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Table A1-1
Bevalac Area RCRA SWMUs, AOCs, and Other Investigation Areas

LBNL Unit Number	Unit Name	Current Status	Status Approval Date	Module Section or RFI Report Where Unit is Described
Units Described in This Report				*Module Section*
SWMU 9-1	B51 Vacuum Pump Room Waste Oil Tank	NFA	8/25/1997 (DTSC, 1997)	A3.1
SWMU 9-4	B51 Vacuum Pump Room Sump and Collection Basin	NFI	9/30/1998 (DTSC, 1998)	A3.2
SWMU 9-6	B51 Motor Generator Room Filter Sump	NFI	9/21/1999 (DTSC, 1999)	A3.3
AOC 1-1	B46A Former Motor Pool Gasoline UST	NFA	5/9/1997 ((COB, 1997b)	A3.4
AOC 1-3	B71 Linear Accelerator Cooling Unit	NFA	7/5/1996 (DTSC, 1996b)	A3.5
AOC 1-6	B71 Transformers	NFA	8/25/1997 (DTSC, 1997)	A3.6
AOC 1-9	B71 Groundwater Solvent and Freon Plumes	(a)		A4.3.1 and A4.4.1
AOC 1-10	B71 Room 003 Mercury Release	NFA	7/5/1996 (DTSC, 1996b)	A3.7
AOC 9-2	B51 Former Diesel UST	NFA	7/15/1997 (COB, 1997b)	A3.8
AOC 9-7	B51 Former Hazardous Materials Storage Area	NFA	9/30/1998 (DTSC, 1998)	A3.9
AOC 9-8	Sanitary Sewers North and West of B51	NFA	2/16/2 (DTSC, 2000a)	A3.10
AOC 9-9	B51 Sanitary Sewer and Drainage System	NFI	4/27/00 (DTSC, 2000d)	A3.11
AOC 9-11	Former Cooling Towers Southeast of Building 51	NFA	4/27/00 (DTSC, 2000c)	A3.12
AOC 9-12	B51/64 Former Temporary Equipment Storage Area	NFI	9/30/1998 (DTSC, 1998)	A3.13
AOC 9-13	B51/64 Groundwater Plume	(a)		A4.4.2
AOC-SW-1	Site-Wide Contaminated Hydrauger Discharges	(a)		A4.6.1
Units Described in Prior Reports				**Report**
SWMU 1-1	B71 Laboratory Sumps and Holding Tanks	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
SWMU 1-2	B71 Former Ion Exchange Column	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
SWMU 9-2	B51 Former Mercury Sink Trap #1	NFA	9/14/1993 (DTSC, 1993b)	LBNL, 1992d
SWMU 9-3	B51 Former Mercury Sink Trap #2	NFA	9/14/1993 (DTSC, 1993b)	LBNL, 1992d
SWMU 9-5	B51 Waste Accumulation Area	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
SWMU 9-7	B51 Acid Dip Sink	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
SWMU 9-8	B64 Former Waste Accumulation Area	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
SWMU 15-1	B90 (Former) Silver Recovery Unit	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
AOC 1-2	B71 Freon-113 Storage Tank	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
AOC 1-4	B71H Former Hazardous Materials Storage Area	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
AOC 1-5	B71 Former Hazardous Materials Storage Area	NFA	5/18/1995 (DTSC, 1995)	LBNL, 1992d & 1994i
AOC 1-8	B82 Diesel AST	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
AOC 9-1	B51 Mercury Storage Room	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
AOC 9-3	B51 Transformers	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
AOC 9-4	B51 Diesel AST	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
AOC 9-5	B64 Possible Solvent Spills	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
AOC 9-6	B64 Lead Storage Area	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
AOC 9-10	B64 Catch Basin	NFA	7/5/1996 (DTSC, 1996b)	LBNL, 1995k
AOC 15-1	B55 Diesel UST	NFA	4/6/1994 (DTSC, 1994a)	LBNL, 1992d
(b)	Buillding 56 Construction Site			LBNL, 1994l
(b)	Building 71 Utility Trench			LBNL, 1995k

NFI = No Further Investigation Status. Unit will be included in the site wide risk assessment.
NFA = No Further Action Status. Unit has been approved for exclusion from any additional RCRA corrective action process requirements.

(a) = NFA or NFI status is not applicable to groundwater AOCs.
(b) = Construction area where soil samples were collected during the RFI that was not designated a SWMU or AOC.

Note: Radiological SWMUs and AOCs are not included in this table.

Table A3-1
Soil Sampling Results
Metals
(Concentrations in mg/kg)

				Sb	As	Ba	Be	Cd	Cr	CrVI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
Maximum Background Concentrations				5.5	19.1	323.6	1.0	2.7	99.6		22.2	69.4	16.1	0.4	7.4	119.8	5.6	1.8	7.6	74.3	106.1
USEPA Region 9 PRGs				31	0.39	5400	150	37	210	30	4700	2900	400	23	390	1600	390	390	6.3	550	23000
California Modified PRGs								9		0.2						150					
Sample ID	Depth (ft)	Date	Lab																		
SWMU 9-1: Building 51 Vacuum Pump Waste Oil Tank*																					
BS-SB51-96-1-1	1.0	Apr-96	CLS	*<5*	13	360	0.38	*<0.5*	53		11	40	*<5*	*<0.05*	*<2.5*	91	*<0.5*	*<1*	*<4*	43	66
BS-SB51-96-1-3	3.0			*<5*	1.4	160	0.29	*<0.5*	51		7.9	21	*<5*	0.058	*<2.5*	67	*<0.5*	*<1*	*<4*	38	53
BS-SB51-96-1-5	5.0			*<5*	1.5	410	0.37	*<0.5*	66		25	24	*<5*	*<0.05*	*<2.5*	81	*<0.5*	*<1*	*<4*	54	59
SWMU 9-4: Building 51 Vacuum Pump Room Sump and Collection Basin*																					
BS-SB51-96-3-1	1.0	Apr-96	CLS	*<5*	1.0	310	0.42	*<0.5*	74		16	27	*<5*	*<0.05*	*<2.5*	130	*<0.5*	*<1*	*<4*	54	89
BS-SB51-96-3-3	3.0			*<5*	14	320	0.36	*<0.5*	66		14	25	*<5*	*<0.05*	*<2.5*	120	*<0.5*	*<1*	*<4*	43	81
BS-SB51-96-3-5	5.0			*<5*	12	440	0.44	*<0.5*	84		29	29	*<5*	*<0.05*	*<2.5*	130	*<0.5*	*<1*	*<4*	58	82
BS-SB51-96-4-1	1.0			*<5*	8.5	240	0.39	*<0.5*	50		22	20	10	*<0.05*	*<2.5*	210	*<0.5*	*<1*	*<4*	24	74
BS-SB51-96-4-3	3.0			*<5*	11	280	0.32	*<0.5*	29		*<2.5*	32	*<5*	*<0.05*	*<2.5*	45	*<0.5*	*<1*	*<4*	22	47
BS-SB51-96-2A-1	1.0	May-96	BC	*<5*	13	729	*<0.14*	*<0.5*	121		21	26	*<5*	*<0.05*	*<2.5*	150	*<0.5*	*<1*	*<4*	78	125
BS-SB51-96-2A-3	3.0			*<5*	7.0	391	*<0.14*	*<0.5*	103		16	34	10	*<0.05*	*<2.5*	149	*<0.5*	*<1*	*<4*	46	99
BS-SB51-96-2A-5	5.0			*<5*	4.2	376	*<0.14*	*<0.5*	97		16	25	8.1	*<0.05*	*<2.5*	144	*<0.5*	*<1*	*<4*	40	95
SWMU 9-6: Building 51 Motor Generator Room Filter Sump*																					
BS-SB51-96-6-4	4.0	Apr-96	CLS	*<5*	0.65	120	0.41	*<0.5*	78		15	8.4	*<5*	*<0.05*	*<2.5*	34	*<0.5*	*<1*	*<4*	53	50
BS-SB51-96-6-7	7.0			*<5*	4.2	130	0.8	*<0.5*	260		30	89	18	0.065	*<2.5*	160	*<0.5*	*<1*	*<4*	74	190
BS-SB51-99-1-4	4.0	Jun-99	BC	*<10*	4.8	287	1.1	*<1*	126		16	42	7.6	*<0.2*	*<5*	129	1.3	*<2*	*<10*	84	95
BS-SB51-99-1-6.9	6.9			*<10*	5.4	308	*<1*	*<1*	94		16	54	8.3	*<0.2*	*<5*	160	*<1*	*<2*	*<10*	58	90
BS-SB51-99-1-9.4	9.4			*<10*	12	483	1.2	*<1*	117		18	27	7.7	*<0.2*	*<5*	130	*<1*	*<2*	*<10*	94	97
BS-SB51-99-1-12.3	12.3			*<10*	8.8	428	1.1	*<1*	116		18	27	7.7	*<0.2*	*<5*	135	1.2	*<2*	*<10*	74	99
BS-SB51-99-1-15.5	15.5			*<10*	11	369	1.1	*<1*	108		19	26	7.2	*<0.2*	*<5*	127	1.3	*<2*	*<10*	84	97
BS-SB51-99-2-3.4	3.4			*<10*	13	258	*<1*	*<1*	81		12	37	*<5*	*<0.2*	*<5*	86	*<1*	*<2*	*<10*	61	58
BS-SB51-99-2-6.5	6.5			*<10*	2.9	255	1.1	*<1*	102		13	32	5.4	*<0.2*	*<5*	115	*<1*	*<2*	*<10*	68	78
BS-SB51-99-2-9.3	9.3			*<10*	16	455	1.2	*<1*	131		23	71	9.1	*<0.2*	*<5*	197	1.5	*<2*	*<10*	88	118
BS-SB51-99-2-12.2	12.2			*<10*	14	436	1.2	*<1*	110		18	38	7.6	*<0.2*	*<5*	125	1.2	*<2*	*<10*	97	99
BS-SB51-99-2-15.3	15.3			*<10*	12	380	1.1	*<1*	102		20	30	7.3	*<0.2*	*<5*	137	*<1*	*<2*	*<10*	82	100
BS-SB51-99-3-3.8	3.8			*<10*	3.0	163	*<1*	*<1*	65		12	27	5.5	*<0.2*	*<5*	74	1.1	*<2*	*<10*	45	56
BS-SB51-99-3-8	8.0			*<10*	12	342	1.1	*<1*	102		17	36	7.2	*<0.2*	*<5*	122	1.1	*<2*	*<10*	86	95
BS-SB51-99-3-9.3	9.3			*<10*	2.6	383	1.1	*<1*	117		19	40	7.2	*<0.2*	*<5*	164	1.4	*<2*	*<10*	75	94
BS-SB51-99-3-12.3	12.3			*<10*	11	433	*<1*	*<1*	97		17	28	7.2	*<0.2*	*<5*	125	*<1*	*<2*	*<10*	80	94
BS-SB51-99-3-15.2	15.2			*<10*	7.4	383	*<1*	*<1*	94		19	44	6.9	*<0.2*	*<5*	145	1.4	*<2*	*<10*	65	107
BS-SB51-99-4-3.3	3.3			*<10*	1.4	132	*<1*	*<1*	55		13	19	*<5*	*<0.2*	*<5*	44	*<1*	*<2*	*<10*	34	43
BS-SB51-99-4-6.5	6.5			*<10*	9.5	425	1.0	*<1*	113		19	50	7.6	*<0.2*	*<5*	132	1.5	*<2*	*<10*	87	100

Table A3-1
Soil Sampling Results
Metals
(Concentrations in mg/kg)

				Sb	As	Ba	Be	Cd	Cr	CrVI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
Maximum Background Concentrations				5.5	19.1	323.6	1.0	2.7	99.6		22.2	69.4	16.1	0.4	7.4	119.8	5.6	1.8	7.6	74.3	106.1
USEPA Region 9 PRGs				31	0.39	5400	150	37	210	30	4700	2900	400	23	390	1600	390	390	6.3	550	23000
California Modified PRGs								9		0.2						150					
Sample ID	Depth (ft)	Date	Lab																		
BS-SB51-99-4-9.7	9.7	Jun-99	BC	*<10*	11	372	1.1	*<1*	108		17	27	6.7	*<0.2*	*<5*	118	*<1*	*<2*	*<10*	96	89
BS-SB51-99-4-12.7	12.7			*<10*	11	428	1.2	*<1*	122		22	30	7.7	*<0.2*	*<5*	148	1.4	*<2*	*<10*	109	115
BS-SB51-99-4-15.5	15.5			*<10*	13	3.9	1.1	*<1*	93		16	42	7.1	*<0.2*	*<5*	118	1.2	*<2*	*<10*	73	88
BS-SB51-99-5-4.3	4.3			*<10*	3.9	380	1.0	*<1*	76		11	27	5.5	*<0.2*	*<5*	101	*<1*	*<2*	*<10*	35	69
BS-SB51-99-5-8	8.0			*<10*	14	330	*<1*	*<1*	78		14	260	5.2	*<0.2*	*<5*	110	*<1*	*<2*	*<10*	44	84
BS-SB51-99-5-11	11			*<10*	13	358	*<1*	*<1*	84		13	24	6.0	*<0.2*	*<5*	109	*<1*	*<2*	*<10*	55	75
BS-SB51-99-5-14	14			*<10*	12	359	*<1*	*<1*	103		20	30	7.5	*<0.2*	*<5*	134	1.4	*<2*	*<10*	80	95
BS-SB51-99-5-17	17			*<10*	12	402	*<1*	*<1*	106		20	26	7.6	*<0.2*	*<5*	135	*<1*	*<2*	*<10*	84	99
BS-SB51-99-6-4	4.0			*<10*	4.0	111	*<1*	*<1*	67		17	67	29	0.76	*<5*	72	*<1*	*<2*	*<10*	58	72
BS-SB51-99-6-7	7.0			*<10*	12	112	*<1*	*<2*	85		19	32	5.9	*<0.2*	*<5*	125	*<1*	*<2*	*<10*	64	88
BS-SB51-99-6-10	10			*<10*	8.2	317	*<1*	*<2*	120		18	45	7.2	*<0.2*	*<5*	150	*<1*	*<2*	*<10*	64	105
BS-SB51-99-6-13	13			*<10*	11	390	*<1*	*<2*	102		20	38	7.2	*<0.2*	*<5*	138	*<1*	*<2*	*<10*	73	102
BS-SB51-99-6-16	16			*<10*	12	409	*<1*	*<2*	106		21	40	8.2	*<0.2*	*<5*	145	*<1*	*<2*	*<10*	78	109
BS-SB51-99-7-4.3	4.3			*<10*	4.6	269	1.2	*<2*	96		9.7	24	*<10*	*<0.2*	*<5*	95	*<1*	*<2*	*<10*	57	65
BS-SB51-99-7-6.5	6.5			*<10*	8.5	313	*<1*	*<2*	105		14	59	18	*<0.2*	*<5*	115	12	*<2*	*<10*	75	80
BS-SB51-99-7-9.7	9.7			*<10*	9.1	331	*<1*	*<2*	119		15	79	33	0.71	*<5*	120	22	*<2*	*<10*	100	90
BS-SB51-99-7-12.4	12.4			*<10*	7.9	401	*<1*	*<2*	125		18	42	*<10*	*<0.2*	*<5*	149	8.9	*<2*	*<10*	88	97
BS-SB51-99-7-15.5	15.5			*<10*	13	385	*<1*	*<2*	117		19	28	*<10*	*<0.2*	*<5*	139	1.1	*<2*	*<10*	83	99
BS-SB51-99-8-7.1	7.1			*<10*	3.1	302	*<1*	*<2*	72		12	36	*<10*	*<0.2*	*<5*	108	*<1*	*<2*	*<10*	42	61
BS-SB51-99-8-10.1	10.1			*<10*	12	364	1.0	*<2*	114		18	46	*<10*	*<0.2*	*<5*	132	1.0	*<2*	*<10*	86	99
BS-SB51-99-8-13.1	13.1			*<10*	11	432	*<1*	*<2*	92		18	26	*<10*	*<0.2*	*<5*	124	*<1*	*<2*	*<10*	89	92
BS-SB51-99-8-16.1	16.1			*<10*	10	419	*<1*	*<2*	113		17	54	*<10*	*<0.2*	*<5*	134	*<1*	*<2*	*<10*	88	88
BS-SB51-99-9-4.1	4.1			*<10*	2.1	276	*<1*	*<2*	82		16	30	*<10*	*<0.2*	*<5*	146	*<1*	*<2*	*<10*	45	70
BS-SB51-99-9-7.1	7.1			*<10*		290	*<1*	*<2*	73		13	33	*<10*	*<0.2*	*<5*	111	*<1*	*<2*	*<10*	40	64
BS-SB51-99-9-10.1	10.1			*<10*	12	456	*<1*	*<2*	105		19	27	*<10*	*<0.2*	*<5*	129	*<1*	*<2*	*<10*	92	96
BS-SB51-99-9-13.1	13.1			*<10*	12	391	*<1*	*<2*	102		19	29	*<10*	*<0.2*	*<5*	142	1.4	*<2*	*<10*	99	104
BS-SB51-99-9-16.1	16.1			*<10*	7.5	441	1.0	*<2*	100		13	13	*<10*	*<0.2*	*<5*	118	1.1	*<2*	*<10*	58	89

AOC 1-1: Building 46 Former Motor Pool Gasoline Underground Storage Tank

BS-SB46A-96-1-35.5	35.5	Apr-96	CLS	*<5*	11	99	*<0.14*	1.2	63		12	61	7.0	*<0.05*	*<2.5*	75	*<0.5*	*<1*	*<4*	50	62
BS-SB46A-96-1-45	45			*<5*	17	50	*<0.14*	0.91	91		10	33	5.3	*<0.05*	*<2.5*	61	*<0.5*	*<1*	*<4*	68	39
BS-SB46A-96-1-55	55			*<5*	16	44	*<0.14*	0.69	47		8.0	32	*<5*	*<0.05*	*<2.5*	43	*<0.5*	*<1*	*<4*	51	38

Table A3-1
Soil Sampling Results
Metals
(Concentrations in mg/kg)

				Sb	As	Ba	Be	Cd	Cr	CrVI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
Maximum Background Concentrations				5.5	19.1	323.6	1.0	2.7	99.6		22.2	69.4	16.1	0.4	7.4	119.8	5.6	1.8	7.6	74.3	106.1
USEPA Region 9 PRGs				31	0.39	5400	150	37	210	30	4700	2900	400	23	390	1600	390	390	6.3	550	23000
California Modified PRGs								9		0.2						150					
Sample ID	Depth (ft)	Date	Lab																		
AOC 1-3: Building 71 Linear Accelerator Cooling Unit																					
BS71-93-B1-11.7	11.7	Apr-93	LBNL	4.1	<0.03	75	<0.004	<0.009	57		14	24	<0.04	<0.0001	<0.02	38	<0.0001	<0.013	<0.099	60	86
BS71-93-B1-31.2	31.2			<0.01	2.1	37	<0.004	<0.009	68		20	14	<0.04	<0.0001	<0.02	20	<0.0001	<0.013	<0.099	50	93
BS71-93-B1-50.6	50.6			<0.01	<0.03	37	<0.004	<0.009	60		16	15	<0.04	<0.0001	<0.02	16	<0.0001	<0.013	<0.099	53	45
BS71-93-B1-61.1	61.1			22	<0.03	43	<0.004	<0.009	42		14	14	<0.04	<0.0001	<0.02	16	<0.0001	<0.013	<0.099	48	93
BS71-93-B2-10.8	10.8			2.4	<0.03	41	<0.004	<0.009	46		15	18	<0.04	<0.0001	<0.02	16	<0.0001	<0.013	<0.099	46	98
BS71-93-B2-21.2	21.2			1.8	<0.03	32	<0.004	<0.009	45		15	19	<0.04	<0.0001	<0.02	16	<0.0001	<0.013	<0.099	29	55
BS71-93-B2-50.7	50.7			11	<0.03	53	<0.004	<0.009	36		18	16	<0.04	<0.0001	<0.02	16	<0.0001	<0.013	<0.099	76	40
BS71-93-B2-70	70			39	<0.03	140	<0.004	<0.009	63		18	28	<0.04	<0.0001	<0.02	23	<0.0001	<0.013	<0.099	106	49
BS71-93-1-4.5	4.5	Sep-93	C	1.1	<0.25	37	0.14	1.6	41		16	11	<0.5	<0.05	2.6	13	<0.5	<0.25	<2	37	47
BS71-93-1-14.5	14.5			1.6	0.99	71	0.22	1.4	42		15	12	<0.5	<0.05	2.8	22	<0.5	<0.25	<2	50	42
BS71-93-1-24.7	24.7			1.0	<0.25	65	0.39	1.2	43		14	12	<0.5	<0.05	1.8	29	<0.5	<0.25	<2	46	37
BS71-93-1-35.0	35			<1	<0.25	50	0.18	1.1	56		14	7.7	<0.5	<0.05	2.5	12	<0.5	<0.25	<2	44	45
BS71-93-1-44.9	44.9			1.3	<0.25	86	0.13	0.88	72		11	29	<0.5	0.35	1.9	84	<0.5	<0.25	<2	56	38
BS71-93-1-54.8	54.8			<1	3.9	68	0.34	0.19	11		3.9	6.4	0.66	<0.05	0.69	18	<0.5	<0.25	<2	24	17
BS71-93-1-64.0	64			<1	1.1	68	0.34	0.5	27		8.9	21	<0.5	<0.05	1.7	38	<0.5	<0.25	<2	36	31
BS71-93-2-10	10	Sep-93	C	2.5	<0.25	26	0.48	1.1	29		12	17	<0.5	<0.05	2.4	15	<0.5	<0.25	<2	22	44
BS71-93-2-20	20			2.8	7.7	46	0.53	1.7	43		15	34	<0.5	<0.05	3.4	18	<0.5	<0.25	<2	44	62
BS71-93-2-30	30			3.1	0.30	49	0.45	1.7	56		20	35	<0.5	<0.05	3.3	22	<0.5	<0.25	<2	44	69
BS71-93-2-35.7	35.7			<1	0.33	72	0.49	1.1	46		15	74	<0.5	<0.05	2.2	44	<0.5	<0.25	<2	48	71
BS71-93-2-41	41			2.4	3.5	41	0.32	1.2	52		14	36	<0.5	<0.05	1.8	18	<0.5	<0.25	<2	34	59
BS71-93-2-50	50			<1	6.3	25	0.10	0.64	17		17	32	<0.5	<0.05	2.3	15	<0.5	<0.25	<2	44	46
BS71-93-2-60.6	60.6			1.2	3.5	46	0.16	0.52	36		19	37	<0.5	<0.05	1.9	24	<0.5	<0.25	<2	34	60
BS71-93-2-70	70			1.1	3.2	44	0.08	0.52	16		11	8.6	<0.5	<0.05	0.62	13	<0.5	<0.25	<2	25	27
BS71-93-2-80	80			<1	<0.25	73	0.38	0.77	41		14	26	<0.5	<0.05	2.3	72	<0.5	<0.25	<2	37	50
BS71-94-1-4	4.0	May-94	BC	<5	1.7	172	<0.5	<0.5	68		17	31	5.3	<0.2	<2.5	56	<0.5	<1	<0.5	64	54
BS71-94-1-8.5	8.5			<5	1.8	133	<0.5	<0.5	69		18	27	6.3	<0.2	<2.5	60	<0.5	<1	<0.5	68	52
BS71-94-1-14.2	14.2			<5	3.4	141	0.5	<0.5	65		17	36	5.3	<0.2	<2.5	52	<0.5	<1	<0.5	68	58
BS71-94-1-23.7	23.7			<5	<0.5	103	<0.5	<0.5	24		24	25	<2.5	<0.2	<2.5	27	<0.5	<1	<0.5	83	57
BS71-94-1-33.7	33.7			<5	0.75	74	<0.5	<0.5	43		20	28	2.8	<0.2	<2.5	32	<0.5	<1	<0.5	105	59
BS71-94-1-48.5	48.5			<5	1.2	98	<0.5	<0.5	55		15	13	<2.5	<0.2	<2.5	25	<0.5	<1	0.51	78	54
AOC 1-10: Building 71 Room 003 Mercury Release**																					
SS71-003-1-3 X	3.0	Jan-95	BC											0.66							
SS71-003-1-3.5 X	3.5													9.5							
SS71-003-2-2.5 X	2.5													8.7							

Table A3-1
Soil Sampling Results
Metals
(Concentrations in mg/kg)

				Sb	As	Ba	Be	Cd	Cr	CrVI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
Maximum Background Concentrations				5.5	19.1	323.6	1.0	2.7	99.6		22.2	69.4	16.1	0.4	7.4	119.8	5.6	1.8	7.6	74.3	106.1
USEPA Region 9 PRGs				31	0.39	5400	150	37	210	30	4700	2900	400	23	390	1600	390	390	6.3	550	23000
California Modified PRGs								9		0.2						150					
Sample ID	Depth (ft)	Date	Lab																		
SS71-003-2-3 X	3.0	Jan-95	BC											23							
SS71-003-3-3 X	3.0	Feb-95												262							
SS71-003-3-4 X	4.0													14							
SS71-003-4-4	4.0													4.3							
SS71-003-5-4.5	4.5	Mar-95												*<0.2*							
SS71-003-5-5.25	5.25													*<0.2*							
SS71-003-6-4.5	4.5													*<0.2*							
SS71-003-6-5	5.0													*<0.2*							
SS71S-1-4	4.0	Feb-95	BC											*<0.2*							
SS71S-2-5	5.0													*<0.2*							
SS71S-3-6	6.0													*<0.2*							
AOC 9-2: Building 51 Former Diesel Underground Storage Tanl																					
BS-MW51-95-17-11	11	Feb-96	BC	*<10*	1.8	161	*<1*	*<1*	73		20	18	*<5*	*<0.2*	*<5*	28	1.1	*<2*	*<10*	77	54
BS-MW51-95-17-21	21			*<10*	8.1	144	*<1*	*<1*	93		16	28	5.8	*<0.2*	*<5*	111	1.3	*<2*	*<10*	52	76
BS-MW51-95-17-30.5	30.5			*<10*	9	185	*<1*	*<1*	153		15	34	6.6	0.63	*<5*	95	*<1*	*<2*	*<10*	63	75
AOC 9-7: Building 51 Former Hazardous Materials Storage Area																					
BS-SB51-96-13-2.5	2.5	Apr-96	CLS	*<5*	0.45	76	0.28	*<0.5*	53		18	19	8.7	*<0.05*	*<2.5*	57	*<0.2*	*<1*	*<4*	41	43
BS-SB51-96-13-5	5.0			*<5*	2.7	130	0.34	0.79	83		12	51	11	0.096	*<2.5*	91	0.4	*<1*	*<0.14*	53	87
BS-SB51-96-13-11	11			*<5*	2.3	150	0.47	0.87	52		7.9	24	11	*<0.05*	*<2.5*	36	0.7	*<1*	0.21	12	76
BS-SB51-96-13-15.5	15.5			*<5*	1.5	120	0.34	0.59	55		9.9	57	9.4	*<0.05*	*<2.5*	55	0.98	*<1*	0.16	41	100
BS-SB51-96-13-20.5	20.5			*<5*	*<0.2*	200	0.36	0.89	47		11	18	11	*<0.05*	*<2.5*	71	*<0.2*	*<1*	0.21	31	56
BS-SB51-96-14-2.5	2.5			*<5*	*<0.2*	100	0.36	1.5	84		16	71	14	*<0.05*	*<2.5*	55	0.69	*<1*	*<0.14*	74	140
BS-SB51-96-14-6	6.0			*<5*	*<0.2*	80	0.25	0.87	62		16	47	9.3	*<0.05*	*<2.5*	49	0.34	*<1*	*<0.14*	60	61
BS-SB51-96-14-10.5	10.5			*<5*	*<0.2*	110	0.31	0.5	64		12	36	9.1	0.053	*<2.5*	82	*<0.2*	*<1*	*<0.14*	45	72
BS-SB51-96-14-16	16			*<5*	1.5	140	0.39	0.5	32		7.4	21	10	*<0.05*	*<2.5*	30	0.49	*<1*	0.19	31	66
BS-SB51-96-14-20.5	20.5			*<5*	*<0.2*	210	0.46	1.6	72		12	46	14	*<0.05*	*<2.5*	78	*<0.2*	*<1*	0.17	53	69
BS-SB51-96-15-3	3.0			*<5*	*<0.2*	88	0.3	1.1	71		14	62	11	*<0.05*	*<2.5*	42	0.42	*<1*	*<0.14*	65	120
BS-SB51-96-15-5	5.0			*<5*	*<0.2*	82	0.24	0.74	59		14	32	8.6	*<0.05*	*<2.5*	46	*<0.2*	*<1*	*<0.14*	53	56
AOC 9-8: Sanitary Sewers North and West of Building 51*																					
BS-MW51-96-16-8	8.0	Sep-96	BC	*<10*	2.2	129	*<1*	*<1*	105		18	26	10	*<0.2*	*<5*	78	2.0	*<2*	*<10*	86	51
BS-MW51-96-16-19	19			*<10*	8.0	166	*<1*	*<1*	80		14	40	5.0	*<0.2*	*<5*	100	1.8	*<2*	*<10*	51	68

Table A3-1
Soil Sampling Results
Metals
(Concentrations in mg/kg)

				Sb	As	Ba	Be	Cd	Cr	CrVI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
Maximum Background Concentrations				5.5	19.1	323.6	1.0	2.7	99.6		22.2	69.4	16.1	0.4	7.4	119.8	5.6	1.8	7.6	74.3	106.1
USEPA Region 9 PRGs				31	0.39	5400	150	37	210	30	4700	2900	400	23	390	1600	390	390	6.3	550	23000
California Modified PRGs								9		0.2						150					
Sample ID	Depth (ft)	Date	Lab																		
BS-MW51-96-16-28.5	28.5			*<10*	5.6	262	*<1*	*<1*	40		8.0	25	6.6	*<0.2*	*<5*	43	1.8	*<2*	*<10*	39	64
BS-MW51-96-17-3.2	3.2			*<10*	2.3	134	*<1*	*<1*	52		14.0	29	6.8	*<0.2*	*<5*	79	1.4	*<2*	*<10*	31	64
BS-MW51-96-17-13.5	13.5			*<10*	2.2	156	*<1*	*<1*	84		23.0	27	*<5*	*<0.2*	*<5*	61	1.7	*<2*	*<10*	77	58
BS-MW51-96-17-23.5	23.5	Sep-96	BC	*<10*	7.2	132	*<1*	*<1*	100		16.0	33	*<5*	*<0.2*	*<5*	136	1.3	*<2*	*<10*	54	56
BS-MW51-96-17-33.2	33.2			*<10*	4.5	172	*<1*	*<1*	78		15.0	47	*<5*	*<0.2*	*<5*	87	1.2	*<2*	*<10*	53	69
BS-MW51-96-17-43	43			*<20*	13	298	*<2*	*<2*	107		17.0	33	*<10*	*<0.2*	*<10*	129	2.9	*<4*	*<20*	79	93
BS-MW51-96-17-53	53			*<20*	9.5	319	*<2*	*<2*	116		21.0	29	10	*<0.2*	*<10*	194	3.2	*<4*	*<20*	64	118
SS-MW51-97-4-D1Comp		May-97	BC	*<10*	5.9	122	*<1*	*<1*	56		11	28	*<5*	*<0.2*	*<5*	41	*<1*	*<2*	*<10*	50	57
SS-MW51-97-4-D2Comp				*<10*	5.1	130	*<1*	*<1*	59		12	40	*<5*	*<0.2*	*<5*	54	*<1*	*<2*	*<10*	46	60
SS-MW51-97-4-D3Comp				*<10*	4.5	183	*<1*	*<1*	56		11	30	*<5*	*<0.2*	*<5*	69	*<1*	*<2*	*<10*	35	63
SS-MW51-97-4-D4Comp				*<10*	4.1	183	*<1*	*<1*	51		9.8	55	6.1	*<0.2*	*<5*	64	*<1*	*<2*	*<10*	31	71
SS-MW51-97-3-D1Comp		Jun-97	BC	*<20*	3.2	165	*<2*	*<2*	106		20	26	*<10*	*<0.2*	*<10*	91	*<2*	*<4*	*<20*	76	68
SS-MW51-97-3-D2Comp				*<20*	2.7	142	*<2*	*<2*	107		22	25	*<10*	*<0.2*	*<5*	84	*<2*	*<4*	*<20*	88	60
SS-MW51-97-3-D3Comp				*<20*	3.5	128	*<2*	*<2*	89		16	25	*<10*	*<0.2*	*<5*	73	*<2*	*<4*	*<20*	63	59
SS-MW51-97-3-D4Comp				*<10*	3.5	128	*<1*	*<1*	61		11	19	*<5*	*<0.2*	*<5*	44	*<1*	*<2*	*<10*	55	55
SS-MW51-97-3-D5Comp				*<20*	7.2	134	*<2*	*<2*	50		*<10*	20	*<10*	*<0.2*	*<10*	42	*<2*	*<4*	*<20*	45	59
SS-MW51-97-3-D6Comp				*<10*	5.0	140	*<1*	*<1*	59		11	20	*<5*	*<0.2*	*<5*	50	*<1*	*<2*	*<10*	53	61
BS-MW51-97-12-0-20Comp	0-20	Sep-97	BC	*<10*	4.4	139	*<1*	*<1*	76		15	24	5.3	*<0.2*	*<5*	71	*<1*	*<2*	*<10*	61	56
BS-MW51-97-12-20-35Comp	20-35			*<10*	3.1	144	*<1*	*<1*	90		18	26	7.4	*<0.2*	*<5*	73	*<1*	*<2*	*<10*	77	61
BS-MW51-97-12-35-45Comp	35-45			*<10*	4.8	131	*<1*	*<1*	102		18	32	*<5*	*<0.2*	*<5*	93	*<1*	*<2*	*<10*	71	63
BS-MW51-97-12-45-50Comp	45-50			*<10*	5.1	149	*<1*	*<1*	82		15	27	*<5*	*<0.2*	*<5*	55	*<1*	*<2*	*<10*	67	66
BS-MW51-97-14-0-17Comp	0-17	Sep-97	BC	*<10*	3.5	135	*<1*	*<1*	85		18	23	*<5*	*<0.2*	*<5*	72	*<1*	*<2*	*<10*	68	53
BS-MW51-97-14-17-32Comp	17-32			*<10*	3.5	127	*<1*	*<1*	87		18	36	6.1	*<0.2*	*<5*	72	*<1*	*<2*	*<10*	75	75
BS-MW51-97-14-32-45Comp	32-45			*<10*	4.1	131	*<1*	*<1*	82		16	36	5.5	0.21	*<5*	80	*<1*	*<2*	*<10*	60	58
BS-MW51-97-14-45-58Comp	45-58			*<10*	7.5	165	*<1*	*<1*	72		12	35	7.1	*<0.2*	*<5*	58	*<1*	*<2*	*<10*	58	66
BS-MW51-97-14-58-70Comp	58-70			*<10*	10	178	*<1*	*<1*	58		15	57	11	*<0.2*	*<5*	52	*<1*	*<2*	*<10*	53	108
SS-51Sew-98-1-5.7	5.7	May-98	LBNL	*<0.05*	1.7	100	0.15	0.087	28.7		9.7	15.1	4.5	*<0.2*	0.65	43.3	0.13	*<0.05*	0.12	21.7	20.3
SS-51Sew-98-2-5.2	5.2			*<0.05*	1.7	93	0.16	0.073	24.3		7.29	11.5	3.3	*<0.2*	0.63	22.5	0.087	*<0.05*	0.102	15.7	22.5
SS-51Sew-98-3-5.8	5.8			*<0.05*	1.6	1.4	0.15	0.07	29.3		8.89	8.99	5.08	*<0.2*	0.64	28.4	0.14	*<0.05*	0.1	21.9	17.7
AOC 9-9: Building 51 Sanitary Sewers and Drainage System**																					
BS-SB51-96-8-4	4.0	Apr-96	CLS	*<5*	1.4	180	0.6	*<0.5*	110		12	23	*<5*	*<0.05*	*<2.5*	81	*<0.5*	*<1*	*<0.14*	49	53
BS-SB51-96-8-6	6.0			*<5*	1.4	180	0.6	*<0.5*	96		11	22	*<5*	*<0.05*	*<2.5*	90	*<0.5*	*<1*	*<0.14*	50	55
BS-SB51-96-9-4	4.0			*<5*	7.5	47	0.53	*<0.5*	120		12	*<1*	25	*<0.05*	*<2.5*	72	*<0.5*	*<1*	*<0.14*	47	50
BS-SB51-96-9-6	6.0			*<5*	1.7	98	0.73	*<0.5*	73		14	23	*<5*	*<0.05*	*<2.5*	94	*<0.5*	*<1*	*<0.14*	59	63
BS-SB51-96-10-4	4.0			*<5*	5.3	77	0.73	*<0.5*	92		17	31	10	*<0.05*	*<2.5*	140	*<0.5*	*<1*	*<0.14*	58	75
BS-SB51-96-10-6	6.0			*<5*	*<0.2*	120	0.68	*<0.5*	67		20	42	*<5*	*<0.05*	*<2.5*	130	*<0.5*	*<1*	*<0.14*	43	84

Table A3-1
Soil Sampling Results
Metals
(Concentrations in mg/kg)

				Sb	As	Ba	Be	Cd	Cr	CrVI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
Maximum Background Concentrations				5.5	19.1	323.6	1.0	2.7	99.6		22.2	69.4	16.1	0.4	7.4	119.8	5.6	1.8	7.6	74.3	106.1
USEPA Region 9 PRGs				31	0.39	5400	150	37	210	30	4700	2900	400	23	390	1600	390	390	6.3	550	23000
California Modified PRGs								9		0.2						150					
Sample ID	Depth (ft)	Date	Lab																		
BS-SB51-96-11-6	6.0			*<5*	4.9	140	0.54	*<0.5*	48		12	24	*<5*	*<0.05*	*<2.5*	66	*<0.5*	*<1*	*<0.14*	38	51
BS-SB51-96-12-4	4.0			*<5*	13	220	0.32	*<0.5*	60		12	30	*<5*	*<0.05*	*<2.5*	69	*<0.5*	*<1*	*<0.14*	61	59
BS-SB51-96-12-6	6.0			*<5*	10	120	0.25	*<0.5*	68		14	25	*<5*	*<0.05*	*<2.5*	45	*<0.5*	*<1*	*<0.14*	44	62
BS-SB51-96-12-8	8.0	Apr-96	CLS	*<5*	6.7	120	0.21	*<0.5*	64		12	30	12	*<0.05*	*<2.5*	45	*<0.5*	*<1*	*<0.14*	34	59
BS-SB51-98-1-2.1	2.1	Feb-98	LBNL	*<0.2*	1.9	106	*<0.2*	0.2	7		2.1	12.6	3.7	*<0.2*	0.35	48.9	0.25	*<0.2*	*<0.2*	15.7	17.2
BS-SB51-98-1-4	4.0	Jun-98	BC	*<10*	5.3	227	*<1*	*<1*	86		15	32	*<5*	*<0.2*	*<5*	94	*<0.5*	*<2*	*<10*	58	67
BS-SB51-98-1-6	6.0			*<10*	1.9	212	*<1*	*<1*	84		13	32	*<5*	*<0.2*	*<5*	95	*<0.5*	*<2*	*<10*	51	62
BS-SB51-98-2-2	2.0	Feb-98	LBNL	*<0.2*	0.71	57.5	*<0.2*	*<0.2*	16.5		0.92	26.1	73.9	*<0.2*	0.47	25.7	*<0.2*	*<0.2*	*<0.2*	11.6	86.4
BS-SB51-98-2-5	5.0	Jun-98	BC	*<10*	*<1*	64	*<1*	*<1*	80		22	8	*<5*	*<0.2*	*<5*	32	*<0.5*	*<2*	*<10*	30	66
BS-SB51-98-2-6.5	6.5			*<10*	*<1*	81	*<1*	*<1*	65		22	6.5	*<5*	*<0.2*	*<5*	47	*<0.5*	*<2*	*<10*	37	67
BS-SB51-98-3-2.4	2.4	Feb-98	LBNL	*<0.2*	2.2	94.9	*<0.2*	*<0.2*	22.5		3.3	11.7	4.7	*<0.2*	0.48	24.1	0.63	0.47	*<0.2*	14.4	19.4
BS-SB51-98-3-3.4	3.4			*<0.2*	0.52	113	*<0.2*	*<0.2*	8.8		2.2	13.8	2.6	*<0.2*	*<0.2*	23.8	*<0.2*	*<0.2*	*<0.2*	16.7	24
BS-SB51-98-3-4	4.0	Jun-98	BC	*<10*	6.0	188	*<1*	*<1*	77		15	34	*<5*	*<0.2*	*<5*	81	*<0.5*	*<2*	*<10*	60	70
BS-SB51-98-3-6	6.0			*<10*	6.5	254	*<1*	2.5	76		16	38	*<5*	*<0.2*	*<5*	90	*<0.5*	*<2*	*<10*	61	71
BS-SB51-98-4-4	4.0			*<10*	5.6	256	*<1*	*<1*	144		13	29	*<5*	*<0.2*	*<5*	79	*<0.5*	*<2*	*<10*	54	58
BS-SB51-98-4-6	6.0			*<10*	3.2	218	*<1*	*<1*	81		13	32	*<5*	*<0.2*	*<5*	88	*<0.5*	*<2*	*<10*	51	56
BS-SB51-98-5-3	3.0	Feb-98	LBNL	*<0.2*	1.1	114	*<0.2*	*<0.2*	23.4		2.2	7.7	4.0	*<0.2*	*<0.2*	19.2	0.81	*<0.2*	*<0.2*	12.7	17.8
BS-SB51-98-5-4	4.0	Jun-98	BC	*<10*	11.0	219	*<1*	*<1*	86		16	37	5.3	*<0.2*	*<5*	86	*<0.5*	*<2*	*<10*	62	70
BS-SB51-98-5-6	6.0			*<10*	8.5	223	*<1*	*<1*	72		14	40	*<5*	*<0.2*	*<5*	84	*<0.5*	*<2*	*<10*	50	64
BS-SB51-98-6-2.3	2.3	Feb-98	LBNL	*<0.2*	1.7	129	*<0.2*	*<0.2*	25.8		1.2	9.9	4.5	*<0.2*	*<0.2*	27.3	0.45	*<0.2*	*<0.2*	17.1	20.1
BS-SB51-98-6-4	4.0	Jun-98	BC	*<10*	3.9	184	*<1*	*<1*	96		13	34	*<5*	*<0.2*	*<5*	82	*<0.5*	*<2*	*<10*	57	68
BS-SB51-98-6-6	6.0			*<10*	2.3	196	*<1*	*<1*	82		12	28	*<5*	*<0.2*	*<5*	89	*<0.5*	*<2*	*<10*	49	57
BS-SB51-98-7-2.3	2.3	Feb-98	LBNL	*<0.2*	1.1	64.5	*<0.2*	*<0.2*	21.2		3.8	4.4	2.8	*<0.2*	*<0.2*	8.0	*<0.2*	*<0.2*	*<0.2*	13.0	19.1
BS-SB51-98-7-3	3.0			*<0.2*	1.1	85.6	*<0.2*	*<0.2*	39.3		2.1	9.3	4.8	*<0.2*	*<0.2*	13.9	*<0.2*	*<0.2*	*<0.2*	16.4	22.3
BS-SB51-98-7-2	2.0	Jun-98	BC	*<10*	6.1	193	*<1*	*<1*	78		14	34	*<5*	0.89	*<5*	85	*<0.5*	*<2*	*<10*	56	68
BS-SB51-98-7-4	4.0			*<10*	5.8	299	*<1*	*<1*	67		14	30	*<5*	*<0.2*	*<5*	81	*<0.5*	*<2*	*<10*	56	59
BS-SB51-98-7-5	5.0			*<10*	10.0	358	*<1*	*<1*	69		12	24	6.6	*<0.2*	*<5*	72	*<0.5*	*<2*	*<10*	38	61
BS-SB51-98-8-1.8	1.8	Feb-98	LBNL	*<0.2*	0.99	195	*<0.2*	0.3	18.1		2.9	2.9	1.8	*<0.2*	0.33	6.3	*<0.2*	*<0.2*	*<0.2*	12.1	16.8
BS-SB51-98-8-5	5.0	Jun-98	BC	*<10*	*<1*	83	*<1*	*<1*	104		20	14	*<5*	*<0.2*	*<5*	35	*<0.5*	*<2*	*<10*	69	64
BS-SB51-98-8-6.5	6.5	Jun-98	BC	*<10*	1.2	87	*<1*	*<1*	91		14	10	*<5*	*<0.2*	*<5*	28	*<0.5*	*<2*	*<10*	118	51
BS-SB51-98-9-2.6	2.6	Feb-98	LBNL	*<0.2*	3.9	94.5	*<0.2*	*<0.2*	12.9		3.2	11	18.6	*<0.2*	*<0.2*	18.1	0.26	*<0.2*	*<0.2*	21.3	26.4
BS-SB51-98-9-3.6	3.6			*<0.2*	3.2	143	*<0.2*	*<0.2*	5.7		3.3	4.5	6.3	*<0.2*	*<0.2*	8.9	*<0.2*	*<0.2*	*<0.2*	11.2	25.7
BS-SB51-98-9-4	4.0	Jun-98	BC	*<10*	*<1*	67	*<1*	*<1*	77		20	10	*<5*	*<0.2*	*<5*	22	*<0.5*	*<2*	*<10*	72	63
BS-SB51-98-9-6	6.0			*<10*	1.1	77	*<1*	*<1*	86		20	10	*<5*	*<0.2*	*<5*	22	*<0.5*	*<2*	*<10*	72	64
SS-51MRPit-96-1-3	3.0	Mar-96	BC											<0.2							
SS-51MRPit-96-2-2	2.0													0.82							
SS-51MRPit-96-4-4.5	4.5	Mar-96	BC											<0.2							

