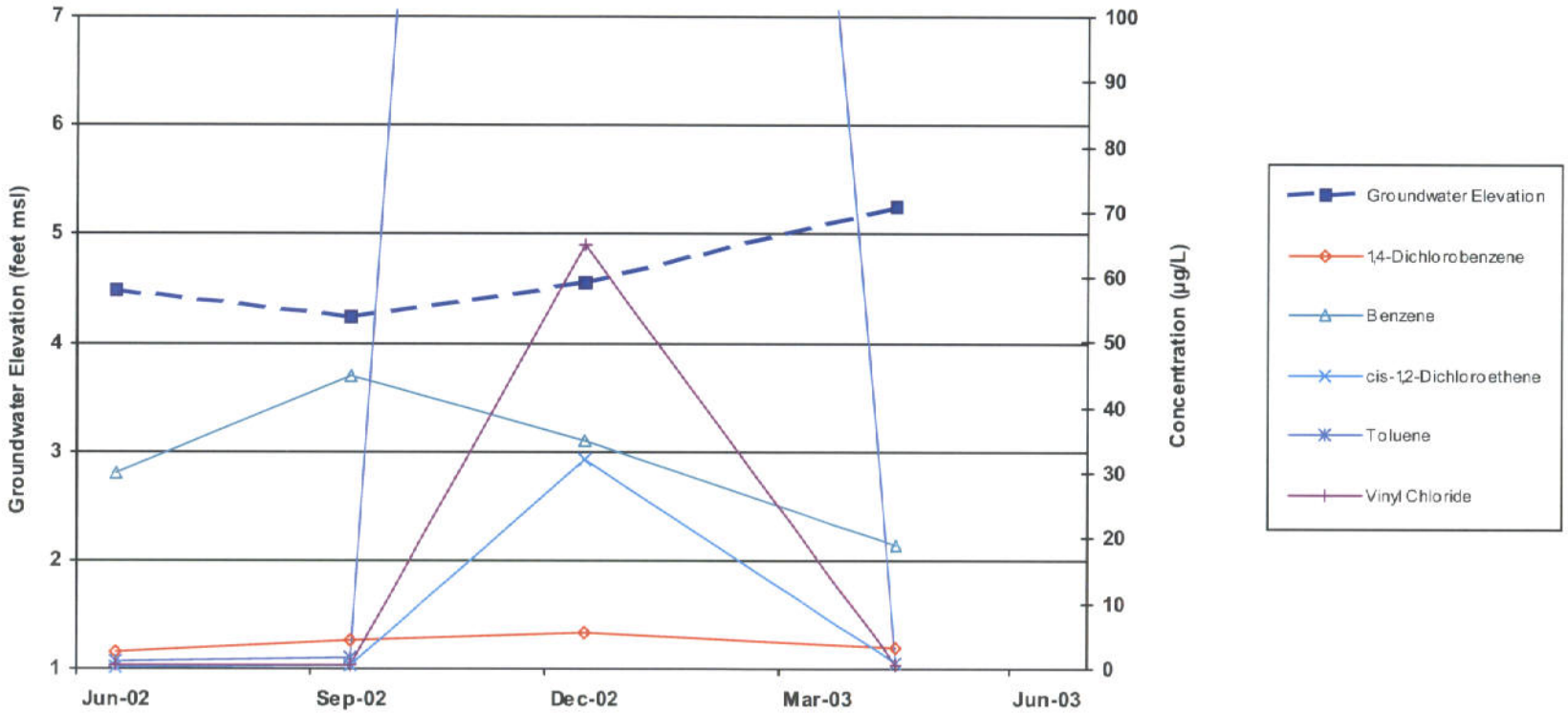
msl mean sea level
pCi/L pico curies per liter

Figure 7-24
Time Series, Groundwater Elevations and Organic Concentrations at M033-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



msl mean sea level
µg/L micrograms per liter

Figure 7-25
Time Series, Groundwater Elevations and Organic Concentrations at M034-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

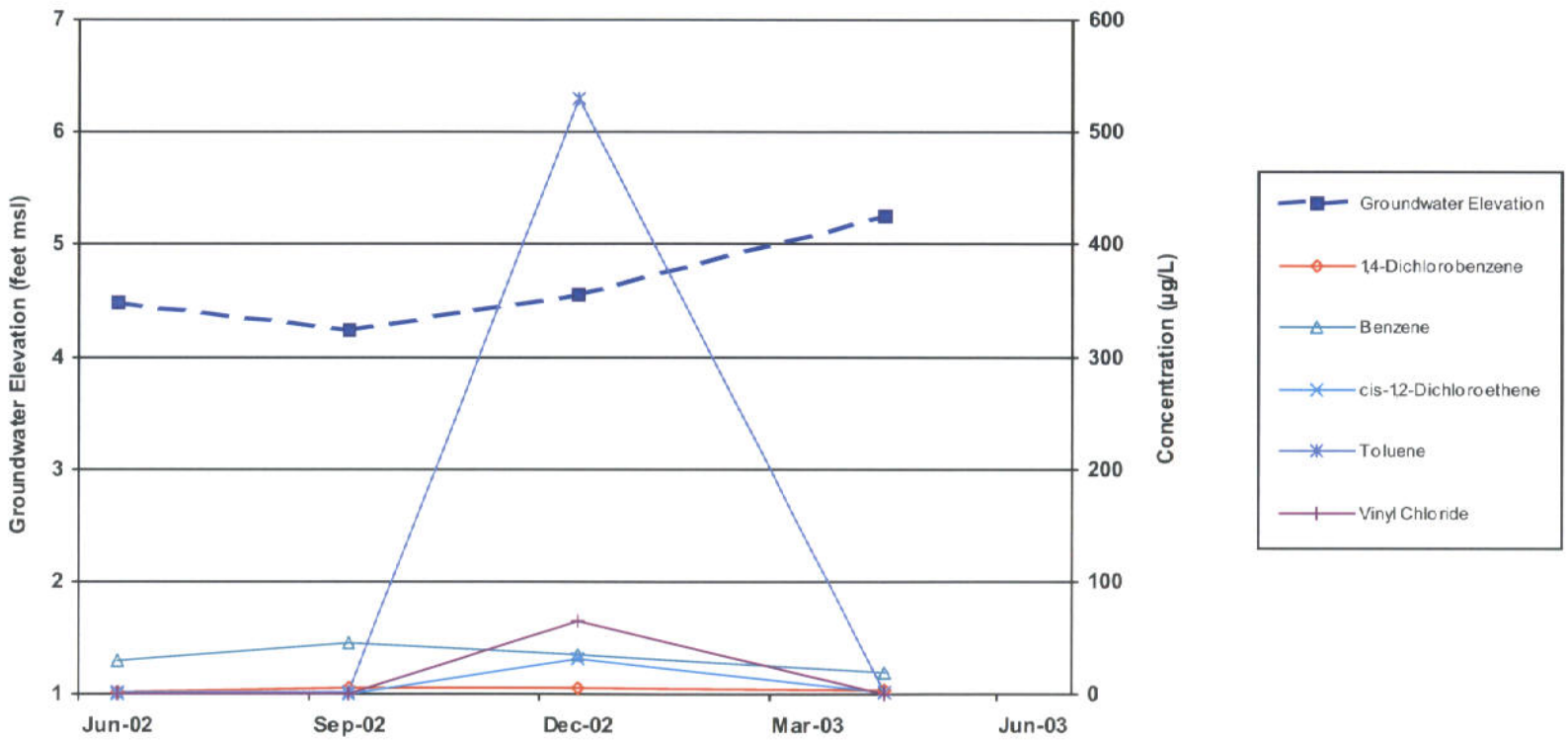


msl mean sea level
µg/L micrograms per liter

Note: Concentration axis restricted to less than observed maximum. Out-of-range compound(s) plotted on an auxiliary view on the subsequent figure.

Results for Out-of-Range Compound(s)	Summer 2002	Fall 2002	Winter 2002	Spring 2003	Unit
Toluene	1.2	1.7	530	0.9	µg/L

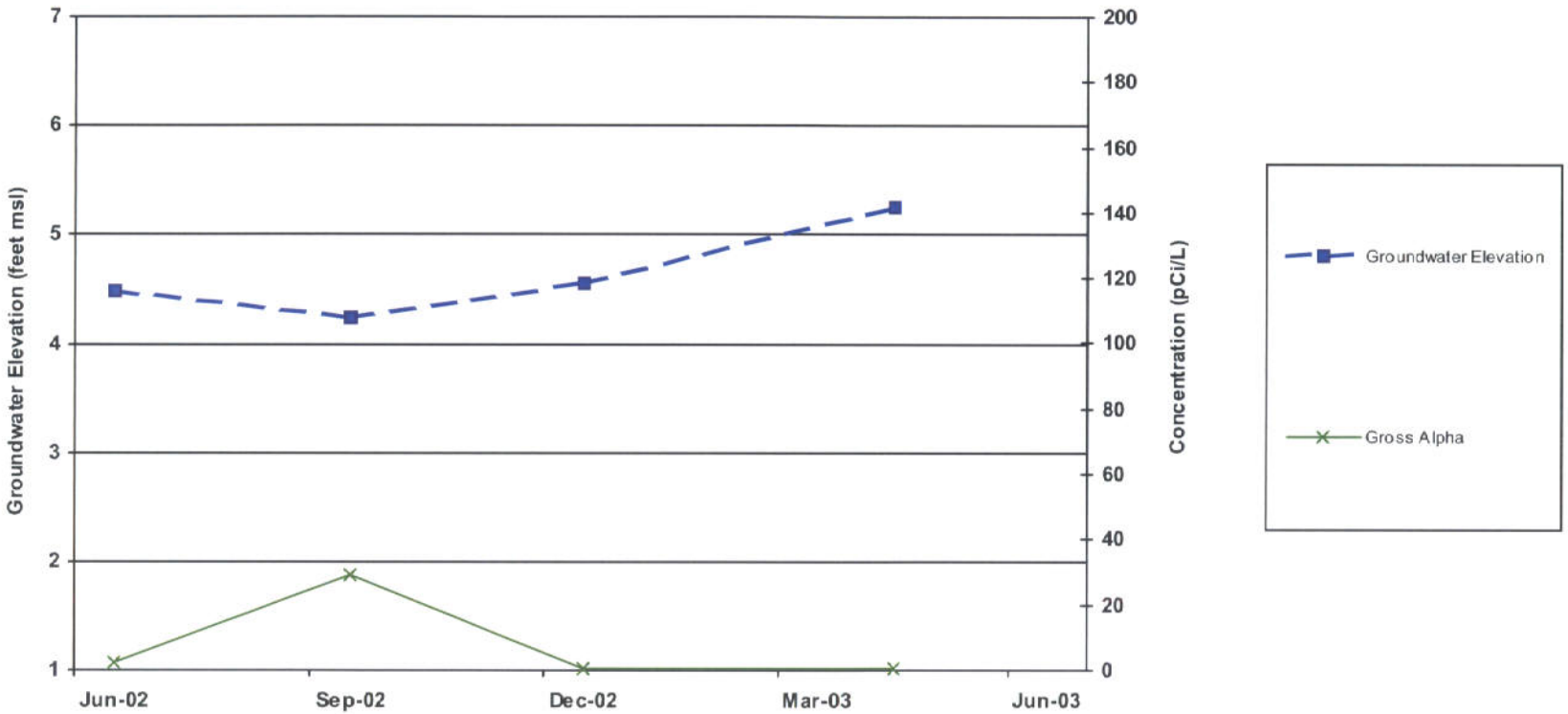
Figure 7-25a
Time Series, Groundwater Elevations and Organic Concentrations at M034-A (Auxiliary View)
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