Table A3-1
Soil Sampling Results
Metals
(Concentrations in mg/kg)

				Sb	As	Ba	Be	Cd	Cr	CrVI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
Maximum Background Concentrations				5.5	19.1	323.6	1.0	2.7	99.6		22.2	69.4	16.1	0.4	7.4	119.8	5.6	1.8	7.6	74.3	106.1
USEPA Region 9 PRGs				31	0.39	5400	150	37	210	30	4700	2900	400	23	390	1600	390	390	6.3	550	23000
California Modified PRGs								9		0.2						150					
Sample ID	Depth (ft)	Date	Lab																		
SS-51MRPit-96-5-4.2	4.2	Mar-96	BC											<0.2							
SS-51MRPit-6-2	2.0	Apr-96	CLS											0.23							
SS-51MRP2-Prod		Nov-96	BC											*<0.2*							
SS51MRPit3-98-1-4	4.0	Jul-98	BC	*<10*	2.2	156	*<1*	*<1*	66		12	41	8.3	*<0.2*	*<5*	93	*<1*	*<2*	*<10*	41	62
SS51MRPit3-98-2-4	4.0			*<10*	5.4	221	*<1*	*<1*	33		7.5	23	9.3	*<0.2*	*<5*	43	*<1*	*<2*	*<10*	29	40
SS51MRPit3-98-3-6	6.0			*<10*	1.2	271	*<1*	*<1*	50		11	32	5.0	*<0.2*	*<5*	85	*<1*	*<2*	*<10*	31	55
SS-51MRPit3-98-4-3.5	3.5			*<10*	4.5	256	*<1*	*<1*	83		13	44	9.4	*<0.2*	*<5*	90	*<1*	*<2*	*<10*	51	72
SS-51MRPit3-98-5-4	4.0			*<10*	10.0	178	*<1*	*<1*	73		14	45	12	*<0.2*	*<5*	83	*<1*	*<2*	*<10*	52	77
SS-51MRPit3-98-6-6.3	6.3			*<10*	9.7	248	*<1*	*<1*	113	0.1	16	40	14	*<0.2*	*<5*	116	1.4	*<2*	*<10*	82	81
SS-51MRPit3-98-7-5.8	5.8			*<10*	7.2	272	*<1*	*<1*	95		16	46	10	*<0.2*	*<5*	103	*<1*	*<2*	*<10*	64	84
SS-51MRPit3-98-8-7.5	7.5			*<10*	2.2	184	*<1*	*<1*	72		15	37	7.0	*<0.2*	*<5*	86	*<1*	*<2*	*<10*	57	68
SS-51MRPit3-98-9-3	3.0			*<10*	5.2	146	*<1*	*<1*	74		13	53	8.8	*<0.2*	*<5*	79	*<1*	*<2*	*<10*	51	73
SS-51MRPit3-98-10-3	3.0			*<10*	4.3	195	*<1*	*<1*	75		13	39	10	*<0.2*	*<5*	82	*<1*	*<2*	*<10*	42	66
SS-51MRP3-99-W1A-2.3	2.3	Oct-99	BC											<0.2							
SS-51MRP3-99-W1B-2.3	2.3													<0.2							
SS-51MRP3-99-W2A-3.0	3.0													<0.2							
SS-51MRP3-99-W2B-3.0	3.0													<0.2							
SS-51MRP3-99-W3A-1.5	1.5													<0.2							
SS-51MRP3-99-W4A-4.3	4.3													<0.2							
SS-51MRP3-99-W5A-1.5	1.5													<0.2							
SS-51MRP3-99-W5B-1.5	1.5													<0.2							
SS-51MRP3-99-W6A-4.5	4.5													<0.2							
SS-51MRP3-99-W6B-4.5	4.5													<0.2							
SS-51MRP3-99-W7A-4.0	4.0													<0.2							
SS-51MRP3-99-W8A-4.5	4.5													<0.2							
SS-51MRP3-99-W8B-4.5	4.5													<0.2							
SS-51MRP3-99-W10A-5.5	5.5													<0.2							
SS-51MRP3-99-W10B-6.5	6.5													<0.2							
SS-51MRP3-99-W11A-4.0	4.0													<0.2							
SS-51MRP3-99-W11B-4.0	4.0													<0.2							
SS-51MRP3-99-W12A-1.8	1.8													<0.2							
SS-51MRP3-99-W12B-1.8	1.8													<0.2							
SS-51MRP3-99-W13A-4.5	4.5													<0.2							
SS-51MRP3-99-W13B-4.5	4.5													<0.2							
SS-51MRP3-99-W14A-4.0	4.0													<0.2							
SS-51MRP3-99-W14B-4.0	4.0													<0.2							
SS-51MRP3-99-W15A-2.0	2.0													<0.2							

Table A3-1
Soil Sampling Results
Metals
(Concentrations in mg/kg)

				Sb	As	Ba	Be	Cd	Cr	CrVI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
Maximum Background Concentrations				5.5	19.1	323.6	1.0	2.7	99.6		22.2	69.4	16.1	0.4	7.4	119.8	5.6	1.8	7.6	74.3	106.1
USEPA Region 9 PRGs				31	0.39	5400	150	37	210	30	4700	2900	400	23	390	1600	390	390	6.3	550	23000
California Modified PRGs								9		0.2						150					
Sample ID	Depth (ft)	Date	Lab																		
SS-51MRP3-99-W15B-2.0	2.0													<0.2							
SS-51MRP3-99-W16A-4.5	4.5													<0.2							
SS-51MRP3-99-W16B-4.5	4.5													<0.2							
SS-51MRP3-99-W17A-3.0	3.0	Oct-99	BC											<0.2							
SS-51MRP3-99-W17B-3.0	3.0													<0.2							
SS-51MRP3-99-W18A-4.5	4.5													<0.2							
SS-51MRP3-99-W18B-4.5	4.5													<0.2							
SS-51MRP3-99-W19A-4.5	4.5													<0.2							
SS-51MRP3-99-W19B-4.5	4.5													<0.2							
SS-51MRP3-99-W20A-4.8	4.8													<0.2							
SS-51MRP3-99-W20B-4.8	4.8													<0.2							
SS-51MRP3-99-W21A-3.5	3.5													<0.2							
SS-51MRP3-99-W21B-3.5	3.5													<0.2							
SS-51MRP3-99-F1-6.5	6.5													<0.2							
SS-51MRP3-99-F1-7.3	7.3													<0.2							
SS-51MRP3-99-F2-6.5	6.5													<0.2							
SS-51MRP3-99-F2-8.5	8.5													<0.2							
SS-51MRP3-99-F3-6.8	6.8													<0.2							
SS-51MRP3-99-F3-8.2	8.2													<0.2							
SS-51MRP3-99-F4-6.6	6.6													<0.2							
SS-51MRP3-99-F4-8.2	8.2													<0.2							
SS-51MRP3-99-F5-6.5	6.5													<0.2							
SS-51MRP3-99-F5-8.0	8.0													<0.2							
SS-51MRP3-99-FW9-4.0	4.0													<0.2							
SS-51MRP5-99-F1-6.5	6.5													<0.2							
SS-51MRP5-99-F1-8.0	8.0													<0.2							
SS-51MRP5-99-F2-6.5	6.5													<0.2							
SS-51MRP5-99-F2-7.8	7.8													<0.2							
SS-51MRP5-99-F3-6.5	6.5													<0.2							
SS-51MRP5-99-F3-7.8	7.8													<0.2							
SS-51MRP5-99-W1A-4.8	4.8													<0.2							
SS-51MRP5-99-W1B-4.8	4.8													<0.2							
SS-51MRP5-99-W2A-4.8	4.8													<0.2							
SS-51MRP5-99-W2B-4.8	4.8													<0.2							
SS-51MRP5-99-W3A-4.8	4.8													<0.2							
SS-51MRP5-99-W3B-4.8	4.8													<0.2							
SS-51MRP5-99-W4A-4.9	4.9													<0.2							

Table A3-1
Soil Sampling Results
Metals
(Concentrations in mg/kg)

				Sb	As	Ba	Be	Cd	Cr	CrVI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
Maximum Background Concentrations				5.5	19.1	323.6	1.0	2.7	99.6		22.2	69.4	16.1	0.4	7.4	119.8	5.6	1.8	7.6	74.3	106.1
USEPA Region 9 PRGs				31	0.39	5400	150	37	210	30	4700	2900	400	23	390	1600	390	390	6.3	550	23000
California Modified PRGs								9		0.2						150					
Sample ID	Depth (ft)	Date	Lab																		
SS-51MRP5-99-W4B-4.9	4.9													<0.2							
SS-51MRP5-99-W5A-4.5	4.5													<0.2							
SS-51MRP5-99-W5B-4.5	4.5													<0.2							
SS-51MRP5-99-W6A-4.5	4.5	Oct-99	BC											<0.2							
SS-51MRP5-99-W6B-4.5	4.5													<0.2							
SS-51MRP5-99-W7A-4.5	4.5													<0.2							
SS-51MRP5-99-W7B-4.5	4.5													<0.2							
SS-51MRP5-99-FW8A-5.0	5.0													<0.2							
SS-51MRP5-99-FW8B-6.2	6.2													<0.2							
AOC 9-11: Former Cooling Towers Southeast of Building 51*																					
BS-SB51-96-19-1	1.0	Apr-96	CLS	*<5*	11	130	0.39	1.6	64		14	18	12	0.061	*<2.5*	59	0.29	*<1*	*<4*	51	51
BS-SB51-96-19-3	3.0			*<5*	3.1	160	0.39	1.8	70		13	21	15	*<0.05*	*<2.5*	68	*<0.2*	*<1*	*<4*	58	54
BS-SB51-96-19-5	5.0			*<5*	3.9	160	0.36	1.6	76		18	18	12	*<0.05*	*<2.5*	74	0.52	*<1*	*<4*	63	48
BS-SB51-96-20-1	1.0			*<5*	4.8	150	0.38	1.6	270		12	22	16	*<0.05*	*<2.5*	69	*<0.2*	*<1*	*<4*	49	56
BS-SB51-96-22-0.8	0.8			*<5*	3	37	0.23	*<0.5*	49		8	25	4.6	0.060	*<2.5*	32	*<0.2*	*<1*	*<4*	37	46
BS-SB51-96-22-5	5.0			*<5*	2.6	35	0.20	*<0.5*	38		6.2	32	5.9	*<0.05*	*<2.5*	27	*<0.2*	*<1*	*<4*	31	58
BS-SB51-96-20A-1.1	1.1	Sep-96	BC							*<0.2*											
BS-SB51-96-20A-2.1	2.1									*<1.0*											
BS-SB51-96-20R-1.5	1.5	Feb-00	BC						66												
BS-SB51-96-20R-5.4	5.4								99												
BS-SB51-00-1-3.3	3.3	Feb-00	BC		4.0																
BS-SB51-00-1-6	6.0				1.0																
BS-SB51-00-1-10.1	10.1																		*<1*		
BS-SB51-00-1-15	15																		*<1*		
BS-SB51-00-1-20.1	20.1																		*<1*		
BS-SB51-00-4-3	3.0				3.0																
BS-SB51-00-4-6	6.0				1.0																
BS-MW51-00-1-1	1.0	Feb-00	BC						75												
BS-MW51-00-1-5	5.0								91												
AOC 9-12: Building 51/64 Former Equipment Storage Area*																					
BS51B-93-18A-4.4	4.4	Apr-94	BC	*<5*	1.6	96	*<0.5*	*<0.5*	63		16	22	7.7	0.76	*<2.5*	32	*<0.5*	*<1*	*<5*	51	60
BS51B-93-18A-9	9.0			*<5*	6.9	118	0.52	*<0.5*	64		14	36	6.8	<0.2	*<2.5*	92	*<0.5*	*<1*	*<5*	50	79
BS51B-93-18A-14	14			*<5*	7.3	226	0.59	*<0.5*	76		16	60	7.3	<0.2	*<2.5*	99	*<0.5*	*<1*	*<5*	60	96
BS51B-93-18A-19	19			*<5*	7.6	270	0.67	*<0.5*	82		17	36	7.8	<0.2	*<2.5*	105	0.54	*<1*	*<5*	67	97

Table A3-1
Soil Sampling Results
Metals
(Concentrations in mg/kg)

				Sb	As	Ba	Be	Cd	Cr	CrVI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
Maximum Background Concentrations				5.5	19.1	323.6	1.0	2.7	99.6		22.2	69.4	16.1	0.4	7.4	119.8	5.6	1.8	7.6	74.3	106.1
USEPA Region 9 PRGs				31	0.39	5400	150	37	210	30	4700	2900	400	23	390	1600	390	390	6.3	550	23000
California Modified PRGs								9		0.2						150					
Sample ID	Depth (ft)	Date	Lab																		
BS51B-93-18A-24	24			*<5*	7.1	230	0.6	*<0.5*	76		15	47	7.2	<0.2	*<2.5*	95	0.62	*<1*	*<5*	62	88
BS51B-93-18A-29.3	29.3			*<5*	5.7	231	0.58	*<0.5*	80		15	69	6.9	<0.2	*<2.5*	97	*<0.5*	*<1*	*<5*	61	75
BS51B-93-18A-34	34			*<5*	3.0	248	0.51	*<0.5*	56		8.9	32	7.5	<0.2	*<2.5*	64	*<0.5*	*<1*	*<5*	34	60
BS51B-93-18A-39	39			*<5*	4.3	232	0.58	*<0.5*	72		12	35	6.8	<0.2	*<2.5*	77	*<0.5*	*<1*	*<5*	53	71
BS51B-93-18A-41	41	Apr-94	BC	*<5*	5.4	211	0.51	*<0.5*	65		12	105	5.9	<0.2	*<2.5*	74	*<0.5*	*<1*	*<5*	48	103
BS-SB51-96-23-0.8	0.8	Apr-96	CLS	*<6*	10	170	0.77	1.3	64		17	20	12	*<0.05*	*<2.5*	53	*<0.5*	*<1*	*<4*	43	60
BS-SB51-96-23-2.8	2.8			*<6*	11	150	0.55	1.1	49		7.6	22	7.9	*<0.05*	*<2.5*	49	*<0.5*	*<1*	*<4*	46	49
BS-SB51-96-23-3.9	3.9			*<6*	7.0	170	0.8	1.0	66		8.8	20	7.4	0.065	*<2.5*	44	*<0.5*	*<1*	*<4*	45	48
BS-SB51-96-24-1.5	1.5			*<6*	6.9	140	0.55	1.6	55		13	29	43	*<0.05*	*<2.5*	82	*<0.5*	*<1*	*<4*	45	69
BS-SB51-96-24-3.5	3.5			*<6*	8.2	130	0.51	1.5	49		9.2	68	12	*<0.05*	*<2.5*	55	*<0.5*	*<1*	*<4*	44	90
BS-SB51-96-24-4.5	4.5			*<6*	2.8	80	0.54	0.83	37		6.1	24	10	*<0.05*	*<2.5*	37	*<0.5*	*<1*	*<4*	32	49
BS-SB51-96-25-2	2.0			*<6*	9.2	80	0.69	1.4	73		19	26	8.8	*<0.05*	*<2.5*	75	*<0.5*	*<1*	*<4*	58	53
BS-SB51-96-25-4	4.0			*<6*	16	180	1.0	1.2	46		9.9	51	490	0.052	*<2.5*	57	*<0.5*	*<1*	*<4*	41	100
BS-SB51-96-25-5	5.0			*<6*	13	160	0.57	1.7	59		14	45	15	0.09	*<2.5*	89	*<0.5*	*<1*	*<4*	45	77
BS-SB51-96-26-3.5	3.5			*<6*	*<0.2*	150	0.79	2.5	82		11	48	14	*<0.05*	*<2.5*	81	*<0.5*	*<1*	*<4*	53	81
BS-SB51-96-26-5	5.0			*<6*	*<0.2*	110	0.66	2.3	69		13	39	14	*<0.05*	*<2.5*	91	*<0.5*	*<1*	*<4*	50	82
BS-SB51-96-27-1	1.0	Oct-96	CLS	*<10*	*<0.5*	*<5*	0.74	*<1*	210	*<0.1*	9.0	28	*<10*	0.037	*<5*	55	*<0.5*	*<2.5*	*<25*	32	53
BS-SB51-96-27-15.3	15.3			*<10*	2.2	*<5*	*<0.5*	*<1*	27	*<0.1*	7.8	28	*<10*	0.023	*<5*	36	1.4	*<2.5*	*<25*	35	63
BS-SB51-96-27-20.5	20.5			*<10*	4.0	*<5*	*<0.5*	*<1*	58	*<0.1*	10	34	*<10*	0.026	*<5*	62	*<0.5*	*<2.5*	*<25*	54	84
BS-SB51-96-27-25.3	25.3			*<10*	4.1	*<5*	*<0.5*	*<1*	54	*<0.1*	14	55	*<10*	0.051	*<5*	74	*<0.5*	*<2.5*	*<25*	47	92
BS-SB51-96-28-1.5	1.5			*<0.9*	*<1*	96	0.51	*<1*	42	*<0.2*	15.0	23	*<5*	*<0.2*	*<4*	70	*<1*	*<0.4*	*<1*	33	45
BS-SB51-96-28-5	5.0			*<0.9*	3.8	250	0.57	*<1*	26	*<0.1*	9.7	30	390	*<0.2*	*<4*	52	*<1*	*<0.4*	*<1*	23	69
BS-SB51-96-28-15	15			*<0.9*	1.6	190	0.68	*<1*	26	*<0.1*	12.0	33	*<5*	*<0.2*	*<4*	63	*<1*	*<0.4*	*<1*	28	67
BS-SB51-96-28-24	24			*<0.9*	3.7	130	*<0.5*	*<1*	53	*<1.0*	15.0	37	*<5*	*<0.2*	*<4*	68	*<1*	*<0.4*	*<1*	47	73
BS-SB64-98-10-1-19.1	19.1	May-98	BC	*<5*	5.7	252	0.98	*<0.5*	56		9.5	43	5.7	*<0.2*	*<2.5*	56	*<0.5*	*<1*	*<5*	49	81
BS-SB64-98-11-1-20.5	20.5			*<5*	15	215	0.92	*<0.5*	58		12	44	6.9	*<0.2*	*<2.5*	73	*<0.5*	*<1*	*<5*	47	80
BS-SB64-98-12-1-19.5	19.5			*<5*	4	221	0.96	*<0.5*	59		12	44	6.5	*<0.2*	*<2.5*	68	*<0.5*	*<1*	*<5*	55	80
BS-SB64-98-13-3.3-19.5	19.5			*<5*	15	250	0.95	*<0.5*	60		13	57	7.4	*<0.2*	*<2.5*	67	*<0.5*	*<1*	*<5*	55	81
BS-SB64-98-14-5-18.5	18.5			*<5*	3.9	233	0.92	*<0.5*	53		11	116	6.4	*<0.2*	*<2.5*	61	*<0.5*	*<1*	*<5*	47	103
BS-SB64-98-15-4.5-20.2	20.2			*<5*	5.6	252	0.94	*<0.5*	58		11	53	6.6	*<0.2*	*<2.5*	66	*<0.5*	*<1*	*<5*	48	80
BS-SB64-98-17-5	5.0	Dec-98	BC	*<5*	4.8	176	*<0.5*	*<0.5*	72		16	40	12	*<0.2*	*<2.5*	95	*<0.5*	*<1*	*<5*	56	91
BS-MW64-98-19Comp		Feb-99	BC	*<5*	4.6	256	*<1*	1.2	51		12	38	6.9	*<0.2*	*<5*	74	*<1*	*<2*	*<10*	41	75
BS-MW64-98-20Comp		May-99	BC	*<5*	11	232	*<1*	*<1*	60		12	37	5.6	*<0.2*	*<5*	67	*<1*	*<2*	*<10*	54	76
AOC 1-9: Building 71 Groundwater Solvent and Freon Plume																					
BS-MW71-97-23-19.3	19.3	Sep-97	BC	*<10*	3	84	*<1*	*<1*	135	*<0.1*	20	31	*<5*	*<0.2*	*<5*	200	*<1*	*<2*	*<10*	65	49
BS-MW71-97-23-24.2	24.2			*<10*	3.8	80	*<1*	*<1*	207	*<0.1*	28	39	*<5*	*<0.2*	*<5*	309	*<1*	*<2*	*<10*	76	51

Table A3-1
Soil Sampling Results
Metals
(Concentrations in mg/kg)

				Sb	As	Ba	Be	Cd	Cr	CrVI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
Maximum Background Concentrations				5.5	19.1	323.6	1.0	2.7	99.6		22.2	69.4	16.1	0.4	7.4	119.8	5.6	1.8	7.6	74.3	106.1
USEPA Region 9 PRGs				31	0.39	5400	150	37	210	30	4700	2900	400	23	390	1600	390	390	6.3	550	23000
California Modified PRGs								9		0.2						150					
Sample ID	Depth (ft)	Date	Lab																		
BS-MW71-97-23-29.1	29.1			*<10*	1.8	61	*<1*	*<1*	71		23	19	*<5*	*<0.2*	*<5*	40	*<1*	*<2*	*<10*	60	54
BS-MW71-97-23-34.1	34.1			*<10*	3.1	125	*<1*	*<1*	79		20	23	*<5*	*<0.2*	*<5*	49	*<1*	*<2*	*<10*	82	58
BS-MW71-97-23-39.5	39.5			*<10*	3.3	151	*<1*	*<1*	91		21	22	7.9	*<0.2*	*<5*	57	*<1*	*<2*	*<10*	86	53
BS-MW71-97-23-44.3	44.3	Sep-97	BC	*<10*	6.2	107	*<1*	*<1*	74		14	27	5.1	*<0.2*	*<5*	111	*<1*	*<2*	*<10*	52	56
BS-MW71-97-23-49.3	49.3			*<10*	5.9	150	*<1*	*<1*	59		14	35	*<5*	*<0.2*	*<5*	94	*<1*	*<2*	*<10*	53	60
BS-MW71-97-23-53.8	53.8			*<10*	6.2	161	*<1*	*<1*	74		20	44	5.3	*<0.2*	*<5*	113	*<1*	*<2*	*<10*	53	68
BS-MW71-97-23-58.5	58.5			*<10*	7.7	115	*<1*	*<1*	106		14	28	*<5*	0.22	*<5*	100	*<1*	*<2*	*<10*	73	50
BS-MW71B-98-13Comp		Sep-98	BC	*<10*	3.6	112	1.2	*<2*	95		16	24	9	*<0.2*	*<5*	105	*<2*	*<2*	*<10*	77	51
BS-MW46A-98-11-Comp		Oct-98	BC	*<10*	5.3	98	*<1*	*<1*	93		15	23	7.4	*<0.2*	*<5*	96	*<2.5*	*<2*	*<10*	67	50
BS-MW46A-98-11-Comp2				*<10*	19	218	1.1	*<2.5*	64		14	38	11	*<0.2*	*<12.5*	92	*<1*	*<2*	*<10*	62	77
BS-MW71B-99-3-Comp		Jul-99	BC	*<5*	6.7	154	0.66	*<0.5*	67		14	26	4.4	*<0.2*	*<2.5*	106	0.56	*<1*	*<5*	53	50
AOC 9-13: Building 51/64 Groundwater Solvent Plume																					
BS-MW64-97-1-4.7	4.7	May-97	BC	*<10*	13.0	259	*<1*	*<1*	66		13	41	7.0	*<0.2*	*<5*	95	*<1*	*<2*	*<10*	47	78
BS-MW64-97-2-5.5	5.5	May-97	BC	*<20*	3.1	99	*<2*	*<2*	76		23	40	*<10*	*<0.2*	*<10*	37	*<2*	*<4*	*<20*	87	83
BS-MW51-97-15-0-17Comp	0-17	Sep-97	BC	*<10*	2.6	93	*<1*	*<1*	77		21	33	*<5*	*<0.2*	*<5*	48	*<1*	*<2*	*<10*	65	63
BS-MW51-97-15-17-30Comp	17-30			*<10*	2.6	108	*<1*	*<1*	80		22	26	*<5*	*<0.2*	*<5*	48	*<1*	*<2*	*<10*	67	61
BS-MW51-97-15-30-45Comp	30-45			*<10*	4.3	113	*<1*	*<1*	108		19	31	5.2	*<0.2*	*<5*	94	*<1*	*<2*	*<10*	71	61
BS-MW51-97-15-45-60Comp	45-60			*<10*	3.9	112	*<1*	*<1*	72		14	21	*<5*	*<0.2*	*<5*	42	*<1*	*<2*	*<10*	63	56
BS-MW51-97-15-60-80Comp	60-80			*<10*	4.4	110	*<1*	*<1*	73		14	39	*<5*	*<0.2*	*<5*	41	*<1*	*<2*	*<10*	60	63
BS-MW51-97-15-90-108Comp	90-108			*<10*	4.0	117	*<1*	*<1*	64		13	23	*<5*	*<0.2*	*<5*	58	*<1*	*<2*	*<10*	47	52
BS-MW56-98-2-3.3-19.1	19.1	Apr-98	BC	*<10*	6.1	245	*<1*	*<2*	56		14	49	6.1	*<0.2*	*<5*	74	*<2*	*<2*	*<10*	38	100
BS-MW56-98-2-29.5-53.8	53.8			*<10*	5.4	562	*<1*	*<2*	65		15	64	*<5*	*<0.2*	*<5*	82	*<2*	*<2*	*<10*	56	83
BS-MW51-98-5-9.3-19.5	19.5	May-98	BC	*<10*	6.1	158	*<1*	*<2*	84		18	34	*<5*	*<0.2*	*<5*	80	*<1*	*<2*	*<10*	68	78
BS-MW51-98-5-29.5-49.5	49.5			*<10*	5.5	188	*<1*	*<2*	80		16	35	5.2	*<0.2*	*<5*	80	*<1*	*<2*	*<10*	53	68
BS-MW63-98-18Comp		Sep-98	BC	*<10*	3.8	206	1.1	*<2*	83		14	30	10	*<0.2*	*<5*	93	*<2*	*<2*	*<10*	68	68
Building 51L Solvent Contaminated Groundwater																					
BS-SB51L-99-1-Comp1		Sep-99	BC	*<10*	5.0	123	*<1*	*<1*	43		12	26	6.9	*<0.2*	*<5*	51	*<1*	*<2*	*<10*	47	64
BS-SB51L-99-1-Comp2				*<10*	13.0	104	*<1*	*<1*	21		11	34	9.6	*<0.2*	*<5*	33	*<1*	*<2*	*<10*	21	62

BC = Analysis by BC Laboratories
C = Analysis by Chromalab
CLS = Analysis by California Laboratory Services
LBNL = Analysis by Lawrence Berkeley National Laboratory

X = Sample location has been excavated

= Not analyzed
= Concentration above background and PRG
< = Not detected above reporting limit

*Metal is a Contaminant of Potential Concern
**Mercury is a Contaminant of Potential Concern

Table A3-2
Sludge and Sediment Sampling Results for Metals
(Concentrations in mg/kg)

Boring/Sample ID	Date Sampled	Sb	As	Ba	Be	Cd	Cr	CrVI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
AOC 9-9: Building 51 Sanitary Sewer and Drainage System*																			
Test Pit 2																			
SS-51MRP2-Sludge	Mar-96	*<14*	5.9	118	*<1.5*	6.5	1310		11	2060	382	43	18	37	9.0	5.6	*<14*	46	736
Discharge Sump Sludge Samples																			
SS-MR-DS-1 & -2	May-96											4.1							
SS-51DS-99-1	May-99	*<50*	19	656	*<5*	26	1100		37	3680	775	28	*<25*	208	14	*<10*	*<50*	170	2430
SS-51DS-99-1	May-99	*<10*	3.6	131	<1	3.5	210		7.5	648	138	3.0	*<5*	40	2.9	*<2*	*<10*	41	472
Filter Sump Sludge Samples																			
SS-51MR-FS-1 & -2	May-96											105							
SS-51FS-99-1	May-99	*<10*	4.2	85	<1	8.7	305		9.3	1600	301	46.0	*<5*	17	2.9	2.6	*<10*	46	369

	= Not analyzed
<5	= Not detected (reporting limit shown)

*Metal is a Contaminant of Potential Concern
Sludge and sediment has been removed

Table A3.1-1
Soil Sampling Results (mg/kg)
SWMU 9-1: B51 Vacuum Pump Room Waste Oil Tank
Concentrations of Organic Constituents
COPCs: PCBs, Fuel Hydrocarbons

				VOCs	SVOCs	PCBs	TPH	Oil & Grease
			PRG			0.22		
Sample ID	Depth (ft)	Date	Lab					
BS-SB51-96-1-1	1.0	Apr-96	CLS	ND	ND	<1.0	ND	<10
BS-SB51-96-1-3	3.0			ND	ND	<0.02	ND	<10
BS-SB51-96-1-5	5.0			ND	ND	<0.02	ND	<10

<	= Not detected above reporting limit (reporting limit shown)
ND	= Not detected above reporting limit (reporting limit varies with analyte)

CLS = Analysis by California Laboratory Services
VOCs analyzed by EPA Method 8260
SVOCs analyzed by EPA Method 8270
PCBs analyzed by EPA Method 8080
TPH analyzed by EPA Method 8015, included TPH as Diesel, Kerosene, and Motor Oil
Oil and Grease analyzed by EPA Method 413.2
COPCs = Chemicals of Potential Concern

Table A3.2-1
Soil Sampling Results (mg/kg)
SWMU 9-4: Building 51 Vacuum Pump Room Sump and Collection Basin
Concentrations of Organic Constituents
COPCs: Halogenated VOCs, PCBs

				VOCs	SVOCs	PCBs	TPH	Fuels	Oil & Grease
				Benzene					
			PRG	0.67		0.22			
Sample ID	Depth (ft)	Date	Lab						
SB51-96-3-1	1.0	Apr-96	CLS	0.0072	ND	<0.02	ND		<10
SB51-96-3-3	2.0			0.0068	ND	<0.02	ND		<10
SB51-96-3-5	5.0			0.0076	ND	<0.02	ND		<10
SB51-96-4-1	1.0	Apr-96	CLS	<0.005	ND	<0.02	ND		<10
SB51-96-4-3	3.0			<0.005	ND	<0.02	ND		<10
SB51-96-2A-1	1.0	May-96	BC	<0.005	ND	<0.01		ND	<20
SB51-96-2A-3	3.0			<0.005	ND	<0.01		ND	<20
SB51-96-2A-5	5.0			<0.005	ND	<0.01		ND	<20

<	= Not detected above reporting limit (reporting limit shown)
ND	= Not detected above reporting limit (reporting limit varies with analyte)
	= Not analyzed

BC = Analysis by BC Laboratories
CLS = Analysis by California Laboratory Services
VOCs analyzed by EPA Method 8260
SVOCs analyzed by EPA Method 8270
PCBs analyzed by EPA Method 8080
TPH analyzed by EPA Method 8015, included TPH as Diesel, Kerosene and Motor Oil
Fuels analyzed by EPA Method 8015M included: Light Naptha, Aviation Fuel, Stoddard/White Spirits, Heavy Naptha/Ligroin/Petroleum Benzine, Gasoline, JP4, JP5, JP6, JP8, Kerosene/Jet Fuel, Diesel, Crude/Waste Oil, Hydraulic Oil, and WD-40
Oil and Grease analyzed by EPA Methods 413.1 (BC) and 413.2 (CLS)
COPCs = Chemicals of Potential Concern

Table A3.3-1
Soil Sampling Results (mg/kg)
SWMU 9-6: B51 Motor Generator Room Filter Sump
Concentrations of Organic Constituents
COPCs: Halogenated VOCs, PCBs, and Fuel Hydrocarbons

				VOCs					PCBs	TPH/Fuel Identification	Oil&Grease
				Benzene	cis 1,2-DCE	trans 1,2-DCE	p-isopropyltoluene	TCE	Aroclor 1242		
			PRG	0.67	43	63		2.8	0.22		
Sample ID	Depth (ft)	Date	Lab								
BS-SB51-96-5-4	4.0	Apr-96	CLS	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	Motor Oil=44	250
BS-SB51-96-6-4	4.0			<0.005	<0.005	<0.005	<0.005	<0.005	<0.02	Motor Oil=6.8	<10
BS-SB51-96-6-7	7.0			<0.005	<0.005	<0.005	<0.005	<0.005	1.8	Motor Oil=210	170
BS-SB51-99-1-4	4.0	Jun-99	BC	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-1-6.9	6.9			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-1-9.4	9.4			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-1-12.3	12.3			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-1-15.5	15.5			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-2-3.4	3.4			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-2-6.5	6.5			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-2-9.3	9.3			0.0076	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-2-12.2	12.2			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-2-15.3	15.3			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-3-3.8	3.8			<0.005	<0.005	<0.005	0.021	0.0093	0.053	ND	<20
BS-SB51-99-3-8	8.0			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-3-9.3	9.3			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-3-12.3	12.3			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-3-15.2	15.2			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-4-3.3	3.3			<0.005	0.012	0.012	0.019	0.061	<0.01	ND	<20
BS-SB51-99-4-6.5	6.5			<0.005	0.012	<0.005	<0.005	0.019	0.035	ND	<20
BS-SB51-99-4-9.7	9.7			<0.005	<0.005	<0.005	<0.005	<0.005	0.018	ND	<20
BS-SB51-99-4-12.7	12.7			<0.005	<0.005	<0.005	<0.005	<0.005	0.015	ND	<20
BS-SB51-99-4-15.5	15.5			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-5-4.3	4.3			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-5-8	8.0			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-5-11	11			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-5-14	14			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-5-17	17			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-6-4	4.0			<0.005	<0.005	0.0053	<0.005	<0.005	0.067	Crude/Waste Oil=57	<20

Table A3.3-1
Soil Sampling Results (mg/kg)
SWMU 9-6: B51 Motor Generator Room Filter Sump
Concentrations of Organic Constituents
COPCs: Halogenated VOCs, PCBs, and Fuel Hydrocarbons

				VOCs					PCBs	TPH/Fuel Identification	Oil&Grease
				Benzene	cis 1,2-DCE	trans 1,2-DCE	p-Isopropyltoluene	TCE	Aroclor 1242		
			PRG	0.67	43	63		2.8	0.22		
Sample ID	Depth (ft)	Date	Lab								
BS-SB51-99-6-7	7.0	Jun-99	BC	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-6-10	10			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-6-13	13			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-6-16	16			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-7-4.3	4.3			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-7-6.5	6.5			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-7-9.7	9.7			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-7-12.4	12.4			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-7-15.5	15.5			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-8-7.1	7.1			<0.005	<0.005	<0.005	<0.005	0.012	0.16	ND	<20
BS-SB51-99-8-10.1	10.1			<0.005	<0.005	<0.005	<0.005	0.0079	<0.01	ND	<20
BS-SB51-99-8-13.1	13.1			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-8-16.1	16.1			<0.005	0.02	<0.005	<0.005	<0.005	3.3	Crude/Waste Oil=37	<20
BS-SB51-99-9-4.1	4.1			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-9-7.1	7.1			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-9-10.1	10.1			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-9-13.1	13.1			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20
BS-SB51-99-9-16.1	16.1			<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	ND	<20

BC = Analysis by BC Laboratories
CLS = Analysis by California Laboratory Services
VOCs analyzed by EPA Method 8260
PCBs analyzed by EPA Method 8080
TPH analyzed by EPA Method 8015, included TPH as Diesel, Kerosene, and Motor Oil (CLS)
Fuel Identification analyzed by EPA Method 8015M, included Light Naptha, Aviation Fuel, Stoddard/White Spirits, Heavy Naptha/Ligroin/Petroleum Benzin, Gasoline, JP4, JP5, JP8, Kerosene/Jet Fuel, Diesel, Crude/Waste Oil, Hydraulic/Motor Oil, and WD-40 (BC)
Oil and Grease analyzed by EPA Method 413.1 (CLS) and 413.2 (BC)
Concentrations in **bold** are above PRGs for residential soil
COPCs = Chemicals of Potential Concern

< = Not detected above reporting limit (reporting limit shown)
ND = Not detected above reporting limit (reporting limit varies with analyte)

Table A3.4-1
Soil Sampling Results (mg/kg)
AOC 1-1: B46A Former Motor Pool Gasoline UST
Concentrations of Organic Constituents
COPCs: Fuel Hydrocarbons

Sample ID	Depth (ft)	Date	Lab	VOCs	TPH-Diesel	TPH-Gasoline
BS-SB46A-96-1-35.5	35.5	Apr-96	CLS	ND	<1.0	<1.0
BS-SB46A-96-1-40.5	40.5				<1.0	<1.0
BS-SB46A-96-1-45	45			ND	<1.0	<1.0
BS-SB46A-96-1-45.5	45.5				<1.0	<1.0
BS-SB46A-96-1-50.5	50.5				<1.0	<1.0
BS-SB46A-96-1-55	55			ND	<1.0	
BS-SB46A-96-1-55.5	55.5				<1.0	<1.0
BS-SB46A-96-1-60.5	60.5				<1.0	<1.0

	= Not analyzed
<	= Not detected above reporting limit (reporting limit shown)
ND	= Not detected above reporting limit (reporting limit varies with analyte)

CLS = Analysis by California Laboratory Services
VOCs analyzed by EPA Method 8260
TPH-Diesel and Gasoline analyzed by EPA Method 8015
COPCs = Chemicals of Potential Concern

Table A3.5-1
Soil Sampling Results (mg/kg)
AOC 1-3: B71 Linear Accelerator Cooling Unit
Concentrations of Organic Constituents
COPCs: Freon-113

				VOCs					
				1,2-DCA	cis 1,2-DCE	PCE	TCE	Freon-11	Freon-113
			PRG	0.35	43	5.7	2.8	390	5600
Sample ID	Depth (ft)	Date	Lab						
BS71-93-B1-16.4	16.4	Apr-93	C	0.015	<0.005	<0.005	<0.005	<0.005	
BS71-93-B1-35.8	35.8			0.011	<0.005	<0.005	<0.005	<0.005	
BS71-93-B1-56.7	56.7			0.01	<0.005	<0.005	<0.005	<0.005	
BS71-93-B1-65.7	65.7			0.008	<0.005	<0.005	<0.005	<0.005	
BS71-93-B1-70.1	70.1			0.007	<0.005	<0.005	<0.005	<0.005	
BS71-93-B2-16.2	16.2			<0.005	<0.005	<0.005	<0.005	<0.005	
BS71-93-B2-36.5	36.5			0.012	<0.005	<0.005	<0.005	<0.005	
BS71-93-B2-46.5	46.5			0.006	<0.005	<0.005	<0.005	<0.005	
BS71-93-B2-56.6	56.6			0.01	<0.005	<0.005	<0.005	<0.005	
BS71-93-B2-65.9	65.9			0.007	<0.005	<0.005	<0.005	<0.005	
BS71-93-1-11.0	11	Sep-93	LBNL	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BS71-93-1-19.3	19.3			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BS71-93-1-30.0	30			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BS71-93-1-39.7	39.7			<0.001	<0.001	<0.001	<0.001	0.0013	<0.001
BS71-93-1-49.2	49.2			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BS71-93-1-59.0	59			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
S71-93-2-5.3	5.3		LBNL	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BS71-93-2-15.0	15		C	<0.005	<0.005	<0.005	<0.005	<0.005	
BS71-93-2-25.0	25		LBNL	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BS71-93-2-35.2	35.2			<0.001	0.001	0.001	0.0155	<0.001	<0.001
BS71-93-2-46.0	46			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BS71-93-2-55.0	55			<0.001	<0.001	<0.001	<0.001	<0.001	0.0091
BS71-93-2-65.3	65.3			<0.001	<0.001	<0.001	<0.001	<0.001	0.0157
BS71-93-2-80	80		C	<0.005	<0.005	<0.005	<0.005	<0.005	
BS71-94-1-4	4.0	May-94	BC	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BS71-94-1-8.5	8.5			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BS71-94-1-14.2	14.2			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BS71-94-1-23.7	23.7			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BS71-94-1-33.7	33.7			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BS71-94-1-48.5	48.5			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

BC = Analysis by BC Laboratories
C = Analysis by Chromalab
LBNL = Analysis by LBNL Environmental Measurement Laboratory
VOCs analyzed by EPA Method 8240 or 8260
COPCs = Chemicals of Potential Concern

[ ] = Not analyzed
[<] = Not detected above reporting limit (reporting limit shown)

Table A3.6-1
Soil Sampling Results (mg/kg)
AOC 1-6: Building 71 Transformers
Concentrations of Organic Constituents
COPCs: PCBs

				PCBs	Oil & Grease
				Aroclor 1254	
			PRG	0.22	
Sample ID	Depth (ft)	Date	Lab		
SS-71NW-1-2	2.0	Jul-92	C	<0.5	
SS-71NW-2-2	2.0			<0.5	
SS-71NP-96-W-1	1.0	Jun-96	BC	<0.02	22
SS-71NP-96-W-2.5	2.5			<0.02	34
SS-71NP-96-W-3	3.0			<0.02	28
SS-71NP-96-W-5	5.0			<0.02	<20
SS-71NP-96-F-5.5	5.5			<0.02	<20
SS-71NP-StockA X				**0.63**	180
SS-71NP-StockB X				<0.02	22

<	= Not detected above reporting limit (reporting limit shown)
	= Not analyzed

BC = Analysis by BC Laboratories
C = Analysis by Chromalab
PCBs analyzed by EPA Method 8080
Oil and Grease analyzed by EPA Method 413.1
X = Sample location has been excavated
Concentrations in **bold** are above PRGs for residential soil
COPCs = Chemicals of Potential Concern

Table A3.7-1
Soil Sampling Results (mg/kg)
AOC 1-10: Building 71 Room 003 Mercury Release
Concentrations of Organic Constituents
Organic COPCs: None

				VOCs
Sample ID	Depth (ft)	Date	Lab	
SS71-003-1-3	3.0	Jan-95	BC	ND
SS71-003-1-3.5	3.5			
SS71-003-2-2.5	2.5			ND
SS71-003-2-3	3.0			
SS71-003-3-3	3.0	Feb-95	BC	
SS71-003-3-4	4.0			
SS71-003-4-4	4.0			
SS71S-1-4	4.0	Feb-95	BC	ND
SS71S-2-5	5.0			ND
SS71S-3-6	6.0			ND
SS71-003-5-4.5	4.5	Mar-95	BC	
SS71-003-5-5.25	5.25			
SS71-003-6-4.5	4.5			
SS71-003-6-5	5.0			

	= Samples only analyzed for mercury
ND	= Not detected above reporting limit (reporting limit varies with analyte)

BC = Analysis by BC Laboratories
VOCs analyzed by EPA Method 8260
COPCs = Chemicals of Potential Concern

Table A3.8-1
Soil Sampling Results (mg/kg)
AOC 9-2: Building 51 Former Diesel UST
Concentrations of Organic Constituents
COPCs: Fuel Hydrocarbons

				TPH-D	TPH-K	TPH-G	BTEX				Fuel Scan	TPH-Oil	Total Oil & Grease	VOCs	SVOCs	PCBs	PAH	
Sample No.	Depth (ft)	Date Sampled	Lab				Benzene	Toluene	Ethyl benzene	Total Xylenes	Diesel						Benzo(b) fluoranthene	Phenanthrene
Samples from excavated soil			PRG				0.67	520	230	210						0.22	0.62	
BS51-92-11A-3.5	3.5	6/1/1992	C	170			<0.005	<0.005	<0.005	<0.010				ND				
BS51-92-11A-6	6			220			<0.005	<0.005	<0.005	<0.010				ND				
BS51-92-11B-6	6			280			<0.005	<0.005	<0.005	<0.010				ND				
51-01		4/20/1994	AEN	950										ND				
51-01 Dup (SS51Tank-1)		4/20/1994	BC				<0.005	<0.005	<0.005	<0.010	540							
51-02		4/20/1994	AEN	2500										ND				
51-02 Dup (SS51Tank-2)		4/20/1994	BC				<0.005	<0.005	<0.005	<0.010	1600							
51-03		4/20/1994	AEN	190										ND				
51-03 Dup (SS51Tank-3)		4/20/1994	BC				<0.005	<0.005	<0.005	<0.010	600							
51-1		5/12/1994	AEN	1100														
51-2		5/12/1994		5800	<6000							40	6800			<0.05		
51-3		5/12/1994		1														
51-4		5/12/1994		<1														
51-5		5/12/1994		<1														
51Tank01		5/20/1994	AEN	3800														
51Tank02		5/20/1994		590														
51Tank03		5/20/1994		2200														
51Tank04		5/20/1994		3000														
51Tank05		5/20/1994		2100														
51Tank01		6/6/1994	AEN	<1														
51Tank02		6/6/1994		6000														
51Tank03		6/6/1994		10														
Samples for confirmation at base of excavation																		
51Tank01		6/8/1994	AEN	3700														
51Tank02		6/8/1994		5900														
51Tank03		6/8/1994		<1														
51Tank04		6/8/1994		<1														
Samples beneath pipeline on slope																		
SS51-E-95-1		8/7/1995	BC	220														
SS51-E-95-2		8/7/1995		<10														
SS51-E-95-3		8/7/1995		<10														
Samples from monitoring well boring (sample depth indicated in feet)																		
MW51-95-17-6	6	Feb 1996	BC	<2			<0.005	<0.005	<0.005	<0.010								
MW51-95-17-11	11	Feb 1996		<2		<1	<0.005	<0.005	<0.005	<0.010					ND			
MW51-95-17-16	16	Feb 1996		<2			<0.005	<0.005	<0.005	<0.010								
MW51-95-17-21	21	Feb 1996		<2		<1	<0.005	<0.005	<0.005	<0.010					ND			
MW51-95-17-26	26	Feb 1996		<2			<0.005	<0.005	<0.005	<0.010								
MW51-95-17-30.5	30.5	Feb 1996		<2		<1	<0.005	<0.005	<0.005	<0.010					ND			
MW51-95-17-35.8	35.8	Feb 1996		<2			<0.005	<0.005	<0.005	<0.010								
Confirmatory samples below base of backfill (sample depth indicated in feet)																		
SS-51Slope-96-1-1.1	1.1	Sep 1996	BC	120			<0.005	<0.005	<0.005	<0.010							<0.0005	<0.0007
SS-51Slope-96-2-1.1	1.1	Sep 1996		620			<0.005	<0.005	<0.005	<0.010							<0.0005	<0.0007
SS-51Slope-96-3-1.2	1.2	Sep 1996		3.2														
SS-51Slope-96-4-1.3	1.3	Sep 1996		6														
SS-51Slope-96-5-1	1	Sep 1996		200			< 0.005	< 0.005	< 0.005	< 0.010							0.00057	0.0016
SS-51Slope-96-6-1.2	1.2	Sep 1996		47			< 0.005	< 0.005	< 0.005	< 0.010							<0.0005	<0.0007
SS-51Slope-96-7-1	1	Sep 1996		160			< 0.005	< 0.005	< 0.005	< 0.010							0.00064	<0.0007
SS-51Slope-96-8-1.1	1.1	Sep 1996		4.9														

	= Not analyzed
<	= Not detected above reporting limit (reporting limit shown)
ND	= Not detected above reporting limit (reporting limit varies with analyte)

AEN = Analysis by American Environmental Network
BC = Analysis by BC Laboratories
C = Analysis by Chromalab

TPH-D, TPH-G, TPH-Oil, and TPH-Kerosene analyses by GC-FID method using EPA 3550 Extraction Method
Fuel Scan Analysis by EPA Method 8015 Modified (boiling range 70-300 degrees C) [only detections are shown]
Total Oil & Grease analysis by method SM 5520E
PCB analysis by EPA Method 8080 using EPA 3550 Extraction Method
BTEX Analysis by EPA Method 8020 and EPA 5030 Extraction Method
VOCs analysis by EPA Method 8240
SVOCs analysis by EPA Method 8270
PAH analysis by EPA Method 8310
COPCs = Chemicals of Potential Concern

Table A3.9-1
Soil Sampling Results (mg/kg)
AOC 9-7: Building 51 Former Hazardous Materials Storage Area
Concentrations of Organic Constituents
COPCs: Halogenated VOCs, PCBs, Fuel Hydrocarbons

				VOCs			PCBs	TPH		
				cis 1,2-DCE	PCE	TCE		TPH-Diesel	TPH-Kerosene	TPH-Motor Oil
			PRG	43	5.7	2.8	0.22			
Sample ID	Depth (ft)	Date	Lab							
SB51-96-13-2.5	2.5	Apr-96	CLS	<0.005	0.03	0.12	<0.02	<1.0	<2.0	5.6
SB51-96-13-5	5.0			<0.005	0.01	0.13	<0.02	<1.0	<2.0	<2.0
SB51-96-13-11	11			<0.005	0.087	0.12	<0.02	<1.0	<2.0	<2.0
SB51-96-13-15.5	15.5			<0.005	0.12	0.42	<0.02	<1.0	<2.0	<2.0
SB51-96-13-20.5	20.5			<0.005	<0.005	0.011	<0.02	<1.0	<2.0	<2.0
SB51-96-14-2.5	2.5	Apr-96	CLS	<0.005	0.034	0.13	<0.02	<1.0	<2.0	<2.0
SB51-96-14-6	6.0			<0.005	<0.005	<0.005	<0.02	<1.0	<2.0	2.2
SB51-96-14-10.5	10.5			0.0053	0.029	0.057	<0.02	<1.0	<2.0	<2.0
SB51-96-14-16	16			0.0069	0.02	0.16	<0.02	<1.0	<2.0	<2.0
SB51-96-14-20.5	20.5			<0.005	<0.005	0.013	<0.02	<1.0	<2.0	<2.0
SB51-96-15-3	3.0	Apr-96	CLS	<0.005	<0.005	0.032	<0.02	<1.0	<2.0	<2.0
SB51-96-15-5	5.0			<0.005	<0.005	0.071	<0.02	<1.0	<2.0	<2.0

< = Not detected above reporting limit (reporting limit shown)

CLS = Analysis by California Laboratory Services

PCBs analyzed by EPA Method 8080
VOCs analyzed by EPA Method 8260
TPH analyzed by EPA Method 8015M
COPCs = Chemicals of Potential Concern

Table A3.10-1
Soil Sampling Results (mg/kg)
AOC 9-8: Sanitary Sewer Lines North and West of Buildings 51 and 51B
Concentrations of Organic Constituents
COPCs: Halogenated VOCs, PCBs, Fuel hydrocarbons

				VOCs				PCBs
				1,1-DCE	cis 1,2-DCE	PCE	TCE	
			PRG	0.054	43	5.7	2.8	0.22
Sample ID	Depth (ft)	Date	Lab					
SS51W-03-12.7	12.7	Apr-92	C					<0.5
SS51W-07-13	13	Apr-92	C					<0.5
SS51N-02-7.7	7.7	Apr-92	C					<0.5
SS51N-03-9	9	Apr-92	C					<0.5
BS-51-92-13A-2	2	Jun-92	C					<0.5
MW51-96-16-8	8	Sep-96	BC	<0.005	<0.005	<0.005	<0.005	
MW51-96-16-19	19			<0.005	0.012	<0.005	<0.005	
MW51-96-16-28.5	28.5			<0.005	0.01	0.0072	<0.005	
MW51-96-17-3.2	3.2	Sep-96	BC	<0.005	<0.005	<0.005	<0.005	
MW51-96-17-13.5	13.5			<0.005	<0.005	<0.005	<0.005	
MW51-96-17-23.5	23.5			<0.005	<0.005	<0.005	<0.005	
MW51-96-17-33.2	33.2			<0.005	0.0067	<0.005	0.0053	
MW51-96-17-43	43			<0.005	<0.005	<0.005	<0.005	
MW51-96-17-53	53			<0.005	<0.005	<0.005	<0.005	
MW51-97-4-25.4	25.4	May-97	BC	<0.005	<0.005	<0.005	<0.005	
MW51-97-4-45.3	45.3			<0.005	<0.005	<0.005	<0.005	
MW51-97-4-58.7	58.7			<0.005	<0.005	<0.005	<0.005	
MW51-97-4-64.4	64.4			0.0054	<0.005	<0.005	<0.005	
MW51-97-4-73.9	73.9			<0.005	<0.005	<0.005	<0.005	
MW51-97-3-COMP (Drum 1)		Jun-97	BC	<0.005	<0.005	<0.005	<0.005	
MW51-97-3-COMP (Drum 2)				<0.005	<0.005	<0.005	<0.005	
MW51-97-3-COMP (Drum 3)				<0.005	<0.005	<0.005	<0.005	
MW51-97-3-COMP (Drum 4)				<0.005	<0.005	<0.005	<0.005	
MW51-97-3-COMP (Drum 5)				<0.005	<0.005	<0.005	<0.005	
MW51-97-3-COMP (Drum 6)				<0.005	<0.005	<0.005	<0.005	
MW51-97-12-COMP(0-20)	0-20	Sep-97	BC	<0.005	<0.005	<0.005	<0.005	
MW51-97-12-COMP(20-35)	20-35			<0.005	<0.005	<0.005	<0.005	
MW51-97-12-COMP(35-40)	35-40			<0.005	<0.005	<0.005	<0.005	
MW51-97-12-COMP(45-50)	45-50			<0.005	<0.005	<0.005	<0.005	
MW51-97-14-0-17Comp	0-17	Sep-97	BC	<0.005	<0.005	<0.005	<0.005	
MW51-97-14-17-32Comp	17-32			<0.005	<0.005	<0.005	<0.005	
MW51-97-14-32-45Comp	32-45			<0.005	<0.005	<0.005	<0.005	
MW51-97-14-45-58Comp	45-58			<0.005	<0.005	<0.005	<0.005	
MW51-97-14-58-70Comp	58-70			<0.005	<0.005	<0.005	<0.005	
SS-51Sew-98-1-5.7	5.7	May-98	BC	<0.005	<0.005	<0.005	0.005	
SS-51Sew-98-2-5.2	5.2			<0.005	<0.005	<0.005	<0.005	
SS-51Sew-98-3-5.8	5.8			<0.005	<0.005	<0.005	0.04	

BC = Analysis by BC Laboratories
C = Analysis by Chromalab, Inc.
"COMP" = composite samples.
VOCs analyzed by EPA Method 8260
PCBs analyzed by EPA Method 8080
COPCs = Chemicals of Potential Concern

< = Not detected above reporting limit (reporting limit shown)
= Not analyzed

Table A3.11-1

SWMU 9-6 and AOC 9-9: Building 51 Sanitary Sewer and Drainage System
Drainline and Sump Results for Organic Constituents

Sludge/Sediment Sampling (concentrations in mg/kg)

	Analyte	VOCs	SVOCs	PCBs			Fuels	TPH-G	TPH-D	Oil & Grease
Boring/Sample ID	Date Sampled	8260	8270	Aroclor 1242	Aroclor 1254	Aroclor 1260	8015M	8015M	8015M	413.1
Test Pit 2										
SS-51MRP2-Drain	Nov-96	ND		<0.01	<0.01	0.013				930
SS-51MRP2-Sludge	Nov-96	ND		<3	<3	<3				7600
Discharge Sump Sludge Samples										
SS-MR-DS-1 & -2	May-96			4.8	0.53	<0.2			<300	11,000
SS-51DS-99-1	May-99		ND	3.5	<2	1.3	Hydraulic/Motor Oil = 18,000			
Filter Sump Sludge Samples										
SS-51MR-FS-1 & 2	May-96			380	<30	<30			<400	45,000
SS-51FS-99-1	May-99		Bis(2-ethylhexyl)phthalate=13 Fluoranthene=3.9 Pyrene=3.9	330	<30	<30	Hydraulic/Motor Oil = 45,000			
B51B Catch Basin										
SS-51B-E-Catch-2,4,6/6	Nov-93	ND	Butylbenzylphthalate=1.5 Bis(2-ethylhexyl)phthalate=5.7 Di-n-butyl phthalate=0.85 Diethyl phthalate=0.77	<0.1	<0.1	2.5		<1	300	

Water Sampling (concentrations in µg/L)

Discharge Sump	Apr-99			4.9	<0.5	<0.5				
Filter Sump	Apr-96	ND								
	Apr-99			3,600	<200	<200				
	Feb-00	ND								
K-Line Inflow to Filter Sump	Jun-99			3.4	<0.2	<0.2				

ND or < = Not detected above reporting limit
= Not analyzed

Sludge and sediment has been removed

AOC9-9Sludge.xls
9/19/2000

Table A3.11-2
Soil Sampling Results (mg/kg)
AOC 9-9: Building 51 Sanitary Sewer and Drainage System
Concentrations of Organic Constituents
COPCs: Halogenated VOCs, PCBs, Fuel Hydrocarbons

				VOCs			PCBs				PAHs	Fuel Identification	TPH-D	Oil & Grease
				PCE	TCE	Other Compounds Detected	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260				
			PRG	5.7	2.8		0.22	0.22	0.22	0.22				
Sample ID	Depth (ft)	Date	Lab											
Soil Borings														
SB51-96-5-4	4.0	Apr-96	CLS	<0.005	<0.005		<1.0	<1.0	<1.0	<1.0		44 (MO)		250
SB51-96-7-4	4.0	Apr-96		<0.005	<0.005		<1.0	<1.0	<1.0	<1.0		<4.0		<10
SB51-96-8-4 X	4.0	Apr-96		<0.005	<0.005		**23**	<5	<5	<5		2300 (MO)		11,000
SB51-96-8-6 X	6.0	Apr-96		<0.005	<0.005		**8.0**	<1.0	<1.0	<1.0		1500 (MO)		1500
SB51-96-9-4	4.0	Apr-96		<0.005	<0.005		<0.02	<0.02	<0.02	<0.02		25 (MO)		<10
SB51-96-9-6	6.0	Apr-96		<0.005	<0.005		<0.02	<0.02	<0.02	<0.02		<2.0		<10
SB51-96-11-4	4.0	Apr-96		<0.005	<0.005		<1.0	<1.0	<1.0	<1.0		<2.0		<10
SB51-96-11-6	6.0	Apr-96		<0.005	<0.005		<0.02	<0.02	<0.02	<0.02		<2.0		<10
SB51-96-12-4 X	4.0	Apr-96		<0.005	<0.005		**3.0**	<0.2	<0.2	<0.2		1000 (MO)		1400
SB51-96-12-6	6.0	Apr-96		<0.005	<0.005		**1.0**	<0.2	<0.2	<0.2		1000 (MO)		890
SB51-96-12-8	8.0	Apr-96		<0.005	<0.005		0.14	<0.02	<0.02	<0.02		390 (MO)		120
SB51-98-1-2.1 X	2.1	Feb-98	BC	<0.005	<0.005		**0.29**	<0.05	<0.05	<0.05		540 (H/MO)		
SB51-98-1-4 X	4.0	Jun-98		<0.005	<0.005		0.16	<0.05	<0.05	<0.05		350 (H/MO)		
SB51-98-1-6	6.0	Jun-98		<0.005	<0.005		0.031	<0.01	<0.01	<0.01		130 (C/WO)		
SB51-98-2-2.0	2.0	Feb-98		<0.005	<0.005		<0.1	<0.1	<0.1	**1.1**		75 (H/MO)		
SB51-98-2-5	5.0	Jun-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SB51-98-2-6.5	6.5	Jun-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SB51-98-3-2.4	2.4	Feb-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SB51-98-3-3.4	3.4	Feb-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SB51-98-3-4	4.0	Jun-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SB51-98-3-6	6.0	Jun-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SB51-98-4-4	4.0	Jun-98		<0.005	<0.005		0.17	<0.05	<0.05	<0.05		350 (H/MO)		
SB51-98-4-6	6.0	Jun-98		<0.005	<0.005		0.18	<0.05	<0.05	<0.05		740 (H/MO)		
SB51-98-5-3	3.0	Feb-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SB51-98-5-4	4.0	Jun-98		<0.005	<0.005		0.02	<0.01	<0.01	<0.01		34 (C/WO)		
SB51-98-5-6	6.0	Jun-98		<0.005	<0.005		0.035	<0.01	<0.01	<0.01		28 (C/WO)		
SB51-98-6-2.3	2.3	Feb-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SB51-98-6-4	4.0	Jun-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SB51-98-6-6	6.0	Jun-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		40 (C/WO)		
SB51-98-7-2.0 X	2.0	Jun-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		150 (C/WO)		
SB51-98-7-2.3 X	2.3	Feb-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		1100 (C/WO)		
SB51-98-7-3 X	3.0	Feb-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		480 (C/WO)		
SB51-98-7-4	4.0	Jun-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		2000 (C/WO)		
SB51-98-7-5	5.0	Jun-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		540 (C/WO)		
SB51-98-8-1.8	1.8	Feb-98		<0.005	<0.005		<0.05	<0.05	<0.05	**0.27**		24 (H/MO)		
SB51-98-8-5	5.0	Jun-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SB51-98-8-6.5	6.5	Jun-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		

Table A3.11-2
Soil Sampling Results (mg/kg)
AOC 9-9: Building 51 Sanitary Sewer and Drainage System
Concentrations of Organic Constituents
COPCs: Halogenated VOCs, PCBs, Fuel Hydrocarbons

				VOCs			PCBs				PAHs	Fuel Identification	TPH-D	Oil & Grease
				PCE	TCE	Other Compounds Detected	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260				
			PRG	5.7	2.8		0.22	0.22	0.22	0.22				
Sample ID	Depth (ft)	Date	Lab											
SB51-98-9-2.6	2.6	Feb-98	BC	<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SB51-98-9-3.6	3.6	Feb-98		<0.005	<0.005		<0.01	<0.01	<0.01	0.03		52 (C/WO)		
SB51-98-9-4	4.0	Jun-98		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SB51-98-9-6	6.0	Jun-98		<0.005	<0.005		<0.02	<0.02	<0.02	0.16		ND		
SB51-MRP2-WW-1A-2.0	2.0	Mar-00					<0.01	<0.01	<0.01	<0.01	ND	ND		
SB51-MRP2-WW-1A-4.0	4.0	Mar-00					<0.01	<0.01	<0.01	<0.01	ND	ND		
SB51-MRP2-WW-2-3.8	3.8	Feb-00					0.017	<0.01	<0.01	<0.01	ND	ND		
SB51-MRP2-WW-2A-2.0	2.0	Mar-00					<0.01	<0.01	<0.01	<0.01	ND	ND		
SB51-MRP2-WW-3-2.0	2.0	Feb-00					<0.01	<0.01	<0.01	<0.01	ND	ND		
SB51-MRP2-WW-3-3.8	3.8	Feb-00					<0.01	<0.01	<0.01	<0.01	ND	ND		
SB51-MRP2-WW-4-2.0	2.0	Feb-00					<0.01	<0.01	<0.01	<0.01	ND	ND		
SB51-MRP2-WW-4-4.0	4.0	Feb-00					<0.01	<0.01	<0.01	<0.01	ND	ND		
SB51-MRP3-WW-11D-2.0	2.0	Feb-00					<0.01	<0.01	<0.01	<0.01	ND	ND		
SB51-MRP3-WW-11D-4.0	4.0	Feb-00					<0.01	<0.01	<0.01	<0.01	ND	ND		
51MRP4-SB1-1.2 **X**	1.2	Apr-99	BC				<0.02	<0.02	<0.02	<0.02		28,000 (H/MO)		
51MRP4-SB1-2.2 **X**	2.2	Apr-99					<0.01	<0.01	<0.01	<0.01		13,000 (H/MO)		
51MRP4-SB1-3.9	3.9	Apr-99					<0.01	<0.01	<0.01	<0.01		20,000 (H/MO)		
51MRP4-SB2-1.2 **X**	1.2	Apr-99					<0.01	<0.01	<0.01	<0.01		4,900 (H/MO)		
51MRP4-SB2-2.2 **X**	2.2	Apr-99					<0.01	<0.01	<0.01	0.018		1,000 (H/MO)		
51MRP4-SB2-4.5	4.5	Apr-99					<0.01	<0.01	<0.01	<0.01		3,300 (H/MO)		
51MRP4-SB3-1.2 **X**	1.2	Apr-99					<0.1	<0.1	<0.1	<0.1		27,000 (H/MO)		
51MRP4-SB3-2.2 **X**	2.2	Apr-99					<0.01	<0.01	<0.01	<0.01		9,500 (H/MO)		
51MRP4-SB3-3.9	3.9	Apr-99					<0.01	<0.01	<0.01	<0.01		4,900 (H/MO)		
51MRP4-SB4-1.2 **X**	1.2	Apr-99					<0.01	<0.01	<0.01	0.023		3,000 (H/MO)		
51MRP4-SB4-2.2 **X**	2.2	Apr-99					<0.01	<0.01	<0.01	<0.01				
51MRP4-SB4-4.2	4.2	Apr-99					<0.01	<0.01	<0.01	<0.01				
51MRP4-SB5-1.2 **X**	1.2	Apr-99					<0.1	<0.1	<0.1	<0.1		25,000 (H/MO)		
51MRP4-SB5-2.2 **X**	2.2	Apr-99					<0.01	<0.01	<0.01	<0.01				
51MRP4-SB5-4.2	4.2	Apr-99					<0.01	<0.01	<0.01	<0.01				
51MRP4-SB6-1.2 **X**	1.2	Apr-99					<0.01	<0.01	<0.01	<0.01		1,100 (H/MO)		
51MRP4-SB6-2.2 **X**	2.2	Apr-99					<0.01	<0.01	<0.01	<0.01				
51MRP4-SB6-4.2	4.2	Apr-99					<0.01	<0.01	<0.01	<0.01				
51MRP4-SB7-1.2 **X**	1.2	Apr-99					<0.01	<0.01	<0.01	<0.01		1,200 (H/MO)		
51MRP4-SB7-2.2 **X**	2.2	Apr-99					<0.01	<0.01	<0.01	<0.01				
51MRP4-SB7-4.2	4.2	Apr-99					**0.54**	<0.05	<0.05	<0.05				
51MRP4-SB8-1.2 **X**	1.2	Apr-99					<0.01	<0.01	<0.01	<0.01		5,200 (H/MO)		
51MRP4-SB8-2.2 **X**	2.2	Apr-99					<0.01	<0.01	<0.01	<0.01				
51MRP4-SB8-4.2	4.2	Apr-99					0.023	<0.01	<0.01	<0.01				

Table A3.11-2
Soil Sampling Results (mg/kg)
AOC 9-9: Building 51 Sanitary Sewer and Drainage System
Concentrations of Organic Constituents
COPCs: Halogenated VOCs, PCBs, Fuel Hydrocarbons

					VOCs			PCBs				PAHs	Fuel Identification	TPH-D	Oil & Grease
					PCE	TCE	Other Compounds Detected	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260				
				PRG	5.7	2.8		0.22	0.22	0.22	0.22				
Sample ID		Depth (ft)	Date	Lab											
51MRP4-SB9-1.2	X	1.2	Apr-99	BC				<0.01	<0.01	<0.01	<0.01		57 (H/MO)		
51MRP4-SB9-2.2	X	2.2	Apr-99					<0.01	<0.01	<0.01	<0.01				
51MRP4-SB9-4.2		4.2	Apr-99					<0.01	<0.01	<0.01	<0.01				
51MRP4-SB10-5.0		5.0	Apr-99					<0.01	<0.01	<0.01	<0.01		27 Diesel		
51MRP4-SB10-6.0		6.0	Apr-99					<0.01	<0.01	<0.01	<0.01		32 Diesel		
Test Pit 1															
SS-51MRPit-96-1-3	X	3.0	Mar-96	BC	<0.005	<0.005		<0.01	<0.01	<0.01	<0.01				
SS-51MRPit-96-2-2	X	2.0	Mar-96		<0.005	<0.005		<0.02	<0.02	<0.02	0.1				
SS-51MRPit-96-3-0.75	X	0.75	Mar-96					<0.2	<0.2	<0.2	**1.0**				
SS-51MRPit-96-4-4.5	X	4.5	Mar-96		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01				
SS-51MRPit-96-5-4.2	X	4.2	Mar-96		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01				
SS-51MRPit-96-6-2		2.0	Mar-96	CLS				<0.2	<0.2	<0.2	**0.61**		170 (MO)	<20	200
Test Pit 2															
SS-51MRP2-1-0.8	X	0.8	Nov-96	BC				<0.8	<0.8	**3.6**	<0.8				
SS-51MRP2-2-1.5	X	1.5	Nov-96		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01				24
SS-51MRP2-3-1.6	X	1.6	Nov-96		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01				100
SS-51MRP2-4-3.5	X	3.5	Nov-96		<0.005	<0.005		<0.1	**0.94**	<0.1	<0.1		570 (MO)		2700
Test Pit 3															
SS-51MRPit3-98-1-4.0	X	4.0	Jul-98	BC	<0.005	<0.005		**6.5**	<0.5	<0.5	<0.5		4,600 (H/MO)		
SS-51MRPit3-98-2-4.0	X	4.0	Jul-98		<0.005	<0.005		**4.4**	<0.01	<0.01	<0.01		2,600 (H/MO)		
SS-51MRPit3-98-3-6.0		6.0	Jul-98		<0.005	<0.005		0.025	<0.01	<0.01	<0.01		110 (H/MO)		
SS-51MRPit3-98-4-3.5	X	3.5	Jul-98		<0.005	<0.005		**0.51**	<0.1	<0.1	<0.1		650 (H/MO)		
SS-51MRPit3-98-5-4.0	X	4.0	Jul-98		<0.005	<0.005		**14**	<2	<2	<2		1,300 (H/MO)		
SS-51MRPit3-98-6-6.3		6.3	Jul-98		<0.005	<0.005		**0.37**	<0.05	<0.05	<0.05		740 (H/MO)		
SS-51MRPit3-98-7-5.8		5.8	Jul-98		<0.005	<0.005		**0.32**	<0.05	<0.05	<0.05		550 (H/MO)		
SS-51MRPit3-98-8-7.5	X	7.5	Jul-98		<0.005	<0.005		0.14	<0.02	<0.02	<0.02		590 (H/MO)		
SS-51MRPit3-98-9-3.0		3.0	Jul-98		<0.005	<0.005		<0.01	0.084	<0.01	<0.01		270 (H/MO)		
SS-51MRPit3-98-10-3.0	X	3.0	Jul-98		<0.005	<0.005		**2.8**	<0.5	<0.5	<0.5		1,300 (H/MO)		
SS-51MRP3-99-1-7.3	X	7.3	Jun-99		<0.005	<0.005	mecl=0.015	**0.26**	<0.02	<0.02	<0.02				53
SS-51MRP3-99-W1A-2.3		2.3	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP3-99-W1B-2.3		2.3	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP3-99-W2A-3.0		3.0	Oct-99		<0.005	<0.005		0.058	<0.01	<0.01	<0.01	ND	62 (H/MO)		
SS-51MRP3-99-W2B-3.0		3.0	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	50 (H/MO)		
SS-51MRP3-99-W3A-1.5	X	1.5	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	ND		

Table A3.11-2
Soil Sampling Results (mg/kg)
AOC 9-9: Building 51 Sanitary Sewer and Drainage System
Concentrations of Organic Constituents
COPCs: Halogenated VOCs, PCBs, Fuel Hydrocarbons

				VOCs			PCBs				PAHs	Fuel Identification	TPH-D	Oil & Grease
				PCE	TCE	Other Compounds Detected	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260				
			PRG	5.7	2.8		0.22	0.22	0.22	0.22				
Sample ID	Depth (ft)	Date	Lab											
SS-51MRP3-99-W4A-4.3 X	4.3	Oct-99	BC	<0.005	<0.005		0.071	<0.1	<0.1	<0.1	Chrysene=0.012 Pyrene=0.041	370 (H/MO)		
SS-51MRP3-99-W5A-1.5 X	1.5	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	24 (H/MO)		
SS-51MRP3-99-W5B-1.5	1.5	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	Chrysene=0.012	30 (H/MO)		
SS-51MRP3-99-W6A-4.5 X	4.5	Oct-99		<0.005	<0.005		**4.8**	<1	<1	<1	ND	9,100 (H/MO)		
SS-51MRP3-99-W6B-4.5	4.5	Oct-99		<0.005	<0.005		0.016	<0.01	<0.01	<0.01	ND	60 (H/MO)		
SS-51MRP3-99-W7A-4.0 X	4.0	Oct-99		<0.005	<0.005		**2.1**	<0.3	<0.3	<0.3	ND	5,300 (H/MO)		
SS-51MRP3-99-W8A-4.5	4.5	Oct-99		<0.005	<0.005		**0.45**	<0.05	<0.05	<0.05	B(a)A=0.011 B(b)F=0.015 B(k)F=0.012 Chrysene=0.01 Fluoranthene=0.022 Pyrene=0.081	860 (H/MO)		
SS-51MRP3-99-W8B-4.5	435	Oct-99		<0.005	<0.005		**0.54**	<0.05	<0.05	<0.05	Chrysene=0.011 Fluoranthene=0.021 Pyrene=0.053	870 (H/MO)		
SS-51MRP3-99-W10A-5.5 X	5.5	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP3-99-W10B-6.5 X	6.5	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	25 (H/MO)		
SS-51MRP3-99-W11A-4.0 X	4.0	Oct-99		<0.005	<0.005		**7.0**	<1	<1	<1	Pyrene=0.024	4,000 (H/MO)		
SS-51MRP3-99-W11B-4.0 X	4.0	Oct-99		<0.005	<0.005		**6.6**	<1	<1	<1	Pyrene=0.037	5,200 (H/MO)		
SS-51MRP3-00-W11C-4.0 X	4.0	Feb-00		<0.005	<0.005		**2.2**	<0.2	<0.2	<0.2				
SS-51MRP3-99-W12A-1.8 X	1.8	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP3-99-W12B-1.8	1.8	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP3-99-W13A-4.5 X	4.5	Oct-99		<0.005	<0.005		**3.9**	<0.01	<0.01	<0.01	Anthracene=0.0022 B(a)A=0.017 B(b)F=0.022 Chrysene=0.011 Fluoranthene=0.057 Pyrene=0.16	2,700 (H/MO)		
SS-51MRP3-99-W13B-4.5	4.5	Oct-99		<0.005	<0.005		**0.6**	<0.1	<0.1	<0.1	Pyrene=0.040	620 (H/MO)		
SS-51MRP3-99-W14A-4.0 X	4.0	Oct-99		<0.005	<0.005		**8.2**	<0.5	<0.5	<0.5	Pyrene=0.083	14,000 (H/MO)		
SS-51MRP3-99-W14B-4.0	4.0	Oct-99		<0.005	<0.005		**0.65**	<0.1	<0.1	<0.1	Pyrene=0.063	1100 (H/MO)		
SS-51MRP3-99-W15A-2.0 X	2.0	Oct-99		<0.005	<0.005		**2.1**	<0.5	<0.5	<0.5	Anthracene=0.001 Pyrene=0.059	1800 (H/MO)		
SS-51MRP3-99-W15B-2.0 X	2.0	Oct-99		<0.005	<0.005		0.058	<0.01	<0.01	<0.01	ND	68 (H/MO)		
SS-51MRP3-99-W16A-4.5 X	4.5	Oct-99		<0.005	<0.005		**1.2**	<0.2	<0.2	<0.2	Pyrene=0.057	1100 (H/MO)		
SS-51MRP3-99-W16B-4.5 X	4.5	Oct-99		<0.005	<0.005		**0.52**	<0.1	<0.1	<0.1	Pyrene=0.045	690 (H/MO)		
SS-51MRP3-99-W17A-3.0 X	3.0	Oct-99		<0.005	<0.005		0.1	<0.01	<0.01	<0.01	ND	230 (H/MO)		
SS-51MRP3-99-W17B-3.0	3.0	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	ND		

Table A3.11-2
Soil Sampling Results (mg/kg)
AOC 9-9: Building 51 Sanitary Sewer and Drainage System
Concentrations of Organic Constituents
COPCs: Halogenated VOCs, PCBs, Fuel Hydrocarbons

				VOCs			PCBs				PAHs	Fuel Identification	TPH-D	Oil & Grease
				PCE	TCE	Other Compounds Detected	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260				
			PRG	5.7	2.8		0.22	0.22	0.22	0.22				
Sample ID	Depth (ft)	Date	Lab											
SS-51MRP3-99-W18A-4.5 **X**	4.5	Oct-99	BC	<0.005	<0.005		0.16	<0.01	<0.01	<0.01	ND	280 (H/MO)		
SS-51MRP3-99-W18B-4.5	4.5	Oct-99		<0.005	<0.005		0.079	<0.01	<0.01	<0.01	ND	130 WD-40		
SS-51MRP3-99-W19A-4.5 **X**	4.5	Oct-99		<0.005	<0.005		**6.8**	<0.5	<0.5	<0.5	Acenaphthene=0.47 Anthracene=0.0027 Fluoranthene=0.098 Pyrene=0.061	7,700 (H/MO)		
SS-51MRP3-99-W19B-4.5	4.5	Oct-99		<0.005	<0.005		**0.57**	<0.05	<0.05	<0.05	Anthracene=0.0014 B(b)F=0.011 Pyrene=0.056	690 (H/MO)		
SS-51MRP3-99-W20A-4.8 **X**	4.8	Oct-99		<0.005	<0.005		0.072	<0.01	<0.01	<0.01	ND	78 (H/MO)		
SS-51MRP3-99-W20B-4.8 **X**	4.8	Oct-99		<0.005	<0.005		**0.27**	<0.02	<0.02	<0.02	Fluoranthene=0.19	420 (H/MO)		
SS-51MRP3-99-W21A-3.5	3.5	Oct-99		<0.005	<0.005		0.17	<0.01	<0.01	<0.01	ND	540 (H/MO)		
SS-51MRP3-99-W21B-3.5	3.5	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP3-99-F1-6.5	6.5	Oct-99		<0.005	<0.005		0.13	<0.01	<0.01	<0.01	ND	160 (H/MO)		
SS-51MRP3-99-F1-7.3	7.3	Oct-99		<0.005	<0.005		0.21	<0.05	<0.05	<0.05	Anthracene=0.0014 B(a)A=0.044 **B(a)P=0.074** B(b)F=0.074 B(ghi)P=0.029 B(k)F=0.036 Chrysene=0.061 Fluoranthene=0.072 I(123cd)P=0.032 Pyrene=0.093	440 (H/MO)		
SS-51MRP3-99-F2-6.5	6.5	Oct-99		<0.005	0.011		<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP3-99-F2-8.5	8.5	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP3-99-F3-6.8	6.8	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	Anthracene=0.002 B(a)A=0.012 Chrysene=0.024 Fluoranthene=0.029 Phenanthrene=0.011	ND		
SS-51MRP3-99-F3-8.2	8.2	Oct-99		<0.005	<0.005		0.024	<0.01	<0.01	<0.01	Chrysene=0.014	28 (H/MO)		
SS-51MRP3-99-F4-6.6	6.6	Oct-99		<0.005	<0.005		**0.31**	<0.05	<0.05	<0.05	Anthracene=0.002 B(a)A=0.01 Chrysene=0.021 Fluoranthene=0.028	280 (H/MO)		

Table A3.11-2
Soil Sampling Results (mg/kg)
AOC 9-9: Building 51 Sanitary Sewer and Drainage System
Concentrations of Organic Constituents
COPCs: Halogenated VOCs, PCBs, Fuel Hydrocarbons

				VOCs			PCBs				PAHs	Fuel Identification	TPH-D	Oil & Grease
				PCE	TCE	Other Compounds Detected	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260				
			PRG	5.7	2.8		0.22	0.22	0.22	0.22				
Sample ID	Depth (ft)	Date	Lab											
SS-51MRP3-99-F4-8.2	8.2	Oct-99	BC	<0.005	<0.005		0.034	<0.01	<0.01	<0.01	Anthracene=0.015 B(a)A=0.043 B(a)P=0.045 B(b)F=0.041 B(ghi)P=0.022 B(k)F=0.026 Chrysene=0.055 Fluoranthene=0.2 I(123cd)P=0.023 Phenanthrene=0.068 Pyrene=0.13	76 (H/MO)		
SS-51MRP3-99-F5-6.5	6.5	Oct-99		<0.005	<0.005		0.027	<0.01	<0.01	<0.01	Anthracene=0.0024 B(a)A=0.019 B(b)F=0.017 Chrysene=0.018 Fluoranthene=0.07 I(123cd)P=0.012 Pyrene=0.049	150 (H/MO)		
SS-51MRP3-99-F5-8.0	8.0	Oct-99		<0.005	<0.005		**0.28**	<0.05	<0.05	<0.05	Anthracene=0.015 B(a)A=0.071 B(a)P=0.063 B(b)F=0.074 B(ghi)P=0.036 B(k)F=0.037 Chrysene=0.074 Fluoranthene=0.26 I(123cd)P=0.033 Phenanthrene=0.036 Pyrene=0.21	470 (H/MO)		
SS-51MRP3-99-FW9-4.0 **X**	4.0	Oct-99		<0.005	<0.005		**4.4**	<1	<1	<1	Chrysene=0.015	3,600 (H/MO)		
Test Pit 4														
SS-51-MRP4-00-F1-4.5	4.5	Feb-00	BC	<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		25 (H/MO)		
SS-51-MRP4-00-F1-6.0	6.0	Feb-00		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SS-51-MRP4-00-F2-4.5	4.5	Feb-00		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SS-51-MRP4-00-F2-6.0	6.0	Feb-00		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SS-51-MRP4-00-F3-4.5	4.5	Feb-00		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SS-51-MRP4-00-F3-6.0	6.0	Feb-00		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		41 (H/MO)		