msl mean sea level
µg/L micrograms per liter

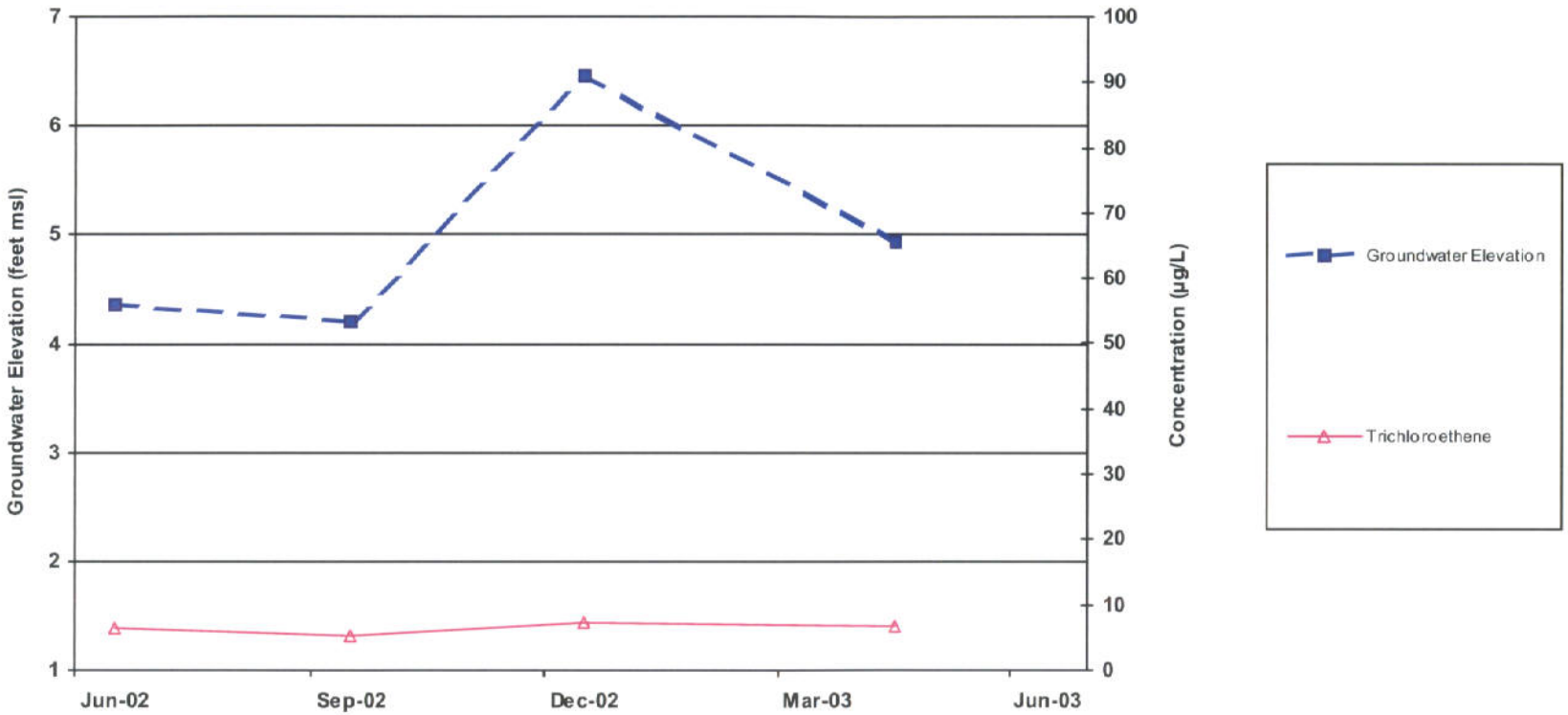
Note: This graph is a secondary plot with a rescaled concentration axis.

Figure 7-26
Time Series, Groundwater Elevations and Radiological Concentrations at M034-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



msl mean sea level
pCi/L pico curies per liter

Figure 7-27
Time Series, Groundwater Elevations and Organic Concentrations at M035-A
Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California



msl mean sea level
µg/L micrograms per liter

elevation of 0.88 feet in the well. A similar relationship was observed with respect to Cis-1,2-DCE although the observed responses water level changes are less apparent. The concentrations of both cis-1,2-DCE and TCE varied directly with changes in the water table.

Trends between cis-1,2-DCE concentrations and groundwater elevations in samples from well M033-A observed during earlier sampling events were not observed in the Spring 2003 event. Wells M003-B and M030-C, in which a tentative correlation between groundwater potentiometric surface and selenium concentration was drawn, were not sampled during the Spring 2003 event.

Antimony and gross beta concentrations in samples from well M027-A show contrasting responses to changes in groundwater elevation. Antimony varies directly in response to changes in groundwater elevation with a decrease in concentration (13J µg/L to 2.7 µg/L) relating to a decrease of 0.19 feet in groundwater elevation. Gross beta concentrations, on the other hand, increased in concentration, from 33.5 pCi/L to 40.6 pCi/L in response to water level changes. These relationships are subtle, involving small changes in concentrations resulting from relatively small changes in water levels.

Analytical results of samples from wells M028-A, M028-E, and M034-A, at the western margin of IR Site 1, show significant changes in VOC concentrations and monitoring data demonstrate a mixed relationship relative to groundwater elevation changes. The groundwater elevation in wells M028-A and M028-E have an opposite direction of change between Winter 2002 and Spring 2003 with the shallower "A" well showing a decrease (-1.55 feet) and the deeper "E" well a 0.2 foot increase. Well M034-A, inland from the M028 series cluster, registered an increase (0.7 feet) in groundwater elevation.

A correspondence was observed between VOC concentrations and the groundwater levels in well M028-E between the Winter 2002 and Spring 2003 sampling events. The changes in VOC concentrations observed in the sample from well M028-E were distinct, with selected VOCs concentrations increasing two to three times, while the groundwater elevation changed only 0.2 feet. For example, between Winter 2002 and Spring 2003 sampling events cis-1,2-dichoroethene and vinyl chloride concentrations increased from 6,400 µg/L to 14,000 µg/L and 11,000 µg/L to 35,000 µg/L, respectively.

Well M028-A, screened at a shallower depth, experienced an increase in cis-1,2 DCE concentration and a decrease in vinyl chloride concentration in response to a decrease in water level. There is not a clear relationship between groundwater levels and VOC concentrations in well M028-A, although the evaluation of tidal influence on this well may provide additional insight into the groundwater flow regime. The difference in response of wells M028-A and

M028-E are difficult to explain considering that the wells are adjacent and there is overlap in the intervals screened by the wells.

Well M034-A, located close by but upgradient from the M028 series well cluster, exhibits an inverse relationship between groundwater elevations and analyte concentrations. The groundwater elevation increased 0.7 feet between the Winter 2002 and Spring 2003 sampling events. Reductions in VOC concentrations were observed between the Winter 2002 and Spring 2003 events with concentrations of cis-1,2- DCE decreasing from 32 µg/L to 0.9 µg/L, vinyl chloride decreasing from 65 µg/L to 0.5 µg/L, and benzene decreasing from 30 µg/L to 19 µg/L.

The relationship between COPCs and water levels should be reviewed over the next several quarters to assess whether the relationship between changes in groundwater elevations and concentrations show any consistent trends.

7.3.3 Natural Attenuation Data

Data used to evaluate the natural attenuation of analytes in groundwater were collected during the Spring sampling event. Natural attenuation is the reduction in concentration and mass of a contaminant plume due to processes occurring naturally in the subsurface environment. Natural attenuation data measured during the Spring 2003 sampling event were as follows:

- pH
- Dissolved oxygen (DO)
- Oxidation-reduction potential (ORP)

Natural attenuation analyses for quarterly sampling events are limited to measurements of water quality parameters made during well micropurging. The more extensive suite of natural attenuation analyses on samples submitted to the laboratory was not conducted during the Spring 2003 sampling event. Laboratory natural attenuation parameters will be analyzed during the next (Summer 2003) sampling event.

Table 7-159, "Natural Attenuation Data, Well Purge Measurements, Installation Restoration Site 1, Summer, Fall, Winter 2002, and Spring 2003," lists the results of the natural attenuation field measurements. The measured DO concentrations and ORP values are contoured in Figures 7-28, "Oxidation-Reduction Potential, IR Site 1, Operable Unit 3, Spring 2003," and 7-29, "Dissolved Oxygen, First Water-Bearing Zone, IR Site 1, Operable Unit 3, Spring 2003," and illustrate the relationships of DO and ORP values observed during well purging during the Spring 2003 sampling. Observations about the relationship of these measurements to the degradation of chlorinated solvents are provided below.