Table A3.11-2
Soil Sampling Results (mg/kg)
AOC 9-9: Building 51 Sanitary Sewer and Drainage System
Concentrations of Organic Constituents
COPCs: Halogenated VOCs, PCBs, Fuel Hydrocarbons

				VOCs			PCBs				PAHs	Fuel Identification	TPH-D	Oil & Grease
				PCE	TCE	Other Compounds Detected	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260				
			PRG	5.7	2.8		0.22	0.22	0.22	0.22				
Sample ID	Depth (ft)	Date	Lab											
SS-51-MRP4-00-W1A-1.9	1.9	Feb-00	BC	<0.005	<0.005		0.028	<0.01	<0.01	<0.01		310 (H/MO)		
SS-51-MRP4-00-W1B-2.2	2.2	Feb-00		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		30 (H/MO)		
SS-51-MRP4-00-W2A-3.0	3.0	Feb-00		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		42 (H/MO)		
SS-51-MRP4-00-W2B-3.0	3.0	Feb-00		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SS-51-MRP4-00-W3A-2.8	2.8	Feb-00		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
SS-51-MRP4-00-W3B-2.8	2.8	Feb-00		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01		ND		
Test Pit 5														
SS-51MRP5-99-F1-6.5	6.5	Oct-99	BC	<0.005	0.017		<0.01	<0.01	<0.01	<0.01	Chrysene=0.012	ND		
SS-51MRP5-99-F1-8.0	8.0	Oct-99		<0.005	0.058		<0.01	<0.01	<0.01	<0.01	Anthracene=0.0011 B(a)A=0.012 B(b)F=0.017 Chrysene=0.014 Fluoranthene=0.030 Pyrene=0.025	ND		
SS-51MRP5-99-F2-6.5	6.5	Oct-99		<0.005	<0.005		0.058	<0.01	<0.01	<0.01	Anthracene=0.0014 B(b)F=0.01	88 (H/MO)		
SS-51MRP5-99-F2-7.8	7.8	Oct-99		<0.005	0.0053		<0.01	<0.01	<0.01	<0.01	Anthracene=0.0010 B(a)A=0.074 B(a)P=0.082 B(b)F=0.084 B(k)F=0.043 Chrysene=0.090 Fluoranthene=0.19 I(123cd)P=0.045 Pyrene=0.16	ND		
SS-51MRP5-99-F3-6.5	6.5	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	Anthracene=0.0013 B(a)A=0.019 B(b)F=0.022 Chrysene=0.024 Fluoranthene=0.056 Pyrene=0.050	ND		

Table A3.11-2
Soil Sampling Results (mg/kg)
AOC 9-9: Building 51 Sanitary Sewer and Drainage System
Concentrations of Organic Constituents
COPCs: Halogenated VOCs, PCBs, Fuel Hydrocarbons

				VOCs			PCBs				PAHs	Fuel Identification	TPH-D	Oil & Grease
				PCE	TCE	Other Compounds Detected	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260				
			PRG	5.7	2.8		0.22	0.22	0.22	0.22				
Sample ID	Depth (ft)	Date	Lab											
SS-51MRP5-99-F3-7.8	7.8	Oct-99	BC	<0.005	0.016		<0.01	<0.01	<0.01	<0.01	Anthracene=0.0021 B(a)A=0.033 B(a)P=0.036 B(b)F=0.033 B(k)F=0.018 Chrysene=0.036 Fluoranthene=0.072 I(123cd)P=0.02 Pyrene=0.052	ND		
SS-51MRP5-99-W1A-4.8	4.8	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP5-99-W1B-4.8	4.8	Oct-99		<0.005	<0.005		0.011	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP5-99-W2A-4.8	4.8	Oct-99		<0.005	0.014	1,2,3-TCB=0.0054	<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP5-99-W2B-4.8	4.8	Oct-99		<0.005	0.014		<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP5-99-W3A-4.8 **X**	4.8	Oct-99		0.048	0.16	n-Bb=0.016 sec-Bb=0.026 cis-1,2-DCE=0.005 1,2,4-TMB=0.044	**1.9**	<0.2	<0.2	<0.2	Anthracene=0.0014 B(a)A=0.013 B(b)F=0.017 B(k)F=0.016 Chrysene=0.012 Fluoranthene=0.036 Pyrene=0.11	2,600 (H/MO)		
SS-51MRP5-99-W3B-4.8	4.8	Oct-99		0.0092	0.03		**0.4**	<0.05	<0.05	<0.05	Pyrene=0.038	430 (H/MO)		
SS-51MRP5-99-W4A-4.9	4.9	Oct-99		<0.005	0.013		<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP5-99-W4B-4.9	4.9	Oct-99		<0.005	0.017		<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP5-99-W5A-4.5	4.5	Oct-99		<0.005	0.0078		<0.01	<0.01	<0.01	<0.01	B(b)F=0.012 Chrysene=0.015 Fluoranthene=0.032 Pyrene=0.025	ND		
SS-51MRP5-99-W5B-4.5	4.5	Oct-99		<0.005	0.0073		<0.01	<0.01	<0.01	<0.01	B(a)A=0.012 B(b)F=0.014 Chrysene=0.015 Fluoranthene=0.030 Pyrene=0.024	ND		
SS-51MRP5-99-W6A-4.5	4.5	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP5-99-W6B-4.5	4.5	Oct-99		<0.005	0.0054		<0.01	<0.01	<0.01	<0.01	Fluoranthene=0.025	ND		
SS-51MRP5-99-W7A-4.5	4.5	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	ND		
SS-51MRP5-99-W7B-4.5	4.5	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	ND		

Table A3.11-2
Soil Sampling Results (mg/kg)
AOC 9-9: Building 51 Sanitary Sewer and Drainage System
Concentrations of Organic Constituents
COPCs: Halogenated VOCs, PCBs, Fuel Hydrocarbons

				VOCs			PCBs				PAHs	Fuel Identification	TPH-D	Oil & Grease
				PCE	TCE	Other Compounds Detected	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260				
			PRG	5.7	2.8		0.22	0.22	0.22	0.22				
Sample ID	Depth (ft)	Date	Lab											
SS-51MRP5-99-FW8A-5.0	5.0	Oct-99	BC	0.23	0.026	1,2,4-TMB=0.011	0.076	<0.01	<0.01	<0.01	Anthracene=0.0033 B(a)A=0.019 B(b)F=0.017 Chrysene=0.021 Fluoranthene=0.079 Phenanthrene=0.023 Pyrene=0.052	590 (H/MO)		
SS-51MRP5-99-FW8B-6.2	6.2	Oct-99		<0.005	<0.005		<0.01	<0.01	<0.01	<0.01	ND	30 (H/MO)		

ND (or < reporting limit) = Constituent not detected above reporting limit
= Not analyzed

MO = Motor Oil
H/MO = Hydraulic/Motor Oil
C/WO = Crude/Waste Oil
X - Indicates that sample was collected from material that has been excavated

VOCs analyzed by EPA Method 8260
PCBs analyzed by EPA Method 8080
PAHs analyzed by EPA Method 8310
Fuel Identification analyzed by EPA Method 8015M, included Light Naptha, Aviation Fuel, Stoddard/White Spirits, Heavy Naptha/Ligroin/Petroleum Benzin, Gasoline, JP4, JP5, JP8, Kerosene/Jet Fuel, Diese Hydraulic/Motor Oil, and WD-40
TPH-Diesel analyzed by EPA Method 8015
Oil and Grease analyzed by EPA Method 413.1
Concentrations shown in bold are above PRGs for residential soil.
COPCs = Chemicals of Potential Concern

PRGs for Residential Soil for Detected Organic Analytes (mg/kg)

acenaphthene	2,600	cis-1,2-dichloroethene [cis-1,2-DCE]	42
anthracene	14,000	methylene chloride [mecl]	8.5
benzo(a)anthracene [B(a)A]	0.56	n-butylbenzene [n-Bb]	130
benzo(a)pyrene [B(a)P]	0.056	sec-butylbenzene [sec-Bb]	100
benzo(b)fluoranthene [B(b)F]	0.56	1,2,3-trichlorobenzene [1,2,3-TCB]	none
benzo(ghi)perylene [B(ghi)P]	none	1,2,4-trimethylbenzene [1,2,4-TMB]	51
benzo(k)fluoranthene [B(k)F]	5.6		
chrysene	56		
fluoranthene	2,000		
ideno(123cd)pyrene [I(123cd)P]	0.56		
phenanthrene	none		
pyrene	1,500		

Table A3.11-3

Product and Wipe Sampling Results for Organics
AOC 9-9: Building 51 Sanitary Sewer and Drainage System
(Concentrations in mg/kg)

	Analyte	SVOCs	PCBs	Fuels	PAHs	Hg
Boring/Sample ID	Date Sampled	8270	8080 or 8082	8015M	8310	SW7471
Test Pit 2						
SS-51MRP2-PROD	Nov-96		Aroclor 1242=430	Motor Oil=950,000		<0.2
Test Pit 3						
51MRPIT3-PRODUCT	Jul-98	ND	Aroclor 1242=570	Hydraulic/Motor Oil=640,000	Acenapthene=57 Acenapthylene=19 Anthracene=1.3 Benzo(a)anthracene=3.5 Benzo(b)fluoranthene=3.6 Fluoranthene=17 Pyrene=20	
Pump Oil Samples						
51MRBSMT-WPUMPOIL#1	Apr-99		<0.3			
51MRBSMT-EPUMPOIL#3	Apr-99		<0.3			
Wipe Samples (Concrete wall east of Pit 3)						
51MR-99WALLWIPE-1	Apr-99		<0.003 mg/wipe			
51MR-99WALLWIPE-2-5.0'	Apr-99			Crude/Waste Oil = 1.7 mg/wipe		

ND or < = Not detected above reporting limit
= Not analyzed

Table A3.12-1
Soil Sampling Results (mg/kg*)
AOC 9-11: Former Cooling Towers Southeast of Building 51
Concentrations of Organic Constituents
Organic COPCs: Halogenated VOCs

				VOCs					Total Hydrocarbons	pH
				1,1,1-TCA	Benzene	Toluene	Ethylbenzene	Isopropyl benzene		
			PRG	770	0.67	520	230			
Sample ID	Depth (ft)	Date	Lab							
SS-51S-07	7	Aug-91	H	0.123	<0.0001	0.0203	0.0165	0.0147	3.09	
BS-51-92-2-5	5.0	Mar-92	Q	<0.005	<0.005	<0.005	<0.005			
BS-51-92-2-15	15			<0.005	0.01	<0.005	<0.005			
BS-51-92-3-4	4.0	Mar-92	Q	<0.005	<0.005	<0.005	<0.005			
BS-51-92-3-15	15			<0.005	<0.005	<0.005	<0.005			
BS-51-92-3-28	28			<0.005	<0.005	<0.005	<0.005			
BS-51-92-3-38	38			<0.005	<0.005	<0.005	<0.005			
BS-51-92-3-49	49			<0.005	<0.005	<0.005	<0.005			
BS-51-92-3-61	61			<0.005	<0.005	<0.005	<0.005			
SB51-96-19-1	1.0	Apr-96	CLS	<0.005	<0.005	<0.005	<0.005	<0.005		9.00
SB51-96-19-3	3.0			<0.005	<0.005	<0.005	<0.005	<0.005		8.53
SB51-96-19-5	5.0			<0.005	<0.005	<0.005	<0.005	<0.005		8.18
SB51-96-20-1	1.0	Apr-96	CLS	<0.005	<0.005	<0.005	<0.005	<0.005		8.69
SB51-96-22-0.8	0.8	Apr-96	CLS	<0.005	<0.005	<0.005	<0.005	<0.005		8.75
SB51-96-22-5	5.0			<0.005	<0.005	<0.005	<0.005	<0.005		8.89
BS-SB51-00-2-12.4	12.4	Feb-00	BC	<0.005	<0.005	<0.005	<0.005	<0.005		
BS-SB51-00-2-15	15.0			<0.005	<0.005	<0.005	<0.005	<0.005		
BS-SB51-00-2-18	18.0			<0.005	<0.005	<0.005	<0.005	<0.005		
BS-SB51-00-3-6.3	6.3			<0.005	<0.005	<0.005	<0.005	<0.005		
BS-SB51-00-3-9.4	9.4			<0.005	<0.005	<0.005	<0.005	<0.005		
BS-SB51-00-3-12	12.0			<0.005	<0.005	<0.005	<0.005	<0.005		

BC = Analysis by BC Laboratories
CLS - Analysis by California Laboratory Services
H - Analysis by Hydro Geo Chem
Q - Analysis by Quanteq Laboratories
VOCs analyzed by EPA Method 8240 or 8260
pH analyzed by method 9040

< = Not detected above reporting limit (reporting limit shown)
= Not analyzed

COPCs = Chemicals of Potential Concern
*pH reported in standard units

Table A.3-13-1
Soil Sampling Results (mg/kg)
AOC 9-12: Building 51 Former Equipment Storage Area
Concentrations of Organic Constituents
COPCs: Halogenated Hydrocarbons

				VOCs						PCBs	Fuels	Oil & Grease
				1,1,1-TCA	1,1-DCA	1,1-DCE	PCE	TCE	Other Compounds Detected			
			PRG	770	590	0.054	5.7	2.8		0.22		
Sample ID	**Depth (ft)**	**Date**	**Lab**									
MW51B-93-18A-4.4	4.4	Apr-94	BC	0.007	<0.005	<0.005	0.18	0.34		<0.01	ND	56
MW51B-93-18A-9.0	9.0			<0.005	<0.005	<0.005	<0.005	<0.005				
MW51B-93-18A-14	14			<0.005	<0.005	<0.005	<0.005	0.086				
MW51B-93-18A-19	19			<0.005	<0.005	<0.005	<0.005	0.035				
MW51B-93-18A-24	24			<0.005	<0.005	<0.005	<0.005	<0.005				
MW51B-93-18A-29.3	29.3			<0.005	<0.005	<0.005	<0.005	<0.005				
MW51B-93-18A-34	34			<0.005	<0.005	<0.005	<0.005	0.01				
MW51B-93-18A-39	39			<0.005	<0.005	<0.005	<0.005	<0.005				
MW51B-93-18A-41	41			<0.005	<0.005	<0.005	<0.005	<0.005				
SB51-96-23-0.8	0.8	Apr-96	CLS	<0.005	<0.005	<0.005	<0.005	<0.005				
SB51-96-23-2.8	2.8			<0.005	<0.005	<0.005	<0.005	<0.005				
SB51-96-23-3.9	3.9			<0.005	<0.005	<0.005	0.0069	<0.005				
SB51-96-24-1.5	1.5			<0.005	<0.005	<0.005	0.0067	<0.005				
SB51-96-24-3.5	3.5			<0.005	<0.005	<0.005	0.035	0.005				
SB51-96-24-4.5	4.5			<0.005	<0.005	<0.005	0.057	<0.005				
SB51-96-25-2	2.0			<0.005	<0.005	<0.005	<0.005	<0.005				
SB51-96-25-4	4.0			<1	<1	<1	<1	<1	n-butylbenzene=2.5 p-isopropyltoluene=4.1 **1,2,4-Trimethylbenzene=11** 1,3,5-Trimethylbenzene=5.7			
SB51-96-25-5	5.0			<0.005	<0.005	<0.005	<0.005	<0.005				
SB51-96-26-3.5	3.5			<0.005	<0.005	<0.005	<0.005	<0.005				
SB51-96-26-5	5.0			<0.005	<0.005	<0.005	<0.005	<0.005				
SB51-96-27-1	1.0	Oct-96	CLS	<0.005	<0.005	<0.005	<0.005	<0.005				
SB51-96-27-15.3	15.3			<0.005	<0.005	<0.005	<0.005	<0.005				
SB51-96-27-20.5	20.5			<0.005	<0.005	<0.005	<0.005	<0.005				
SB51-96-27-25.3	25.3			<0.005	<0.005	<0.005	<0.005	<0.005				
SB51-96-28-1.5	1.5			<0.005	<0.005	<0.005	<0.005	<0.005				
SB51-96-28-5	5.0			<0.025	<0.025	<0.025	<0.025	<0.025	n-butylbenzene=0.045 sec-butylbenzene=0.033 p-isopropyltoluene=0.13 1,2,4-Trimethylbenzene=0.34 1,3,5-Trimethylbenzene=0.22			

Table A.3-13-1
Soil Sampling Results (mg/kg)
AOC 9-12: Building 51 Former Equipment Storage Area
Concentrations of Organic Constituents
COPCs: Halogenated Hydrocarbons

				VOCs						PCBs	Fuels	Oil & Grease
				1,1,1-TCA	1,1-DCA	1,1-DCE	PCE	TCE	Other Compounds Detected			
			PRG	770	590	0.054	5.7	2.8		0.22		
Sample ID	**Depth (ft)**	**Date**	**Lab**									
SB51-96-28-15	15	Oct-96	CLS	<0.005	<0.005	<0.005	<0.005	<0.005				
SB51-96-28-24	24			<0.005	<0.005	<0.005	<0.005	<0.005				
MW51-96-18-3.1	3.1	Sep-96	LBNL	<0.005	<0.005	<0.005	0.025	<0.005				
MW51-96-18-5.3	5.3			<0.005	<0.005	<0.005	0.014	<0.005				
MW51-96-18-8.4	8.4			<0.005	0.0071	<0.005	<0.005	0.012				
MW51-96-18-13	13			<0.005	<0.005	<0.005	<0.005	<0.005				
MW51-96-18-18.1	18.1			<0.005	<0.005	<0.005	<0.005	<0.005				
MW51-96-18-23	23			<0.005	<0.005	<0.005	<0.005	<0.005				
MW51-96-19-3.3	3.3			0.0065	<0.005	<0.005	0.024	0.055				
MW51-96-19-9	9.0			<0.3	<0.3	<0.3	<0.3	<0.3	sec-butylbenzene=0.77 p-isopropyltoluene=1.4 naphthalene=1.2 n-propylbenzene=0.38 1,2,4-Trimethylbenzene=4.8 1,3,5-Trimethylbenzene=12			
MW51-96-19-13.3	13.3			<0.005	<0.005	<0.005	<0.005	0.0057				
SB64-98-1-1.2 X	1.2	Apr-98	BC	<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-1-4 X	4.0			<0.005	<0.005	<0.005	0.011	<0.005				
SB64-98-1-9.3 X	9.3			0.0064	0.069	0.0051	0.019	0.051				
SB64-98-2-1.6	1.6			<0.005	<0.005	<0.005	0.0059	<0.005				
SB64-98-2-4.5	4.5			0.0069	<0.005	<0.005	0.16	0.021				
SB64-98-2-6.9	6.9			<0.005	<0.005	<0.005	0.014	<0.005				
SB64-98-2-9.9	9.9			<0.005	<0.005	<0.005	0.0086	0.011				
SB64-98-3-1.4	1.4			0.0074	<0.005	<0.005	0.12	0.065				
SB64-98-3-5.3	5.3			<0.005	<0.005	<0.005	0.016	0.0062				
SB64-98-3-6.9	6.9			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-3-10	10			<0.005	<0.005	<0.005	0.008	0.006				
SB64-98-4-1.9	1.9			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-4-5.8	5.8			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-4-10.1	10.1			<0.005	<0.005	<0.005	<0.005	0.0083				
SB64-98-4-15.6	15.6			<0.005	<0.005	<0.005	<0.005	0.015				
SB64-98-5-2.8	2.8			<0.005	<0.005	<0.005	<0.005	<0.005				

Table A.3-13-1
Soil Sampling Results (mg/kg)
AOC 9-12: Building 51 Former Equipment Storage Area
Concentrations of Organic Constituents
COPCs: Halogenated Hydrocarbons

				VOCs						PCBs	Fuels	Oil & Grease
				1,1,1-TCA	1,1-DCA	1,1-DCE	PCE	TCE	Other Compounds Detected			
			PRG	770	590	0.054	5.7	2.8		0.22		
Sample ID	**Depth (ft)**	**Date**	**Lab**									
SB64-98-5-5.7	5.7	Apr-98	BC	<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-5-10.3	10.3			<0.005	<0.005	<0.005	<0.005	0.0068				
SB64-98-5-15.1	15.1			<0.005	<0.005	<0.005	<0.005	0.085				
SB64-98-6-3.5	3.5			<0.005	<0.005	<0.005	0.0077	0.037				
SB64-98-6-4.9	4.9			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-6-10.7	10.7			<0.005	<0.005	<0.005	<0.005	0.033				
SB64-98-6-14.7	14.7			<0.005	<0.005	<0.005	<0.005	0.0051				
SB64-98-6-19.9	19.9			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-7-4.5 X	4.5	May-98		0.0056	<0.005	<0.005	0.03	<0.005				
SB64-98-7-6 X	6.0			<0.005	<0.005	<0.005	0.016	<0.005				
SB64-98-7-6.3 X	6.3			<0.005	<0.005	<0.005	0.034	<0.005				
SB64-98-7-7.5 X	7.5			0.076	0.0055	<0.005	0.28	0.16				
SB64-98-7-7.8 X	7.8			0.024	<0.005	<0.005	0.13	0.034				
SB64-98-7-9 X	9.0			13	0.021	0.026	**40**	1.9	Toluene=0.0221 1,3-dichlorobenzene=0.0065 hexachlorobutadiene=0.011			
SB64-98-7-9.3 X	9.3			**2800**	5	**4.6**	**680**	**120**	Toluene=0.71			
SB64-98-8-5.6	5.6	Jun-98		0.032	0.031	<0.005	0.086	0.078				
SB64-98-8-10.4	10.4			0.0068	0.024	<0.005	0.029	0.023				
SB64-98-9-2	2.0	Apr-98		<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-9-6	6.0			0.0062	<0.005	<0.005	0.089	0.032				
SB64-98-9-10.5	10.5			<0.005	<0.005	<0.005	0.019	0.005				
SB64-98-9-15.4	15.4			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-10-1 X	1.0	May-98		0.01	<0.005	<0.005	<0.005	<0.005				
SB64-98-10-2.5 X	2.5			0.015	<0.005	<0.005	0.007	<0.005				
SB64-98-10-5.2 X	5.2			0.0057	0.0066	<0.005	0.037	0.023				
SB64-98-10-5.7 X	5.7			<0.005	<0.005	<0.005	0.0078	0.0083				
SB64-98-10-8.3 X	8.3			0.037	0.12	<0.005	0.029	0.031				
SB64-98-10-8.8 X	8.8			0.081	0.15	<0.005	0.076	0.093	1,2-DCA=0.016 methylene chloride=0.014			
SB64-98-10-11 X	11			32	0.68	**0.14**	1.2	1.2	1,2-DCA=0.042 toluene=0.0051 methylene chloride=0.029			

Table A.3-13-1
Soil Sampling Results (mg/kg)
AOC 9-12: Building 51 Former Equipment Storage Area
Concentrations of Organic Constituents
COPCs: Halogenated Hydrocarbons

				VOCs						PCBs	Fuels	Oil & Grease
				1,1,1-TCA	1,1-DCA	1,1-DCE	PCE	TCE	Other Compounds Detected			
			PRG	770	590	0.054	5.7	2.8		0.22		
Sample ID	**Depth (ft)**	**Date**	**Lab**									
SB64-98-10-11.5 X	11.5	May-98	BC	0.3	0.035	<0.005	0.2	0.082	1,2-DCA=0.0097			
SB64-98-10-12 X	12			0.0079	0.014	<0.005	0.012	0.024				
SB64-98-10-13.6 X	13.6			0.011	<0.005	<0.005	0.0078	0.0068	Total xylenes=0.012			
SB64-98-10-16 X	16			0.0058	<0.005	<0.005	0.012	0.0097				
SB64-98-10-16.4 X	16.4			0.0088	<0.005	<0.005	0.0065	0.0052	Total xylenes=0.01			
SB64-98-10-18.6	18.6			0.0091	<0.005	<0.005	<0.005	<0.005				
SB64-98-10-19.1	19.1			0.11	0.031	<0.005	0.0095	0.012				
SB64-98-11-1 X	1.0			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-11-2.3 X	2.3			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-11-4.7 X	4.7			0.008	<0.005	<0.005	<0.005	0.049				
SB64-98-11-5.2 X	5.2			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-11-6.4 X	6.4			0.0057	<0.005	<0.005	<0.005	<0.005				
SB64-98-11-6.9 X	6.9			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-11-7.7 X	7.7			<0.005	0.011	<0.005	<0.005	<0.005				
SB64-98-11-8.2 X	8.2			<0.005	0.029	<0.005	<0.005	<0.005				
SB64-98-11-9.2 X	9.2			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-11-9.7 X	9.7			<0.005	0.025	<0.005	<0.005	<0.005				
SB64-98-11-10.6 X	10.6			0.006	0.02	<0.005	<0.005	<0.005				
SB64-98-11-11.1 X	11.1			0.0054	<0.005	<0.005	<0.005	<0.005				
SB64-98-11-12.2 X	12.2			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-11-13.5 X	13.5			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-11-16.5 X	16.5			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-11-17 X	17			<0.005	<0.005	<0.005	<0.005	<0.005	Total xylenes=0.011			
SB64-98-11-17.6 X	17.6			0.0078	0.005	<0.005	<0.005	<0.005				
SB64-98-11-18.1	18.1			0.01	0.0093	<0.005	<0.005	<0.005				
SB64-98-11-20	20			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-11-20.5	20.5			0.0078	0.0053	<0.005	<0.005	<0.005				
SB64-98-12-1	1.0			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-12-3	3.0			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-12-5	5.0			<0.005	0.0098	<0.005	<0.005	0.0078				
SB64-98-12-7	7.0			<0.005	0.02	<0.005	0.0079	0.027				
SB64-98-12-8.5	8.5			0.0051	0.047	<0.005	<0.005	<0.005				

Table A.3-13-1
Soil Sampling Results (mg/kg)
AOC 9-12: Building 51 Former Equipment Storage Area
Concentrations of Organic Constituents
COPCs: Halogenated Hydrocarbons

				VOCs						PCBs	Fuels	Oil & Grease
				1,1,1-TCA	1,1-DCA	1,1-DCE	PCE	TCE	Other Compounds Detected			
			PRG	770	590	0.054	5.7	2.8		0.22		
Sample ID	**Depth (ft)**	**Date**	**Lab**									
SB64-98-12-10	10	May-98	BC	<0.005	0.016	<0.005	<0.005	<0.005				
SB64-98-12-11.5	11.5			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-12-13.1	13.1			0.0076	0.038	0.006	<0.005	<0.005				
SB64-98-12-14.5	14.5			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-12-19.5	19.5			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-13-3.3	3.3			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-13-5	5.0			<0.005	<0.005	<0.005	0.0066	0.034				
SB64-98-13-7	7.0			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-13-8.6	8.6			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-13-10	10			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-13-11.5	11.5			0.0063	<0.005	<0.005	<0.005	<0.005				
SB64-98-13-11.9	11.9			0.0083	<0.005	<0.005	<0.005	<0.005				
SB64-98-13-13	13			0.0086	<0.005	<0.005	<0.005	<0.005				
SB64-98-13-13.4	13.4			0.0095	<0.005	<0.005	<0.005	<0.005				
SB64-98-13-14.6	14.6			0.0086	<0.005	<0.005	<0.005	<0.005				
SB64-98-13-16.5	16.5			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-13-17.5	17.5			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-13-19.5	19.5			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-14-4	4.0			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-14-5	5.0			0.0074	<0.005	<0.005	0.01	0.014				
SB64-98-14-5.5	5.5			<0.005	<0.005	<0.005	<0.005	0.01				
SB64-98-14-7.8	7.8			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-14-8.3	8.3			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-14-9	9.0			0.0083	<0.005	<0.005	<0.005	<0.005				
SB64-98-14-9.5	9.5			0.0058	<0.005	<0.005	<0.005	<0.005				
SB64-98-14-10.6	10.6			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-14-11.1	11.1			0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-14-12.1	12.1			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-14-12.6	12.6			0.0067	<0.005	<0.005	<0.005	<0.005				
SB64-98-14-13.8	13.8			0.011	<0.005	<0.005	<0.005	<0.005				
SB64-98-14-14.3	14.3			0.01	<0.005	<0.005	<0.005	<0.005				
SB64-98-14-16.5	16.5			0.0089	<0.005	<0.005	<0.005	<0.005				

Table A.3-13-1
Soil Sampling Results (mg/kg)
AOC 9-12: Building 51 Former Equipment Storage Area
Concentrations of Organic Constituents
COPCs: Halogenated Hydrocarbons

				VOCs						PCBs	Fuels	Oil & Grease
				1,1,1-TCA	1,1-DCA	1,1-DCE	PCE	TCE	Other Compounds Detected			
			PRG	770	590	0.054	5.7	2.8		0.22		
Sample ID	**Depth (ft)**	**Date**	**Lab**									
SB64-98-14-17	17	May-98	BC	0.008	<0.005	<0.005	<0.005	<0.005				
SB64-98-14-18.5	18.5			0.0058	<0.005	<0.005	<0.005	<0.005				
SB64-98-15-4.5	4.5			<0.005	<0.005	<0.005	<0.005	0.043				
SB64-98-15-5	5.0			<0.005	<0.005	<0.005	<0.005	0.029				
SB64-98-15-7.5	7.5			0.012	<0.005	<0.005	<0.005	0.076	cis-1,2-DCE=0.022			
SB64-98-15-9.1	9.1			0.0085	<0.005	<0.005	<0.005	<0.005	cis-1,2-DCE=0.0053			
SB64-98-15-10.5	10.5			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-15-12.5	12.5			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-15-14	14			<0.005	0.0064	<0.005	<0.005	<0.005				
SB64-98-15-15.5	15.5			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-15-16	16			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-15-18.1	18.1			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-15-20	20			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-15-20.2	20.2			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-16-2	2.0			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-17-5	5.0	Dec-98		<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-17-10	10			<0.005	<0.005	<0.005	<0.005	<0.005				
SB64-98-17-15.5	15.5			<0.005	<0.005	<0.005	<0.005	<0.005				
BS-MW64-98-19-3	3.0	Feb-99	BC	<0.005	<0.005	<0.005	0.015	<0.005				
BS-MW64-98-19-6.3	6.3			0.027	<0.005	<0.005	0.26	0.044				
BS-MW64-98-19-7.5	7.5			0.45	0.009	0.0075	0.65	0.13				
BS-MW64-98-19-9.2	9.2			0.020	0.032	<0.005	0.043	0.057				
BS-MW64-98-19-11	11			0.0092	<0.005	<0.005	0.010	<0.005				
BS-MW64-98-19-13.5	13.5			<0.005	<0.005	<0.005	<0.005	<0.005				
BS-MW64-98-19-15.2	15.2			<0.005	0.0067	<0.005	<0.005	<0.005				
BS-MW64-98-19-16.8	16.8			0.0082	<0.005	<0.005	<0.005	<0.005				
BS-MW64-98-19-18.7	18.7			0.0077	<0.005	<0.005	0.0059	<0.005				
BS-MW64-98-19-21.1	21.1			<0.005	<0.005	<0.005	<0.005	<0.005				
BS-MW64-98-19-22.8	22.8			<0.005	<0.005	<0.005	<0.005	<0.005				
BS-MW64-98-19-24.5	24.5			<0.005	<0.005	<0.005	<0.005	<0.005				

Table A.3-13-1
Soil Sampling Results (mg/kg)
AOC 9-12: Building 51 Former Equipment Storage Area
Concentrations of Organic Constituents
COPCs: Halogenated Hydrocarbons

				VOCs						PCBs	Fuels	Oil & Grease
				1,1,1-TCA	1,1-DCA	1,1-DCE	PCE	TCE	Other Compounds Detected			
			PRG	770	590	0.054	5.7	2.8		0.22		
Sample ID	**Depth (ft)**	**Date**	**Lab**									
BS-MW64-98-20-6.7	6.7	May-99	BC	0.11	0.056	0.008	0.83	0.15				
BS-MW64-98-20-8	8			0.055	0.027	0.0081	0.11	0.13				
BS-MW64-98-20-9.8	9.8			0.16	0.082	<0.005	0.31	0.064				
BS-MW64-98-20-11	11			0.030	0.11	0.054	0.058	0.082	1,2-DCA=0.023 Methylene chloride=0.030			
BS-MW64-98-20-12	12			<0.005	<0.005	<0.005	<0.005	<0.005				
BS-MW64-98-20-13.6	13.6			0.033	0.015	<0.005	0.0075	<0.005				

ND (or < reporting limit)	= Not detected
	= Not analyzed

BC = Analysis by BC Laboratories
CLS = Analysis by California Laboratory Services
LBNL = Analysis by Lawrence Berkeley National Laboratory
VOCs analyzed by EPA Method 8260
PCBs analyzed by EPA Method 8080
Fuels analyzed by EPA Method 8015M
Oil and Grease analyzed by EPA Method 413.1
Concentrations shown in bold are above PRGs for residential soil
COPCs = Contaminants of Potential Concern
X - Indicates that sample was collected from material that has been excavated

Table A3.14-1
Soil Samples Collected for Investigation of Groundwater Plumes
Concentrations of Organics and Fuels
(Concentrations in mg/kg)

Location Description	Sample ID	Depth (ft)	Date	Lab	VOCs	Fuel Identification
AOC 1-9: Building 71 Groundwater Solvent and Freon Plume						
MW71-97-23	BS-MW71-97-23-10.9	10.9	Sep-97	BC		ND
	BS-MW71-97-23-14.1	14.1				ND
	BS-MW71-97-23-19.3	19.3			ND	ND
	BS-MW71-97-23-24.2	24.2			ND	
	BS-MW71-97-23-29.1	29.1			ND	ND
	BS-MW71-97-23-34.1	34.1			ND	
	BS-MW71-97-23-39.5	39.5			ND	Diesel=12 Crude/waste oil=28
	BS-MW71-97-23-44.3	44.3			ND	
	BS-MW71-97-23-49.3	49.3			ND	ND
	BS-MW71-97-23-53.8	53.8			ND	
	BS-MW71-97-23-58.5	58.5			ND	ND
MW71B-98-13	BS-MW71B-98-13-4.5	4.5	Sep-98	BC	ND	
	BS-MW71B-98-13-9.5	9.5			ND	
	BS-MW71B-98-13-19.2	19.2			ND	
	BS-MW71B-98-13-28.5	28.5			ND	
Building 71H	BS-SB71H-98-1-5.3	5.3	Apr-98	BC	ND	
	BS-SB71H-98-1-11	11			ND	
	BS-SB71H-98-1-16	16			ND	
	BS-SB71H-98-1-21	21			ND	
	BS-SB71H-98-1-31	31			ND	
	BS-SB71H-98-1-41	41			ND	
	BS-SB71H-98-1-50.5	50.5			ND	
	BS-SB71H-98-2-6	6			ND	
	BS-SB71H-98-2-10.9	10.9			ND	
	BS-SB71H-98-2-15.8	15.8			ND	
MW46A-98-11	BS-MW46A-98-11-10	10	Oct-98	BC	ND	
	BS-MW46A-98-11-17.8	17.8			ND	
	BS-MW46A-98-11-27.8	27.8			ND	
	BS-MW46A-98-11-37.7	37.7			ND	
	BS-MW46A-98-11-47.8	47.8			ND	
	BS-MW46A-98-11-57	57			ND	
	BS-MW46A-98-11-63.1	63.1			ND	
	BS-MW46A-98-11-72.5	72.5			ND	
SB71B-99-1	BS-SB71B-99-1-4.6	4.6	May-99	BC	PCE=0.0080	
	BS-SB71B-99-1-11	11			ND	
	BS-SB71B-99-1-16	16			ND	
	BS-SB71B-99-1-21	21			ND	
SB71B-99-2	BS-SB71B-99-2-6	6	May-99	BC	ND	
	BS-SB71B-99-2-11	11			ND	
	BS-SB71B-99-2-16	16			ND	
	BS-SB71B-99-2-21	21			ND	
MW71B-99-3	BS-MW71B-99-3-3.7	3.7	Jul-99	BC	PCE=2.7	
	BS-MW71B-99-3-5.8	5.8			PCE=0.13	
	BS-MW71B-99-3-8.1	8.1			PCE=0.096	

Table A3.14-1
Soil Samples Collected for Investigation of Groundwater Plumes
Concentrations of Organics and Fuels
(Concentrations in mg/kg)

Location Description	Sample ID	Depth (ft)	Date	Lab	VOCs	Fuel Identification
MW71B-99-3	BS-MW71B-99-3-10.6	10.6	Jul-99	BC	PCE=0.054	
	BS-MW71B-99-3-15	15			ND	
	BS-MW71B-99-3-20	20			ND	
	BS-MW71B-99-3-25	25			PCE=0.017	
	BS-MW71B-99-3-30	30			PCE=0.012	
AOC 9-13: Building 51/64 Groundwater Solvent Plume						
MW64-97-1	BS-MW64-97-1-4.7	4.7	May-97	BC	ND	
	BS-MW64-97-1-9.8	9.8			ND	
	BS-MW64-97-1-14.5	14.5			ND	
	BS-MW64-97-1-20	20			ND	
	BS-MW64-97-1-24.5	24.5			ND	
MW64-97-2	BS-MW64-97-2-5.5	5.5	May-97	BC	ND	
	BS-MW64-97-2-10.5	10.5			ND	
	BS-MW64-97-2-15.1	15.1			ND	
	BS-MW64-97-2-25	25			ND	
	BS-MW64-97-2-30	30			ND	
MW51-97-13	BS-MW51-97-13-0-15Comp	0-15	Sep-97	BC	ND	
	BS-MW51-97-13-15-30Comp	15-30			ND	
	BS-MW51-97-13-30-43Comp	30-43			ND	
	BS-MW51-97-13-35.4	35.4			ND	
	BS-MW51-97-13-43-70Comp	43-70			ND	
MW51-97-15	BS-MW51-97-15-0-17Comp	0-17	May-97	BC	ND	
	BS-MW51-97-15-17-30Comp	17-30			ND	
	BS-MW51-97-15-30-45Comp	30-45			ND	
	BS-MW51-97-15-45-60Comp	45-60			ND	
	BS-MW51-97-15-60-80Comp	60-80			ND	
	BS-MW51-97-15-90-108Comp	90-108			ND	
MW51-97-16	BS-MW51-97-16-4.2	4.2	Sep-97	BC	cis-1,2-DCE=0.0083 PCE=0.0058, TCE=0.012	
	BS-MW51-97-16-8.8	8.8			cis-1,2-DCE=0.035 TCE=0.019	
	BS-MW51-97-16-14	14			ND	
	BS-MW51-97-16-23.7	23.7			ND	
	BS-MW51-97-16-34	34			ND	
MW56-98-2	BS-MW56-98-2-3.3	3.3	Apr-98	BC	ND	
	BS-MW56-98-2-8.9	8.9			TCE=0.0066	
	BS-MW56-98-2-19.1	19.1			1,1-DCA=0.049 cis-1,2-DCE=0.0067	
	BS-MW56-98-2-29.5	29.5			ND	
	BS-MW56-98-2-39.1	39.1			vinyl chloride=0.0074	
	BS-MW56-98-2-49.2	49.2			ND	
	BS-MW56-98-2-53.8	53.8			ND	
MW51-98-5	BS-MW51-98-5-9.3	9.3	May-98	BC	ND	
	BS-MW51-98-5-19.5	19.5			ND	
	BS-MW51-98-5-29.5	29.5			ND	
	BS-MW51-98-5-39.5	39.5			ND	
	BS-MW51-98-5-49.5	49.5			ND	

Table A3.14-1
Soil Samples Collected for Investigation of Groundwater Plumes
Concentrations of Organics and Fuels
(Concentrations in mg/kg)

Location Description	Sample ID	Depth (ft)	Date	Lab	VOCs	Fuel Identification
MW63-98-18	BS-MW63-98-18-4.5	4.5	Sep-98	BC	ND	
	BS-MW63-98-18-9.5	9.5			ND	
	BS-MW63-98-18-19.5	19.5			ND	
	BS-MW63-98-18-34.5	34.5			ND	
SB64-99-4	BS-SB64-99-4-4.5	4.5	May-99	BC	TCE=0.0081	
	BS-SB64-99-4-10.5	10.5			1,1-DCA=0.012 PCE=0.015, TCE=0.024	
	BS-SB64-99-4-15.8	15.8			ND	
	BS-SB64-99-4-19.5	19.5			ND	
SB64-99-5	BS-SB64-99-5-6	6	May-99	BC	ND	
	BS-SB64-99-5-10.8	10.8			ND	
	BS-SB64-99-5-15.7	15.7			ND	
	BS-SB64-99-5-20.3	20.3			ND	
	BS-SB64-99-5-25	25			ND	
SB64-99-6	BS-SB64-99-6-6	6	May-99	BC	ND	
	BS-SB64-99-6-10.5	10.5			ND	
	BS-SB64-99-6-15.6	15.6			ND	
	BS-SB64-99-6-20.8	20.8			ND	
	BS-SB64-99-6-24.8	24.8			ND	
SB64-99-7	BS-SB64-99-7-6	6	May-99	BC	ND	
	BS-SB64-99-7-11	11			ND	
	BS-SB64-99-7-16	16			ND	
	BS-SB64-99-7-21	21			ND	
	BS-SB64-99-7-24.2	24.2			ND	
Other soil sampling not associated with groundwater plumes						
Building 51A	BS-SB51A-98-1-3.8	3.8	Apr-98	BC	PCE=0.0067	
	BS-SB51A-98-1-10.5	10.5			ND	
	BS-SB51A-98-1-20.2	20.2			ND	
	BS-SB51A-98-1-29	29			ND	
MW51-99-1	BS-MW51-99-1-5.7	5.7	Apr-99	BC	1,1,1-TCA=0.0065	
	BS-MW51-99-1-9.2	9.2			PCE=0.023 1,1,1-TCA=0.014	
	BS-MW51-99-1-14.3	14.3			ND	
	BS-MW51-99-1-19	19			1,1,1-TCA=0.0052	
	BS-MW51-99-1-24.3	24.3			ND	
	BS-MW51-99-1-29.3	29.3			1,1,1-TCA=0.0056	
	BS-MW51-99-1-34.3	34.3			ND	
SB51L-99-1	BS-SB51L-99-1-3.2	3.2	Oct-99	BC	PCE=0.012	
	BS-SB51L-99-1-6	6			cis-1,2-DCE=0.043 PCE=0.31, TCE=0.25	
	BS-SB51L-99-1-10.5	10.5			cis-1,2-DCE=0.028 PCE=0.11, TCE=0.42	
	BS-SB51L-99-1-15.4	15.4			cis-1,2-DCE=0.015 TCE=0.0051	
	BS-SB51L-99-1-20.5	20.5			TCE=0.011	
	BS-SB51L-99-1-25.5	25.5			ND	