Table 7-159: Natural Attenuation Data, Well Purge Measurements, Installation Restoration Site 1
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Water-Bearing Zone	Well Name	Date	pH	Dissolved Oxygen (mg/L)	ORP (mV)
First	M001-A	06/27/02	7.74	2.30	-63.00
		09/18/02	7.95	0.90	-99.20
		12/26/02	7.88	0.30	-24.00
		04/15/03	7.69	0.18	98.00
First	M001-E	06/27/02	6.65	4.20	-234.00
		09/18/02	*8.60*	0.50	-132.20
		12/26/02	*9.03*	0.00	-240.00
		04/15/03	*8.79*	0.19	150.00
First	M002-A	06/26/02	6.91	2.40	120.00
		09/19/02	6.67	7.70	24.50
		12/26/02	7.46	6.40	-11.00
		04/15/03	6.89	2.37	221.00
First	M003-A	06/26/02	6.96	1.10	1.00
		09/19/02	6.63	0.51	-40.00
		12/26/02	6.85	1.12	2.00
		04/21/03	6.83	0.34	9.00
First	M004-A	06/26/02	7.22	2.20	115.00
		12/26/02	7.25	4.57	130.00
First	M006-A	06/26/02	6.72	0.01	-54.80
		12/26/02	6.72	0.02	-12.00
First	M007-A	06/26/02	7.27	0.16	-75.00
		12/26/02	7.64	0.01	-104.00
First	M025-A	07/01/02	7.80	0.15	-183.20
		09/18/02	7.09	0.28	-248.00
		12/27/02	7.50	4.57	-90.00
		04/15/03	8.37	0.16	-183.00
First	M026-A	07/01/02	7.50	2.50	120.00
		12/27/02	7.93	4.29	7.00
First	M026-E	07/01/02	7.85	2.10	-115.00
		12/27/02	7.67	3.91	-127.00
First	M027-A	06/28/02	7.18	0.80	43.00
		09/18/02	6.97	1.90	-76.70
		12/27/02	6.99	0.02	1.00
		04/15/03	7.10	2.20	-47.00

Table 7-159: Natural Attenuation Data, Well Purge Measurements, Installation Restoration Site 1 (Continued)
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Water-Bearing Zone	Well Name	Date	pH	Dissolved Oxygen (mg/L)	ORP (mV)
First	M028-A	07/01/02	7.32	2.20	-120.00
		09/18/02	6.94	0.45	-168.00
		12/27/02	7.34	0.06	-91.00
		04/15/03	7.10	2.60	-84.00
First	M028-E	12/31/02	7.03	3.96	-124.00
		04/16/03	6.47	0.19	-25.00
First	M029-A	06/27/02	7.95	2.30	-139.00
		09/18/02	8.11	0.80	-196.70
		12/27/02	7.80	0.00	-167.00
		04/15/03	8.00	2.20	-144.00
First	M029-E	06/27/02	8.02	2.20	-152.00
		12/27/02	7.34	*12.26*	-206.60
First	M030-A	06/27/02	6.55	2.60	-237.00
		09/19/02	7.45	0.30	-38.00
		12/26/02	6.97	6.48	99.00
		04/15/03	6.50	8.90	213.00
First	M031-A	06/28/02	7.22	2.30	-31.00
		09/17/02	7.49	1.30	2.20
		12/27/02	6.16	0.77	14.10
		04/17/03	7.18	0.21	201.00
First	M032-A	06/26/02	7.11	0.09	-116.50
		12/30/02	6.79	8.82	-108.10
First	M033-A	06/28/02	7.17	2.00	-85.00
		09/17/02	7.48	0.90	-159.30
		12/27/02	7.63	0.00	-208.00
		04/16/03	7.33	0.13	121.00
First	M034-A	06/28/02	6.71	1.70	95.00
		09/17/02	6.80	0.80	-125.70
		12/30/02	6.38	*36.92*	-138.50
		04/16/03	6.74	0.24	42.00
First	M035-A	06/28/02	7.14	0.90	-127.00
		09/17/02	7.09	1.20	-47.40
		12/30/02	6.52	*17.71*	23.10
		04/21/03	7.04	0.45	158.00
Second	M001-B	07/02/02	6.90	0.18	-46.10
		12/26/02	7.34	0.00	-95.00

Table 7-159: Natural Attenuation Data, Well Purge Measurements, Installation Restoration Site 1 (Continued)
Summer, Fall, Winter 2002, and Spring 2003
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Water-Bearing Zone	Well Name	Date	pH	Dissolved Oxygen (mg/L)	ORP (mV)
Second	M003-B	07/01/02	6.78	0.03	-82.30
		12/26/02	6.87	0.17	-81.00
Second	M025-C	07/01/02	6.90	1.68	-150.90
		09/19/02	6.86	NM	-162.00
		12/26/02	7.38	0.00	-173.00
		04/15/03	6.96	0.20	-3.00
Second	M027-B	07/02/02	6.97	0.18	-127.00
		12/27/02	7.19	0.00	-190.00
Second	M027-C	07/02/02	6.97	0.12	-81.40
		12/27/02	7.16	4.36	-182.00
Second	M028-C	07/02/02	7.06	0.42	-126.30
		09/18/02	7.07	0.22	-153.00
		12/27/02	7.48	0.10	-269.00
		04/16/03	7.24	0.11	-130.00
Second	M030-C	07/15/02	7.66	2.50	-24.00
		12/26/02	8.22	3.59	-233.00
Second	M031-C	07/02/02	7.06	0.32	-87.60
		12/27/03	7.39	0.00	-242.00

Note: Field parameter measurements taken during well purging prior to collection of the groundwater sample.

mg/L milligrams per liter
ORP oxidation-reduction potential
mV millivolts
NM not measured

Italicized results are outside expected range of parameter. Natural groundwater has an expected range for pH of between 6 and 8.5 standard units, DO should be below approximately 9 mg/L and ORP should have a range of between approximately 600 and -400 mV

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LEGEND

- PROGRAM MONITORING WELL
- MONITORING WELL NOT IN PROGRAM OR NOT SCREENED IN SPECIFIED HYDROLOGIC UNIT
- 0.5 — OXIDATION–REDUCTION POTENTIAL CONTOUR, QUERIED WHERE UNCERTAIN
- 211 — OXIDATION–REDUCTION POTENTIAL (millivolts)
- NS — NOT SAMPLED (IN ACCORDANCE WITH SCHEDULE)
- CERCLA BOUNDARY
- BARGE LINES (1949 AERIAL SURVEY)
- BARGE LINES (1957 AERIAL SURVEY)

NOTE:

1. POSITION OF BARGE LINES ARE INFERRED.

SCALE 0 150 300 FEET

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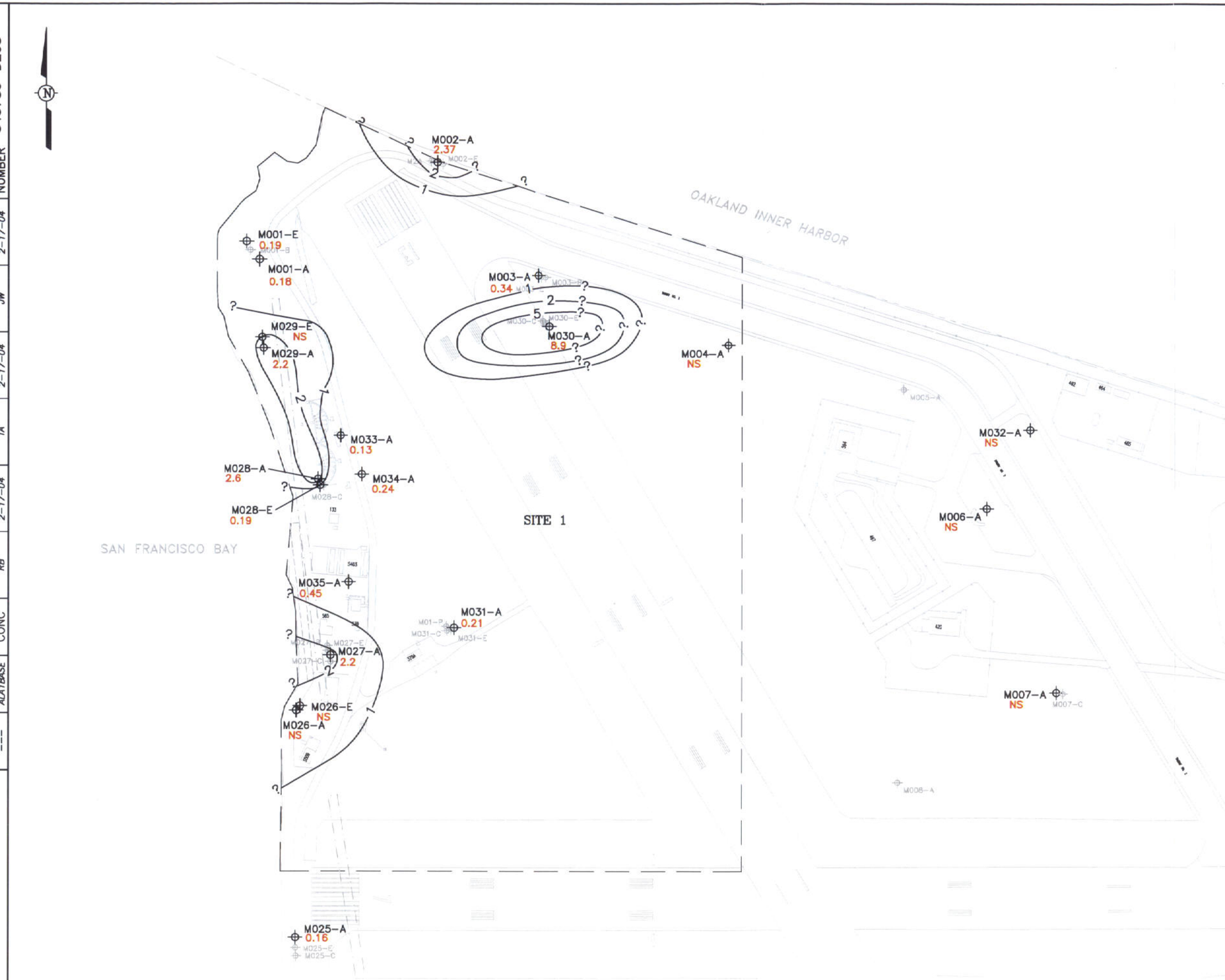
DEPARTMENT OF THE NAVY, SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 7–28

OXIDATION–REDUCTION POTENTIAL
IR SITE 1 OPERABLE UNIT 3
SPRING 2003

ALAMEDA POINT ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	ALA1BASE	CONC	RB 2-17-04	TA 2-17-04	JW 2-17-04	843780-D207



LEGEND

- PROGRAM MONITORING WELL
- MONITORING WELL NOT IN PROGRAM OR NOT SCREENED IN SPECIFIED HYDROLOGIC UNIT
- 0.5 — DISSOLVED OXYGEN CONTOUR, QUERIED WHERE UNCERTAIN
- 13 — DISSOLVED OXYGEN (MILLIGRAMS PER LITER)
- NS — NOT SAMPLED (IN ACCORDANCE WITH SCHEDULE)
- CERCLA BOUNDARY
- BARGE LINES (1949 AERIAL SURVEY)
- BARGE LINES (1957 AERIAL SURVEY)

NOTES:

1. POSITION OF BARGE LINES ARE INFERRED.

SCALE 0 150 300 FEET

Shaw Environmental, Inc.

DEPARTMENT OF THE NAVY, SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 7-29
DISSOLVED OXYGEN
FIRST WATER-BEARING ZONE
IR SITE 1 OPERABLE UNIT 3
SPRING 2003

ALAMEDA POINT ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	ALA1BASE	CONC	RB 2-17-04	TA 2-17-04	JW 2-17-04	843780-D208

7.4 Natural Attenuation Evaluation

Data used to support evaluations for natural attenuation of COPCs in groundwater were collected during the Summer 2002, Fall 2002, Winter 2002, and Spring 2003 sampling events. The natural attenuation data are summarized in Table 7-159 and Table 7-160, "Natural Attenuation Data, Field Test and Laboratory Analytical Data, Installation Restoration Site 1, Summer and Winter 2002."

Collection of natural attenuation data at the IR Site 1 focused on indicators related to intrinsic biodegradation, a process with significant potential for organic contaminant mass reduction. The evaluation presented in this section does not constitute a complete assessment of natural attenuation, but rather a geochemical analysis of whether conditions are present to indicate that intrinsic biodegradation processes may be active. The purpose of collecting the natural attenuation data and performing this review is to build a data set to support a decision regarding whether monitored natural attenuation is occurring at IR Site 1.

Natural attenuation is the reduction in mass, mobility, concentration, or toxicity of a contaminant plume due to processes occurring naturally in the subsurface environment. Natural attenuation processes include non-destructive and destructive mechanisms, *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water: U.S. Environmental Protection Agency,* (Wiedemeir et al., 1998). Non-destructive mechanisms for organic contaminants include dilution, dispersion, sorption, and volatilization. Destructive mechanisms for organic contaminants include intrinsic biodegradation and abiotic chemical reactions.

Biodegradation processes are indicated by the following measured trends in several geochemical parameters across a dissolved chlorinated organic COPC plume:

A relative *decrease* in:	**A relative *increase* in:**
DO	Carbon dioxide and alkalinity
ORP	Ferrous iron
Ferric iron	Nitrite
Nitrate	Sulfide
Sulfate	Methane

Anaerobic microorganisms become active at DO concentrations of approximately 0.5 milligrams per liter or less. As DO is depleted, anaerobic microorganisms will use as electron acceptors nitrate, manganese, ferric iron, sulfate, and finally carbon dioxide (Wiedemeir et al., 1998).

The DO, ORP, and ferrous iron data collected in the field from IR Site 1 with significant variations observed for wells between the sampling events (see Tables 7-159 and 7-160), although conclusions about chemical attenuation can be drawn from the range of data. The

Table 7-160: Natural Attenuation Data, Field Test and Laboratory Analytical Data, Installation Restoration Site 1
Summer and Winter 2002
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Water-Bearing Zone	Well Name	Date Measured	Ferrous Iron* (mg/L)	Methane (mg/L)	Ethane (mg/L)	Ethene (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Sulfide (mg/L)	Chloride (mg/L)	Alkalinity (mg/L)
First	M004-A	06/26/02	0.07	0.2	0.01 U	0.01 U	0.05 U	0.05 U	26	0.04 U	130	450
		12/26/02	<0.03	0.01 U	0.01 U	0.01 U	2.4	0.05 U	63	0.04 U	53	450
First	M027-A	06/28/02	0.27	0.025	0.01 U	0.01 U	0.1 U	0.1 U	190	NM	420	570
		12/27/02	0.28	0.018	0.01 U	0.01 U	3.2	0.03 J	260	0.04 U	110	510
First	M028-A	07/01/02	2.87	3.2	0.83	0.13	0.05 U	0.05 U	10	0.09	74	350
		12/27/02	0.43	0.01 U	0.01 U	0.01 U	2	0.05 U	160	0.04 U	67	380
First	M028-E	12/31/02	3.30	14	1.9	9.2	0.05 U	0.05 U	0.5 U	0.11	190	360
First	M033-A	06/28/02	0.67	2.5	0.01 U	0.01 U	0.05 U	0.05 U	2.5	0.04 U	58	340
		12/27/02	1.78	2.1	0.01 U	0.01 U	0.05 U	0.05 U	15	0.06	57	440
Second	M003-B	07/01/02	3.30	0.062	0.01 U	0.01 U	0.5 U	0.5 U	600	0.04 U	13,000	1,000
		12/26/02	3.30	0.077	0.01 U	0.01 U	1.3 U	1.3 U	630	0.04 U	14,000	1,000
Second	M028-C	07/02/02	3.30	0.01 U	0.01 U	0.01 U	0.5 U	0.5 U	1,300	0.04 U	12,000	450
		12/27/02	3.30	0.01 U	0.01 U	0.01 U	1.3 U	1.3 U	1,400	0.18	11,000	440

mg/L milligrams per liter
NM not measured
* Results greater than 3.0 mg/L indicate sample concentration was greater than listed value and not quantifiable by meter.

< Not detected at or above the indicated reporting limit.
U Not detected at or above the indicated reporting limit.
J Estimated value.

variation may reflect changes in groundwater flow patterns, water table elevations or the effects of salinity resulting from the influence of sea water. The laboratory data for nitrate, sulfate, sulfide, alkalinity, and chloride are relatively consistent.

The groundwater data set at IR Site 1 presents the opportunity to examine chemical properties associated with the degradation of chlorinated VOCs. Ambient conditions, thought to be unaffected by artificial chemicals, are present in the northern section of the site near well M004-A. Contrasting "degradation" conditions representing a known chlorinated solvent plume and ongoing (passive) remediation by iron reactive technology (Funnel and Gate, [*Funnel and Gate Demonstrations Data Summary Report, Fourth Quarter, Final*] Tetra Tech Environmental Management, Inc., 1999) is present in the western part of the site near wells M028-A and M028-E. Deeper aquifer characteristics were represented by the deep well (M003-B), which is located in the northern part of the site. The deep well shows no impacts from shallow zone contamination and is suitable for use in the evaluation of SWBZ ambient conditions.

Ambient FWBZ and SWBZ conditions, relative to natural attenuation conditions, are represented by samples collected from wells M004-A and M003-B. Dissolved oxygen and ORP readings demonstrate characteristics expected from the respective aquifers with depleted oxygen levels in the deeper aquifer and higher ORP values for the shallow aquifer. Ferrous iron was not present at levels above detection levels in the shallow M004-A well. This is consistent with an ambient groundwater without ongoing chlorinated VOC degradation. The deeper well M003-B, however consistently contained ferrous iron at levels greater than 3.30 mg/L (the maximum meter range) and chloride levels in excess of 10,000 mg/L. The high levels of ferrous iron and chloride are interpreted as indicators of saline water and not of active decay processes.

Methane is present at low levels in both the shallow and the deep ambient well. The methane levels were very low in the deep well (0.062-0.077 mg/L) and at a slightly higher concentration in a single sample from the shallow M004-A well (0.2 mg/L). Although methane can be associated with biodegradation of organic contaminants, it can also form from degradation of native dissolved organic carbon and this is assumed to be the case in the ambient wells. Nitrate is present only in the shallow well but is absent in the deeper M003-B well. Neither well contains nitrite, which is consistent with the ambient non-degradation environment. Sulfate is present in both shallow and deep wells, although concentrations are higher in the deeper well (600 mg/L) and are suspected to represent the saline character of the water. Sulfite, another indicator compound for VOC degradation, is absent from either well. These wells form a basis for comparison of ambient groundwater environment against areas with active chemical degradation processes, although the variability of measurements necessitates caution in drawing conclusions from a single result.

Contrasting "degradation" conditions are represented by samples collected from wells in the area of the M028-A, E, and C well cluster. The M028-A and E wells were screened in the shallow FWBZ aquifer. This is the location of the passive Funnel and Gate system that was installed in December of 1996. The presence of vinyl chloride indicates that degradation of VOCs is occurring at IR Site 1, as it is unlikely that vinyl chloride was released at the site. The vinyl chloride concentration is highest in well M028-E indicating that degradation processes are currently most active within the lower FWBZ interval. Vinyl chloride, 1,1-DCE, and cis-1,2-DCE, which have been detected in water samples from the Funnel and Gate area, are likely the result of intrinsic biodegradation of chlorinated VOCs, such as TCE or PCE. The natural attenuation data suggest that denitrification, sulfate reduction, and methanogenesis are occurring in the vicinity of well M028-E.

The DO results were variable for the site wells. The ORP values were generally low, although this is common for many wells across the site. The low levels of DO in samples from well M028-E and negative values for ORP observed in samples from wells M028-A and M028-E are consistent with active biodegradation. Ferrous iron for samples from wells M028A and M028-E were higher than other wells at the site with concentrations exceeding 2.0 mg/L in both cases.

Methane, ethane, and ethene were detected in samples from both the M028-A and M028-E wells. Methane was detected at 12 mg/L in samples from well M028-E and at 3.2 mg/L in the sample from M028-A. This is consistent with the presence of active VOC degradation. Ethane and ethene, present in the degradation environment of the well M028 cluster, were not detected in samples from any other wells at the site. The degradation indicators, nitrite and sulfite, were present in samples from wells in the area with sulfite detected in four wells at concentrations ranging from 0.06 mg/L to 0.18 mg/L. The application of preliminary screening for indicators of anaerobic degradation (Wiedemeir, 1998) indicated that there is strong evidence for active anaerobic degradation based on samples collected from well M028-E.