Table A3.14-1
Soil Samples Collected for Investigation of Groundwater Plumes
Concentrations of Organics and Fuels
(Concentrations in mg/kg)

Location Description	Sample ID	Depth (ft)	Date	Lab	VOCs	Fuel Identification
SB51L-99-1	BS-SB51L-99-1-30.1	30.1	Oct-99	BC	ND	
	BS-SB51L-99-1-34.6	34.6			ND	

ND	= Not detected above reporting limit (reporting limit varies with analyte)
	= Not analyzed

BC = Analysis by BC Laboratories
VOCs analyzed by EPA Method 8260
Fuel Identification analyzed by EPA Method 8015M, included: Light Naptha, Aviation Fuel, Stoddard/White Spirits, Heavy Naptha/ Ligroin/Petroleum Benzin, Gasoline, JP4, JP5, JP8, Kerosene/Jet Fuel, Diesel, Crude/Waste Oil, Hydraulic/Motor Oil, and WD-40

Table A4.3-1
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	MW90-3 (well is on semi-annual sampling)																										
		Dec-92	Mar-93	Jun-93	Aug-93	Nov-93	Mar-94	(D)	Jun-94	Aug-94	Nov-94*	Mar-95*	Jun-95*	Sep-95	Dec-95	(S)*	Feb-96	Aug-96	Dec-96	(D)*	Mar-97	(D)*	Sep-97	Mar-98	Sep-98	Feb-99	Sep-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons																												
Benzene	1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<0.5	<2	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<0.5	<2	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<0.5	<2	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<0.5	<2	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<2	<2	<0.5	<2	<0.5	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
Naphthalene		<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<2	<2	<0.5	<2	<0.5	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<0.5	<2	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
Toluene	150	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane		<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	1.1	<2	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<0.5	<2	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<0.5	<2	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<2	<2	<2	<1	<2	<1	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons																1.1												
Halogenated Non-Aromatic Hydrocarbons																												
Bromodichloromethane	100	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	4.2	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
Chloroethane		<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.5	<0.5	<0.5	<30	<30	<0.5	<30	<30	<30	<0.5	<30	<0.5	<30	<30	<30	<30	<30	<30
Chloroform	100	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	84.9	40.0	32.0	22.4	18.0	10.3	13.5	5.0	4.8	6.5	3.9
1,1-Dichloroethane	5	11.2	2.6	5.5	2.8	5.7	3.4	3.2	2.4	1.8	3.1	2.7	2.6	2.7	2.6	2.6	3.4	<1	<1	0.97	<1	1.0	<1	1.6	1.2	1.1	2.0	1.6
1,2-Dichloroethane	0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<2	<2	<0.5	<2	<0.5	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	10.9	1.5	3.0	1.8	1.9	3.0	2.9	1.3	1.2	1.7	1.5	1.7	1.8	1.8	1.3	1.5	<1	<1	0.59	<1	0.57	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	16.5	8.5	19.6	13.8	16.2	16.7	13.5	11.5	13.4	13.0	13.0	14.0	20.7	22.1	17.0	24.5	<1	11.0	12.0	13.8	14.0	13.6	20.8	16.3	18.2	14.8	15.4
trans-1,2-Dichloroethene	10	9.4	1.2	2.3	1.4	<1	2.1	1.8	1.0	1.3	1.6	1.6	1.6	2.1	2.3	1.7	<1	<1	<1	0.94	<1	1.1	<1	1.4	<1	<1	1.1	1.1
1,2-Dichloropropane	5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	26.7	27.5	32.7	21.3	25.1	28.0	26.9	14.6	22.2	20.0	19.0	19.0	21.3	25.2	19.0	20.8	<1	10.6	12.0	10.3	13.0	11.9	19.6	14.4	13.6	11.8	14.3
1,1,1-Trichloroethane	200	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
Trichloroethene	5	14.6	10.7	21.0	13.8	13.4	20.3	19.7	9.7	19.2	15.0	16.0	18.0	22.1	24.6	21.0	26.6	<1	18.4	17.0	19.1	22.0	18.1	31.0	19.2	18.0	18.2	16.0
Freon-11	150	<1.1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<2	<2	<0.5	<2	<0.5	<2	<2	<2	<2	<2	<2
Freon-113	1200	<0.6	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<5	<1	<0.5	<1	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	6.1	3.3	10.2	4.5	6.0	5.8	5.3	1.7	<1	2.2	2.5	2.8	3.1	2.2	3.8	3.6	<1	<1	0.64	<1	0.92	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		95.4	55.3	94.3	59.4	68.3	79.3	73.3	42.2	59.1	56.6	56.3	59.7	73.8	80.8	66.4	80.4	89.1	80.0	76.14	65.6	70.59	53.9	87.9	56.1	55.7	54.4	52.3
Total Concentration of VOCs		95.4	55.3	94.3	59.4	68.3	79.3	73.3	42.2	59.1	56.6	56.3	59.7	73.8	80.8	67.5	80.4	89.1	80.0	76.14	65.6	70.59	53.9	87.9	56.1	55.7	54.4	52.3

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories

(D) = Duplicate sample
(S) = Split sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	MW90-4 (well is on semi-annual sampling)																							
		Dec-92	Mar-93	Jun-93	Aug-93	Nov-93	Mar-94	May-94	Aug-94	Dec-94*	Feb-95*	Jun-95*	Sep-95	Nov-95	Feb-96	Jun-96	Sep-96	Dec-96	Mar-97	Aug-97	Mar-98	Sep-98	Feb-99	Sep-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons																									
Benzene	1	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5.0	<1
Naphthalene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<5	<1	<1	<1	<1	<1	1.0	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<5	<1	<1	<1	<1	<1	1.0	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons								2.0																5.0	
Halogenated Non-Aromatic Hydrocarbons																									
Bromodichloromethane	100	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane		<5	<5	<5	<5	<5	<5	<5	<5	<0.5	<0.5	<0.5	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
Chloroform	100	<5	<1	<1	<1	<1	<1	1.3	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	11.4	1.9	3.2	2.3	2.3	1.8	2.1	1.0	2.1	2.2	1.9	<1	1.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	1.8	<1	<1	1.4	1.1	1.1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-DCE	10	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<5	<1	<1	<1	<1	<1	1.1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	2.2	<1	<1	<1	<1	<1	<1	<1	<1	<1	2.1	<1
1,1,1-Trichloroethane	200	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<5	1.1	1.6	1.3	1.5	1.8	1.3	1.4	1.0	1.2	0.96	<1	1.7	<1	<1	<1	1.0	<1	<1	1.4	<1	<1	2.8	<1
Freon-11	150	<1.1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
Freon-113	1200	<0.6	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A																					2.5	1.3	1.1	1.7	<1
Vinyl Chloride	0.5	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		11.4	3.0	4.8	3.6	3.8	3.6	5.8	2.4	3.1	3.4	2.86	1.8	5.6		1.4	1.1	2.1			3.9	1.3	1.1	6.6	
Total Concentration of VOCs		11.4	3.0	4.8	3.6	3.8	3.6	7.8	2.4	3.1	3.4	2.86	1.8	5.6		1.4	1.1	2.1			3.9	1.3	1.1	11.6	

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

* = Analysis by BC Laboratories

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	MW90-5 (well is on semi-annual sampling)																												
		Dec-92	Feb-93	Mar-93	(D)	May-93	Jun-93	Sep-93	Dec-93•	Mar-94	Jun-94	Sep-94	Dec-94	Feb-95*	Apr-95*	Nov-95	Feb-96	Jun-96	Jul-96	Nov-96	Mar-97	May-97	Sep-97	Nov-97	Feb-98	May-98	Aug-98	Oct-98	May-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons																														
Benzene	1	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	9.9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.5
Naphthalene		<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane		<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<5	<1	<1	<1	<1	<1	<1	<10.0	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons																		9.9												1.5
Halogenated Non-Aromatic Hydrocarbons																														
Bromodichloromethane	100	<5	<1	<1	<1	<1	<1	<1	<10.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane		<5	<5	<5	<5	<5	<5	<5	<10.0	<5	<5	<5	<30	<0.5	<0.5	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
Chloroform	100	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	2.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	<5	1.0	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	0.69	0.75	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	4.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	1.0	<1	1.8	2.1	11.3	<1	<1	1.1	<1	1.5	<1	<1	<1	<1	<1	<1	<1	1.7	2.2
trans-1,2-DCE	10	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	5.4	1.2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<5	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	7.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon-11	150	<1.1	<1	<1	<1	<1	<1	<1	<5.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Freon-113	1200	<0.6	<1	<1	<1	2.0	<1	<1	<5.0	<1	9.8	<1	<1	<0.5	<0.5	9.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<5	<1	<1	<1	<1	<1	<1	<10.0	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons			1.0			2.0					9.8	1.0		2.49	2.85	35.7	1.2	4.1	1.1		1.5								1.7	2.2
Total Concentration of VOCs			1.0			2.0					9.8	1.0		2.49	2.85	35.7	1.2	14.0	1.1		1.5								1.7	3.7

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
• = Analysis by AEN Laboratory

* = Analysis by BC Laboratories
(D) = Duplicate sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	MW90-6 (well is on annual sampling)														
		Dec-92	Mar-93	Jun-93	Aug-93	Nov-93	Mar-94	Aug-94	Feb-95*	Sep-95	Feb-96	Jul-96	Mar-97	Sep-97	May-98*	May-99
Aromatic and Non-Halogenated Hydrocarbons																
Benzene	1	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
n-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<2	<1	<1	<0.5	<1
sec-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<2	<1	<1	<0.5	<1
ter-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<2	<1	<1	<0.5	<1
Ethylbenzene	700	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<2	<1	<1	<0.5	<1
Isopropylbenzene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<2	<2	<0.5	<2
p-Isopropyltoluene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
Naphthalene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<2	<2	<0.5	<2
n-Propylbenzene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<2	<1	<1	<0.5	<1
Toluene	150	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
1,2,4-Trichlorobenzene	70	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
1,2,3-Trichloropropane		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<2	<1	<1	<0.5	<1
1,2,4-Trimethylbenzene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<2	<1	<1	<0.5	<1
1,3,5-Trimethylbenzene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<2	<1	<1	<0.5	<1
Xylenes, total	1750	<5	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<1	<2
Total Aromatic Hydrocarbons																
Halogenated Non-Aromatic Hydrocarbons																
Bromodichloromethane	100	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
Carbon Tetrachloride	0.5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
Chloroethane		<5	<5	<5	<5	<5	<5	<5	<0.5	<30	<30	<30	<30	<30	<0.5	<30
Chloroform	100	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
1,1-Dichloroethane	5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
1,2-Dichloroethane	0.5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<2	<2	<0.5	<2
1,1-Dichloroethene	6	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
cis-1,2-Dichloroethene	6	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
trans-1,2-Dichloroethene	10	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
1,2-Dichloropropane	5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
Methylene Chloride	5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
1,1,1-Trichloroethane	200	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
1,1,2-Trichloroethane	5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
Trichloroethene	5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
Freon-11	150	<1.1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<2	<2	<0.5	<2
Freon-113	1200	<0.6	<1	<1	<1	<1	<1	<1	<0.5	<5	<1	<1	<1	<1	<0.5	<1
Vinyl Chloride	0.5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1
Total Halogenated Hydrocarbons																
Total Concentration of VOCs																

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

* = Analysis by BC Laboratories

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	MWP-1																														
		Dec-92	Mar-93	Jun-93	Aug-93	Nov-93	Mar-94	May-94	Aug-94	Nov-94*	Feb-95*	May-95*	Aug-95	Nov-95	Feb-96	May-96	Jul-96	Nov-96	Feb-97	May-97	Aug-97	Nov-97	Jan-98	May-98*	Aug-98	Nov-98	Jan-99*	Apr-99	Aug-99	Oct-99	Jan-00	May-00
Aromatic and Non-Halogenated Hydrocarbons																																
Benzene	1	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
n-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
sec-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
ter-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Ethylbenzene	700	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Isopropylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<0.5	<2	<2	<0.5	<2	<2	<2	<2	<2
p-Isopropyltoluene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Naphthalene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<0.5	<2	<2	<0.5	<2	<2	<2	<2	<2
n-Propylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Toluene	150	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Xylenes, total	1750	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<2	<1	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons																																
Halogenated Non-Aromatic Hydrocarbons																																
Carbon Tetrachloride	0.5	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Chloroform	100	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<0.5	<2	<2	<0.5	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	10	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Methylene Chloride	5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Trichloroethene	5	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Freon-113	1200	<0.6	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons																																
Total Concentration of VOCs																																

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

* = Analyzed by BC Laboratories

Area 15 VOC Sum
9/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-92-2 (well is on annual sampling)															
		Dec-92	Mar-93	Jun-93	Aug-93	Oct-93	Feb-94	Aug-94	Feb-95*	Sep-95	Feb-96	Aug-96	Mar-97	Aug-97	May-98*	May-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons																	
Benzene	1	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
n-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<1	<1	<1	<0.5	<1	<1
sec-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<1	<1	<1	<0.5	<1	<1
ter-Butylbenzene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<1	<1	<1	<0.5	<1	<1
Ethylbenzene	700	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<1	<1	<1	<0.5	<1	<1
Isopropylbenzene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<2	<2	<2	<0.5	<2	<2
p-Isopropyltoluene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
Naphthalene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<2	<2	<2	<0.5	<2	<2
n-Propylbenzene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<1	<1	<1	<0.5	<1	<1
Toluene	150	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
1,2,4-Trichlorobenzene	70	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
1,2,4-Trimethylbenzene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<1	<1	<1	<0.5	<1	<1
1,3,5-Trimethylbenzene		<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<2	<1	<1	<1	<0.5	<1	<1
Xylenes, total	1750	<5	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<1	<2	<2
Total Aromatic Hydrocarbons																	
Halogenated Non-Aromatic Hydrocarbons																	
Carbon Tetrachloride	0.5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
Chloroform	100	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
Freon 12		<14.4	<20	<20	<20	<20	<20	<20	<0.5	<5	<2	<2	<3	<3	<0.5	<3	<3
1,1-Dichloroethane	5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
1,2-Dichloroethane	0.5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<2	<2	<2	<0.5	<2	<2
1,1-Dichloroethene	6	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
cis-1,2-Dichloroethene	6	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
trans-1,2-Dichloroethene	10	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
Methylene Chloride	5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
1,1,1-Trichloroethane	200	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
1,1,2-Trichloroethane	5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
Trichloroethene	5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
Freon-113	1200	<0.6	<1	<1	<1	<1	<1	<1	<0.5	<5	<1	<1	<1	<1	<0.5	<1	<1
Vinyl Chloride	0.5	<5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1
Total Halogenated Hydrocarbons																	
Total Concentration of VOCs																	

MCL = Maximum contaminant level for drinking water

All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

* = Analysis by BC Laboratories

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

		PZ51-92-3					
		12'		32'	42'	52'	62'
Constituent	MCL	Nov-93 (G)	Feb-00	Nov-93 (G)	Nov-93 (G)	Nov-93 (G)	Nov-93 (G)
Aromatic and Non-Halogenated Hydrocarbons							
Benzene	1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<1	<2	<1	<1	<1	<1
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1
Naphthalene		<1	<2	<1	<1	<1	<1
n-Propylbenzene		<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<1	<2	<1	<1	<1	<1
Total Aromatic or Non-Halogenated Hydrocarbons							
Halogenated Non-Aromatic Hydrocarbons							
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1
Chloroform	100	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane(Freon 12)		<20	<3	<20	<20	<20	<20
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<1	<2	<1	<1	<1	<1
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<1	<1	<1	<1	<1	<1
Freon-113	1200	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons							
Total Concentration of VOCs							

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
(G) = Grab sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	46A-92-15 (well is on semi-annual sampling)																														
		Oct-92	(D)	Dec-92	Mar-93	May-93	Aug-93	Nov-93	Mar-94	Jun-94	Aug-94	Dec-94*	Mar-95*	Jun-95*	Aug-95	Dec-95	Mar-96	Jun-96	Aug-96	Dec-96*	Mar-97	Jun-97	Aug-97	Nov-97	Mar-98	May-98	Nov-98	Feb-99	May-99	Jun-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons																																
Benzene	1	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	1.2	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<5		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<5		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<5		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<5		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<5		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene		<5		<5	<1	<1	<1*	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<5		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	1.2	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzen	70	<5		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane		<5		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<5		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<5		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons														1.2												1.2					
Halogenated Non-Aromatic Hydrocarbons																																
Bromodichloromethan	100	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane		<5	<2	<5	<5	<5	<5	<5	<5	<5	<5	1.1	0.7	0.96	<30	<30	<30	<30	<30	0.60	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
Chloroform	100	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	<5	4.8	<5	1.8	2.0	4.5	1.8	2.8	1.6	1.2	1.6	1.4	1.7	1.7	1.4	1.5	<1	<1	1.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<5	<2	<5	<1	<1	<1	<1	<1	1.7	3.8	2.2	0.82	3.4	5.7	17.4	11.8	10.1	12.2	13.0	5.1	7.4	5.7	8.3	10.7	1.2	<1	2.8	<1	<1	<1
trans-1,2-Dichloroethene	10	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	0.98	0.73	1.1	1.6	4.5	2.3	3.2	2.8	2.8	1.1	1.4	1.4	1.7	1.1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<5	<2	<5	<1	<1	<1	<1	<1	<1	10.8	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	2.2	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<5	<2	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	1.8	1.5	1.5	<1	<0.5	<1	<1	<1	<1	<1	<1	1.2	<1	<1	<1	<1
Freon-11	150	<2	<2	<1.1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Freon-113	1200	<1		<0.6	<1	<1	<1	<1	<1	5.9	<1	<0.5	<0.5	<0.5	<5	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	19.3	21.0	11.7	5.4	2.4	5.4	8.2	10.9	11.3	3.1	7.8	3.3	9.2	9.6	15.9	10.1	7.6	10.1	12.0	3.8	7.2	6.3	11.0	9.5	<1	1.2	3.9	<1	<1	<1
Total Halogenated Hydrocarbon		19.3	25.8	11.7	7.2	4.4	9.9	10.0	13.7	20.5	18.9	13.68	6.95	16.36	18.6	41.0	27.2	22.4	25.1	29.4	10.0	16.0	13.4	21.0	21.3	1.2	4.6	6.7			
Total Concentration of VOCs		19.3	26	11.7	7.2	4.4	9.9	10.0	13.7	20.5	18.9	13.68	6.95	17.56	18.6	41.0	27.2	22.4	25.1	29.4	10.0	16.0	13.4	21.0	21.3	2.4	4.6	6.7			

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

* = Analysis by BC Laboratories
(D) Duplicate result analyzed by Chromalab, EPA Method 8240

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	71-93-1 (well is on semi-annual sampling)																					
		Oct-93	(D)*	Mar-94	Jun-94	Aug-94	(D)	Dec-94*	Mar-95*	Jun-95*	Aug-95	Dec-95	Feb-96	Jun-96	Aug-96	Dec-96	Feb-97	Aug-97	Mar-98	Sep-98	Feb-99	Aug-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons																							
Benzene	1	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<1	<1.0	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons																							
Halogenated Non-Aromatic Hydrocarbons																							
Bromodichloromethane	100	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane		<5	<0.5	<5	<5	<5	<5	<0.5	<0.5	<0.5	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
Chloroform	100	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.5	<1
1,1-Dichloroethane	5	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	11.1	9.5	11.8	10.1	3.8	5.3	15.0	3.5	4.5	9.2	6.2	3.6	4.5	4.3	4.2	1.5	1.8	<1	1.5	1.0	2.4	<1
cis-1,2-Dichloroethene	6	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	10	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<0.5	1.8	<1	<1	<1	<0.5	<0.5	1.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	18.9	16.0	16.8	15.8	5.3	8.0	13.0	4.5	4.9	6.3	3.9	2.7	3.7	3.6	2.8	1.1	1.2	<1	<1	<1	1.0	<1
1,1,2-Trichloroethane	5	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<1	<0.5	1.1	<1	<1	<1	0.53	<0.5	0.52	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon-11	150	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
Freon-113	1200	<1		11.9	4.3	<1	<1	<0.5	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		30.0	25.5	43.4	30.2	9.1	13.3	28.53	8.0	11.02	15.5	10.1	6.3	8.2	7.9	7.0	2.6	3.0		1.5	1.0	4.9	
Total Concentration of VOCs		30.0	25.5	43.4	30.2	9.1	13.3	28.53	8.0	11.02	15.5	10.1	6.3	8.2	7.9	7.0	2.6	3.0		1.5	1.0	4.9	

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

* = Analysis by BC Laboratories
(D) = Duplicate sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	71-93-2 (well is on semi-annual sampling)																												
		Oct-93	(D)*	Mar-94	Jun-94	Aug-94	(D)	Dec-94*	Feb-95*	May-95*	Aug-95	(D)*	Dec-95	(D)*	Feb-96	Jun-96	Aug-96	Nov-96	Mar-97	Jun-97	Sep-97	Dec-97	Feb-98	Jun-98	(S)*	Sep-98	Nov-98	Feb-99	May-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons																														
Benzene	1	<1	<0.5	<1	1.3	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Isopropylbenzene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<0.5	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Naphthalene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<0.5	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Toluene	150	<1	<0.5	<1	1.8	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
1,2,3-Trichloropropane		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Xylenes, total	1750	<1	<1.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<1	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons					3.1																									
Halogenated Non-Aromatic Hydrocarbons																														
Bromodichloromethane	100	<1	<0.5	<1	<1	<1	<1	1.2	1.0	1.5	2.8	2.4	2.3	2.2	1.3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Chloroethane		<5	<0.5	<5	<5	<5	<5	<0.5	<0.5	<0.5	<30	<0.5	<30	<0.5	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<0.5	<30	<30	<30	<30	<30
Chloroform	100	<1	0.8	<1	<1	<1	<1	20.0	17.0	26.0	65.0	47.0	65.6	52.0	53.1	11.2	11.9	13.0	5.4	4.8	4.5	4.8	2.2	1.5	1.3	1.6	1.9	<1	<1	<1
1,1-Dichloroethane	5	<1	1.0	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.99	<1	<1	<1	<1	1.0
1,2-Dichloroethane	0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<0.5	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<0.5	1.4	<1	3.3	1.4	0.99	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<0.5	1.3	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	1.2	<1	<1	1.0	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
trans-1,2-DCE	10	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	0.9	2.1	15.3	1.0	<1	0.52	0.93	<0.5	<1	<0.5	<1	<0.5	1.2	16.0	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	1.2
1,1,1-Trichloroethane	200	7.4	6.8	5.1	<1	2.7	2.9	1.3	1.1	1.3	<1	<0.5	<1	1.2	1.2	1.9	<1	<1	2.5	2.4	1.1	1.1	2.2	4.6	4.7	2.7	2.6	3.3	4.4	5.8
1,1,2-Trichloroethane	5	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Trichloroethene	5	10.9	11.0	24.9	9.8	11.4	12.9	5.5	3.4	2.4	3.5	3.4	2.1	2.4	1.3	22.4	7.9	10.1	16.9	10.9	8.3	10.9	7.8	11.6	13.0	7.4	12.8	17.1	15.0	18.6
Freon-11	150	2.0	<0.5	2.4	<1	<1	<1	0.87	1.3	1.8	<1	0.89	<1	<0.5	1.1	1.6	1.6	<2	<2	<2	<2	<2	2.3	<2	3.5	<2	<2	<2	2.4	<2
Freon-113	1200	1604.9	1000†	3816.0	8250.0	4198.7	6984.1	1200.0	610.0	370.0	593.0	320.0	290.0	260.0	665.0	203.0	306.0	175.0	141.0	140.0	44.5	33.5	24.7	43.5	25.0	20.8	38.4	20.7	20.4	11.3
Vinyl Chloride	0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbon		1625.2	1020.5	3853.2	8275.1	4217.1	9001.3	1230.4	634.73	403.0	664.3	373.7	360.0	317.8	724.2	257.3	327.4	198.1	166.8	158.1	58.4	50.3	39.2	61.2	48.49	32.5	55.7	41.1	42.2	37.9
Total Concentration of VOCs		1625.2	1020.5	3853.2	8278.2	4217.1	9001.3	1230.4	634.73	403.0	664.3	373.7	360.0	317.8	724.2	257.3	327.4	198.1	166.8	158.1	58.4	50.3	39.2	61.2	48.49	32.5	55.7	41.1	42.2	37.9

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

* = Analysis by BC Laboratories
† = Tentatively identified compound
(D) = Duplicate sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51B-93-18A (well is on semi-annual sampling)																				
		Jun-94*	(D)†	Sep-94	Dec-94*	Mar-95*	Jun-95*	(D)*	(S)*	Aug-95	Nov-95	Feb-96	Jun-96	Sep-96	Dec-96*	Mar-97	Jun-97	Mar-98	Sep-98	Feb-99	Sep-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons																						
Benzene	1	<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<0.5	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Naphthalene		<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<0.5	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzen	70	<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<1.0	<10	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<1	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons																						
Halogenated Non-Aromatic Hydrocarbons																						
Carbon Tetrachloride	0.5	<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Freon 12		<0.5	<5	<20	<0.5	0.66	<0.5	<0.5	<0.5	<5	<2	<2	<2	<2	<0.5	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	1.8	<5	1.7	1.2	<0.5	1.4	1.2	1.4	2.8	4.2	1.3	3.7	2.0	2.3	3.1	1.9	2.9	1.3	5.6	7.2	6.9
1,2-Dichloroethane	0.5	<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<0.5	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	1.6	3.0	<1	2.1	<1	1.5	1.6	1.3	2.0	<1	2.7	3.2	3.6
cis-1,2-Dichloroethene	6	8.6	13.0	4.0	3.8	<0.5	6.7	5.0	6.3	18.1	21.9	2.5	19.6	6.5	8.0	12.1	7.7	11.1	4.8	14.7	10.1	13.0
trans-1,2-Dichloroethe	10	<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	1.6	<1	1.2	<1	0.7	<1	<1	<1	<1	<1	1.2	1.5
Methylene Chloride	5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	1.0	<5	<1	0.76	0.55	0.68	<0.5	<0.5	<1	<1	4.2	2.1	2.7	<0.5	<1	<1	<1	<1	<1	1.4	1.7
1,1,1-Trichloroethane	200	<0.5	<5	<1	3.8	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<0.5	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	12.0	14.0	16.4	5.6	2.4	7.0	5.2	6.3	23.5	34.6	5.4	22.0	13.3	35.0	24.9	73.3	69.8	49.9	48.5	61.8	45.0
Freon-113	1200	<0.5		<1	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1
Freon-123A																		<1	<1	1.2	1.8	<1
Vinyl Chloride	0.5	<0.5	<10	<1	<0.5	<0.5	<0.5	<0.5	<0.5	1.9	<1	<1	<1	<1	0.63	<1	<1	<1	<1	<1	<1	1.4
Total Halogenated Hydrocarbons		23.4	27.0	22.1	15.16	3.61	15.78	11.4	14.0	49.1	65.3	13.4	50.7	24.5	48.13	41.7	84.2	85.8	56.0	72.7	86.7	73.1
Total Concentration of VOCs		23.4	27.0	22.1	15.16	3.61	15.78	11.4	14.0	49.1	65.3	13.4	50.7	24.5	48.13	41.7	84.2	85.8	56.0	72.7	86.7	73.1

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

* = Analysis by BC Laboratories
† = Analysis by AEN

(D) = Duplicate sample
(S) = Split sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	46A-93-19 (well is on annual sampling)																		
		Apr-94	(D)*	Jun-94	Aug-94	Dec-94*	Mar-95*	(D)†	May-95*	Aug-95	(D)*	Nov-95	Feb-96	May-96	Aug-96	Dec-96*	Mar-97	May-97	May-98*	May-99
Aromatic and Non-Halogenated Hydrocarbons																				
Benzene	1	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
n-Butylbenzene		<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1
sec-Butylbenzene		<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1
ter-Butylbenzene		<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1
Ethylbenzene	700	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1
Isopropylbenzene		<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<2	<0.5	<2	<2	<0.5	<2
p-Isopropyltoluene		<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
Naphthalene		<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<2	<0.5	<2	<2	<0.5	<2
n-Propylbenzene		<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1
Toluene	150	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
1,2,4-Trichlorobenzene	70	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
1,2,3-Trichloropropane		<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1
1,2,4-Trimethylbenzene		<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1
1,3,5-Trimethylbenzene		<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1
Xylenes, total	1750	<1	<1.0	<1	<1	<1	<1	<10	<1	<1	<1	<2	<2	<2	<2	<1	<2	<2	<1	<2
Total Aromatic Hydrocarbons																				
Halogenated Non-Aromatic Hydrocarbons																				
Bromodichloromethane	100	<1	<0.5	<1	<1	<0.5	<0.5	<10	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
Carbon Tetrachloride	0.5	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
Chloroethane		<5	<0.5	<5	<5	<0.5	<0.5	<10	<0.5	<30	<0.5	<30	<30	<30	<30	<0.5	<30	<30	<0.5	<30
Chloroform	100	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
1,1-Dichloroethane	5	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
1,2-Dichloroethane	0.5	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<2	<0.5	<2	<2	<0.5	<2
1,1-Dichloroethene	6	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
cis-1,2-Dichloroethene	6	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
trans-1,2-Dichloroethene	10	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
1,2-Dichloropropane	5	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
Methylene Chloride	5	<1	<0.5	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	12.8	0.6	<1	<1	<0.5	<1
1,1,1-Trichloroethane	200	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
1,1,2-Trichloroethane	5	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
Trichloroethene	5	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	1.1	<0.5	<1	<1	<0.5	<1
Freon-11	150	<1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<1	<0.5	<1	<1	<1	<2	<0.5	<2	<2	<0.5	<2
Freon-113	1200	<1	<0.5	<1	<1	<0.5	0.61		<0.5	<5	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
Vinyl Chloride	0.5	<1	<0.5	<1	<1	<0.5	<0.5	<10	<0.5	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1
Total Halogenated Hydrocarbons							0.61								13.9	0.6				
Total Concentration of VOCs							0.61								13.9	0.6				

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

* = Analysis by BC Laboratories
† = Analysis by AEN
(D) = Duplicate sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	71-94-1 (well is on semi-annual sampling)																										
		Jun-94*	(D)†	Aug-94	Dec-94*	Feb-95*	May-95*	(D)	Jun-95*	Aug-95	Dec-95	Feb-96	(D)*	Jun-96	Aug-96	(D)*	Nov-96	Mar-97	Jun-97	Sep-97	Nov-97	Feb-98	Jun-98	Sep-98	Nov-98	Feb-99	May-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons																												
Benzene	1	<0.5	<5	<1	<0.5	<0.5	<0.5	<1	0.79	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<2	<2	<0.5	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<2	<2	<0.5	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<2	<2	<0.5	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<2	<2	<0.5	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<1	<1	<0.5	<1	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene		<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<1	<1	<0.5	<1	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<2	<2	<0.5	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<0.5	<5	<1	<0.5	<0.5	<0.5	<1	1.3	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane		<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<2	<2	<0.5	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<2	<2	<0.5	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<2	<2	<0.5	<2	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<1.0	<10	<1	<1	<1	<1	<1	<1	<1	<2	<2	<1	<2	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons									2.09																			
Halogenated Non-Aromatic Hydrocarbons																												
Bromodichloromethane	100	<0.5	<10	<1	0.85	1.0	<0.5	6.6	1.7	2.8	2.4	1.6	1.7	<1	<1	0.74	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane		<0.5	<10	<5	<0.5	<0.5	<0.5	<30	<0.5	<30	<30	<30	<0.5	<30	<30	<0.5	<30	<90	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
Chloroform	100	<0.5	<5	<1	13.0	18.0	36.0	42.4	32.0	52.8	66.9	38.6	34.0	21.7	17.7	17.0	15.4	8.1	8.0	5.0	4.5	1.9	2.4	1.5	1.6	<1	1.2	<1
1,1-Dichloroethane	5	<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<1	<1	<0.5	<1	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	0.97	<5	<1	0.93	<0.5	<0.5	<1	0.93	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-DCE	10	<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<0.5	<5	<1	<0.5	<0.5	<0.5	<1	1.0	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	1.7	<5	<1	1.2	0.65	<0.5	<1	0.73	<1	<1	<1	<0.5	1.3	<1	0.82	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<0.5	<5	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	4.2	<5	3.0	3.1	1.7	<0.5	2.0	1.6	1.3	1.1	<1	0.84	1.9	2.4	2.8	1.9	2.7	3.2	1.8	1.5	<1	2.1	2.0	<1	1.0	2.9	2.1
Freon-11	150	<0.5	<5	<1	0.55	<0.5	<0.5	3.9	0.53	<1	<1	<1	<0.5	<1	<2	0.76	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Freon-113	1200	620.0		1842.5	940.0	330.0	290.0	335.0	210.0	360.0	240.0	181.0	41.0	180.0	158.0	90.0	113.0	84.4	77.4	31.6	40.3	16.3	25.3	16.3	16.3	6.7	13.7	15.6
Vinyl Chloride	0.5	<0.5	<10	<1	<0.5	<0.5	<0.5	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		626.9		1845.5	959.63	351.35	326.0	389.9	248.49	416.9	310.4	221.2	77.54	204.9	178.1	112.12	130.3	95.2	88.6	38.4	46.3	18.2	29.8	19.8	17.9	7.7	17.8	17.7
Total Concentration of VOCs		626.9		1845.5	959.63	351.35	326.0	389.9	250.58	416.9	310.4	221.2	77.54	204.9	178.1	112.12	130.3	95.2	88.6	38.4	46.3	18.2	29.8	19.8	17.9	7.7	17.8	17.7

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

† = Analysis by AEN
* = Analysis by BC Laboratories
(D) = Duplicate sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-94-11 (well is on semi-annual sampling)																	
		Dec-94	(D)*	Feb-95*	(D)†	Jun-95	Sep-95	Nov-95	Feb-96	Jun-96	Aug-96	Dec-96	Feb-97	May-97	Feb-98	Aug-98	Feb-99	Aug-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons																			
Benzene	1	<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<0.5	<0.5	<5	<1	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<0.5	<0.5	<5	<1	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<0.5	<0.5	<5	<1	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<0.5	<0.5	<5	<1	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene		<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<0.5	<0.5	<5	<1	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane		<1	<0.5	<0.5	<5	<1	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<0.5	<0.5	<5	<1	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<0.5	<0.5	<5	<1	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<1	<1	<1	<10	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons																			
Halogenated Non-Aromatic Hydrocarbons																			
Bromodichloromethane	100	<1	<0.5	<0.5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane		<30	<0.5	<0.5	<10	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
Chloroform	100	<1	4.4	. 1.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	10	<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	2.1	<0.5	<5	<1	<1	<1	3.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<1	1.1	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon-11	150	<1	<0.5	<0.5	<5	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
Freon-113	1200	10.4	1.8	1.3		<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A															<1	1.6	<1	1.6	<1
Vinyl Chloride	0.5	<1	<0.5	<0.5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		10.4	9.4	2.8					3.4							1.6		1.6	
Total Concentration of VOCs		10.4	9.4	2.8					3.4							1.6		1.6	

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

† = Analysis by AEN
* = Analysis by BC Laboratories
(D) = Duplicate sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	46-94-16 (well is on annual sampling)													
		Dec-94	(D)*	Mar-95*	Jun-95	Sep-95	Nov-95	Feb-96	May-96	Jul-96	Dec-96	Mar-97	May-97	May-98*	Apr-99
Aromatic and Non-Halogenated Hydrocarbons															
Benzene	1	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
n-Butylbenzene		<1	<0.5	<0.5	<1	<1	<2	<2	<2	<2	<1	<1	<1	<0.5	<1
sec-Butylbenzene		<1	<0.5	<0.5	<1	<1	<2	<2	<2	<2	<1	<1	<1	<0.5	<1
ter-Butylbenzene		<1	<0.5	<0.5	<1	<1	<2	<2	<2	<2	<1	<1	<1	<0.5	<1
Ethylbenzene	700	<1	<0.5	<0.5	<1	<1	<2	<2	<2	<2	<1	<1	<1	<0.5	<1
Isopropylbenzene		<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<2	<2	<2	<0.5	<2
p-Isopropyltoluene		<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
Naphthalene		<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<2	<2	<2	<0.5	<2
n-Propylbenzene		<1	<0.5	<0.5	<1	<1	<2	<2	<2	<2	<1	<1	<1	<0.5	<1
Toluene	150	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
1,2,4-Trichlorobenzene	70	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
1,2,4-Trimethylbenzene		<1	<0.5	<0.5	<1	<1	<2	<2	<2	<2	<1	<1	<1	<0.5	<1
1,3,5-Trimethylbenzene		<1	<0.5	<0.5	<1	<1	<2	<2	<2	<2	<1	<1	<1	<0.5	<1
Xylenes, total	1750	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<1	<2
Total Aromatic Hydrocarbons															
Halogenated Non-Aromatic Hydrocarbons															
Carbon Tetrachloride	0.5	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
Chloroform	100	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
Freon 12		<20	<0.5	<0.5	<5	<5	<2	<2	<2	<2	<2	<3	<3	<0.5	<3
1,1-Dichloroethane	5	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
1,2-Dichloroethane	0.5	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<2	<2	<2	<0.5	<2
1,1-Dichloroethene	6	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
cis-1,2-Dichloroethene	6	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
trans-1,2-Dichloroethene	10	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
1,1,1-Trichloroethane	200	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
1,1,2-Trichloroethane	5	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
Trichloroethene	5	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
Freon-113	1200	<1	<0.5	<0.5	<5	<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
Vinyl Chloride	0.5	<1	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
Total Halogenated Hydrocarbons															
Total Concentration of VOCs															

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All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

* = Analysis by BC Laboratories
(D) = Duplicate sample

Area 9 VOC Sum
9/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	71-95-1 (well is on annual sampling) May-95*	(D)†	Aug-95	Dec-95	Feb-96	Jun-96	Jul-96	Dec-96	Mar-97	May-97	May-98*	Feb-99	May-99
Aromatic and Non-Halogenated Hydrocarbons														
Benzene	1	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
n-Butylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<1	<1	<1	<0.5	<1	<1
sec-Butylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<1	<1	<1	<0.5	<1	<1
ter-Butylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<1	<1	<1	<0.5	<1	<1
Ethylbenzene	700	<0.5	<5	<1	<2	<2	<2	<1	<1	<1	<1	<0.5	<1	<1
Isopropylbenzene		<0.5	<5	<1	<1	<1	<1	<2	<2	<2	<2	<0.5	<2	<2
p-Isopropyltoluene		<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
Naphthalene		<0.5	<5	<1	<1	<1	<1	<2	<2	<2	<2	<0.5	<2	<2
n-Propylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<1	<1	<1	<0.5	<1	<1
Toluene	150	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
1,2,4-Trichlorobenzene	70	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
1,2,3-Trichloropropane		<0.5	<5	<1	<2	<2	<2	<1	<1	<1	<1	<0.5	<1	<1
1,2,4-Trimethylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<1	<1	<1	<0.5	<1	<1
1,3,5-Trimethylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<1	<1	<1	<0.5	<1	<1
Xylenes, total	1750	<1	<10	<1	<2	<2	<2	<2	<2	<2	<2	<1	<2	<2
Total Aromatic Hydrocarbons														
Halogenated Non-Aromatic Hydrocarbons														
Bromodichloromethane	100	<0.5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
Carbon Tetrachloride	0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
Chloroethane		<0.5	<10	<30	<30	<30	<30	<30	<30	<30	<30	<0.5	<30	<30
Chloroform	100	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
1,1-Dichloroethane	5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
1,2-Dichloroethane	0.5	<0.5	<5	<1	<1	<1	<1	<2	<2	<2	<2	<0.5	<2	<2
1,1-Dichloroethene	6	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
cis-1,2-Dichloroethene	6	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
trans-1,2-Dichloroethene	10	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
1,2-Dichloropropane	5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
Methylene Chloride	5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
1,1,1-Trichloroethane	200	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
1,1,2-Trichloroethane	5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
Trichloroethene	5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
Freon-11	150	<0.5	<5	<1	<1	<1	<1	<2	<2	<2	<2	<0.5	<2	<2
Freon-12		<0.5	<10	<5	<2	<2	<2	<2	<2	<3	<3	<0.5	<3	<3
Freon-113	1200	0.53		<5	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
Vinyl Chloride	0.5	<0.5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1
Total Halogenated Hydrocarbons		0.53												
Total Concentration of VOCs		0.53												

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

† = Analysis by AEN
* = Analysis by BC Laboratories
(D) = Duplicate sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	71-95-8 (well is on annual sampling)																			
		May-95*	(D)†	Aug-95	Dec-95	Mar-96	Jun-96	Aug-96	Aug-96	Dec-96	Mar-97	May-97	Aug-97	Nov-97	Dec-97	Feb-98	May-98*	Aug-98	Nov-98	Jan-99	Apr-99
Aromatic and Non-Halogenated Hydrocarbons																					
Benzene	1	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
n-Butylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
sec-Butylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
ter-Butylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
Ethylbenzene	700	<0.5	<5	<1	<2	<2	<2	<1	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
Isopropylbenzene		<0.5	<5	<1	<1	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<0.5	<2	<2	<2	<2
p-Isopropyltoluene		<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
Naphthalene		<0.5	<5	<1	<1	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<0.5	<2	<2	<2	<2
n-Propylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
Toluene	150	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
1,2,3-Trichloropropane		<0.5	<5	<1	<2	<2	<2	<1	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
Xylenes, total	1750	<1	<10	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<2	<2	<2
Total Aromatic Hydrocarbons																					
Halogenated Non-Aromatic Hydrocarbons																					
Bromodichloromethane	100	<0.5	<10	2.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
Chloroethane		<0.5	<10	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<0.5	<30	<30	<30	<30
Chloroform	100	<0.5	<5	39.1	2.9	2.3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
1,1-Dichloroethane	5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.52	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<0.5	<5	<1	<1	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<0.5	<2	<2	<2	<2
1,1-Dichloroethene	6	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.55	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
trans-1,2-Dichloroethene	10	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
1,2-Dichloropropane	5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
Methylene Chloride	5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<0.5	<5	<1	<1	1.4	3.0	37.8	4.9	2.4	1.1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<0.5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
Trichloroethene	5	<0.5	<5	<1	<1	1.5	1.3	4.1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
Freon-11	150	<0.5	<5	<1	<1	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<0.5	<2	<2	<2	<2
Freon-12		<0.5	<10	<5	<2	<2	<2	<2	<2	<2	<3	<3	<3	<3	<3	<3	0.64	<3	<3	<3	<3
Freon-113	1200	<0.5		<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
Vinyl Chloride	0.5	<0.5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
Total Halogenated Hydrocarbons				41.5	2.9	5.2	4.3	41.9	4.9	2.4	1.1						1.71				
Total Concentration of VOCs				41.5	2.9	5.2	4.3	41.9	4.9	2.4	1.1						1.71				