The Funnel and Gate system at IR Site 1, near the M028 well cluster, coupled with the information from a well not heavily impacted by chemical constituents (well M004-A) provided an opportunity to evaluate groundwater properties at a site that is undergoing (passive) remediation and another that represents background conditions. The presence of VOC degradation products in wells of the M028 cluster (ferrous iron, etc.), groundwater conditions indicative of degradation (ORP and DO), and analytes indicating active decay of VOCs (vinyl chloride), is consistent with the function of the Funnel and Gate system. The absence of these constituents in well M004-A is consistent with a well that is relatively unaffected by site chemicals.

8.0 Recommendations

Recommended revisions to the Groundwater Monitoring Program, based on the findings of the Summer, Fall, Winter 2002, and Spring 2003 sampling events at Installation Restoration (IR) Site 1, are described below. The proposed revisions are summarized on Table 8-1, "Sampling Frequency and Analyte Reduction Decision Summary, Installation Restoration Site 1." The sampling frequency and analyte reduction process originally presented in the *Work Plan for Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California* (Shaw, 2003a) as Figures 7-1, "Groundwater Elevation Map, First Water-Bearing Zone, IR Site 1, Operable Unit 3, Spring 2003," and 7-2, "Trichloroethene, First Water-Bearing Zone, IR Site 1, Operable Unit 3, Spring 2003," were streamlined into one figure, to better address the phased sampling frequency (quarterly, semiannual, and annual) and analyte reduction process used in the Groundwater Monitoring Program. Figure 8-1, "Groundwater Monitoring Sampling Frequency and Analyte Reduction Decision Diagram," depicts the streamlined decision process.

The process outlined on Figure 8-1 first evaluates whether four sampling events were completed for each well and analyte suite included in the Groundwater Monitoring Program. The letter "A" on Figure 8-1 and Table 8-1 denotes this step. If four events were not completed, the current sampling frequency will be continued into the next year's program. If four events were completed, the well's relationship to the plume is evaluated under Step B. Upgradient wells are evaluated separate from wells that are downgradient, crossgradient, or in the plume interior. An upgradient well that is not a downgradient well for another site's plume is reduced to an annual sampling frequency under Step C. If for the last four events chemicals of potential concern (COPC) concentrations were below reporting limits for organic analytes or below background values (Tetra Tech Environmental Management, Inc., 2001) for inorganic analytes, the well is deleted from the program (Step E). If not, then the current sampling frequency and analytical suite is continued. If the upgradient well is also a downgradient well for another site, the well is treated as a downgradient well under Step D.

Downgradient, crossgradient, and wells that are within the plume's interior are evaluated in Step D to determine for each well and analytical method suite whether COPC exceedances of the State of California Maximum Contaminant Level(s) or background value(s) whichever is greater, have occurred. If yes, then the current frequency and analytical suite is continued. If no, and the COPC results for the last four events are below organic constituent reporting limits or background inorganic constituent values" (Step E), then the COPCs are monitored semiannually within the well(s). If no and the COPC concentrations are above organic constituent reporting limits or background inorganic constituent values, the well(s) will be sampled annually for those COPCs.

Table 8-1
Sampling Frequency and Analyte Reduction Decision Summary, Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Well	Analysis Suite	Current Frequency	A[1] Four Sampling Events Completed for COPCs?	C Well Relationship to Plume?	B Well Downgradient from Another Plume?	D Exceed MCL or Background?	E Last Four Events ND or Below Background?	Change in Program?	Recommended Program	Reason
M001-A	VOC	Quarterly	Yes	Crossgradient	No	No	No	Yes	Semiannual	Detection, less than MCL
	SVOC	Quarterly	Yes			No	No	Yes	Semiannual	Detection, less than MCL
	Metals	Quarterly	Yes			No	Yes	Yes	Annual	Detections exceed MCLs, less than Background.
	Metals (total)	Quarterly	No			No	N/A	Yes	Semiannual	Unfiltered Metals analysis for radioactivity suite-New analysis
	Cyanide	Quarterly	Yes			No	No	Yes	Semiannual	Detection, less than MCL
	Alpha	Quarterly	Yes			No	No	Yes	Semiannual	Detection, less than MCL
	Beta	Quarterly	Yes			No	No	Yes	Semiannual	Detection, less than MCL
	Radium	Quarterly	Yes			No	Yes	Yes	Semiannual	No detections : retain same sample frequency as Gross Beta
	Expanded Radionuclides[2]	Quarterly	No			No	N/A	Yes	Semiannual	Same sample interval as Gross Alpha and Beta
M001-E	VOC	Quarterly	Yes	Inside	No	Yes	No	No	Quarterly	Detections exceed MCLs
	SVOC	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL
	Metals (total)	Quarterly	No			No	N/A	Yes	Semiannual	Unfiltered Metals analysis for radioactivity suite-New analysis
	Metals	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events less than MCL and Background
	Cyanide	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL
	Alpha	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL
	Beta	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL
	Radium	Quarterly	Yes			No	Yes	Yes	Semiannual	Four sampling events of data ND
	Expanded Radionuclides[2]	Quarterly	No			No	N/A	Yes	Semiannual	Same sampling interval as Alpha, Beta, and Radium

Table 8-1 (Continued)
Sampling Frequency and Analyte Reduction Decision Summary, Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Well	Analysis Suite	Current Frequency	A[1] Four Sampling Events Completed for COPCs?	C Well Relationship to Plume?	B Well Downgradient from Another Plume?	D Exceed MCL or Background?	E Last Four Events ND or Below Background?	Change in Program?	Recommended Program	Reason
M002-A	VOC	Quarterly	Yes	Inside	No	Yes	No	No	Quarterly	Detection, greater than MCL
	SVOC	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events ND
	Metals	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events less than MCL and Background
	Metals (total)	Quarterly	No			No	N/A	Yes	Semiannual	Unfiltered Metals analysis for radioactivity suite-New analysis
	Cyanide	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events ND
	Alpha	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL
	Beta	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events of data less than MCL
	Radium	Quarterly	Yes			No	Yes	Yes	Semiannual	Four sampling events of data ND
	Expanded Radionuclides[2]	Quarterly	No			No	N/A	Yes	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M003-A	VOC	Quarterly	Yes	Downgradient	Yes	No	No	Yes	Semiannual	Four sampling events less than MCL
	SVOC	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events ND
	Metals	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL
	Metals (total)	Quarterly	No			No	N/A	Yes	Semiannual	Unfiltered Metals analysis for radioactivity suite -New analysis
	Cyanide	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events of data less than MCL
	Alpha	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events of data less than MCL
	Beta	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events of data less than MCL
	Radium	Quarterly	Yes			No	Yes	Yes	Semiannual	Four sampling events of data ND
	Expanded Radionuclides[2]	Quarterly	No			No	N/A	Yes	Semiannual	Same sampling interval as Alpha, Beta, and Radium

Table 8-1 (Continued)
Sampling Frequency and Analyte Reduction Decision Summary, Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Well	Analysis Suite	Current Frequency	A[1] Four Sampling Events Completed for COPCs?	C Well Relationship to Plume?	B Well Downgradient from Another Plume?	D Exceed MCL or Background?	E Last Four Events ND or Below Background?	Change in Program?	Recommended Program	Reason
M004-A	VOC	Semiannual	No	Downgradient	Yes	No	Na	No	Semiannual	Needs 4 sampling events of data
	SVOC	Semiannual	No			No	Na	No	Semiannual	Needs 4 sampling events of data
	Metals	Semiannual	No			No	Na	No	Semiannual	Needs 4 sampling events of data
	Cyanide	Semiannual	No			No	Na	No	Semiannual	Needs 4 sampling events of data
	Alpha	Semiannual	No			No	Na	No	Semiannual	Needs 4 sampling events of data
	Beta	Semiannual	No			No	Na	No	Semiannual	Needs 4 sampling events of data
	Radium	Semiannual	No			No	Na	No	Semiannual	Needs 4 sampling events of data
	Natural Attenuation[3]	Semiannual	No			N/A	Na	No	Semiannual	Needs 4 sampling events of data
	Dissolved Gases	Semiannual	No			N/A	Na	No	Semiannual	Continue existing program
	Expanded Radionuclides[2]	Semiannual	No			No	Na	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M006-A	VOC	Semiannual	No	Downgradient	No	No	Na	No	Semiannual	Needs 4 sampling events of data
	SVOC	Semiannual	No			Yes	Na	No	Semiannual	Needs 4 sampling events of data
	Metals	Semiannual	No			No	Na	No	Semiannual	Needs 4 sampling events of data
	Cyanide	Semiannual	No			No	Na	No	Semiannual	Needs 4 sampling events of data
	Alpha	Semiannual	No			No	Na	No	Semiannual	Needs 4 sampling events of data
	Beta	Semiannual	No			No	Na	No	Semiannual	Needs 4 sampling events of data
	Radium	Semiannual	No			No	Na	No	Semiannual	Needs 4 sampling events of data
	Expanded Radionuclides[2]	Semiannual	No			No	Na	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M007-A	VOC	Semiannual	No	Crossgradient	No	No	N/A	No	Semiannual	Needs 4 sampling events of data
	SVOC	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Metals	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Cyanide	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Alpha	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data

Table 8-1 (Continued)
Sampling Frequency and Analyte Reduction Decision Summary, Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Well	Analysis Suite	Current Frequency	A[1] Four Sampling Events Completed for COPCs?	C Well Relationship to Plume?	B Well Downgradient from Another Plume?	D Exceed MCL or Background?	E Last Four Events ND or Below Background?	Change in Program?	Recommended Program	Reason
M007-A (Continued))	Beta	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Radium	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Expanded Radionuclides[2]	Semiannual	No			No	N/A	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M025-A	VOC	Semiannual	No	Inside	No	Yes	N/A	No	Semiannual	Detection, greater than MCL
	SVOC	Quarterly	Yes			Yes	No	No	Quarterly	Detections exceed MCLs
	Metals	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events of data than MCL
	Metals (total)	Quarterly	No			No	N/A	Yes	Semiannual	Unfiltered Metals analysis for radioactivity suite -New analysis
	Cyanide	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events of data less than MCL
	Alpha	Semiannual	No			No	No	No	Semiannual	Needs 4 sampling events of data
	Beta	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Radium	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Expanded Radionuclides[2]	Semiannual	No			No	N/A	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M026-A	VOC	Semiannual	No	Crossgradient	No	No	N/A	Yes	Semiannual	Needs 4 sampling events of data
	SVOC	Semiannual	No			No	N/A	Yes	Semiannual	Needs 4 sampling events of data
	Metals	Semiannual	No			No	N/A	Yes	Semiannual	Needs 4 sampling events of data
	Cyanide	Semiannual	No			No	N/A	Yes	Semiannual	Needs 4 sampling events of data
	Alpha	Semiannual	No			No	N/A	Yes	Semiannual	Needs 4 sampling events of data
	Beta	Semiannual	No			Yes	N/A	Yes	Semiannual	Needs 4 sampling events of data
	Radium	Semiannual	No			No	N/A	Yes	Semiannual	Needs 4 sampling events of data
	Expanded Radionuclides[2]	Semiannual	No			No	N/A	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M026-E	VOC	Semiannual	No	Crossgradient	No	No	N/A	No	Semiannual	Needs 4 sampling events of data
	SVOC	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Metals	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data