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

† = Analysis by AEN
* = Analysis by BC Laboratories
(D) = Duplicate sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	71-95-9 (well is on annual sampling)												
		May-95*	(D)†	Aug-95	Dec-95	Feb-96	May-96	Jul-96	Dec-96*	Mar-97	May-97	May-98*	Jan-99	Apr-99
Aromatic and Non-Halogenated Hydrocarbons														
Benzene	1	<0.5	<5	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
n-Butylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1	<1
sec-Butylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1	<1
ter-Butylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1	<1
Ethylbenzene	700	<0.5	<5	<1	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1	<1
Isopropylbenzene		<0.5	<5	<1	<1	<1	<1	<2	<0.5	<2	<2	<0.5	<2	<2
p-Isopropyltoluene		<0.5	<5	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Naphthalene		<0.5	<5	<1	<1	<1	<1	<2	<0.5	<2	<2	<0.5	<2	<2
n-Propylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1	<1
Toluene	150	<0.5	<5	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
1,2,4-Trichlorobenzene	70	<0.5	<5	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
1,2,3-Trichloropropane		<0.5	<5	<1	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1	<1
1,2,4-Trimethylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1	<1
1,3,5-Trimethylbenzene		<0.5	<5	<1	<2	<2	<2	<1	<0.5	<1	<1	<0.5	<1	<1
Xylenes, total	1750	<1	<10	<1	<2	<2	<2	<2	<1	<2	<2	<1	<2	<2
Total Aromatic Hydrocarbons														
Halogenated Non-Aromatic Hydrocarbons														
Bromodichloromethane	100	<0.5	<10	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Carbon Tetrachloride	0.5	<0.5	<5	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Chloroethane		<0.5	<10	<30	<30	<30	<30	<30	<0.5	<30	<30	<0.5	<30	<30
Chloroform	100	<0.5	<5	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
1,1-Dichloroethane	5	<0.5	<5	<1	<1	<1	<1	<1	<0.5	<1	<1	0.94	<1	<1
1,2-Dichloroethane	0.5	<0.5	<5	<1	<1	<1	<1	<2	<0.5	<2	<2	<0.5	<2	<2
1,1-Dichloroethene	6	1.0	<5	<1	<1	1.8	1.1	<1	0.75	<1	<1	<0.5	<1	<1
cis-1,2-Dichloroethene	6	<0.5	<5	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
trans-1,2-Dichloroethene	10	<0.5	<5	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
1,2-Dichloropropane	5	<0.5	<5	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Methylene Chloride	5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	0.64	<5	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
1,1,1-Trichloroethane	200	0.76	<5	<1	<1	1.8	<1	<1	<0.5	<1	<1	0.53	<1	<1
1,1,2-Trichloroethane	5	<0.5	<5	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Trichloroethene	5	<0.5	<5	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Freon-11	150	<0.5	<5	<1	<1	<1	<1	<2	<0.5	<2	<2	0.97	<2	<2
Freon-12		<0.5	<10	<5	<2	<2	<2	<2	<2	<3	<3	<0.5	<3	<3
Freon-113	1200	<0.5		<5	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Vinyl Chloride	0.5	<0.5	<10	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
Total Halogenated Hydrocarbons		2.40				3.6	1.1		0.75			2.44		
Total Concentration of VOCs		2.40				3.6	1.1		0.75			2.44		

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

† = Analysis by AEN
* = Analysis by BC Laboratories
(D) = Duplicate sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-95-17 (well is on annual sampling) Jun-96	(D)*	Aug-96*	(D)	Dec-96*	Mar-97	May-97	Aug-97	Nov-97	Feb-98	May-98	Aug-98	Nov-98	Feb-99	May-99
Aromatic and Non-Halogenated Hydrocarbons																
Benzene	1	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<2	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<2	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<2	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<2	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<1	<0.5	<0.5	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene		<1	<0.5	<0.5	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<2	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<2	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<2	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons																
Halogenated Non-Aromatic Hydrocarbons																
Carbon Tetrachloride	0.5	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon 12		<2	<0.5	<0.5	<2	<0.5	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<1	<0.5	<0.5	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	10	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon-113	1200	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons																
Total Concentration of VOCs																

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All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories

(D) = Duplicate sample

Area 9 VOC Sum
9/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-96-15 (well is on semi-annual sampling)											
		Jan-97	(D)*	Apr-97	Aug-97	Nov-97	Mar-98	Jun-98	Sep-98	Nov-98	Feb-99	May-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons													
Benzene	1	<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<9	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene		<2	<9	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons													
Halogenated Non-Aromatic Hydrocarbons													
Carbon Tetrachloride	0.5	<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon 12		<2	<9	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<9	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	4.4	<9	1.2	<1	<1	<1	1.3	<1	<1	2.4	<1	<1
trans-1,2-Dichloroethene	10	<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	383.0	400.0	35.3	9.7	1.1	3.2	1.2	3.7	3.9	<1	3.0	1.3
1,1,1-Trichloroethane	200	<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	49.5	46.0	6.3	3.5	5.6	4.9	10.0	2.5	2.5	11.8	3.8	7.0
Freon-113	1200	<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		436.9	446.0	42.8	13.2	6.7	8.1	12.5	6.2	6.4	14.2	6.8	8.3
Total Concentration of VOCs		436.9	446.0	42.8	13.2	6.7	8.1	12.5	6.2	6.4	14.2	6.8	8.3

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories

(D) = Duplicate sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-96-16 (well is on semi-annual sampling)												
		Jan-97	(D)*	Jun-97†	Jul-97(G)	Aug-97	Dec-97	Mar-98	Jun-98	Sep-98	Dec-98	Feb-99	Jun-99	Mar-00
Aromatic and Non-Halogenated Hydrocarbons														
Benzene	1	<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
n-Butylbenzene		<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
sec-Butylbenzene		<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
ter-Butylbenzene		<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
Ethylbenzene	700	<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
Isopropylbenzene		<2	<9	<2	<2	<2	<2	<20	<2	<20	<2	<2	<2	<2
p-Isopropyltoluene		<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
Naphthalene		<2	<9	<2	<2	<2	<2	<20	<2	<20	<2	<2	<2	<2
n-Propylbenzene		<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
Toluene	150	<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
Xylenes, total	1750	<2	<20	<2	<2	<2	<2	<20	<2	<20	<2	<2	<2	<2
Total Aromatic Hydrocarbons														
Halogenated Non-Aromatic Hydrocarbons														
Carbon Tetrachloride	0.5	<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
Chloroform	100	<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
Freon 12		<2	<9	<3	<3	<3	<3	<30	<3	<30	<3	<3	<3	<3
1,1-Dichloroethane	5	21.8	20.0	<1	14.9	13.8	17.2	34.4	29.0	17.3	25.2	21.4	22.2	54.5
1,2-Dichloroethane	0.5	<2	<9	<2	<2	<2	<2	<20	<2	<20	<2	<2	<2	<2
1,1-Dichloroethene	6	15.7	16.0	<1	8.2	8.3	29.4	22.6	16.2	<10	10.1	7.6	9.9	12.9
cis-1,2-Dichloroethene	6	455.0	380.0	<1	258.0	228.0	277.0	479.0	353.0	338.0	319.0	352.0	367.0	362.0
trans-1,2-Dichloroethene	10	51.1	39.0	<1	34.2	30.3	<1	64.7	49.5	25.0	29.4	26.5	36.9	53.9
Methylene Chloride	5	<1	<20	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
Tetrachloroethene	5	26.9	24.0	<1	13.7	14.6	20.3	30.2	20.8	16.7	16.0	13.2	14.5	29.2
1,1,1-Trichloroethane	200	<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
Trichloroethene	5	194.0	160.0	<1	101.0	87.6	131.0	225.0	154.0	114.0	121.0	111.0	134.0	146.0
Freon-113	1200	<1	<9	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1
Vinyl Chloride	0.5	73.0	66.0	<1	73.1	68.5	37.3	104.0	58.0	29.7	34.1	34.7	58.1	92.8
Total Halogenated Hydrocarbons		837.5	705.0		503.1	451.1	512.2	959.9	680.5	540.7	554.8	566.4	642.6	751.3
Total Concentration of VOCs		837.5	705.0		503.1	451.1	512.2	959.9	680.5	540.7	554.8	566.4	642.6	751.3

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories
†Results are questionable, well was resampled to confirm sampling error.

(D) = Duplicate sample
(G) = Grab sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-96-17 (well is on semi-annual sampling)											
		Jan-97	(D)*	May-97	Aug-97	Nov-97	Mar-98	Jun-98	Sep-98	Dec-98	Feb-99	Jun-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons													
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<1*	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene		<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons													
Halogenated Non-Aromatic Hydrocarbons													
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon 12		<2	<1	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	9.1	9.1	8.4	7.1	4.5	8.6	6.7	6.2	5.2	4.4	4.0	5.4
1,2-Dichloroethane	0.5	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	3.7	4.7	3.8	3.2	<1	4.1	3.3	2.5	1.6	1.3	<1	1.5
cis-1,2-Dichloroethene	6	46.7	42.0	39.6	24.7	10.4	37.8	35.0	40.6	23.0	19.3	14.4	19.2
trans-1,2-Dichloroethene	10	35.2	26.0	27.6	24.5	6.0	32.5	32.6	28.4	19.7	15.6	12.5	22.8
Methylene Chloride	5	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	9.3	10.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	1.5	2.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	35.6	30.0	21.4	20.1	6.2	29.5	20.0	18.2	13.8	11.7	9.0	12.8
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	35.6	37.0	18.2	43.7	<1	45.6	52.5	70.0	27.9	21.1	6.2	30.8
Total Halogenated Hydrocarbons		176.7	160.9	119.0	123.3	27.1	158.1	150.1	165.9	91.2	73.4	46.1	92.5
Total Concentration of VOCs		176.7	160.9	119.0	123.3	27.1	158.1	150.1	165.9	91.2	73.4	46.1	92.5

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories

(D) = Duplicate sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-96-18 (well is on semi-annual sampling)														
		Jan-97	(D)*	Feb-97	Apr-97	Aug-97	Dec-97	(D)*	Mar-98	Jun-98	(D)*	Sep-98	Dec-98	Mar-99	Jun-99	Mar-00
Aromatic and Non-Halogenated Hydrocarbons																
Benzene	1	<1	<30	<50	<1	<100	<10	<0.5	<100	<100	<0.5	<50	<10	<10	<10	<10
n-Butylbenzene		<1	<30	<50	<1	<100	<10	<0.5	<100	<100	<0.5	<50	<10	<10	<10	<10
sec-Butylbenzene		<1	<30	<50	<1	<100	<10	<0.5	<100	<100	<0.5	<50	<10	<10	<10	<10
ter-Butylbenzene		<1	<30	<50	<1	<100	<10	<0.5	<100	<100	<0.5	<50	<10	<10	<10	<10
Ethylbenzene	700	<1	<30	<50	<1	<100	<10	<0.5	<100	<100	<0.5	<50	<10	<10	<10	<10
Isopropylbenzene		<2	<30	<100	<2	<200	<20	<0.5	<200	<200	<0.5	<100	<20	<20	<20	<20
p-Isopropyltoluene		<1	<30	<50	<1	<100	<10	<0.5	<100	<100	<0.5	<50	<10	<10	<10	<10
Naphthalene		<2	<30	<100	<2	<200	<20	<0.5	<200	<200	<0.5	<100	<20	<20	<20	<20
n-Propylbenzene		<1	<30	<50	<1	<100	<10	<0.5	<100	<100	<0.5	<50	<10	<10	<10	<10
Toluene	150	<1	<30	<50	<1	<100	<10	0.70	<100	<100	<0.5	<50	<10	<10	<10	<10
1,2,4-Trichlorobenzene	70	<1	<30	<50	<1	<100	<10	<0.5	<100	<100	<0.5	<50	<10	<10	<10	<10
1,2,4-Trimethylbenzene		<1	<30	<50	<1	<100	<10	<0.5	<100	<100	<0.5	<50	<10	<10	<10	<10
1,3,5-Trimethylbenzene		<1	<30	<50	<1	<100	<10	<0.5	<100	<100	<0.5	<50	<10	<10	<10	<10
Xylenes, total	1750	<2	<60	<100	<2	<200	<20	<1	<200	<200	<1	<100	<20	<20	<20	<20
Total Aromatic Hydrocarbons								0.70								
Halogenated Non-Aromatic Hydrocarbons																
Carbon Tetrachloride	0.5	<1	<30	<50	<1	<100	<10	<0.5	<100	<100	<0.5	<50	<10	<10	<10	<10
Chloroethane		<30	<30	<1500	<30	<3000	<300	0.72	<3000	<3000	<0.5	<1500	<300	<300	<300	<300
Chloroform	100	2.0	<30	<50	2.0	<100	<10	0.77	<100	<100	0.60	<50	<10	<10	<10	<10
Freon 12		<2	<30	<100	<3	<300	<30	<0.5	<300	<300	<0.5	<100	<30	<30	<30	<30
1,1-Dichloroethane	5	2,070	1,700	2,480	2,120	1,950	3,050	3,100	2,560	1,770	2,000	1,690	1,790	1,500	1,400	819.0
1,2-Dichloroethane	0.5	28.2	<30	<100	26.8	<200	38.3	<0.5	<200	<200	25.0	<100	24.0	<20	<20	15.3
1,1-Dichloroethene	6	330.0	390.0	489.0	419.0	309.0	585.0	730.0	503.0	397.0	500.0	236.0	405.0	216.0	212.0	209.0
cis-1,2-Dichloroethene	6	34.2	32.0	<50	24.4	<100	42.1	60.0	<100	<100	23.0	<50	<10	18.8	20.2	26.6
trans-1,2-Dichloroethene	10	<1	<30	<50	<1	<100	<10	2.4	<100	<100	1.4	<50	<10	<10	<10	<10
Methylene Chloride	5	34.7	<60	<50	<1	<100	<10	11.0	<100	<100	<1	<50	<10	<10	<10	<10
Tetrachloroethene	5	180.0	230.0	215.0	183.0	168.0	238.0	340.0	263.0	188.0	200.0	118.0	173.0	130.0	141.0	202.0
1,1,1-Trichloroethane	200	135.0	180.0	212.0	207.0	159.0	200.0	220.0	200.0	129.0	160.0	66.1	75.0	38.4	<10	102.0
1,1,2-Trichloroethane	5	1.3	<30	<50	1.4	<100	<10	2.3	<100	<100	1.7	<50	<10	<10	<10	<10
Trichloroethene	5	408.0	430.0	479.0	366.0	362.0	601.0	750.0	595.0	387.0	470.0	294.0	459.0	345.0	320.0	298.0
Freon-113	1200	<1	<30	<50	<1	<100	<10	<0.5	<100	<100	<0.5	<50	<10	<10	<10	<10
Vinyl Chloride	0.5	71.2	67.0	<50	2.7	<100	83.6	110.0	<100	<100	3.7	<50	<10	<10	<10	<10
Total Halogenated Hydrocarbons		3,294.6	3,029.0	3,875.0	3,352.3	2,948.0	4,838.0	5,327.2	4,121.0	2,871.0	3,385.4	2,404.1	2,926.0	2,248.2	2,093.2	1,671.9
Total Concentration of VOCs		3,294.6	3,029.0	3,875.0	3,352.3	2,948.0	4,838.0	5,327.9	4,121.0	2,871.0	3,385.4	2,404.1	2,926.0	2,248.2	2,093.2	1,671.9

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

* = Analysis by BC Laboratories
(D) = Duplicate sample

Area 9 VOC Sum
9/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-96-19 (well is on semi-annual sampling)											
		Jan-97	(D)*	Apr-97	Aug-97	Nov-97	Mar-98	Jun-98	Sep-98	Nov-98	Feb-99	May-99	Mar-00
Aromatic and Non-Halogenated Hydrocarbons													
Benzene	1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene		<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	0.76	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons			0.76										
Halogenated Non-Aromatic Hydrocarbons													
Carbon Tetrachloride	0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon 12		<2	<0.5	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	1.9	2.2	<1	<1	1.9	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	1.4	1.9	<1	1.5	3.7	<1	<1	1.3	1.4	<1	<1	<1
trans-1,2-Dichloroethene	10	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	2.1	2.7	1.1	<1	1.9	1.9	4.4	2.0	3.1	2.6	1.8	3.0
1,1,1-Trichloroethane	200	4.9	5.6	4.0	2.0	5.9	2.8	1.4	4.0	5.5	1.1	<1	2.2
1,1,2-Trichloroethane	5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	17.1	16.0	9.8	7.2	15.9	15.5	13.4	7.1	14.8	7.9	5.5	8.3
Freon-113	1200	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		27.4	28.40	14.9	10.7	29.3	20.2	19.2	14.4	24.8	11.6	7.3	13.5
Total Concentration of VOCs		27.4	29.16	14.9	10.7	29.3	20.2	19.2	14.4	24.8	11.6	7.3	13.5

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories

(D) = Duplicate sample

Area 9 VOC Sum
9/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	64-97-1 (well is on semi-annual sampling)										64-97-2 (well is on semi-annual sampling)									
		Jul-97	(D)*	Nov-97	Mar-98	May-98	Sep-98	Nov-98	Feb-99	May-99	Mar-00	Jul-97	(D)*	Nov-97	Mar-98	May-98	Sep-98	Nov-98	Feb-99	May-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons																					
Benzene	1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene		<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons																					
Halogenated Non-Aromatic Hydrocarbons																					
Carbon Tetrachloride	0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Freon 12		<3	<0.5	<3	<3	<3	<3	<3	<3	<3	<3	<3	<0.5	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	<1	0.87	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	1.9	1.6
1,2-Dichloroethane	0.5	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.3	1.0	4.1	6.0	2.0	1.9	2.2	5.9	4.0
cis-1,2-Dichloroethene	6	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	10	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	1.6
1,1,1-Trichloroethane	200	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	1.2	<1	<1	<1	<1	1.1
1,1,2-Trichloroethane	5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	5.0	8.2	4.6	5.6	5.5	2.2	2.8	2.6	2.8	3.9	<1	0.54	<1	1.7	1.8	<1	<1	<1	1.9	2.2
Freon-113	1200	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	1.4	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbon		5.0	9.07	4.6	5.6	5.5	2.2	2.8	2.6	2.8	3.9		1.84	1.0	5.8	10.4	2.0	1.9	2.2	9.7	10.5
Total Concentration of VOCs		5.0	9.07	4.6	5.6	5.5	2.2	2.8	2.6	2.8	3.9		1.84	1.0	5.8	10.4	2.0	1.9	2.2	9.7	10.5

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< = Less than Quantitation Limit
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(D) = Duplicate sample

Area 9 VOC Sum
9/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-97-3 (well is on semi-annual sampling)									
		Aug-97	(D)*	Nov-97	Mar-98	Jun-98	Sep-98	Nov-98	Feb-99	May-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons											
Benzene	1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<3	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons											
Halogenated Non-Aromatic Hydrocarbons											
Carbon Tetrachloride	0.5	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
Freon 12		<3	<2	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	25.7	31.0	8.6	4.4	3.5	<1	1.2	2.2	4.6	7.8
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	33.7	51.0	7.9	3.5	3.2	1.0	2.1	3.3	6.2	8.8
cis-1,2-Dichloroethene	6	15.9	20.0	2.2	1.7	1.5	<1	<1	1.7	3.2	5.0
trans-1,2-Dichloroethene	10	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<2	11.7	5.2	2.8	<1	<1	<1	<1	2.2
1,1,1-Trichloroethane	200	<1	<2	<1	<1	<1	<1	<1	<1	<1	4.3
1,1,2-Trichloroethane	5	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	12.3	18.0	16.1	9.5	5.1	1.2	1.7	1.9	2.6	4.3
Freon-113	1200	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A					<1	<1	<1	<1	<1	3.5	<1
Vinyl Chloride	0.5	5.2	8.3	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		92.8	128.3	46.5	24.3	16.1	2.2	5.0	9.1	20.1	32.4
Total Concentration of VOCs		92.8	128.3	46.5	24.3	16.1	2.2	5.0	9.1	20.1	32.4

Constituent	51-97-4 (well is on semi-annual sampling)									
	Aug-97	(D)*	Nov-97	Mar-98	Jun-98	Sep-98	Nov-98	Jan-99	May-99	Jan-00
Aromatic and Non-Halogenated Hydrocarbons										
Benzene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons										
Halogenated Non-Aromatic Hydrocarbons										
Carbon Tetrachloride	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	7.1	9.0	7.0	2.7	<1	<1	<1	<1	<1	<1
Freon 12	<3	<0.5	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	<1	0.74	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Freon-113	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A				<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons	7.1	9.74	7.0	2.7						
Total Concentration of VOCs	7.1	9.74	7.0	2.7						

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

* = Analysis by BC Laboratories
(D) = Duplicate sample

Area 9 VOC Sum
9/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-97-12 (well is on semi-annual sampling) Oct-97	(D)*	Nov-97	Mar-98	Jun-98	Sep-98	Nov-98	Feb-99	May-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons											
Benzene	1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene		<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons											
Halogenated Non-Aromatic Hydrocarbons											
Carbon Tetrachloride	0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Freon 12		<3	<0.5	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	17.2	13.0	20.5	1.5	3.6	<1	2.0	8.3	7.3	8.5
1,2-Dichloroethane	0.5	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	15.3	14.0	17.5	1.7	4.8	<1	1.9	7.5	7.0	7.7
cis-1,2-Dichloroethene	6	39.6	45.0	49.5	5.0	11.9	1.7	6.6	31.4	25.0	22.3
trans-1,2-Dichloroethene	10	5.4	5.8	6.6	<1	1.8	<1	<1	2.5	2.2	3.3
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<0.5	<1	<1	<1	<1	<1	3.1	<1	<1
1,1,1-Trichloroethane	200	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	8.1	7.4	12.2	1.0	2.8	<1	<1	5.6	2.8	3.1
Freon-113	1200	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A					<1	1.5	<1	<1	2.0	3.2	<1
Vinyl Chloride	0.5	15.6	14.0	21.0	<1	4.9	<1	1.8	6.3	5.1	3.6
Total Halogenated Hydrocarbons		101.2	99.2	127.3	9.2	31.3	1.7	12.3	66.7	52.6	48.5
Total Concentration of VOCs		101.2	99.2	127.3	9.2	31.3	1.7	12.3	66.7	52.6	48.5

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

* = Analysis by BC Laboratories
(D) = Duplicate sample

Area 9 VOC Sum
7/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-97-13 (well is on semi-annual sampling)										
		Oct-97	(D)*	Nov-97	Mar-98	Jun-98	(S)*	Sep-98	Nov-98	Feb-99	May-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons												
Benzene	1	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<0.5	<2	<2	<2	<0.5	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Naphthalene		<2	<0.5	<2	<2	<2	<0.5	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Toluene	150	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	1.5	<1
1,2,4-Trichlorobenzene	70	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<1	<2	<2	<2	<1	<2	<2	<2	2.4	<2
Total Aromatic Hydrocarbons											3.9	
Halogenated Non-Aromatic Hydrocarbons												
Carbon Tetrachloride	0.5	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Chloroform	100	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Freon 12		<3	<0.5	<3	<3	<3	<0.5	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	14.9	12.0	11.3	11.1	1.2	1.1	4.6	8.6	8.9	7.7	9.5
1,2-Dichloroethane	0.5	<2	<0.5	<2	<2	<2	<0.5	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	16.1	16.0	13.6	17.8	3.3	3.1	6.7	11.5	12.3	1.1	12.1
cis-1,2-Dichloroethene	6	6.6	6.9	5.7	5.3	<1	<0.5	2.3	4.8	5.0	3.6	5.4
trans-1,2-Dichloroethene	10	<1	0.56	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	3.3
1,1,2-Trichloroethane	5	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Trichloroethene	5	2.2	2.4	2.0	3.3	<1	<0.5	1.1	1.7	1.7	1.5	3.4
Freon-113	1200	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
Freon-123A					1.6	<1		<1	<1	<1	1.1	<1
Vinyl Chloride	0.5	9.2	10.0	9.8	4.4	<1	0.87	4.9	8.4	5.2	2.2	2.1
Total Halogenated Hydrocarbons		49.0	47.86	42.4	43.5	4.5	5.07	19.6	35.0	33.1	17.2	35.8
Total Concentration of VOCs		49.0	47.86	42.4	43.5	4.5	5.07	19.6	35.0	33.1	21.1	35.8

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

* = Analysis by BC Laboratories
(D) = Duplicate sample

Area 3 VOC Sum
9/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-97-14 (well is on annual sampling)							
		Oct-97	(D)*	Nov-97	Feb-98	May-98*	Nov-98	Jan-99*	Apr-99
Aromatic and Non-Halogenated Hydrocarbons									
Benzene	1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
n-Butylbenzene		<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
sec-Butylbenzene		<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
ter-Butylbenzene		<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
Ethylbenzene	700	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
Isopropylbenzene		<2	<0.5	<2	<2	<0.5	<2	<0.5	<2
p-Isopropyltoluene		<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
Naphthalene		<2	<0.5	<2	<2	<0.5	<2	<0.5	<2
n-Propylbenzene		<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
Toluene	150	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
1,2,4-Trichlorobenzene	70	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
1,2,4-Trimethylbenzene		<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
1,3,5-Trimethylbenzene		<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
Xylenes, total	1750	<2	<1	<2	<2	<1	<2	<1	<2
Total Aromatic Hydrocarbons									
Halogenated Non-Aromatic Hydrocarbons									
Carbon Tetrachloride	0.5	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
Chloroform	100	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
Freon 12		<3	<0.5	<3	<3	<0.5	<3	<0.5	<3
1,1-Dichloroethane	5	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
1,2-Dichloroethane	0.5	<2	<0.5	<2	<2	<0.5	<2	<0.5	<2
1,1-Dichloroethene	6	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
cis-1,2-Dichloroethene	6	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
trans-1,2-Dichloroethene	10	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
1,1,1-Trichloroethane	200	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
1,1,2-Trichloroethane	5	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
Trichloroethene	5	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
Freon-113	1200	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
Vinyl Chloride	0.5	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1
Total Halogenated Hydrocarbons									
Total Concentration of VOCs									

Constituent	51-97-15												
	Oct-97	Oct-97	(D)*	Nov-97	Feb-98	May-98*	Aug-98	Nov-98	Jan-99	Apr-99	Sep-99	Nov-99	Jan-00	May-00
Aromatic and Non-Halogenated Hydrocarbons														
Benzene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene	<2	<2	<0.5	<2	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	<2	<2	<0.5	<2	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<1	<2	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons														
Halogenated Non-Aromatic Hydrocarbons														
Carbon Tetrachloride	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Freon 12	<3	<3	<0.5	<3	<3	<0.5	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	<2	<2	<0.5	<2	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Freon-113	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	<1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons														
Total Concentration of VOCs														

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

* = Analysis by BC Laboratories
(D) = Duplicate sample

Area 9 VOC Sum
9/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-97-16 (well is on semi-annual sampling)									
		Oct-97	(D)*	Nov-97	Mar-98	May-98	Sep-98	Nov-98	Feb-99	May-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons											
Benzene	1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene		<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons											
Halogenated Non-Aromatic Hydrocarbons											
Carbon Tetrachloride	0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Freon 12		<3	<0.5	<3	<3	<3	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	3.2	3.2	1.8	2.1	2.9	2.3	2.3	1.9	3.0	2.3
1,2-Dichloroethane	0.5	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	0.61	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	17.3	17.0	7.2	5.8	6.7	5.2	5.5	4.5	6.3	6.8
trans-1,2-Dichloroethene	10	<1	1.3	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	18.2	20.0	16.1	15.6	13.1	6.8	7.4	6.1	8.6	8.0
Freon-113	1200	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	0.85	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		38.7	42.96	25.1	23.5	22.7	14.3	15.2	12.5	17.9	17.1
Total Concentration of VOCs		38.7	42.96	25.1	23.5	22.7	14.3	15.2	12.5	17.9	17.1

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories
(D) = Duplicate sample

Area 9 VOC Sum
9/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	71-97-23 (well is on semi-annual sampling)									
		Oct-97	(D)*	Nov-97	Mar-98	May-98*	Sep-98	Nov-98	Feb-99	May-99	Feb-00
Aromatic and Non-Halogenated Hydrocarbons											
Benzene	1	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<0.5	<2	<2	<0.5	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Naphthalene		<2	<0.5	<2	<2	<0.5	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Toluene	150	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<1	<2	<2	<1	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons											
Halogenated Non-Aromatic Hydrocarbons											
Bromodichloromethane	100	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Chloroethane		<30	<0.5	<30	<30	<0.5	<30	<30	<30	<30	<30
Chloroform	100	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	1.4	1.8	1.4	1.8	1.6	1.2	1.2	1.0	1.4	2.4
1,2-Dichloroethane	0.5	<2	<0.5	<2	<2	<0.5	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	1.2	<1	1.8	1.4	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	1.3	1.8	1.2	1.9	1.8	1.1	1.2	1.6	1.5	2.5
trans-1,2-Dichloroethene	10	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	1.1
1,2-Dichloropropane	5	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	1.5
1,1,1-Trichloroethane	200	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Trichloroethene	5	5.4	6.7	5.6	9.7	6.5	4.6	5.0	4.8	5.3	9.2
Freon-11	150	<2	<0.5	<2	<2	<0.5	<2	<2	<2	<2	<2
Freon-113	1200	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Freon-123A					3.4		1.3	1.1	1.3	1.9	<1
Vinyl Chloride	0.5	<1	<0.5	<1	<1	<0.5	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		8.1	11.5	8.2	18.6	11.3	8.2	8.5	8.7	10.1	16.7
Total Concentration of VOCs		8.1	11.5	8.2	18.6	11.3	8.2	8.5	8.7	10.1	16.7

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

* = Analysis by BC Laboratories
(D) = Duplicate sample
(G) = Grab sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	56-98-2									64-98-4							
		Jul-98	(D)*	Nov-98	Feb-99	May-99	Sep-99	Nov-99	Feb-00	May-00	Jul-98	(D)*	Dec-98	Mar-99	Jun-99	Sep-99	Nov-99	Mar-00
Aromatic and Non-Halogenated Hydrocarbons																		
Benzene	1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
n-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
sec-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
ter-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
Ethylbenzene	700	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
Isopropylbenzene		<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<50	<20	<1000	<50	<2000	<1000	<200
p-Isopropyltoluene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
Naphthalene		<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<50	<20	<1000	<50	<2000	<1000	<200
n-Propylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
Toluene	150	<1	0.61	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
1,2,4-Trichlorobenzene	70	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
1,2,4-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
1,3,5-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
Xylenes, total	1750	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<100	<20	<1000	<100	<2000	<1000	<200
Total Aromatic Hydrocarbons			0.61															
Halogenated Non-Aromatic Hydrocarbons																		
Carbon Tetrachloride	0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
Chloroform	100	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
Chloroethane		<30	0.97	<30	<30	<30	<30	<30	<30	<30	<30	<50	<300	<15000	<1500	<30000	<15000	<3000
Dibromochloromethane		<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<50	<20	<1000	<50	<2000	<1000	<200
Freon 12		<3	<0.5	<3	<3	<3	<3	<3	<3	<3	<3	<50	<30	<1500	<50	<3000	<1500	<300
1,1-Dichloroethane	5	1.6	2.3	1.2	<1	<1	<1	<1	<1	<1	4350	4400	9110	8120	11,030	16,900	16,400	15,000
1,2-Dichloroethane	0.5	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	25.4	<50	56.3	<500	<50	<2000	<1000	113.0
1,1-Dichloroethene	6	4.0	5.2	2.1	1.1	<1	1.1	<1	<1	1.4	1680	950.0	2780	2930	3670	4990	4570	4100
cis-1,2-Dichloroethene	6	2.0	2.7	1.4	<1	<1	<1	<1	<1	<1	6.0	<50	35.0	<500	<50	<1000	<500	587.0
trans-1,2-Dichloroethene	10	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
Methylene Chloride	5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	79.0	120.0	<10	<500	90.3	<1000	<500	158.0
Tetrachloroethene	5	<1	<0.5	1.3	<1	<1	<1	<1	<1	<1	305.0	300.0	3120	4190	3260	2690	2260	2400
1,1,1-Trichloroethane	200	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	18,900	18,000	24,000	39,600	21,200	31,200	13,000	14,000
1,1,2-Trichloroethane	5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	7.1	<50	<10	<500	<50	<1000	<500	<100
Trichloroethene	5	1.5	1.6	1.2	<1	<1	<1	<1	<1	<1	698.0	680.0	2070	2390	2510	3150	2830	2630
Freon-113	1200	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<50	<10	<500	<50	<1000	<500	<100
Vinyl Chloride	0.5	7.4	9.1	28.5	40.3	14.3	31.8	10.9	18.1	15.8	19.6	<50	24.6	<500	<50	<1000	<500	<100
Total Halogenated Hydrocarbon		16.5	21.87	35.7	41.4	14.3	32.9	10.9	18.1	17.2	26,070	24,450	41,196	57,230	41,760	58,930	39,060	38,988
Total Concentration of VOCs		16.5	22.48	35.7	41.4	14.3	32.9	10.9	18.1	17.2	26,070	24,450	41,196	57,230	41,760	58,930	39,060	38,988

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All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
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(D) = Duplicate sample

Area 9 VOC Sum
9/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-98-5						71B-98-13				
		Jul-99 (G)	Oct-99	(D)*	Nov-99	Mar-00	May-00	Jun-99	(D)*	Sep-99	Nov-99	Mar-00
Aromatic and Non-Halogenated Hydrocarbons												
Benzene	1	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
n-Butylbenzene		<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
sec-Butylbenzene		<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
ter-Butylbenzene		<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
Ethylbenzene	700	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
Isopropylbenzene		<2	<2	<0.5	<2	<2	<2	<2	<0.5	<2	<2	<2
p-Isopropyltoluene		<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
Naphthalene		<2	<2	<0.5	<2	<2	<2	<2	<0.5	<2	<2	<2
n-Propylbenzene		<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
Toluene	150	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
Xylenes, total	1750	<2	<2	<1	<2	<2	<2	<2	<1	<2	<2	<2
Total Aromatic Hydrocarbons												
Halogenated Non-Aromatic Hydrocarbons												
Carbon Tetrachloride	0.5	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
Chloroform	100	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
Dibromochloromethane		<2	<2	<0.5	<2	<2	<2	<1	<0.5	<1	<1	<1
Freon 12		<3	<3	<0.5	<3	<3	<3	<3	<0.5	<3	<3	<3
1,1-Dichloroethane	5	<1	<1	0.50	<1	<1	<1	<1	<0.5	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<0.5	<2	<2	<2	<2	<0.5	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<0.5	<1	<1	<1	<1	1.1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<1	0.58	<1	<1	<1	58.0	45.0	47.5	61.1	51.6
trans-1,2-Dichloroethene	10	<1	<1	<0.5	<1	<1	<1	<1	0.57	<1	<1	<1
Methylene Chloride	5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	0.65	<1	1.1	1.7	146.0	180.0	90.1	112.0	36.1
1,1,1-Trichloroethane	200	<1	<1	<0.5	<1	1.5	4.2	<1	<0.5	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
Trichloroethene	5	2.2	2.2	2.3	2.3	3.0	2.7	86.4	91.0	81.4	79.6	50.4
Freon-113	1200	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<0.5	<1	<1	<1	2.6	4.0	3.9	3.7	7.7
Total Halogenated Hydrocarbons		2.2	2.2	4.03	2.3	5.6	8.6	293.0	321.67	222.9	256.4	145.8
Total Concentration of VOCs		2.2	2.2	4.03	2.3	5.6	8.6	293.0	321.67	222.9	256.4	145.8

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories

(D) = Duplicate sample
(G) = Grab sample

Area 9 VOC Sum
9/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	63-98-18						
		Mar-99	(D)*	May-99	Sep-99	Nov-99	Feb-00	May-00
Aromatic and Non-Halogenated Hydrocarbons								
Benzene	1	<1	<0.5	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<0.5	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<0.5	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<0.5	<1	<1	<1	<1	<1
Naphthalene		<2	<0.5	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<0.5	<1	<1	<1	<1	<1
Toluene	150	<1	<0.5	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<0.5	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<1	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons								
Halogenated Non-Aromatic Hydrocarbons								
Carbon Tetrachloride	0.5	<1	<0.5	<1	<1	<1	<1	<1
Chloroform	100	<1	<0.5	<1	<1	1.9	<1	<1
Dibromochloromethane		<2	0.58	<2	<2	<2	<2	<2
Freon 12		<3	<0.5	<3	<3	<3	<3	<3
1,1-Dichloroethane	5	<1	0.75	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<0.5	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<0.5	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<0.5	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	10	<1	<0.5	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<0.5	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<0.5	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<0.5	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<0.5	<1	<1	<1	<1	<1
Trichloroethene	5	<1	<0.5	<1	<1	<1	<1	<1
Freon-113	1200	<1	<0.5	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	1.4	2.2	2.0	<1	2.0	1.7	1.8
Total Halogenated Hydrocarbons		1.4	3.53	2.0		3.9	1.7	1.8
Total Concentration of VOCs		1.4	3.53	2.0		3.9	1.7	1.8

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted
* = Analysis by BC Laboratories

< = Less than Quantitation Limit
(D) = Duplicate sample

Area 15 VOC Sum
9/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	64-98-19					64-98-20						
		Jul-99	(D)*	Nov-99	Mar-00	Mar-00	Jul-99	(D)*	Dec-99	Mar-00	(D)*	May-00	(D)*
Aromatic and Non-Halogenated Hydrocarbons													
Benzene	1	<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	<0.5
n-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	<0.5
sec-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	<0.5
ter-Butylbenzene		<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	<0.5
Ethylbenzene	700	<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	<0.5
Isopropylbenzene		<2	<0.5	<2	<2	<2	<2	<20	<400	<1000	<30	<400	<0.5
p-Isopropyltoluene		<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	<0.5
Naphthalene		<2	<0.5	<2	<2	<2	<2	<20	<400	<1000	<30	<400	<0.5
n-Propylbenzene		<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	<0.5
Toluene	150	<1	<0.5	<1	<1	<1	4.9	<20	<200	<500	<30	<200	9.2
1,2,4-Trichlorobenzene	70	<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	<0.5
1,2,4-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	<0.5
1,3,5-Trimethylbenzene		<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	<0.5
Xylenes, total	1750	<2	<1	<2	<2	<2	<2	<30	<400	<1000	<50	<400	<1
Total Aromatic Hydrocarbons							4.9						9.2
Halogenated Non-Aromatic Hydrocarbons													
Carbon Tetrachloride	0.5	<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	<0.5
Chloroform	100	<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	12.0
Chloroethane		<1	<0.5	<1	<1	<1	<1	<20	<200	<200	<30	<6000	12.0
Chloromethane		<2	<0.5	<2	<2	<2	<2	<20	<400	<1000	<30	<400	8.4
1,1-Dichloroethane		<1	<0.5	<1	<1	<1	4820	4800	8720	9360	8500	9610	9400
1,2-Dichloroethane	5	<2	<0.5	<2	<2	<2	40.3	45.0	<400	<1000	84.0	<400	97.0
1,1-Dichloroethene	0.5	3.1	<0.5	<1	<1	<1	2370	600.0	8680	4160	2300	4840	3500
cis-1,2-Dichloroethene	6	<1	<0.5	<1	<1	<1	2.3	<20	242.0	<500	<30	<200	11.0
trans-1,2-Dichloroethene	6	<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	<0.5
Methylene Chloride	10	<1	<0.5	<1	<1	<1	110.0	91.0	210.0	<500	250.0	<200	342.0
1,1,2,2-Tetrachloroethene	5	<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	10.0
Tetrachloroethene	5	<1	<0.5	<1	1.8	1.2	747.0	980.0	2800	4850	3300	4500	6000
1,1,1-Trichloroethane	200	<1	2.3	1.6	10.5	6.5	77,800	81,000	86,400	80,500	85,000	94,100	110,000
1,1,2-Trichloroethane	5	<1	<0.5	<1	<1	<1	6.4	<20	<200	<500	<30	<200	14.0
Trichloroethene	5	<1	<0.5	<1	<1	<1	1500	1200	3600	4010	3100	4380	5100
Freon-113	1200	<1	<0.5	<1	<1	<1	<1	<20	<200	<500	<30	<200	<0.5
Vinyl Chloride	0.5	<1	<0.5	<1	<1	<1	6.5	<20	<200	<500	56.0	<200	44.0
Total Halogenated Hydrocarbons		3.1	2.3	1.6	12.3	7.7	87,402.5	88,716	110,652	102,880	102,590	117,430	134,550
Total Concentration of VOCs		3.1	2.3	1.6	12.3	7.7	87,407.4	88,716	110,652	102,880	102,590	117,430	134,560

MCL = Maximum contaminant level for drinking water
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< = Less than Quantitation Limit
* = Analysis by BC Laboratories
(D) = Duplicate sample

(D) = Duplicate sample
(G) = Grab sample

Area 9 VOC Sum
9/19/00

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-99-1				71B-99-3				
		Nov-99 (G)	Dec-99	(D)*	May-00	Jul-99 (G)	Oct-99	Dec-99	(D)*	Jan-00 (G)
Aromatic and Non-Halogenated Hydrocarbons										
Benzene	1	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
n-Butylbenzene		<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
sec-Butylbenzene		<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
ter-Butylbenzene		<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
Ethylbenzene	700	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
Isopropylbenzene		<2	<2	<0.5	<2	<2	<2	<2	<0.5	<2
p-Isopropyltoluene		<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
Naphthalene		<2	<2	<0.5	<2	<2	<2	<2	<0.5	<2
n-Propylbenzene		<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
Toluene	150	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
1,2,4-Trichlorobenzene	70	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
1,2,4-Trimethylbenzene		<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
1,3,5-Trimethylbenzene		<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
Xylenes, total	1750	<2	<2	<1	<2	<2	<2	<2	<1	<2
Total Aromatic Hydrocarbons										
Halogenated Non-Aromatic Hydrocarbons										
Carbon Tetrachloride	0.5	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
Chloroform	100	<1	<1	<0.5	<1	<1	<1	4.5	<0.5	<1
Dibromochloromethane		<2	<2	<0.5	<2	<1	<1	<30	<0.5	<1
1,1-Dichloroethane	5	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
1,2-Dichloroethane	0.5	<1	<1	<0.5	<1	<2	<2	<2	<0.5	<2
1,1-Dichloroethene	6	<1	<1	<0.5	<1	<1	<1	<1	0.55	<1
cis-1,2-Dichloroethene	6	<1	<1	<0.5	<1	<1	1.2	3.0	2.6	6.7
trans-1,2-Dichloroethene	10	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
Methylene Chloride	5	<1	<1	<0.5	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	<0.5	<1	330.0	391.0	511.0	340.0	616.0
1,1,1-Trichloroethane	200	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
1,1,2-Trichloroethane	5	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
Trichloroethene	5	<1	<1	<0.5	<1	6.7	10.0	17.4	13.0	17.4
Freon-113	1200	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
Vinyl Chloride	0.5	<1	<1	<0.5	<1	<1	<1	<1	<0.5	<1
Total Halogenated Hydrocarbons						336.7	402.2	535.9	356.15	640.1
Total Concentration of VOCs						336.7	402.2	535.9	356.15	640.1

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories

(D) = Duplicate sample
(G) = Grab sample

Table A4.3-1 (Cont'd)
LBNL Groundwater Monitoring Well Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	51-00-1 Feb-00	(D)*	May-00	71B-00-2 Jun-00	(D)*
Aromatic and Non-Halogenated Hydrocarbons						
Benzene	1	<1	<0.5	<1	<1	<0.5
n-Butylbenzene		<1	<0.5	<1	<1	<0.5
sec-Butylbenzene		<1	<0.5	<1	<1	<0.5
ter-Butylbenzene		<1	<0.5	<1	<1	<0.5
Ethylbenzene	700	<1	<0.5	<1	<1	<0.5
Isopropylbenzene		<2	<0.5	<2	<2	<0.5
p-Isopropyltoluene		<1	<0.5	<1	<1	<0.5
Naphthalene		<2	<0.5	<2	<2	<0.5
n-Propylbenzene		<1	<0.5	<1	<1	<0.5
Toluene	150	<1	<0.5	<1	<1	<0.5
1,2,4-Trichlorobenzene	70	<1	<0.5	<1	<1	<0.5
1,2,4-Trimethylbenzene		<1	<0.5	<1	<1	<0.5
1,3,5-Trimethylbenzene		<1	<0.5	<1	<1	<0.5
Xylenes, total	1750	<2	<1	<2	<2	<1
Total Aromatic Hydrocarbons						
Halogenated Non-Aromatic Hydrocarbons						
Carbon Tetrachloride	0.5	<1	<0.5	<1	<1	<0.5
Chloroform	100	<1	<0.5	<1	<1	<0.5
Dibromochloromethane		<2	<0.5	<2	<1	<0.5
1,1-Dichloroethane	5	<1	<0.5	<1	<1	<0.5
1,2-Dichloroethane	0.5	<1	<0.5	<1	<2	<0.5
1,1-Dichloroethene	6	<1	<0.5	<1	<1	<0.5
cis-1,2-Dichloroethene	6	<1	<0.5	<1	1.7	0.50
trans-1,2-Dichloroethene	10	<1	<0.5	<1	<1	<0.5
Methylene Chloride	5	<1	<0.5	<1	<1	<1
Tetrachloroethene	5	<1	<0.5	<1	4.9	1.7
1,1,1-Trichloroethane	200	<1	<0.5	<1	<1	<0.5
1,1,2-Trichloroethane	5	<1	<0.5	<1	<1	<0.5
Trichloroethene	5	<1	<0.5	<1	4.7	0.83
Freon-113	1200	<1	<0.5	<1	<1	<0.5
Vinyl Chloride	0.5	<1	<0.5	<1	<1	<0.5
Total Halogenated Hydrocarbons					11.3	3.03
Total Concentration of VOCs					11.3	3.03

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories
(D) = Duplicate sample

Table A4.3-2
Sampling Results from Temporary Groundwater Sampling Points - Bevelac Area
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	SB71H-98-1						SB71B-99-1	SB71B-99-2
		Apr-98	Jun-98	Jul-98	Dec-98	Mar-99	Oct-99	May-99	May-99
Aromatic and Non-Halogenated Hydrocarbons									
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene		<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	1.9	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether		<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons			1.9						
Halogenated Non-Aromatic Hydrocarbons									
Bromodichloromethane		<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<2	<2	<2	<2
Chloroform	100	<1	<1	<1	<1	<1	1.4	<1	<1
1,1-Dichloroethane	5	<1	<1	1.7	2.7	3.0	3.4	<1	<1
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<1	<1	1.5	1.4	<1	<1
cis-1,2-Dichloroethene	6	<1	<1	<1	<1	1.2	<1	8.6	<1
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<2	<2	<2	<2
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1	9.1	<1
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<1	<1	<1	<1	<1	<1	16.1	<1
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1
Freon-123A		<1	<1	<1	<1	1.1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons				1.7	2.7	6.8	6.2	33.8	
Total Concentration of VOCs			1.9	1.7	2.7	6.8	6.2	33.8	

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= Compound not included in analysis

Table A4.3-2 (Cont'd)
Sampling Results from Temporary Groundwater Sampling Points - Bevelac Area
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	SB51-96-6		SB51-96-8			SB51-96-12				
		Apr-96	Dec-97	Apr-96	Nov-96	Dec-97	Apr-96	Nov-96	Nov-97	Dec-98*	Jun-99
Aromatic and Non-Halogenated Hydrocarbons											
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
n-Butylbenzene		<2	<1	<2	<1	<1	<2	<1	<1	<0.5	<1
sec-Butylbenzene		<2	<1	<2	<1	<1	<2	<1	<1	<0.5	<1
ter-Butylbenzene		<2	<1	<2	<1	<1	<2	<1	<1	<0.5	<1
Chlorobenzene		<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
Ethylbenzene	700	<2	<1	<2	<1	<1	<2	<1	<1	<0.5	<1
Isopropylbenzene		<1	<2	<1	<2	<2	<1	<2	<2	<0.5	<2
p-Isopropyltoluene		1.2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
Methyl tert-Butyl Ether			<5			<5			<5	2.1	<5
Naphthalene		<1	<2	<1	<2	<2	<1	<2	<2	<0.5	<2
n-Propylbenzene		<2	<1	<2	<1	<1	<2	<1	<1	<0.5	<1
Toluene	150	1.3	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
1,2,4-Trichlorobenzene	70	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
1,2,4-Trimethylbenzene		<2	<1	<2	<1	<1	<2	<1	<1	<0.5	<1
1,3,5-Trimethylbenzene		<2	<1	<2	<1	<1	<2	<1	<1	<0.5	<1
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2
Total Aromatic Hydrocarbons		2.5								2.1	
Halogenated Non-Aromatic Hydrocarbons											
Bromodichloromethane		<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<2
Chloroform	100	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
Chloroethane		<30	<30	<30	<30	<30	<30	<30	<30	<0.5	<30
1,1-Dichloroethane	5	<1	<1	<1	6.0	2.6	1.1	2.3	3.7	2.4	2.3
1,2-Dichloroethane	0.5	<1	<2	<1	<2	<2	<1	<2	<2	<0.5	<2
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
cis-1,2-Dichloroethene	6	31.2	3.6	<1	14.9	5.3	<1	1.4	4.4	1.5	1.6
trans-1,2-Dichloroethene	10	21.5	4.0	<1	3.2	<1	<1	<1	<1	<0.5	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<1	<2	<1	<2	<2	<1	<2	<2	<0.5	<2
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	1.1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
Trichloroethene	5	40.8	1.1	<1	<1	<1	<1	<1	<1	<0.5	<1
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
Vinyl Chloride	0.5	16.7	<1	<1	5.3	2.0	1.4	<1	3.0	3.0	1.7
Total Halogenated Hydrocarbons		110.2	8.7		29.4	9.9	2.5	3.7	11.1	8.0	5.6
Total Concentration of VOCs		112.7	8.7		29.4	9.9	2.5	3.7	11.1	10.1	5.6

MCL = Maximum contaminant level for drinking water
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< = Less than Quantitation Limit
= Compound not included in analysis

* = Analysis by BC Laboratories

Table A4.3-2 (Cont'd)
Sampling Results from Temporary Groundwater Sampling Points - Bevelac Area
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	SB51-96-20		SB51-96-20R	SB51-96-22			SB51-96-27		
		Apr-96	Apr-96	Feb-00	Apr-96	Nov-96	Feb-00	Feb-97	Dec-97	Apr-98
Aromatic and Non-Halogenated Hydrocarbons										
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<2	<2	<1	<2	<1	<1	<1	<1	<1
sec-Butylbenzene		<2	<2	<1	<2	<1	<1	<1	<1	<1
ter-Butylbenzene		<2	<2	<1	<2	<1	<1	<1	<1	<1
Chlorobenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<2	<2	<1	<2	<1	<1	<1	<1	<1
Isopropylbenzene		<1	<1	<2	<1	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether				<5			<5	<5	<5	<5
Naphthalene		<1	<1	<2	<1	<2	<2	<2	<2	<2
n-Propylbenzene		<2	<2	<1	<2	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<2	<2	<1	<2	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<2	<2	<1	<2	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons										
Halogenated Non-Aromatic Hydrocarbons										
Bromodichloromethane		<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	<1	<1	<1	2.1	<1	<1	<1	<1	2.1
Chloroethane		<30	<30	<30	<30	<30	<30	<30	<30	<30
1,1-Dichloroethane	5	<1	<1	<1	1.0	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<1	<1	<2	<1	<2	<2	<2	<2	<2
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1	11.0	7.6	6.5
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<1	<1	<1	<1	<1	<1	4.8	3.7	3.1
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons					3.1			15.8	11.3	11.7
Total Concentration of VOCs					3.1			15.8	11.3	11.7

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

Table A4.3-2 (Cont'd)
Sampling Results from Temporary Groundwater Sampling Points - Bevelac Area
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	SB51-96-28			SB51-98-3	SB51-98-4	SB51-98-6	SB51-98-7	SB51A-98-1		
		Feb-97	Dec-97	Apr-98	Jun-98	Jun-98	Jun-98	Jun-98	Apr-98	Jun-99	Mar-00
Aromatic and Non-Halogenated Hydrocarbons											
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1	<1	<1	1.1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		1.4	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		1.7	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons		3.1						1.1			
Halogenated Non-Aromatic Hydrocarbons											
Bromodichloromethane		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane		<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
1,1-Dichloroethane	5	455.0	55.4	6.4	2.6	<1	<1	1.9	<1	<1	<1
1,2-Dichloroethane	0.5	3.1	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	67.0	7.4	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	12.7	1.7	<1	4.2	<1	<1	3.6	<1	<1	<1
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Tetrachloroethene	5	10.0	1.6	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	65.0	1.7	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	43.4	6.2	<1	2.3	<1	<1	<1	<1	<1	<1
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	15.5	8.8	2.3	3.7	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		671.7	82.8	8.7	12.8			5.5			
Total Concentration of VOCs		674.8	82.8	8.7	12.8			6.6			

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

<< = Less than Quantitation Limit

Table A4.3-2 (Cont'd)
Sampling Results from Temporary Groundwater Sampling Points - Bevelac Area
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	SB51L-98-1A				SB51L-98-1B						
		Apr-98	Dec-98	Jun-99	Mar-00	May-98*	Nov-98	Dec-98	May-99	May-99	Jun-99	Mar-00
Aromatic and Non-Halogenated Hydrocarbons												
Benzene	1	<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
n-Butylbenzene		<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
sec-Butylbenzene		<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
ter-Butylbenzene		<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
Chlorobenzene		<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
Ethylbenzene	700	<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
Isopropylbenzene		<2	<2	<2	<2	<3	<2	<20	<2	<2	<2	<20
p-Isopropyltoluene		<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
Methyl tert-Butyl Ether		<5	<5	<5	<5	<5	<5	<50	<5	<5	<5	<50
Naphthalene		<2	<2	<2	<2	<3	<2	<20	<2	<2	<2	<20
n-Propylbenzene		<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
Toluene	150	<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
1,2,4-Trichlorobenzene	70	<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
Xylenes, total	1750	<2	<2	<2	<2	<3	<2	<20	<2	<2	<2	<20
Total Aromatic Hydrocarbons												
Halogenated Non-Aromatic Hydrocarbons												
Bromodichloromethane		<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<3	<1	<10	<1	6.1	62.0	<10
Chloroform	100	<1	<1	<1	<1	<3	<1	<10	<1	<1	8.9	<10
Chloroethane		<30	<30	<30	<30	<30	<30	<300	<30	<30	<30	<300
1,1-Dichloroethane	5	5.7	10.0	17.7	11.0	74.0	31.7	63.0	20.4	40.5	8.8	50.4
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<3	<2	<20	<2	<2	<2	<20
1,1-Dichloroethene	6	<1	<1	1.7	1.0	14.0	4.9	<10	2.7	6.3	3.2	<10
cis-1,2-Dichloroethene	6	23.6	37.7	84.4	34.1	850.0	2950	722.0	194.0	683.0	149.0	369.0
trans-1,2-Dichloroethene	10	6.6	5.6	9.2	5.3	62.0	24.0	49.7	12.1	30.9	8.8	34.8
Methylene Chloride	5	<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<3	<2	<20	<2	<2	<2	<20
Tetrachloroethene	5	<1	1.4	3.0	<1	5.6	1.7	<10	1.1	28.8	52.2	<10
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
Trichloroethene	5	19.5	18.1	32.5	12.1	310.0	106.0	218.0	72.0	788.0	1110	142.0
Freon-113	1200	<1	<1	<1	<1	<3	<1	<10	<1	<1	<1	<10
Vinyl Chloride	0.5	<1	<1	<1	<1	23.0	9.7	17.5	2.6	9.3	<1	<10
Total Halogenated Hydrocarbons		55.4	72.8	148.5	63.5	1,338.6	3128.0	1070.2	304.9	1592.9	1402.9	596.2
Total Concentration of VOCs		55.4	72.8	148.5	63.5	1,338.6	3128.0	1070.2	304.9	1592.9	1402.9	596.2

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories

Table A4.3-2 (Cont'd)
Sampling Results from Temporary Groundwater Sampling Points - Bevelac Area
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	SB51L-99-1		SB64-98-1	SB64-98-2		SB64-98-3		SB64-98-4		SB64-98-5	
		Oct-99	Nov-99	Apr-98	Apr-98	Jun-98	Apr-98	Jun-98	Apr-98	Jun-98	Apr-98	Jun-98
Aromatic and Non-Halogenated Hydrocarbons												
Benzene	1	<1	<1	<1	<1	<1	<1	<1	1.5	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	4.2	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons				4.2					1.5			
Halogenated Non-Aromatic Hydrocarbons												
Bromodichloromethane		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	<1	1.8	<1	17.5	<1	7.3	2.8	9.6	<1	<1	1.1
Chloroethane		<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
1,1-Dichloroethane	5	1.4	5.1	15,200	106.0	41.8	9.8	23.5	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<2	<2	96.5	3.2	3.0	<2	<1	<2	<2	<2	<2
1,1-Dichloroethene	6	1.0	1.7	2,190	86.0	30.2	98.4	298.0	<1	2.6	1.0	1.9
cis-1,2-Dichloroethene	6	89.5	242.0	5.6	2.9	1.2	3.0	7.9	2.6	2.4	3.8	3.6
trans-1,2-Dichloroethene	10	1.5	2.6	<1	<1	<1	1.0	3.4	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	299.0	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Tetrachloroethene	5	9.0	33.4	814.0	303.0	137.0	64.8	163.0	1.6	3.8	14.1	22.4
1,1,1-Trichloroethane	200	<1	<1	3,860	106.0	37.0	10.1	18.3	<1	<1	<1	4.4
1,1,2-Trichloroethane	5	<1	<1	24.3	1.4	1.3	<1	<1	<1	<1	<1	<1
Trichloroethene	5	168.0	398.0	1,660	109.0	45.4	145.0	312.0	61.4	92.1	175.0	283.0
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	31.8	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		270.4	684.6	24,181.2	735.0	296.9	339.4	828.9	75.2	100.9	193.9	316.4
Total Concentration of VOCs		270.4	684.6	24,185.4	735.0	296.9	339.4	828.9	76.7	100.9	193.9	316.4

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

Table A4.3-2 (Cont'd)
Sampling Results from Temporary Groundwater Sampling Points - Bevelac Area
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	SB64-98-6		SB64-98-7							
		Apr-98	Jun-98	May-98*	May-98*	Jun-98	Dec-98	Mar-99	Oct-99	Mar-00	*(D)
Aromatic and Non-Halogenated Hydrocarbons											
Benzene	1	<1	<1	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
n-Butylbenzene		<1	<1	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
sec-Butylbenzene		<1	<1	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
ter-Butylbenzene		<1	<1	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
Chlorobenzene		<1	<1	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
Ethylbenzene	700	<1	<1	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
Isopropylbenzene		<2	<2	<100	<100	<4000	<2000	<2000	<4000	<200	<2000
p-Isopropyltoluene		<1	<1	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
Methyl tert-Butyl Ether		<5	<5			<10000	<5000	<5000	<10000	<500	<2000
Naphthalene		<2	<2	<100	<100	<4000	<2000	<2000	<4000	<200	<2000
n-Propylbenzene		<1	<1	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
Toluene	150	<1	<1	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
1,2,4-Trichlorobenzene	70	<1	<1	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
1,2,4-Trimethylbenzene		<1	<1	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
1,3,5-Trimethylbenzene		<1	<1	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
Xylenes, total	1750	<2	<2	<300	<300	<4000	<2000	<2000	<2000	<200	<2000
Total Aromatic Hydrocarbons											
Halogenated Non-Aromatic Hydrocarbons											
Bromodichloromethane		<1	<1	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
Carbon Tetrachloride	0.5	<1	<1	<100	<100	<2000	<1000	<2000	<4000	<200	<2000
Chloroform	100	<1	1.2	<100	<100	<2000	<30000	<1000	<2000	<100	<2000
Chloroethane		<30	<30	<100	<100	<60000	<1000	<1000	<2000	<100	<2000
1,1-Dichloroethane	5	9.6	4.6	3,400	1,500	14,300	7000	2850	4,720	2,670	4,500
1,2-Dichloroethane	0.5	<2	<2	<100	<100	<4000	<2000	<1000	<4000	<200	<2000
1,1-Dichloroethene	6	7.7	6.3	1,700	620.0	41,500	21,200	9780	25,100	3,830	4,000
cis-1,2-Dichloroethene	6	60.1	30.9	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
trans-1,2-Dichloroethene	10	2.8	1.3	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
Methylene Chloride	5	<1	<1	<300	<300	<2000	<1000	<1000	<2000	<100	<2000
1,1,1,2-Tetrachloroethane		<2	<2	<100	<100	<4000	<2000	<1000	<4000	<200	<2000
Tetrachloroethene	5	14.4	15.8	15,000	5,700	19,084	10,300	10,400	5,180	8,550	16,000
1,1,1-Trichloroethane	200	25.8	16.6	340,000	100,000	684,000	762,000	317,000	295,000	83,700	310,000
1,1,2-Trichloroethane	5	<1	<1	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
Trichloroethene	5	380.0	389.0	11,000	5,200	34,900	21,900	9860	8,660	5,560	12,000
Freon-113	1200	<1	<1	120.0	<100	<2000	<1000	<1000	<2000	<100	<2000
Vinyl Chloride	0.5	6.9	1.5	<100	<100	<2000	<1000	<1000	<2000	<100	<2000
Total Halogenated Hydrocarbons		507.3	467.2	371,220	113,020	793,784	822,400	349,890	338,660	104,310	346,500
Total Concentration of VOCs		507.3	467.2	371,220	113,020	793,784	822,400	349,890	338,660	104,310	346,500

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

(D) = Duplicate sample
* = Analysis by BC Laboratories

Table A4.3-2 (Cont'd)
Sampling Results from Temporary Groundwater Sampling Points - Bevelac Area
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	SB64-98-8 Jun-98	Jun-98	Dec-98	Mar-99	Oct-99	Mar-00	SB64-98-9 Apr-98	Jun-98
Aromatic and Non-Halogenated Hydrocarbons									
Benzene	1	<100	<100	<1000	<500	<200	<50	<1	<1
n-Butylbenzene		<100	<100	<1000	<500	<200	<50	<1	<1
sec-Butylbenzene		<100	<100	<1000	<500	<200	<50	<1	<1
ter-Butylbenzene		<100	<100	<1000	<500	<200	<50	<1	<1
Chlorobenzene		<100	<100	<1000	<500	<200	<50	<1	<1
Ethylbenzene	700	<100	<100	<1000	<500	<200	<50	<1	<1
Isopropylbenzene		<200	<200	<2000	<1000	<400	<100	<2	<2
p-Isopropyltoluene		<100	<100	<1000	<500	<200	<50	<1	<1
Methyl tert-Butyl Ether		<500	<500	<5000	<2500	<1000	<250	<5	<5
Naphthalene		<200	<200	<2000	<1000	<400	<100	<2	<2
n-Propylbenzene		<100	<100	<1000	<500	<200	<50	<1	<1
Toluene	150	<100	<100	<1000	<500	<200	<50	<1	<1
1,2,4-Trichlorobenzene	70	<100	<100	<1000	<500	<200	<50	<1	<1
1,2,4-Trimethylbenzene		<100	<100	<1000	<500	<200	<50	<1	<1
1,3,5-Trimethylbenzene		<100	<100	<1000	<500	<200	<50	<1	<1
Xylenes, total	1750	<200	<200	<2000	<1000	<200	<100	<2	<2
Total Aromatic Hydrocarbons									
Halogenated Non-Aromatic Hydrocarbons									
Bromodichloromethane		<100	<100	<1000	<500	<200	<50	<1	<1
Carbon Tetrachloride	0.5	<100	<100	<1000	<1000	<400	<100	<1	<1
Chloroform	100	<100	<100	<30000	<500	<200	<50	<1	<1
Chloroethane		<3000	<3000	<1000	<500	<200	<50	<30	<30
1,1-Dichloroethane	5	2,910	5,930	5120	5810	10,600	4,100	135.0	158.0
1,2-Dichloroethane	0.5	<200	<200	<2000	<1000	<400	<100	14.6	11.9
1,1-Dichloroethene	6	962.0	5,060	2330	1510	3,780	1,000	120.0	234.0
cis-1,2-Dichloroethene	6	<100	<100	<1000	<500	<200	<50	2.4	2.4
trans-1,2-Dichloroethene	10	<100	<100	<1000	<500	<200	<50	<1	<1
Methylene Chloride	5	<100	<100	<1000	<500	<200	<50	1.2	<1
1,1,1,2-Tetrachloroethane		<200	<200	<2000	<1000	<200	<100	<2	<2
Tetrachloroethene	5	375.0	4,650	2360	839	917.0	506.0	104.0	175.0
1,1,1-Trichloroethane	200	3,010	58,400	23,100	10,600	17,100	4,590	31.1	67.0
1,1,2-Trichloroethane	5	<100	<100	<1000	<500	<200	<50	3.3	3.0
Trichloroethene	5	615.0	3,520	1690	814	1,320	494.0	150.0	198.0
Freon-113	1200	<100	<100	<1000	<500	<200	<50	<1	<1
Vinyl Chloride	0.5	<100	<100	<1000	<500	<200	<50	<1	<1
Total Halogenated Hydrocarbons		7,872	77,560	34,600	19,573	33,717	10,690	561.6	849.3
Total Concentration of VOCs		7,872	77,560	34,600	19,573	33,717	10,690	561.6	849.3

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

Table A4.3-2 (Cont'd)
Sampling Results from Temporary Groundwater Sampling Points - Bevelac Area
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	SB64-98-10 May-98*	Jun-98	Dec-98	Mar-99	(D)*	Oct-99	Mar-00	SB64-98-11 May-98*	Jun-98	Dec-98	Mar-99	Oct-99	Mar-00
Aromatic and Non-Halogenated Hydrocarbons														
Benzene	1	<10	<100	<1000	<500	<900	<2000	<500	<2	<1	<1000	<500	<500	<500
n-Butylbenzene		<10	<100	<1000	<500	<900	<2000	<500	<2	<1	<1000	<500	<500	<500
sec-Butylbenzene		<10	<100	<1000	<500	<900	<2000	<500	<2	<1	<1000	<500	<500	<500
ter-Butylbenzene		<10	<100	<1000	<500	<900	<2000	<500	<2	<1	<1000	<500	<500	<500
Chlorobenzene		<10	<100	<1000	<500	<900	<2000	<500	<2	<1	<1000	<500	<500	<500
Ethylbenzene	700	<10	<100	<1000	<500	<900	<2000	<500	<2	<1	<1000	<500	<500	<500
Isopropylbenzene		<10	<200	<2000	<1000	<900	<4000	<1000	<2	<2	<2000	<1000	<1000	<1000
p-Isopropyltoluene		<10	<100	<1000	<500	<900	<2000	<500	<2	<1	<1000	<500	<500	<500
Methyl tert-Butyl Ether			<500	<5000	<2500	<900	<10000	<2500		<5	<5000	<2500	<2500	<2500
Naphthalene		<10	<200	<2000	<1000	<900	<4000	<1000	<2	<2	<2000	<1000	<1000	<1000
n-Propylbenzene		<10	<100	<1000	<500	<900	<2000	<500	<2	<1	<1000	<500	<500	<500
Toluene	150	26.0	<100	<1000	<500	<900	<2000	<500	<2	6.8	<1000	<500	<500	<500
1,2,4-Trichlorobenzene	70	<10	<100	<1000	<500*	<900	<2000	<500	<2	<1	<1000	<500	<500	<500
1,2,4-Trimethylbenzene		<10	<100	<1000	<500	<900	<2000	<500	<2	<1	<1000	<500	<500	<500
1,3,5-Trimethylbenzene		<10	<100	<1000	<500	<900	<2000	<500	<2	<1	<1000	<500	<500	<500
Xylenes, total	1750	<30	<200	<2000	<1000	<2000	<2000	<1000	<5	<2	<2000	<1000	<1000	<1000
Total Aromatic Hydrocarbons		26.0								6.8				
Halogenated Non-Aromatic Hydrocarbons														
Bromodichloromethane		<10	<100	<1000	<500	<900	<2000	<500	<2	<1	<1000	<500	<500	<500
Carbon Tetrachloride	0.5	<10	<100	<1000	<1000	<900	<4000	<1000	<2	<1	<1000	<1000	<1000	<1000
Chloroform	100	17.0	1.1	<30000	<500	<900	<2000	<500	<2	4.8	<30000	<500	<500	<500
Chloroethane		<10	<3000	<1000	<500	<900	<2000	<500	<2	<30	<1000	<500	<500	<500
1,1-Dichloroethane	5	5,200	7,370	8910	9820	13,000	7,890	7,450	270.0	3,890	7770	8830	17,000	9,720
1,2-Dichloroethane	0.5	170.0	<200	<2000	<1000	<900	<4000	<1000	<2	<2	<2000	<1000	<1000	<1000
1,1-Dichloroethene	6	<10	16,300	9350	10,400	4400	10,300	3,570	67.0	2,960	2640	2890	19,700	3,400
cis-1,2-Dichloroethene	6	<10	<100	<1000	<500	<900	<2000	<500	2.9	3.2	<1000	<500	<500	<500
trans-1,2-Dichloroethene	10	<10	<100	<1000	<500	<900	<2000	<500	<2	<1	<1000	<500	<500	<500
Methylene Chloride	5	130.0	180.0	<1000	<500	<2000	<2000	<500	<5	152.0	<1000	<500	<500	<500
1,1,1,2-Tetrachloroethane		<10	<200	<2000	<1000	<900	<4000	<1000	<2	<2	<2000	<1000	<1000	<1000
Tetrachloroethene	5	6,600	5,530	6760	7950	9400	3,720	6,900	54.0	1,120	1380	1360	7,150	4,660
1,1,1-Trichloroethane	200	200,000	382,000	177,000	167,000	180,000	109,000	99,700	1,600	112,000	43,000	48,500	166,000	61,700
1,1,2-Trichloroethane	5	<10	<100	<1000	<500	<900	<2000	<500	<2	5.2	<1000	<500	<500	<500
Trichloroethene	5	7,200	9,460	6530	6410	8700	3,880	4,390	51.0	1,600	1550	1590	6,790	3,300
Freon-113	1200	<10	<100	<1000	<500	<900	<2000	<500	<2	<1	<1000	<500	<500	<500
Vinyl Chloride	0.5	<10	<100	<1000	<500	<900	<2000	<500	<2	12.0	<1000	<500	<500	<500
Total Halogenated Hydrocarbons		219,317	420,841	208,550	201,580	215,500	134,790	122,010	2044.9	121,747	56,340	63,170	216,640	82,780
Total Concentration of VOCs		219,343	420,841	208,550	201,580	215,500	134,790	122,010	2044.9	121,754	56,340	63,170	216,640	82,780

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= Compound not included in analysis

(D) = Duplicate sample
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Table A4.3-2 (Cont'd)
Sampling Results from Temporary Groundwater Sampling Points - Bevelac Area
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	SB64-98-12 May-98*	Jun-98	Dec-98	Mar-99	Oct-99	Mar-00	SB64-98-13 May-98*	Jun-98	Dec-98	Mar-99	Oct-99	Mar-00
Aromatic and Non-Halogenated Hydrocarbons													
Benzene	1	<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
n-Butylbenzene		<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
sec-Butylbenzene		<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
ter-Butylbenzene		<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
Chlorobenzene		<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
Ethylbenzene	700	<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
Isopropylbenzene		<0.5	<2	<2	<2	<20	<2000	<10	<2	<2	<2	<200	<20
p-Isopropyltoluene		<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
Methyl tert-Butyl Ether			<5	<5	<5	<50	<5000		<5	<5	<5	<500	<50
Naphthalene		<0.5	<2	<2	<2	<20	<2000	<10	<2	<2	<2	<200	<20
n-Propylbenzene		<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
Toluene	150	<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
1,2,4-Trichlorobenzene	70	<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
1,2,4-Trimethylbenzene		<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
1,3,5-Trimethylbenzene		<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
Xylenes, total	1750	<1	<2	<2	<2	<20	<2000	<30	<2	<2	<2	<200	<20
Total Aromatic Hydrocarbons													
Halogenated Non-Aromatic Hydrocarbons													
Bromodichloromethane		<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
Carbon Tetrachloride	0.5	<0.5	<1	<1	<2	<10	<2000	<10	<1	<1	<2	<200	<10
Chloroform	100	<0.5	<1	<30	<1	<10	<1000	<10	<1	<30	<1	<100	<10
Chloroethane		2.4	<30	<1	<1	<10	<1000	<10	<30	<1	<1	<100	<10
1,1-Dichloroethane	5	190.0	167.0	359.0	530.0	430.0	8,270	120.0	96.6	221.0	965.0	<100	412.0
1,2-Dichloroethane	0.5	0.97	<2	2.2	2.4	<20	<2000	<10	<2	<2	<2	<200	<20
1,1-Dichloroethene	6	25.0	31.2	52.4	116.0	50.8	4,380	33.0	35.5	103.0	527.0	372.0	89.0
cis-1,2-Dichloroethene	6	4.9	4.1	3.6	3.9	<10	<1000	<10	<1	<1	1.5	<100	<10
trans-1,2-Dichloroethene	10	<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
Methylene Chloride	5	<1	<1	<1	1.3	<10	<1000	<30	<1	<1	4.9	<100	<10
1,1,1,2-Tetrachloroethane		<0.5	<2	<2	<2	<20	<2000	<10	<2	<2	<2	<200	<20
Tetrachloroethene	5	8.7	7.0	12.8	17.6	12.8	11,500	<10	<1	21.8	174.0	<100	12.5
1,1,1-Trichloroethane	200	3.0	3.8	30.2	118.0	14.5	115,000	1,000	402.0	1640	10,500	723.0	135.0
1,1,2-Trichloroethane	5	<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
Trichloroethene	5	21.0	19.8	28.9	69.5	42.7	6,310	13.0	4.9	32.8	222.0	<100	26.1
Freon-113	1200	<0.5	<1	<1	<1	<10	<1000	<10	<1	<1	<1	<100	<10
Vinyl Chloride	0.5	22.0	36.2	24.4	4.8	66.8	<1000	<10	<1	<1	4.4	<100	<10
Total Halogenated Hydrocarbons		277.97	269.1	513.5	863.5	617.6	145,460	1,166	539.0	2018.6	12,399	1,095.0	674.6
Total Concentration of VOCs		277.97	269.1	513.5	863.5	617.6	145,460	1,166	539.0	2018.6	12,399	1,095.0	674.6

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= Compound not included in analysis

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Table A4.3-2 (Cont'd)
Sampling Results from Temporary Groundwater Sampling Points - Bevelac Area
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	SB64-98-14						SB64-98-15		SB64-98-16	
		Jun-98	Jun-98	Dec-98	Mar-99	Oct-99	Mar-00	May-98*	Jun-98	May-98	Jun-98
Aromatic and Non-Halogenated Hydrocarbons											
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<2	<2	<2	<2	<2	<2	<1	<2	<2	<2
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether		<5	<5	<5	<5	<5	<5		<5	5.9	<5
Naphthalene		<2	<2	<2	<2	<2	<2	<1	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<2	<2	<2	<2	<2	<2	<3	<2	<2	<2
Total Aromatic Hydrocarbons										5.9	
Halogenated Non-Aromatic Hydrocarbons											
Bromodichloromethane		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<1	<1	<2	<2	<2	<1	<1	<1	<1
Chloroform	100	<1	<1	<30	<1	<1	<1	<1	<1	<1	<1
Chloroethane		<30	<30	<1	<1	<1	<1	<1	<30	<30	<30
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	61.0	77.0	1.8	1.6
1,2-Dichloroethane	0.5	<2	<2	<2	<2	<2	<2	19.0	<2	8.5	7.1
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	1.0	19.5	<1	<1
cis-1,2-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	1.1	<1	<1
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<3	<1	<1	<1
1,1,1,2-Tetrachloroethane		<2	<2	<2	<2	<2	<2	<1	<2	<2	<2
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	14.5	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<1	<1	<1	<1	<1	<1	<1	5.8	5.9	5.8
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons								81.0	117.9	16.2	14.5
Total Concentration of VOCs								81.0	117.9	22.1	14.5

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< = Less than Quantitation Limit
= Compound not included in analysis

* = Analysis by BC Laboratories

Table A4.3-2 (Cont'd)
Sampling Results from Temporary Groundwater Sampling Points - Bevelac Area
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	SB64-98-17				SB64-99-4		SB64-99-5	SB64-99-6	SB64-99-7
		Dec-98*	Jan-99*	Oct-99	Mar-00	May-99	Jun-99	Jun-99	Jul-99	May-99
Aromatic and Non-Halogenated Hydrocarbons										
Benzene	1	6.7	<200	<100	<10	<1	<1	<1	<1	<1
n-Butylbenzene		<0.5	<200	<100	<10	<1	<1	<1	<1	<1
sec-Butylbenzene		<0.5	<200	<100	<10	<1	<1	<1	<1	<1
ter-Butylbenzene		<0.5	<200	<100	<10	<1	<1	<1	<1	<1
Chlorobenzene		<0.5	<200	<100	<10	<1	<1	<1	<1	<1
Ethylbenzene	700	<0.5	<200	<100	<10	<1	<1	<1	<1	<1
Isopropylbenzene		<0.5	<200	<200	<20	<2	<2	<2	<2	<2
p-Isopropyltoluene		<0.5	<200	<100	<10	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether		<0.5	<200	<500	<50	<5	<5	<5	<5	<5
Naphthalene		<0.5	<200	<200	<20	<2	<2	<2	<2	<2
n-Propylbenzene		<0.5	<200	<100	<10	<1	<1	<1	<1	<1
Toluene	150	0.89	<200	131.0	19.9	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<0.5	<200	<100	<10	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<0.5	<200	<100	<10	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<0.5	<200	<100	<10	<1	<1	<1	<1	<1
Xylenes, total	1750	<1	<300	<200	<20	<2	<2	<2	<2	<2
Total Aromatic Hydrocarbons		7.59		131.0	19.9					
Halogenated Non-Aromatic Hydrocarbons										
Bromodichloromethane		<0.5	<200	<100	<10	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<0.5	<200	<200	<10	<2	<2	<2	<2	<2
Chloroform	100	<0.5	<200	<100	<10	<1	<1	<1	<1	<1
Chloroethane		5.2	<200	<100	<10	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	8000	7200	14,100	6,130	saturated	9830	55.8	<1	<1
1,2-Dichloroethane	0.5	67.0	<200	<200	81.8	59.1	113.0	<2	<2	<2
1,1-Dichloroethene	6	710.0	970.0	1,740	1,070	saturated	1440	34.2	1.0	<1
cis-1,2-Dichloroethene	6	4.1	<200	<100	15.0	8.9	26.8	<1	<1	<1
trans-1,2-Dichloroethene	10	0.54	<200	<100	<10	<1	<1	<1	<1	<1
Methylene Chloride	5	350.0	480.0	<100	13.8	159.0	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<0.5	<200	<200	<20	<1	14.4	<2	<2	<1
Tetrachloroethene	5	6.3	<200	<100	55.1	93.0	265.0	<1	<1	<1
1,1,1-Trichloroethane	200	2.1	<200	<100	10.2	180.0	642.0	1.1	<1	<1
1,1,2-Trichloroethane	5	10.0	<200	<100	13.2	8.6	<1	<1	<1	<1
Trichloroethene	5	310.0	420.0	634.0	499.0	saturated	788.0	3.5	<1	<1
Freon-113	1200	<0.5	<200	<100	<10	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	12.0	<200	<100	36.5	9.9	33.2	<1	<1	<1
Total Halogenated Hydrocarbons		9477.24	9,070	16,474	7,924.6	518.5	13,152.4	94.6	1.0	
Total Concentration of VOCs		9484.83	9,070	16,605	7,944.5	518.5	13,152.4	94.6	1.0	

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories

Table A4.5-1
Groundwater Monitoring Well Results
Concentrations of Total Petroleum Hydrocarbons and Oil & Grease
(Concentrations in µg/L)

RFI Unit	Area	Well No.	Date	Lab	TPH-Diesel	TPH-Gasoline	TPH-FI	Oil & Grease
AOC 1-1	1	MW90-3	Jun-94	BC			ND	
		46A-92-15	May-93	C	<50	<50		
			Jun-94	BC	<200			
		46A-93-19	Apr-94	BC	<50 <50 (D)			
			Aug-94	BC	<200			
			Dec-94	BC			ND	
			Mar-95	BC		<50 <50 (S) <50 (D)	ND	
				AEN			**Trace (a)(S)** (oil range hydrocarbons)	
			May-95	BC	<200	<50		
			Aug-95	BC	<200	<50		
			Nov-95	BC	<50	<50		
			Aug-96	BC	<50	<50		
			Dec-96	BC	<50	<50 <50 (D)		
		71-97-23	May-98	BC			ND	
AOC 9-2	9	46-94-16	Sep-95	BC	<200			
			Nov-95	BC	<50			
			Feb-96	BC	<50			
			May-96	CLS	<50			
			May-98	BC	<50			
		51-95-17	Mar-96	BC	<50 (G) 56 (G)			
			Apr-96	CLS	<50			
			Aug-96	BC	<50 <50 (D)			
			Dec-96	BC	<200			
			May-97	BC	<200			
			Nov-97	BC	<50 <50 (S)			
			May-98	BC	<50			
			Aug-98	BC	<50			
	9	51-92-2	Aug-94	BC	<200			
		51B-93-18A	Jun-94	BC	<200			
			Jun-98	BC			ND	
		51-96-15	Jun-98	BC			**270** Crude/Waste Oil	

Table A4.5-1
Groundwater Monitoring Well Results
Concentrations of Total Petroleum Hydrocarbons and Oil & Grease
(Concentrations in µg/L)

RFI Unit	Area	Well No.	Date	Lab	TPH-Diesel	TPH-Gasoline	TPH-FI	Oil & Grease
	9	51-96-16	Jun-98	BC			**170** Crude/Waste Oil	
		51-96-17	Jun-98	BC			ND	
		51-96-18	Jun-98	BC			**510** Crude/Waste Oil	
		51-96-19	Jun-98	BC			**970** Crude/Waste Oil	
		64-97-1	May-98	BC			ND	
		64-97-2	May-98	BC			ND	
		51-97-3	Jun-98	BC			**150** Crude/Waste Oil	
		51-97-4	Jun-98	BC			**200** Crude/Waste Oil	
		51-97-12	Jun-98	BC			**340** Crude/Waste Oil	
		51-97-13	Jun-98	BC			ND	
		51-97-14	May-98	BC			ND	
		51-97-15	May-98	BC			ND	
		51-97-16	May-98	BC			**57** (Diesel)	
Temporary Wells and Borings								
	9	SB51-96-6	May-96	CLS				<5000
		SB51-96-8	Apr-96	CLS				**7300**
		SB51-96-12	Apr-96	CLS				**16000**
		SB51-96-27	Feb-97	BC			**1300** Crude/Waste Oil	
		SB51-96-28	Feb-97	BC			**220** Crude/Waste Oil	
		SB51-98-3	Jun-98	BC			**130** Crude/Waste Oil	
		SB51-98-4	Jul-98	BC			**4900** Crude/Waste Oil	
		SB51-98-5	Jun-98	BC			**1000** Crude/Waste Oil	
		SB51-98-6	Jul-98	BC			**780** Crude/Waste Oil	

	= Not Sampled
<	= Less than Quantitation Limit
ND	= All target analytes not detected above reporting limit

(D) = Duplicate sample
(G) = Grab sample
(S) = Split sample
TPH-FI - TPH-Fuel Identification

Analysis for TPH-FI, included: Light Naptha, Aviation Fuel, Stoddard/White Spirits, Heavy Naptha/Ligroin/ Petroleum Benzin, Gasoline, JP4, JP5, JP8, Kerosene/Jet Fuel, Diesel, Crude/Waste Oil, Hydraulic/Motor Oil, and WD-40

Table A4.5-2
Groundwater Monitoring Well Results
Semi-Volatile Organic Compounds
(Concentrations in µg/L)