Table 8-1 (Continued)
Sampling Frequency and Analyte Reduction Decision Summary, Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Well	Analysis Suite	Current Frequency	A[1] Four Sampling Events Completed for COPCs?	C Well Relationship to Plume?	B Well Downgradient from Another Plume?	D Exceed MCL or Background?	E Last Four Events ND or Below Background?	Change in Program?	Recommended Program	Reason
M026-E (Continued)	Metals (total)	Semiannual	No			No	N/A	Yes	Semiannual	Unfiltered Metals analysis for radioactivity suite -New analysis
	Cyanide	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Alpha	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Beta	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Radium	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Expanded Radionuclides[2]	Semiannual	No			No	N/A	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M027-A	VOC	Quarterly	Yes	Crossgradient	No	No	No	Yes	Semiannual	Four sampling events less than MCL
	SVOC	Quarterly	Yes			Yes	No	No	Quarterly	Detections exceed MCLs
	Metals	Quarterly	Yes			No	Yes	Yes	Annual	Detections exceed MCLs and less than Background
	Metals (total)	Quarterly	No			No	N/A	Yes	Semiannual	Unfiltered Metals analysis for radioactivity suite -New analysis
	Cyanide	Quarterly	Yes			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Alpha	Quarterly	Yes			No	No	No	Semiannual	Same sampling frequency as Gross Beta
	Beta	Quarterly	Yes			Yes	No	No	Semiannual	Detections exceed MCLs
	Radium	Quarterly	Yes			No	Yes	No	Semiannual	Same sampling frequency as Gross Beta
	Natural Attenuation[3]	Semiannual	No			N/A	N/A	No	Semiannual	Needs 4 sampling events of data
	Dissolved Gases	Semiannual	No			N/A	Na	No	Semiannual	Continue existing program
	Expanded Radionuclides[2]	Semiannual	No			No	N/A	No	Semiannual	Same sampling frequency as Gross Beta
M028-A	VOC	Quarterly	Yes	Inside	No	Yes	No	No	Quarterly	Detections exceed MCLs
	SVOC	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events of data less than MCL
	Metals	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL
	Cyanide	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events with ND
	Alpha	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL
	Beta	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL

Table 8-1 (Continued)
Sampling Frequency and Analyte Reduction Decision Summary, Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Well	Analysis Suite	Current Frequency	A[1] Four Sampling Events Completed for COPCs?	C Well Relationship to Plume?	B Well Downgradient from Another Plume?	D Exceed MCL or Background?	E Last Four Events ND or Below Background?	Change in Program?	Recommended Program	Reason
M028-A (Continued)	Radium	Quarterly	Yes			No	No	Yes	Semiannual	Detections (No MCL)
	Natural Attenuation[3]	Semiannual	No			N/A	N/A	No	Semiannual	Needs 4 sampling events of data
	Dissolved Gases	Semiannual	No			N/A	Na	No	Semiannual	Continue existing program
	Expanded Radionuclides[2]	Quarterly	No			No	N/A	Yes	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M028-E	VOC	Quarterly	No	Inside	No	Yes	No	No	Quarterly	Needs 4 sampling events of data
	SVOC	Quarterly	No		No	Yes	No	No	Quarterly	Needs 4 sampling events of data
	Metals	Quarterly	No		No	Yes	No	No	Quarterly	Needs 4 sampling events of data
	Metals (total)	Quarterly	No	Inside	No	N/A	N/A	Yes	Quarterly	Unfiltered Metals analysis for radioactivity suite -New analysis
	Cyanide	Quarterly	No			No	N/A	No	Quarterly	Needs 4 sampling events of data
	Alpha	Quarterly	No			No	N/A	No	Quarterly	Needs 4 sampling events of data
	Beta	Quarterly	No			No	N/A	No	Quarterly	Needs 4 sampling events of data
	Radium	Quarterly	No			No	N/A	No	Quarterly	Needs 4 sampling events of data
	Natural Attenuation[3]	Semiannual	No			N/A	N/A	No	Semiannual	Needs 4 sampling events of data
	Dissolved Gases	Semiannual	No			N/A	Na	No	Semiannual	Continue existing program
	Expanded Radionuclides[2]	Quarterly	No			No	N/A	No	Quarterly	Same sampling interval as Alpha, Beta, and Radium
M029-A	VOC	Quarterly	Yes	Inside	No	Yes	No	No	Quarterly	Detections exceed MCLs
	SVOC	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events of data less than MCL
	Metals	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events of data below MCLs and Background
	Cyanide	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events of data less than MCL
	Alpha	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events of data less than MCL
	Beta	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events of data less than MCL
	Radium	Quarterly	Yes			No	Yes	Yes	Semiannual	Four sampling events of data with ND
	Expanded Radionuclides[2]	Quarterly	No			No	N/A	Yes	Semiannual	Same sampling interval as Alpha, Beta, and Radium

Table 8-1 (Continued)
Sampling Frequency and Analyte Reduction Decision Summary, Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Well	Analysis Suite	Current Frequency	A[1] Four Sampling Events Completed for COPCs?	C Well Relationship to Plume?	B Well Downgradient from Another Plume?	D Exceed MCL or Background?	E Last Four Events ND or Below Background?	Change in Program?	Recommended Program	Reason
M029-E	VOC	Semiannual	No	Inside	No	Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	SVOC	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Metals	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Cyanide	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Alpha	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Beta	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Radium	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Expanded Radionuclides[2]	Semiannual	No			No	N/A	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M030-A	VOC	Quarterly	Yes	Crossgradient	No	No	No	Yes	Semiannual	Four sampling events less than MCL
	SVOC	Quarterly	Yes			Yes	No	No	Quarterly	Detection, greater than MCL,
	Metals	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events below Background and MCL
	Cyanide	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL
	Alpha	Quarterly	Yes			No	Yes	Yes	Semiannual	Four sampling events with ND
	Beta	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL
	Radium	Quarterly	Yes			No	Yes	Yes	Semiannual	Four sampling events with ND
	Expanded Radionuclides[2]	Quarterly	No			N/A	N/A	Yes	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M031-A	VOC	Quarterly	Yes	Crossgradient	No	No	No	Yes	Semiannual	Four sampling events less than MCL
	SVOC	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events with ND
	Metals	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events less than MCL and Background
	Cyanide	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events ND
	Alpha	Quarterly	Yes			No	Yes	Yes	Semiannual	Four sampling events ND
	Beta	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL
	Radium	Quarterly	Yes			No	Yes	Yes	Semiannual	Four sampling events ND

Table 8-1 (Continued)
Sampling Frequency and Analyte Reduction Decision Summary, Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Well	Analysis Suite	Current Frequency	A[1] Four Sampling Events Completed for COPCs?	C Well Relationship to Plume?	B Well Downgradient from Another Plume?	D Exceed MCL or Background?	E Last Four Events ND or Below Background?	Change in Program?	Recommended Program	Reason
M031-A (Continued)	Expanded Radionuclides[2]	Quarterly	No			No	N/A	Yes	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M032-A	VOC	Semiannual	No	Inside	No	Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	SVOC	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Metals	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Cyanide	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Alpha	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Beta	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Radium	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Expanded Radionuclides[2]	Semiannual	No			No	N/A	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M033-A	VOC	Quarterly	Yes	Inside	No	Yes	No	No	Quarterly	Detections exceed MCLs
	SVOC	Quarterly	Yes			Yes	No	No	Quarterly	Detections exceed MCLs
	Metals	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events less than MCL and Background
	Cyanide	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events ND.
	Alpha	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL
	Beta	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL
	Radium	Quarterly	Yes			No	Yes	Yes	Semiannual	Four sampling events with ND
	Natural Attenuation[3]	Semiannual	No			N/A	N/A	No	Semiannual	Needs 4 sampling events of data
	Dissolved Gases	Semiannual	No			N/A	Na	No	Semiannual	Continue existing program
	Expanded Radionuclides[2]	Quarterly	No			No	N/A	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M034-A	VOC	Quarterly	Yes	Inside	No	Yes	No	No	Quarterly	Detections exceed MCLs
	SVOC	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events less than MCL
	Metals	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events less than MCL and Background
	Cyanide	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events with ND

Table 8-1 (Continued)
Sampling Frequency and Analyte Reduction Decision Summary, Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Well	Analysis Suite	Current Frequency	A[1] Four Sampling Events Completed for COPCs?	C Well Relationship to Plume?	B Well Downgradient from Another Plume?	D Exceed MCL or Background?	E Last Four Events ND or Below Background?	Change in Program?	Recommended Program	Reason
M034-A (Continued)	Alpha	Quarterly	Yes			Yes	No	**No**	Quarterly	Detections exceed MCLs
	Beta	Quarterly	Yes			No	No	**No**	Quarterly	Four sampling events less than MCL. Same sampling frequency of radium
	Radium	Quarterly	Yes			No	Yes	**No**	Quarterly	Four sampling events with ND. Same sampling frequency of radium
	Expanded Radionuclides[2]	Quarterly	No			No	N/A	**No**	Quarterly	Same sampling frequency as Alpha, Beta, and Radium.
M035-A	VOC	Quarterly	Yes	Inside	No	Yes	No	No	Quarterly	Detections exceed MCLs
	SVOC	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events of data with ND
	Metals	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events less than MCL and Background
	Cyanide	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events of data with ND
	Alpha	Quarterly	Yes			No	Yes	Yes	Semiannual	Four sampling events of data with ND
	Beta	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events of data less than MCL
	Radium	Quarterly	Yes			No	Yes	**Yes**	Semiannual	Detection (no MCL)
	Expanded Radionuclides[2]	Quarterly	No			No	N/A	**Yes**	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M001-B	VOC	Semiannual	No	SWBZ	No	No	N/A	No	Semiannual	Needs 4 sampling events of data
	SVOC	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Metals	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Cyanide	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Alpha	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Beta	Semiannual	No	SWBZ		Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Radium	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Expanded Radionuclides[2]	Semiannual	No			No	N/A	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M003-B	VOC	Semiannual	No	SWBZ	Yes	No	N/A	No	Semiannual	Needs 4 sampling events of data
	SVOC	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Metals	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data

Table 8-1 (Continued)
Sampling Frequency and Analyte Reduction Decision Summary, Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Well	Analysis Suite	Current Frequency	A[1] Four Sampling Events Completed for COPCs?	C Well Relationship to Plume?	B Well Downgradient from Another Plume?	D Exceed MCL or Background?	E Last Four Events ND or Below Background?	Change in Program?	Recommended Program	Reason
M003-B (Continued)	Cyanide	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Alpha	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Beta	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Radium	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Natural Attenuation[3]	Semiannual	No			N/A	N/A	No	Semiannual	Needs 4 sampling events of data
	Dissolved Gases	Semiannual	No			N/A	Na	No	Semiannual	Continue existing program
	Expanded Radionuclides[2]	Semiannual	No			No	N/A	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M025-C	VOC	Semiannual	No	SWBZ	No	No	N/A	No	Semiannual	Needs 4 sampling events of data
	SVOC	Quarterly	Yes			No	No	Yes	Semiannual	Four sampling events of data less than MCL
	Metals	Quarterly	Yes			No	No	Yes	Annual	Four sampling events of data less than MCL
	Cyanide	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events of data with ND
	Alpha	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Beta	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Radium	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Expanded Radionuclides[2]	Semiannual	No			No	N/A	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M027-B	VOC	Semiannual	No	SWBZ	No	No	N/A	Yes	delete	Delete well:redundant depth coverage
	SVOC	Semiannual	No			No	N/A	Yes	delete	Delete well: redundant depth coverage
	Metals	Semiannual	No			No	N/A	Yes	delete	Delete well :redundant depth coverage
	Cyanide	Semiannual	No			No	N/A	Yes	delete	Delete well: redundant depth coverage
	Alpha	Semiannual	No			No	N/A	Yes	delete	Delete well :redundant depth coverage
	Beta	Semiannual	No			Yes	N/A	Yes	delete	Delete well: redundant depth coverage
	Radium	Semiannual	No			No	N/A	Yes	delete	Delete well: redundant depth coverage
	Expanded Radionuclides[2]	Semiannual	No			No	N/A	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium

Table 8-1 (Continued)
Sampling Frequency and Analyte Reduction Decision Summary, Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Well	Analysis Suite	Current Frequency	A[1] Four Sampling Events Completed for COPCs?	C Well Relationship to Plume?	B Well Downgradient from Another Plume?	D Exceed MCL or Background?	E Last Four Events ND or Below Background?	Change in Program?	Recommended Program	Reason
M027-C	VOC	Semiannual	No	SWBZ	No	No	N/A	No	Semiannual	Needs 4 sampling events of data
	SVOC	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Metals	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Metals (total))	Semiannual	No			No	N/A	Yes	Semiannual	Unfiltered Metals analysis for radioactivity suite-New analysis
	Cyanide	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Alpha	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Beta	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Radium	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Dissolved Gases	Semiannual	No			N/A	Na	No	Semiannual	Continue existing program
	Expanded Radionuclides[2]	Semiannual	No			No	N/A	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M028-C	VOC	Quarterly	Yes	SWBZ	No	No	No	Yes	Semiannual	Four sampling events of data less than MCL
	SVOC	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events of data with ND
	Metals	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events of data less than MCL
	Metals (total))	Quarterly	No			N/A	N/A	Yes	Semiannual	Unfiltered Metals analysis for radioactivity suite-New analysis
	Cyanide	Quarterly	Yes			No	Yes	Yes	Annual	Four sampling events of data with ND
	Alpha	Quarterly	Yes			No	No	Yes	Quarterly	Same frequency as gross beta
	Beta	Quarterly	Yes			Yes	No	No	Quarterly	Detection over MCL
	Radium	Quarterly	Yes			No	No	No	Quarterly	Same frequency as gross beta
	Natural Attenuation[3]	Semiannual	No			N/A	N/A	No	Semiannual	Needs 4 sampling events of data
	Expanded Radionuclides[2]	Quarterly	No			Yes	N/A	No	Quarterly	Same frequency as gross beta
M030-C	VOC	Semiannual	No	SWBZ	No	No	N/A	No	Semiannual	Needs 4 sampling events of data
	SVOC	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Metals	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Metals (total))	Semiannual	No			N/A	N/A	Yes	Semiannual	Unfiltered Metals analysis for radioactivity suite-New analysis

Table 8-1 (Continued)
Sampling Frequency and Analyte Reduction Decision Summary, Installation Restoration Site 1
Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California

Well	Analysis Suite	Current Frequency	A[1] Four Sampling Events Completed for COPCs?	C Well Relationship to Plume?	B Well Downgradient from Another Plume?	D Exceed MCL or Background?	E Last Four Events ND or Below Background?	Change in Program?	Recommended Program	Reason
M030-C (Continued)	Cyanide	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Alpha	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Beta	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Radium	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Expanded Radionuclides[2]	Semiannual	No			N/A	N/A	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium
M031-C	VOC	Semiannual	No	SWBZ	No	No	N/A	No	Semiannual	Needs 4 sampling events of data
	SVOC	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Metals	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Cyanide	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Alpha	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Beta	Semiannual	No			Yes	N/A	No	Semiannual	Needs 4 sampling events of data
	Radium	Semiannual	No			No	N/A	No	Semiannual	Needs 4 sampling events of data
	Expanded Radionuclides[2]	Semiannual	No			No	N/A	No	Semiannual	Same sampling interval as Alpha, Beta, and Radium

Table 8-1 Notes:

Note 1: Corresponds to question diamond on Figure 8-1

Note 2: Expanded radionuclide analysis include: gamma emitting radionuclides, radioactive strontium, radium 228, tritium, and uranium isotopes (radium 228 analysis initiated Winter 2003)

Note 3: Nat Attenuation - natural attenuation (may include anions, sulfide, alkalinity, ferrous iron, dissolved gas and Total dissolved solids), See Table 7-1 for specific analyses.

COPC - Chemical of potential concern

N/A - not applicable

MCL - maximum contaminant level (California Code of Regulations Title 22)

ND - not detected above reporting limits

SWBZ - second water-bearing zone, well monitors water-bearing zone below plume

SVOC - semivolatile organic compound

TPH - total petroleum hydrocarbons

VOC - volatile organic compound

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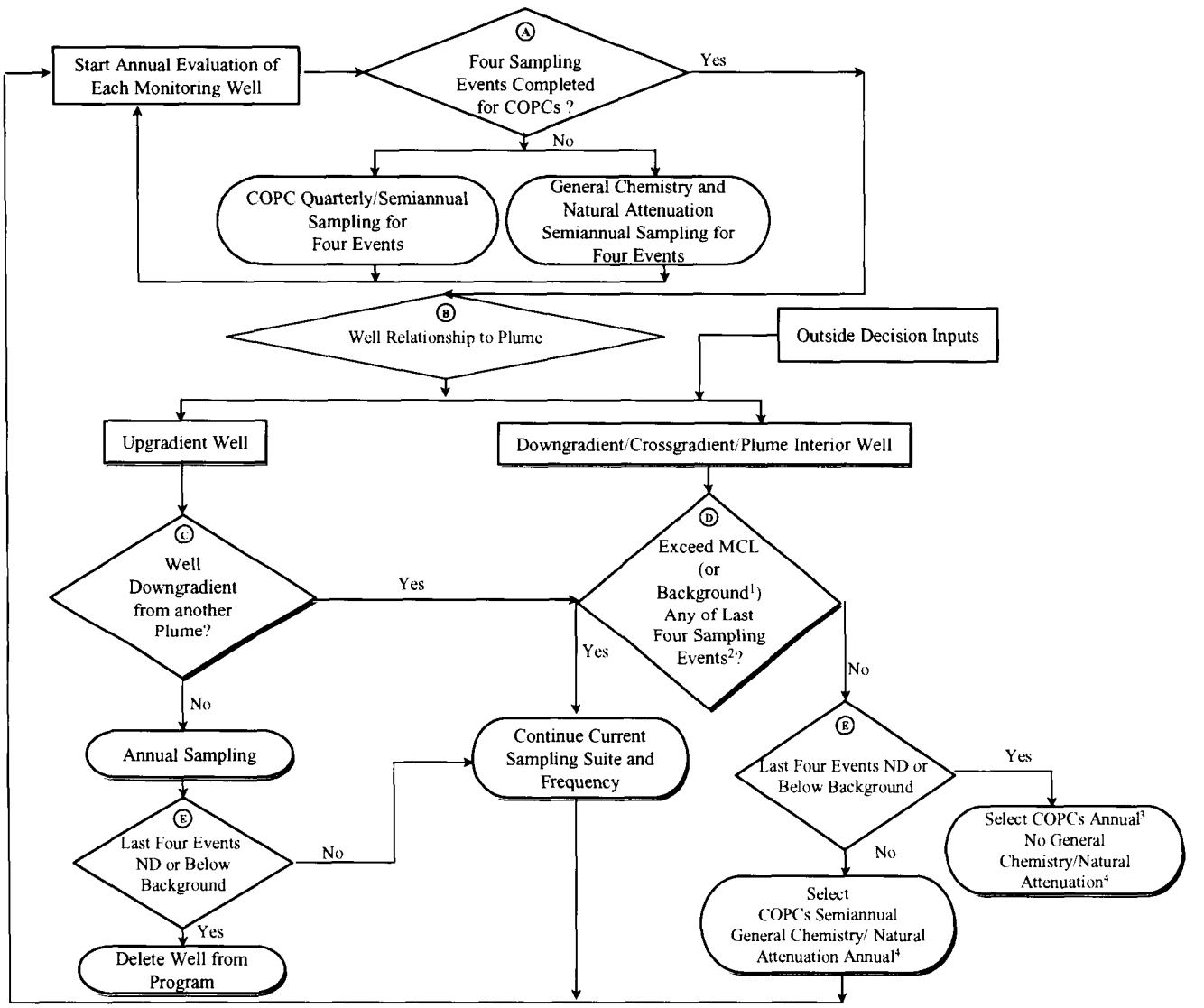

NOTES:

1. IF METAL VALUE EXCEEDS MCL, THEN COMPARE TO BACKGROUND VALUE.
2. APPLIED TO EACH WELL AND ANALYTICAL METHOD.
3. WELLS SAMPLED ANNUALLY WITH FOUR ROUNDS NON-DETECT (ORGANIC CoCs) OR BELOW BACKGROUND (INORGANIC CoCs) WITH NO EVIDENCE OF PLUME MIGRATION TO WELL WILL BE REMOVED FROM THE PROGRAM.
4. SELECTED PLUME INTERIOR WELLS MAY BE RETAINED FOR NATURAL ATTENUATION PARAMETER MONITORING.

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FIGURE 8-1
GROUNDWATER MONITORING SAMPLING FREQUENCY AND ANALYTE REDUCTION DECISION DIAGRAM
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DRAWING NUMBER	APPROVED BY		CHECKED BY		DRAWN BY		OFFICE	X-REF	IMAGE
843780-A31	JW	10/18/04	TA	10/18/04	BJ	10/18/04	CONC	---	---

Based on the sampling frequency and analyte reduction decision process (see Figure 8-1), the recommendations are as follows:

- Reduce the analytical frequency for certain analytes as presented on Table 8-1, based on the decision process shown in Figure 8-1.

Additional revisions recommended for the Groundwater Monitoring Program at the IR Site 1 are presented below and are illustrated on Figure 8-2, "Proposed Soil Gas Well Locations and Monitoring Well Network Changes, IR Site 1, Operable Unit 3, Spring 2003").

- Remove well M027-B from the active monitoring program but retain adjacent wells M027-A and C. Low level organics and total beta activity greater than MCL are detected in samples from wells M027-A and M027-B. Well M027-A and M027-C can adequately monitor the deeper intervals; therefore, the removal of well M027-B from the program is recommended.

- Add existing wells M027-E and M031-E to the Groundwater Monitoring Program (see Figure 8-2). Monitor the wells for VOCs on a quarterly basis to provide information on the distribution of chlorinated VOCs in wells screened at the deeper "E" interval of the FWBZ.

- Five nested soil gas wells are proposed for installation at IR Site 1 to evaluate gas production from the disposal area cells located in the northwest part of IR Site 1 (Figure 8-2). The five wells will consist of multiple (nested) sampling intervals constructed within a single well casing. VOC compounds will be sampled and analyzed (U.S. Environmental Protection Agency [EPA] Method TO-15) on a quarterly basis and fixed gasses (EPA Method TO-3) that will be analyzed annually.

- Include the analysis of Uranium 234, 235, and 238 by EPA Method 908.0 for wells that are currently analyzed for radionuclides. Analyze for unfiltered metals by EPA Methods 6010/6020 at selected wells that are sampled for radionuclides. The additional analyses will assist in the evaluation of observed gross beta activity.

- Include total dissolved solids (TDS) by EPA Method 160.1 analysis in the natural attenuation analytical suite and sample semiannually at wells currently sampled for natural attenuation parameters (Anions, sulfide, alkalinity or ferrous iron, etc.) This analysis will help define the distribution the salt-water underlying the freshwater lens beneath Alameda Point and more adequately define appropriate water quality standards.

- Locate and add well M005-A to the monitoring program and analyze for VOCs, total petroleum hydrocarbons (purgeable and extractable), SVOCs, dissolved metals, the radionuclide suite and natural attenuation analytes. Well M005-A, located north of Building 594, was originally included in the sampling program but was not located prior to program sampling. Additional efforts will be made to locate well M005-A using utility location equipment. Well M005-A will aid in defining the western extent of the VOC plume located north of Building 594.

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LEGEND

- PROPOSED SOIL GAS WELL
- PROGRAM MONITORING WELL②
- PROPOSED PROGRAM MONITORING WELL–EXISTING WELL
- MONITORING WELL NOT IN PROGRAM②
- CERCLA BOUNDARY
- BARGE LINES (1949 AERIAL SURVEY)
- BARGE LINES (1957 AERIAL SURVEY)

NOTES:

1. POSITION OF BARGE LINES ARE INFERRED.
2. PROPOSED TIDAL STUDY WELL.

SCALE
0 150 300 FEET

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FIGURE 8–2
PROPOSED SOIL GAS WELL LOCATIONS
AND MONITORING NETWORK CHANGES
IR SITE 1 OPERABLE UNIT 3
SPRING 2003

ALAMEDA POINT ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	ALA1BASE	CONC	RB 2-17-04	TA 2-17-04	JW 2-17-04	843780-D144

- Survey the wells listed below to the vertical datum used for the current Groundwater Monitoring Program wells. The wells below were not surveyed as part of the original Groundwater Monitoring Program.
  - Existing wells M005-A, M027-E and M031-A proposed for sampling and water level measurements
  - Existing wells M025-E, M30-E and M009-A included for water level measurements only.

Tidal impacts to groundwater elevations will be evaluated at locations on IR Site 1 to evaluate the effects of ocean tides on site groundwater flow. This will be accomplished by installing water level transducers and recording equipment into wells potentially impacted by tidal activity. Tidal influence will be evaluated in wells M002-A, M002-E, M028-A, M028-E, and M034-A. Optional locations being considered for the tidal study include wells M003-A, M003-E, M030A and M033-A also considered. The evaluation will include the placement of pressure transducers in and measuring water level variations over a representative time interval. These variations will be correlated to tidal information derived from available public sources or strategically located reference transducers.

A summary of planned Groundwater Monitoring Program well installations and modifications in well inventory at Alameda Point sites since is provided in Appendix D, "Monitoring Well Inventory Changes, Alameda Groundwater Monitoring Program Annual Report, Spring 2003."

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9.0 References

California Code of Regulations, 2002, Title 22, *Social Security, Division 4 Environmental Health, Chapter 15 Domestic Water Quality and Monitoring Regulations, Article 4 Primary Standards-Inorganic Chemicals/Article 5.5-Organic Chemicals/Article 160-Secondary Drinking Water Standards,*, also found on <http://www.calregs.com/>.

IT Corporation, 2001, *The Environmental Baseline Survey, Alameda Point, Alameda, California*, Concord, California, June 29.

Shaw Environmental, Inc., 2003a, *Work Plan for Basewide Groundwater Monitoring Program, Alameda Point, Alameda, California*, Concord, California.

Shaw Environmental, Inc., 2003b, *Memorandum: Evaluation of Gross Beta Measurements in December, 2002 Water Samples at Alameda NAS.* Jonathan Myers (Shaw, Albuquerque, N.M) to Tony Searls (Shaw, Richland WA), April 30.

Shaw Environmental, Inc., 2003c, *Memorandum: Evaluation of Alameda NAS Spring 2003 Radiological Data.* Jonathan Myers (Shaw, Albuquerque, N.M) to Tony Searls (Shaw, Richland WA), August 21.

Tetra Tech Environmental Management, Inc., 1999, *Funnel and Gate Demonstrations Data Summary Report, Fourth Quarter, Final,* May 19.

Tetra Tech Environmental Management, Inc., 2001. *Summary of Background Concentrations in Soil and Groundwater, Alameda Point, Alameda, California,* Rancho Cordova, California, November.

Wiedemeier, T.H., Swanson, M.A., Moutoux, D.E., Gordon, E.K., Wilson, J.T., Wilson, B.H., Kampbell, D.H., Haas, P.E., Miller, R.N., Hansen, J.E., and Chapelle, F.H., 1998, *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water: U.S. Environmental Protection Agency, 77 p.*

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Appendices A through D
(On Compact Disc)

N00236.000774
ALAMEDA POINT
SSIC NO. 5090.3

APPENDIX A – ANALYTICAL DATA WITH DATA QUALIFIERS AND REASON CODE DEFINITIONS

GROUNDWATER MONITORING REPORT FOR INSTALLATION RESTORATION SITE 1 SUMMER 2002 TO SPRING 2003

DATED 22 DECEMBER 2004

N00236.000774
ALAMEDA POINT
SSIC NO. 5090.3

APPENDIX A – ANALYTICAL DATA WITH DATA QUALIFIERS AND REASON CODE DEFINITIONS, IS CONTAINED IN ELECTRONIC FORMAT

TO VIEW THE DATA, CONTACT:

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ALAMEDA POINT
SSIC NO. 5090.3

APPENDIX B – DATA QUALITY SUMMARY REPORT, SUMMER 2002 TO SPRING 2003

GROUNDWATER MONITORING REPORT FOR INSTALLATION RESTORATION SITE 1 SUMMER 2002 TO SPRING 2003

DATED 22 DECEMBER 2004

N00236.000774
ALAMEDA POINT
SSIC NO. 5090.3

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APPENDIX C – SAMPLE COLLECTION PURGE FORMS AND CHAIN OF CUSTODY

GROUNDWATER MONITORING REPORT FOR INSTALLATION RESTORATION SITE 1 SUMMER 2002 TO SPRING 2003

DATED 22 DECEMBER 2004

N00236.000774
ALAMEDA POINT
SSIC NO. 5090.3

APPENDIX C – SAMPLE COLLECTION PURGE FORMS AND CHAIN OF CUSTODY, IS CONTAINED IN ELECTRONIC FORMAT

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SSIC NO. 5090.3

APPENDIX D – MONITORING WELL INVENTORY CHANGES, ALAMEDA GROUNDWATER MONITORING PROGRAM ANNUAL REPORT SPRING 2003

GROUNDWATER MONITORING REPORT FOR INSTALLATION RESTORATION SITE 1 SUMMER 2002 TO SPRING 2003

DATED 22 DECEMBER 2004

N00236.000774
ALAMEDA POINT
SSIC NO. 5090.3

APPENDIX D – MONITORING WELL INVENTORY CHANGES, ALAMEDA GROUNDWATER MONITORING PROGRAM ANNUAL REPORT, SPRING 2003, IS CONTAINED IN ELECTRONIC FORMAT

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