Area	Well No.	Lab	Date	8270
1	MW90-3	BC	Aug-94	ND
	MW90-4	BC	Aug-94	ND
	MW90-5	BC	Sep-94	ND
	MW90-6	BC	Aug-94	ND
	46A-92-15	BC	Aug-94	ND
	71-93-1	BC	Aug-94	Bis(2-ethylhexyl)phthalate = 11
	71-93-2	BC	Aug-94	Bis(2-ethylhexyl)phthalate = 2
	46A-93-19	BC	Aug-94	ND
	71-94-1	BC	Aug-94	Bis(2-ethylhexyl)phthalate = 6
9	51-92-2	BC	Aug-94	ND
	51B-93-18A	BC	Sep-94	Bis(2-ethylhexyl)phthalate = 2
15	MWP-1	BC	Aug-94	ND

BC = Analysis by BC Laboratories

ND = All target analytes not detected above reporting limit

Table A4.5-3
Polychlorinated Biphenyls (PCBs)
Groundwater Monitoring Wells and
Temporary Groundwater Sampling Points
(Concentrations in µg/L)

Area	Well No.	Lab	Date	PCBs (8080)
Groundwater Monitoring Wells				
9	51B-93-18A	BC	Apr-99	<0.2
	51-96-15	BC	Apr-99	<0.2
	51-96-19	BC	Apr-99	<0.2
Temporary Groundwater Sampling Points				
9	SB51-96-6	CLS	Apr-96	<0.50
	SB51-96-8	CLS	Apr-96	Aroclor 1242=93
		BC	Nov-96	Aroclor 1242=56
	SB51-96-12	CLS	Apr-96	Aroclor 1242=6.2
		BC	Nov-96	Aroclor 1242=31
		BC	Dec-98	Aroclor 1242=12
	SB51-98-1	BC	Apr-99	<0.2
	SB51-98-3	BC	Jun-98	<0.2
		BC	Apr-99	<0.2
	SB51-98-4	BC	Jul-98	Aroclor 1242=22
		BC	Apr-99	Aroclor 1242=0.37
	SB51-98-5	BC	Jun-98	Aroclor 1260=0.92
		BC	Apr-99	<0.2
	SB51-98-6	BC	Jul-98	<0.2
		BC	Apr-99	<0.2

< = Less than Quantitation Limit

BC = Analysis by BC Laboratories
CLS = anaylsis by California Laboratory Services
All samples are grab samples

Table A4.5-4
CONCENTRATION OF METALS IN GROUNDWATER
(Concentrations in µg/L)

AREA	WELL NO.	LAB	DATE	Sb	As	Ba	Be	Cd	Cr	Cr6	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
			MCL:	6	50	1000	4	5	50	*	NS	1000 (a)	15 (b)	2	NS	100	50	100 (a)	2	NS	5000 (a)
1	MW90-3	LBNL	Dec-92	<2	<5.6	97	<0.7	<6.6	<0.4		<6.6	<0.2	<6.2		<12.2	<8	<0.2	<0.9	<19	<6.7	93
		LBNL	Jun-93	<10	<33.5	100	<4.5	<9	<7		<20.5	<5.5	<43.5	<1	<16.5	<61	<1	<12.5	<98.5	<24.5	<16.5
		BC	Mar-94	<100	<2	120	<10	<10	<10		<50	<10	<50	<0.2	<50	<50	<10	<20	<100	<10	<10
		BC	Mar-94	<100	<2	130	<10	<10	<10		<50	<10	<50	<0.2	<50	<50	<10	<20	<100	<10	<10
	MW90-4	LBNL	Jan-93	<10	<33.5	73	<4.5	<9	<7		<20.5	<5.5	<43.5		<16.5	<61	4.8	<12.5	<98.5	<24.5	<16.5
		LBNL	Jun-93	<10	<33.5	60	<4.5	<9	<7		<20.5	<5.5	<43.5	<0.1	<16.5	<61	5.7	<12.5	<98.5	<24.5	<16.5
		BC	Mar-94	<100	<2	90	<10	<10	<10		<50	<10	<50	<0.2	<50	<50	<10	<20	<100	<10	<10
	MW90-6	LBNL	Dec-92	<2	<5.6	<6.5	<0.7	<6.6	<0.4		<6.6	<0.2	<6.2		<12.2	<8	3	<0.9	<19	<6.7	<7.7
		LBNL	Jun-93	<10	<33.5	<25.5	<4.5	<9	<7		<20.5	<5.5	<43.5	<1	<16.5	<61	3.8	<12.5	<98.5	<24.5	<16.5
		BC	Mar-94	<100	6	<10	<10	<10	<10		<50	<10	<50	<0.2	<50	<50	<10	<20	<100	<10	<10
	46A-92-15	C	Oct-92	<20	<5	160	<1	<1	<10		<10	<5	<10	<1	12	<20	20	<5	<10	<10	5
		LBNL	Oct-92	<2	<5.6	195.2	<0.7	<6.6	<0.4		<6.6	<0.2	<6.2		<12.2	<8	<0.2	<0.9	<19	<6.7	7.3
		LBNL	May-93	<10	<33.5	200	<4.5	<9	<7		<20.5	<5.5	<43.5	<1	<16.5	<61	<1	<12.5	<98.5	<24.5	<16.5
		BC	Mar-94	<100	<10	210	<10	<10	<10		<50	<10	<50	<0.2	<50	<50	<10	<10	<100	<10	<10
	71-93-1	BC	Oct-93	<100	2.8	<100	<10	<5	10		<10	<10	<5	<0.2	<10	<50	<2	<10	<5	<50	<50
		AEN	Oct-93	<20	4	60	<2	<5	<10		<5	<10	<40	<0.3	<10	<10	<4	<5	<100	24	<5
		BC	Mar-94	<100	<2	50	<10	<10	<10		<50	<10	<50	<0.2	<50	<50	<2	<20	<100	20	<10
	71-93-2	BC	Oct-93	<100	<2	<100	<10	<5	10		<10	<10	<5	<0.2	<10	<50	<2	<10	<5	<50	72
		AEN	Oct-93	<20	4	110	<2	<5	<10		<5	<10	<40	<0.3	<10	<10	<4	<5	<100	25	11
		BC	Mar-94	<100	<2	100	<10	<10	<10		<50	<10	<50	<0.2	<50	<50	<2	<20	<100	30	<10
		LBNL	Jun-97											<0.2							
		LBNL	Jun-97											<0.2							
		BC	Jun-97											<0.2							
		BC	Jun-98											<0.2							
		LBNL	Apr-99											<0.2							
	46A-93-19	BC	Apr-94	<100	14	<10	<10	<10	<10		<50	<10	<50	<0.2	<50	<50	<2	<20	<100	<10	<10
		BC	Apr-94	<100	15	<10	<10	<10	<10		<50	<10	<50	<0.2	<50	<50	<2	<20	<100	<10	<10
		BC	Jun-95	<4	17	<100	<10	<5	<10		<10	<10	<5	<0.2	13	<50	<2	<10	<5	<50	<50
		LBNL	Feb-96	<50	13.1	<50	<5	<40	<50		<50	<50	<40	<0.2	<50	<50	<1	<50	<50	<50	<20
		CLS	May-96				<0.5	<5											<1		
		LBNL	May-97		13																

Table A4.5-4
CONCENTRATION OF METALS IN GROUNDWATER
(Concentrations in µg/L)

AREA	WELL NO.	LAB	DATE	Sb	As	Ba	Be	Cd	Cr	Cr6	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
			MCL:	6	50	1000	4	5	50	*	NS	1000 (a)	15 (b)	2	NS	100	50	100 (a)	2	NS	5000 (a)
1	46A-93-19	BC	May-97		14																
		BC	May-98		16																
		LBNL	May-99		15.4																
	71-94-1	AEN	Jun-94	<20	<2	140	<2	<5	<10		7	<10	<40	<0.2	<10	<10	<4	<5	<100	15	<10
		BC	Jun-94	<100	<2	140	<10	<10	<10		<50	<10	<50	<0.2	<50	<50	<2	<20	<100	20	<10
		BC	May-95	<4	<2	<100	<10	<5	<10		<10	<10	<5	<0.2	<10	<50	<2	<10	<5	<50	<50
		LBNL	Feb-96	<50	<2	<50	<5	<40	<50		<50	<50	<40	<0.2	<50	<50	<1	<50	<50	<50	<20
		CLS	Jun-96				<0.5	<5											<1		
		LBNL	Jun-97	<4	<2	98	<4	<5	<5		<5	<5	<5	<0.2	<50	<50	<2	<5	<1	<5	<20
	51-94-11	BC	Dec-94	<100	3	<100	<10	<5	<10		<10	<10	<5	<0.2	<10	<50	2	<10	<5	<50	<10
		AEN	Dec-94	<20	17	80	<2	<5	<10		<5	<10	<40	<0.2	<10	<10	13	<5	<100	<5	<10
		BC	Jun-95	<4	3.6	<100	<10	<5	<10		<10	<10	<5	<0.2	<10	<50	<2	<10	<5	<50	<50
		LBNL	Feb-96	<50	4.9	<50	<5	<40	<50		<50	<50	<40	<0.2	<50	<50	<1	<50	<50	<50	<20
		CLS	Jun-96				<0.5	<5											<1		
	71-95-1	BC	May-95	<4	<2	<100	<10	<5	<10		<10	<10	<5	<0.2	<10	<50	2.8	<10	<100	<50	<50
		AEN	May-95	<20	<2	70	2	<5	<10		<5	<10	<40	<0.2	<10	<10	<4	<5	<50	17	<10
		LBNL	Feb-96	<50	<2	<50	<5	<40	<50		<50	<50	<40	<0.2	<50	<50	<1	<50	<50	<50	<20
		CLS	Jun-96				<0.5	<5											<1		
		LBNL	May-98		14.1																
	71-95-8	BC	May-95	<4	17	170	<10	<5	<10		<10	<10	<5	<0.2	<10	<50	<2	<10	<100	<50	<50
		AEN	May-95	<20	25	180	<2	<5	<10		<5	<10	<40	<0.2	<10	<10	4	<5	<50	<5	<10
		LBNL	Mar-96	<50	11.6	58	<5	<40	<50		<50	<50	<40	<0.2	<50	<50	<1	<50	<50	<50	<20
		CLS	Jun-96				<0.5	<5											<1		
		LBNL	May-97		15.6																
		LBNL	May-98		15.6																
		LBNL	Apr-99		23.9																
	71-95-9	BC	May-95	<4	2	<100	<10	<5	<10		<10	<10	<5	<0.2	<10	<50	<2	<10	<100	<50	<50
		AEN	May-95	<20	3	70	<2	<5	<10		<5	<10	<40	<0.2	<10	<10	<4	<5	<50	18	<10
		LBNL	Feb-96	<50	<2	<50	<5	<40	<50		<50	<50	<40	<0.2	<50	<50	<1	<50	<50	<50	23

Table A4.5-4
CONCENTRATION OF METALS IN GROUNDWATER
(Concentrations in µg/L)

AREA	WELL NO.	LAB	DATE	Sb	As	Ba	Be	Cd	Cr	Cr6	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
			MCL:	6	50	1000	4	5	50	*	NS	1000 (a)	15 (b)	2	NS	100	50	100 (a)	2	NS	5000 (a)
1	71-95-9	CLS	May-96				<0.5	<5											<1		
		LBNL	May-97	<4	<2	88.7	<4	<5	<5		<5	<5	<5	<0.2	<50	<50	<2	<5	<1	<5	<20
	71-97-23	LBNL	Oct-97	<1	<2	142	<1	<1	<5		<5	<1	<1	<0.2	<5	6.6	<2	<1	<1	5.1	6.9
		BC	Oct-97	<4	<2	173	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		BC	May-98	<100	<2	208	<10	<10	<10		<50	<10	<10	<0.2	<50	<50	<2	<10	<1	<10	<50
		LBNL	May-99	<1	<2	238	<1	<1	1.5		<1	19.6	<1	<0.2	1.0	8.0	<2	<1	<1	5.8	22.6
	71B-98-13	LBNL	Jun-99	<1	3.5	41.2	<1	<1	2.5		1.5	3.9	<1	<0.2	1.5	2.9	<2	<1	<1	2.4	6.1
		BC	Jun-99	<1	<50	<100	<1	<1	<10		<50	<10	<5	<0.2	<50	<50	<100	<10	<1	<10	<50
	71B-99-3	LBNL	Dec-99	<1	2.3	278	<1	<1	2.7		<1	2.4	<1	<0.2	3.0	3.5	<2	<1	<1	7.5	<5
		BC	Dec-99	<4	<2	290	<0.2	<1	<10		<50	<10	<5	<0.2	<50	<10	<2	<10	<1	<10	<10
	71B-00-2	LBNL	Jun-00	<1	36.2	29.9	<1	<1	3.1		<1	2.1	<1	<0.2	148	<1	6.7	<1	<1	22.3	<5
		BC	Jun-00	<4	41.0	<100	<0.2	<1	<10		<50	<10	<5	<0.2	130	<10	3.8	<10	<1	20	<10
9	51-92-2	C	Apr-92	<20	40	40	<1	<1	<10		<10	10	<10	<1	1400	<20	<10	<5	<10	<10	<5
		C	Sep-92	<20	50	<5	<1	<1	<10		<10	<5	<10	<1	1200	30	<10	<5	<10	<10	7
		LBNL	Dec-92	<2	43	<6.5	<0.7	<6.6	3.9		<6.6	4.7	<6.2		840	<8	9.3	<0.9	<19	<6.7	<7.7
		LBNL	Jun-93	<10	50	60	<4.5	<9	<7		<20.5	<5.5	<43.5	<0.1	970	<61	<1	<12.5	<98.5	<24.5	<16.5
		BC	Feb-94	<100	10	20	<10	<10	<10		<50	10	<50	<2	610	<50	<10	<20	<100	<10	20
		BC	May-95	<4	10	<100	<10	<5	<10		<10	<10	<5	<0.2	350	<50	<2	<10	<5	<50	<10
		LBNL	Feb-96	<50	11.7	<50	<5	<40	<50		<50	<50	<40	<0.2	386	<50	<1	<50	<50	<50	<20
		CLS	Jun-96				<0.5	<5											<1		
		LBNL	May-97	<4	9.0	<50	<4	<5	<5		<5	<5	<5	<0.2	460	<50	<2	<5	<1	<5	<20
		BC	May-98		11										404						
		LBNL	May-99		14.4										430						
		BC	Jun-99							<2											
		LBNL	Feb-00	<2	4.6	33.2	<1	<2	4.1		<1	<1	<1	<0.2	367	<1	<2	<1	<1	2.9	5.9
		BC	Feb-00							<2											
	51-92-3-12'	LBNL	Jan-00	<1	8.6	5.9	<1	<1	5.5		<1	<1	<1	<0.2	360	1.7	<2	<1	<1	4.2	<5
		LBNL	Feb-00	<2	8.3	8.3	<1	<2	<1	<25	<1	<1	<1	<0.2	424	1.5	<2	<1	<1	1.4	<5
	51-92-3-32'	BC	Nov-93	<100	20	<100	<10	<5	30		<10	<10	<5	<0.2	148	<50	2.6	<10	<5	<50	80
		LBNL	Jan-00	4.1	6.9	21.7	<1	<1	14.2		<1	6.9	<1	<0.2	75.5	<1	<2	<1	<1	5.0	<5

Table A4.5-4
CONCENTRATION OF METALS IN GROUNDWATER
(Concentrations in µg/L)

AREA	WELL NO.	LAB	DATE	Sb	As	Ba	Be	Cd	Cr	Cr6	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
			MCL:	6	50	1000	4	5	50	*	NS	1000 (a)	15 (b)	2	NS	100	50	100 (a)	2	NS	5000 (a)
9	51-92-3-42'	BC	Nov-93	<100	22	<100	<10	**5.7**	27		<10	<10	7.4	<0.2	239	<50	5.2	<10	<5	<50	90
		LBNL	Jan-00	<1	11.5	12.2	<1	<1	5.6		<1	<1	<1	<0.2	344	2.3	<2	<1	<1	3.1	5.5
	51-92-3-52'	BC	Nov-93	<100	19	<100	<10	<5	21		<10	<10	5.2	<0.2	282	<50	6.6	<10	<5	<50	63
		LBNL	Jan-00	1.0	12.6	21.4	<1	<1	7.2		<1	1.3	<1	<0.2	380	2.3	<2	<1	<1	4.2	8.1
	51-92-3-62'	BC	Nov-93	<100	18	<100	<10	<5	14		<10	<10	10.8	<0.2	370	<50	<2	<10	<5	<50	61
		LBNL	Jan-00	<1	22.7	56.1	<1	<1	7.2		<1	<1	<1	<0.2	489	1.2	<2	<1	<1	3.1	7.5
	51B-93-18A	AEN	Jun-94	<20	**100**	<50	<2	<5	<10		<5	<10	<40	<0.2	90	<10	<4	<5	<100	34	<10
		BC	Jun-94	<100	**77**	10	<10	<10	<10		<50	<10	<50	<0.2	90	<50	<2	<10	<100	40	<10
		BC	Jun-95	<4	**91**	<100	<10	<5	<10		<10	<10	<5	<0.2	98	<50	3.2	<10	<5	<50	<50
		AEN	Jun-95	<20	**120**	10	<2	<5	<10		<5	<10	<40	<0.2	110	<10	<4	<5	<50	28	<10
		BC	Feb-96	5	**67**	<100	<10	<10	<10		<50	<10	<5	<0.2	109	<50	6	<10	<5	24	<50
		LBNL	Feb-96	<50	**56.3**	<50	<5	<40	<50		<50	<50	<40	<0.2	116	<50	<1	<50	<50	<50	<20
		CLS	Jun-96				<0.5	<5											<1		
		CLS	Jun-96				<0.5	<5											<1		
		LBNL	Jun-97	<4	**50.4**	<50	<4	<5	<5		<5	<5	<5	<0.2	63	<50	<2	<5	<1	<5	<20
		BC	Jun-97	<4	**67**	<100	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		BC	May-98		**72**									<0.2	<50						
		LBNL	May-99		45.3									<0.2	71.2						
	46-94-16	BC	Dec-94	<100	2	<100	<10	<5	<10		<10	<10	<5	<0.2	<10	<50	3	<10	<5	<50	14
		BC	Dec-94	<100	<2	<100	<10	5	<10		<10	<10	<5	<0.2	<10	<50	<2	<10	<5	<50	<50
		BC	Jun-95	<4	<2	<100	<10	<5	<10		<10	<10	<5	<0.2	<10	<50	<2	<10	<5	<50	<50
		LBNL	Feb-96	<50	<2	<50	<5	<40	<50		<50	<50	<40	<0.2	<50	<50	<1	<50	<50	<50	<20
		CLS	May-96				<0.5	<5											<1		
	51-95-17	BC	Aug-96	<100	32	<100	<10	<10	<10		<50	<10	<5	<0.2	98	<50	8.4	<10	<1	27	<50
		BC	Aug-96	<4	39	<100	<10	<10	<10		<50	<10	<5	<0.2	95	<50	9.0	<10	<1	21	<50
		LBNL	May-97	<4	16.4	82	<4	<5	<5		<5	<5	<5	<0.2	66	<50	33.9	<5	<1	81	<20
		BC	May-98	<100	14	104	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	17	<10	<1	<10	<50
		LBNL	May-99	1.1	18.4	81.4	<1	<1	3.6		<1	6.2	<1	<0.2	32.9	<1	34.8	<1	<1	11.7	5.3
	51-96-3	BC	Jul-96	<4	3.1	<100	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		LBNL	Jul-96	<4	<2	<50	<4	<40	<50		<50	<50	<15	<0.2	<50	<50	<1	<50	<10	<50	<20

Table A4.5-4
CONCENTRATION OF METALS IN GROUNDWATER
(Concentrations in µg/L)

AREA	WELL NO.	LAB	DATE	Sb	As	Ba	Be	Cd	Cr	Cr6	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
			MCL:	6	50	1000	4	5	50	*	NS	1000 (a)	15 (b)	2	NS	100	50	100 (a)	2	NS	5000 (a)
9	51-96-15	BC	Jan-97	<4	8.4	<100	<10	<10	16		<50	<10	<5	<0.2	<50	<50	7	<10	<1	14	<50
		CLS	Jan-97	<5	<10	51	<0.5	<5	19		<50	<10	<5	<0.2	<50	<50	5.2	<10	<1	15	<20
		LBNL	Apr-97	<4	22.8	87	<4	<5	<5		<5	<5	<5	<0.2	<50	<50	<2	<5	<1	<5	<20
		BC	Jun-98	<100	6.0	<100	<10	<10	20		<50	<10	<5	<0.2	<50	<50	9	<10	<4	15	<10
		LBNL	May-99	<1	16.2	23.1	<1	<1	21.3		1.5	1.0	<1	<0.2	3.6	2.2	15.0	<1	<1	15.8	<5
	51-96-16	BC	Jan-97	<4	<2	100	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		CLS	Jan-97	<5	<10	80	<0.5	<5	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	23
		LBNL	Jun-97	<4	18.2	75	<4	<5	5.2		<5	<5	<5	<0.2	81	<50	25	<5	<1	<5	<20
		BC	Jun-98	<100	<2	<100	<10	<10	<10		<50	12	<5	<0.2	<50	<50	<2	<10	<1	<10	17
		LBNL	Jun-99	<1	2.3	95.6	<1	<1	5.7		<1	2.4	<1	<0.2	1.7	3.3	<2	<1	<1	3.7	<5
	51-96-17	BC	Jan-97	<4	10	120	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		CLS	Jan-97	<5	10	130	<0.5	<5	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	25
		LBNL	Apr-97	<4	**56.3**	<50	<4	<5	<5		<5	6	<5	<0.2	63	<50	<2	<5	<1	<5	<20
		BC	Jun-98	<100	8.4	170	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<10	<10	14
		LBNL	Jun-99	<1	10.6	71.1	<1	<1	2.6		<1	1.8	<1	<0.2	37.0	<1	<2	<1	<1	8.5	<5
	51-96-18	BC	Jan-97	<4	9.7	<100	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	3	<10	<1	<10	<50
		CLS	Jan-97	<5	<10	73	<0.5	<5	<10		<50	<10	<5	<0.2	<50	<50	2.8	<10	<1	<10	<20
		LBNL	Apr-97	<4	10.4	130	<4	<5	<5		<5	<5	<5	<0.2	<50	<50	<2	<5	<1	<5	<20
		BC	Jun-98	<100	7.3	<100	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	4.0	<10	<1	<10	<10
		LBNL	Jun-98	1	6.6	86.1	<1	<1	3.9		<1	1.7	<1	<0.2	12.6	<1	2.6	<1	<1	7.0	<5
		LBNL	Jun-99	<1	5.8	97.2	<1	<1	7.6		3.0	<1	<1	<0.2	<1	6.5	3.8	<1	<1	8.7	<5
	51-96-19	BC	Jan-97	<4	<2	190	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		CLS	Jan-97	<5	<10	190	<0.5	<5	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<20
		LBNL	Apr-97	<4	2.1	117	<4	<5	5.8		<5	<5	<5	<0.2	<50	<50	<2	<5	<1	<5	<20
		BC	Jun-98	<100	2.5	150	<10	<10	11		<50	<10	<5	<0.2	<50	<50	<2	<10	<4	<10	<10
		LBNL	May-99	<1	4.3	163	<1	<1	9.6		<1	10.9	<1	<0.2	15.7	1.3	<2	<1	<1	8.3	12.5
	64-97-1	LBNL	Jul-97	<4	**57.8**	<50	<4	<5	<5		<5	<5	<5	<0.2	210	<50	8.8	<5	<1	78.7	<20
		BC	Jul-97	<100	**69**	<100	<10	<10	<10		<50	<10	<5	<0.2	144	<50	5.5	<10	<1	43	<50
		BC	May-98	<100	**62**	<100	<10	<10	<10		<50	<10	<5	<0.2	148	<50	5.3	<10	<1	39	<50
		LBNL	May-99	<1	**60**	<1	<1	<1	2.5		<1	12.3	<1	<0.2	123	2.1	5.7	<1	<1	3.7	8.5

Table A4.5-4
CONCENTRATION OF METALS IN GROUNDWATER
(Concentrations in µg/L)

AREA	WELL NO.	LAB	DATE	Sb	As	Ba	Be	Cd	Cr	Cr6	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
			MCL:	6	50	1000	4	5	50	*	NS	1000 (a)	15 (b)	2	NS	100	50	100 (a)	2	NS	5000 (a)
9	64-97-2	LBNL	Jul-97	<4	7.1	<50	<4	<5	<5		<5	<5	<5	<0.2	<50	<50	**110**	<5	<5	51.3	<20
		BC	Jul-97	<100	13	<100	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	**84**	<10	<1	16	<50
		BC	May-98	<100	3.2	<100	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	**79**	<10	<1	<10	<50
		LBNL	May-99	<1	16.4	25.0	<1	<1	5.3		<1	11.5	<1	<0.2	14.0	<1	**93**	<1	<1	4.5	11.5
	51-97-3	LBNL	Aug-97	<4	<2	154	<4	<5	<5		<5	<5	<5	<0.2	<50	<50	<2	<5	<5	<5	<20
		BC	Aug-97	<100	<2	150	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		BC	Jun-98	<100	<2	180	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<10	<10	20
		LBNL	May-99	<1	<2	18.7	<1	<1	4.8		<1	<1	<1	<0.2	<1	<1	<2	<1	<1	<1	<5
	51-97-4	LBNL	Aug-97	<4	6.0	<50	<4	<5	<5		<5	<5	<5	<0.2	116	<50	<2	<5	<1	12	<20
		BC	Aug-97	<4	10.7	<100	<10	<10	<10		<50	<10	<5	<0.2	120	<50	<2	<10	<1	18	56
		BC	Jun-98	<100	10	<100	<10	<10	<10		<50	<10	<5	<0.2	87	<50	<2	<10	<4	24	<10
		LBNL	May-99	<1	8.4	10.8	<1	<1	<1		<1	<1	<1	<0.2	88.0	<1	<2	<1	<1	7.4	5.7
	51-97-12	LBNL	Oct-97	<1	3.6	260	<1	<1	<5		7.9	<1	<1	<0.2	<5	9.1	3.4	<1	<1	2.4	<5
		BC	Oct-97	<4	4.4	330	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		BC	Jun-98	<100	4.3	420	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<10	<10	47
		LBNL	May-99	<1	<2	360	<1	<1	<1		1.4	<1	<1	<0.2	<1	2.5	<2	<1	<1	<1	<5
	51-97-13	LBNL	Oct-97	<1	<2	200	<1	<1	<5		<5	<1	<1	<0.2	<5	<5	<2	<1	<1	1.4	<5
		BC	Oct-97	<4	<2	227	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		BC	Jun-98	<100	<2	245	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<4	<10	12
		LBNL	May-99	<1	<2	250	<1	<1	<1		<1	<1	<1	<0.2	<1	1.3	<2	<1	<1	<1	<5
	51-97-14	LBNL	Oct-97	<1	<2	69.2	<1	<1	<5		<5	<1	<1	<0.2	<5	<5	<2	<1	<1	1.6	25.6
		BC	Oct-97	<4	<2	<100	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		LBNL	May-98	<1	3.8	123	<1	<1	2.4		1.1	2.1	<1	<0.2	1.9	<1	5.7	<1	<1	1.2	<5
		LBNL	Apr-99	<1	4.4	187	<1	<1	4.0		2.3	6.6	<1	<0.2	1.2	4.5	<2	<1	<1	<1	8.8
	51-97-15	LBNL	Oct-97	<1	3.9	260	<1	<1	<5		<5	<1	<1	<0.2	5.1	6.3	2.2	<1	<1	1.5	6.7
		BC	Oct-97	<4	2.1	330	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		LBNL	May-98	<1	8.9	201	<1	<1	3.7		1.4	1.1	<1	<0.2	4.9	<1	11.2	<1	<1	1.0	<5
		LBNL	Apr-99	1.0	11.2	328	<1	<1	2.5		3.3	<1	<1	<0.2	3.1	3.8	<2	<1	<1	<1	<5

Table A4.5-4
CONCENTRATION OF METALS IN GROUNDWATER
(Concentrations in µg/L)

AREA	WELL NO.	LAB	DATE	Sb	As	Ba	Be	Cd	Cr	Cr6	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
			MCL:	6	50	1000	4	5	50	*	NS	1000 (a)	15 (b)	2	NS	100	50	100 (a)	2	NS	5000 (a)
9	51-97-16	LBNL	Oct-97	<1	<2	72.5	<1	<1	<5		<5	<1	<1	<0.2	<5	<5	3.1	<1	<1	1.1	<5
		BC	Oct-97	<4	<2	<100	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		BC	May-98	<100	<2	<100	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		LBNL	May-99	<1	<2	102	<1	<1	1.2		1.2	4.4	<1	<0.2	1.5	5.4	<2	<1	<1	<1	5.8
	56-98-2	LBNL	Jul-98	<1	13.8	43.5	<1	<1	17.1		4.4	2.3	<1	<0.2	2.0	23.1	<2	<1	<1	9.6	14.3
		BC	Jul-98	<100	18	249	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		LBNL	May-99	<1	22.6	395	<1	<1	2.7		2.6	<1	<1	<0.2	2.3	7.1	<2	<1	<1	1.0	20.1
	64-98-4	LBNL	Jul-98	<1	10.9	28	<1	<1	8.5		<1	1.7	<1	<0.2	25.7	<1	2.8	<1	<1	15.1	<5
		BC	Jul-98	<100	20	<100	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
		LBNL	Jun-99	<1	8.0	51.7	<1	<1	2.2		<1	2.1	<1	<0.2	11.9	<1	2.1	<1	<1	1.1	<5
	64-98-19	LBNL	Jul-99	<1	37	6.2	<1	<1	5.5		<1	16.0	1.4	<0.2	60.8	<1	<2	<1	<1	19.6	<5
		BC	Jul-99	<1	37	<100	<1	<1	<10		<50	14	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
	64-98-20	LBNL	Jul-99	<1	17.9	13.1	<1	<1	5.3		<1	1.5	2.1	<0.2	62.6	<1	3.8	<1	<1	20.7	17.9
		BC	Jul-99	<1	13	<100	<1	<1	<10		<50	<10	<5	<0.2	51	<50	2.9	<10	<1	<10	14
	51-98-5	LBNL	Oct-99	<1	<2	75.0	<1	<1	11.5		<1	1.5	<1	<0.2	1.1	1.0	<2	<1	<1	5.7	<5
		BC	Oct-99	<4	<2	<100	<0.2	<1	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
	51-99-1	LBNL	Dec-99	1.9	12.8	17.5	<1	<1	<5		<1	1.1	<1	<0.2	14.7	1.2	<2	<1	<1	3.0	<5
		BC	Dec-99	<4	9.6	<100	<0.2	<1	<10		<50	<10	<5	<0.2	<50	<10	<2	<10	<1	<10	<10
	51-00-1	LBNL	Feb-00	<2	13.3	9.9	<1	<2	18		<1	<1	<1	<0.2	138.0	3.6	7.2	<1	<1	6.6	<5
		BC	Feb-00	<4	8.6	<100	<0.2	<1	<10	<2	<50	<10	<5	<0.2	120.0	<10	7.1	<10	<1	<10	<10
15	MWP-1	LBNL	Dec-92	<2	<5.6	260	<0.7	<6.6	<0.4		<6.6	<0.2	<6.2		<12.2	<8	<2	<0.9	<19	<6.7	<7.7
		LBNL	Jun-93	<10	<33.5	240	<4.5	<9	<7		<20.5	<5.5	<43.5	<0.1	<16.5	<61	<1	<12.5	<98.5	<24.5	<16.5
		BC	Mar-94	<100	3	190	<10	<10	<10		<50	<10	<50	<0.2	<50	<50	<2	<20	<100	<10	<10
		BC	May-95	<4	<2	180	<10	<5	<10		<10	<10	<5	<0.2	<10	<50	<2	<10	<5	<50	<50
		LBNL	Feb-96	<50	2.8	<50	<5	<40	<50		<50	<50	<40	<0.2	<50	<50	<1	<50	<50	<50	<20
		CLS	May-96				<0.5	<5											<1		
		LBNL	May-97	<4	<2	261	<4	<5	<5		<5	<5	<5	<0.2	<50	<50	<2	<5	<1	<5	<20

Table A4.5-4
CONCENTRATION OF METALS IN GROUNDWATER
(Concentrations in µg/L)

AREA	WELL NO.	LAB	DATE	Sb	As	Ba	Be	Cd	Cr	Cr6	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
			MCL:	6	50	1000	4	5	50	*	NS	1000 (a)	15 (b)	2	NS	100	50	100 (a)	2	NS	5000 (a)
15	63-98-18	LBNL	Mar-99	<1	5.1	322	<1	<1	15.5		3.4	<1	<1	<0.25	2.3	1.6	7.9	<1	<1	4.3	14.1
		BC	Mar-99	<1	<50	336	<1	<1	<10		<50	26	<5	<0.2	<50	<50	<100	<10	<1	<10	17
Temporary Wells and Borings																					
9	SB51-96-8	BC	Dec-96	<4	2.6	300	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	39.0	<50
	SB51-96-12	BC	Dec-96	<4	27	170	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	<2	<10	<1	<10	<50
9	SB51-96-20	CLS	Apr-96	<50	7.2	21	<5	<10	31		<50	<10	<50	<0.2	220	<50	<2	<10	<200	<20	<20
		BC	Sep-96							3											
		CLS	Nov-96							26											
		BC	Nov-96							45											
		BC	Nov-96							**93**											
		BC	Dec-97							49											
		BC	Dec-97							**56**											
		BC	Oct-99							<2											
	SB51-96-20R	LBNL	Feb-00	<2	6.4	3.4	<1	<2	44.1		<1	2.6	<1	<0.2	92.9	<1	2.6	<1	<1	30.2	<5
		BC	Feb-00							41											
	SB51-96-22	LBNL	Apr-96	<50	3.7	<50	<5	<40	<50		<50	<50	<40	<0.2	125	<50	<1	<50	<50	<50	<20
		BC	Dec-97							<10											
		BC	Dec-97							<10											
		BC	Jun-99							<2											
		BC	Oct-99							<2											
		LBNL	Feb-00	<2	5.8	43.9	<1	<2	4.0	<25	<1	6.5	<1	<0.2	27.6	<1	<2	<1	<1	2.9	13.4
	SB51-98-3	BC	Jul-98	<100	15	<100	<10	<10	<10		<50	<10	<5	<0.2	69.0	<50	<2	<10	<1	<10	<50
	SB51-98-4	BC	Jul-98	<100	15	130	<10	<10	<10		<50	<10	<5	<0.2	50.0	<50	2.1	<10	<1	12.0	<50
	SB51-98-5	BC	Jul-98	<100	15	<100	<10	<10	<10		<50	<10	<5	<0.2	<50	<50	5.0	<10	<1	<10	<50
	SB51-98-6	BC	Jul-98	<100	29	<100	<10	<10	<10		<50	<10	<5	<0.2	91.0	<50	<2	<10	<1	28.0	<50

MCL: Maximum contaminant level for drinking water (determined

(a): secondary MCL

(b): action level

NS: Not Specified

*MCL for total chromium is used when there is no total chromium sample

<	= Less than Quantitation Limit
40	= concentration above MCL
	= Not analyzed

AEN = Analysis by American Environmental Network
BC = Analysis by BC Analytical laboratory
C = Analysis by Chromalab
CLS = Analysis by California Laboratory Services
LBNL = Analysis by Lawrence Berkeley National Laboratory
Q = Analysis by Quanteq

Table A4.6-1
Surface Water Sampling Results - Bevalac Area
Volatile Organic Compounds in Water
EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	B71 Spring May-93	Dec-95	Dec-95	Dec-95 (a)	Dec-95 (b)	Apr-96	Mar-00
Aromatic and Non-Halogenated Hydrocarbons								
Benzene	1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<2	<2	<2	<2	<2	<1
sec-Butylbenzene		<1	<2	<2	<2	<2	<2	<1
ter-Butylbenzene		<1	<2	<2	<2	<2	<2	<1
Ethylbenzene	700	<1	<2	<2	<2	<2	<2	<1
Isopropylbenzene		<1	<1	<1	<1	<1	<1	<2
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1
Naphthalene		<1	<1	<1	<1	<1	<1	<2
n-Propylbenzene		<1	<2	<2	<2	<2	<2	<1
Toluene	150	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<2	<2	<2	<2	<2	<1
1,3,5-Trimethylbenzene		<1	<2	<2	<2	<2	<2	<1
Xylenes, total	1750	<1	<2	<2	<2	<2	<2	<2
Total Aromatic or Non-Halogenated Hydrocarbons								
Halogenated Non-Aromatic Hydrocarbons								
Bromodichloromethane		<1	1.4	1.1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	<1	46.0	37.8	1.7	<1	2.7	<1
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<1	<1	<1	<1	<1	<1	<2
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane		<1	<2	<2	<2	<2	<2	<2
1,1,1,2-Tetrachloroethane		<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<1	<1	<1	<1	<1	<1	<1
Freon-113	1200	7.3	31.2	24.8	<1	<1	11.0	1.7
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		7.3	78.6	63.7	1.7		13.7	1.7
Total Concentration of VOCs		7.3	78.6	63.7	1.7		13.7	1.7

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
(a) sample taken at former outlet to B64 stormdrain
(b) sample taken at 30" drain to Strawberry Creek Erosion Control Basin

Table A4.6-1 (Cont'd)
Surface Water Sampling Results - Bevalac Area
Volatile Organic Compounds in Water
EPA Method 8260
(concentrations in µg/L)

Constituent	MCL	North Fork Strawberry Creek																				
		Feb-93	Feb-93 (a)	Apr-93	Aug-93	(D)	Mar-94	Jul-94	(D)*	Jan-95*	May-95* (b)	(D)* (b)	Jul-95	Dec-95 (b)	Jan-96	Apr-96	Apr-97	Jan-98	Apr-98	Apr-99	Jan-00	Mar-00 (b)
Aromatic and Non-Halogenated Hydrocarbons																						
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1
ter-Butylbenzene		<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1
Ethylbenzene	700	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1
Isopropylbenzene		<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene		<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2
n-Propylbenzene		<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1
Toluene	150	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<1	<1	<1	<1	<1	<1
Xylenes, total	1750	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Aromatic or Non-Halogenated Hydrocarbons																						
Halogenated Non-Aromatic Hydrocarbons																						
Bromodichloromethane		<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	10	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane		<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,1,2-Tetrachloroethane		<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	0.95	0.91	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Freon-113	1200	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons											0.95	0.91										
Total Concentration of VOCs											0.95	0.91										

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted
* = Analysis by BC Laboratories

<< = Less than Quantitation Limit
(D) = Duplicate sample

(a) - Sample taken at UC Women's Faculty Club
(b) Sample taken at Erosion Control Basin

Table A4.6-2.
North Fork Strawberry Creek Surface Water Sampling Results
SVOCs, PCBs, and Fuels
(Concentrations in ug/L)

Date	SVOCs 8270	PCBs 8080	Fuel Identification 8015M
Apr-96*			ND
Apr-98	diethyl phthalate = 2.2		
Jul-98	ND		
Jul-99		<0.2	
Jul-99 (E C B)		<0.2	

ND or < = Not detected above reporting limit
(E C B) = Erosion control basin
*B51 Stormdrain discharge at North Fork Strawberry Creek

Table A4.6-3
Surface Water Sampling Results - Bevalac Area
Metals
(Concentrations in µg/L)

			Sb	As	Ba	Be	Cd	Cr	Cr6	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
		MCL:	6	50	1000	4	5	50		NS	1000 (a)	15 (b)	2	NS	100	50	100 (a)	2	NS	5000 (a)
LOCATION	LAB	DATE																		
North Fork Strawberry Creek	(C)	Aug-93	<20	<5	96	<1	<1	<10		<10	<5	<10	<1	15	<20	<10	7	<10	<10	93
			<20	<5	45	<1	<1	<10		<10	<5	<10	<1	<5	<20	<10	<5	<10	40	8
	(BC)	Jul-94	<100	<2	<100	<10	<5	<10		<10	<10	<5	<0.20	<10	<50	<2	<10	<5	<50	<50
			<100	2	<100	<10	<5	<10		<10	<10	<5	<0.20	<10	<50	<2	<10	<5	<50	<50
	(BC)	Jul-95	<4	<2	<100	<10	<5	<10		<10	<10	<5	<0.20	<10	<50	<2	<10	<5	<50	<50
	(BC)	Jan-96	<4	2.4	<100	<10	<5	<10		<10	<10	<5	<0.20	<10	<50	<2	<10	<5	<50	<50
	LBNL	Apr-96	<50	<2	<50	<5	<40	<50		<50	<50	<40	<0.20	<50	<50	<1	<50	<50	<50	<20
	LBNL	Apr-97	<4	<2	104	<4	<5	<5		<5	<5	<5	<0.20	<50	<50	<2	<5	<1	<5	<20
	LBNL	Jan-98	<1	<2	40.2	<1	<1	<5		<5	2.3	<1	<0.10	<5	<5	<2	<1	<1	4.3	8.8
	LBNL	Apr-98	<1	<2	48.7	<1	<1	1.0		<1	1.9	2.9	<0.20	1.4	<1	5.2	<1	<1	5.1	6.9
	LBNL	Apr-99	<1	4.2	76.9	<1	<1	8.6		<1	1.2	<1	<0.25	2.5	<1	4.5	<1	<1	15.9	9.3
	BC	Jul-99							4.2											
Erosion Control Basin >	BC	Jul-99							<2											
	LBNL	Jan-00	<1	<2	41.0	<1	<1	2.5		<1	4.6	<1	<0.10	1.6	1.5	<2	<1	<1	5.4	51.6
	BC	Jan-00							<2											

MCL: Maximum contaminant level for drinking water (determined by California DTSC)
(BC) = Analysis by BC Laboratories
(C) = Analysis by Chromalab
LBNL: Analysis by Lawrence Berkeley National Laboratory

(a): secondary MCL
(b): action level
NS: Not Specified

< = Not detected above quantitation limit
= Not analyzed

Table A4.6-4
LBNL Hydrauger Monitoring Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

51-01-01

Detected Compounds	MCL	Jan-93	Feb-93	Jan-94	Feb-94	Mar-94	Jan-95	(D)	May-95	Jun-95*	(D)	Dec-95	Feb-96	Mar-96	Mar-96	Apr-96	May-96	Jun-96	Jul-96	Aug-96	Sep-96	Oct-96	Nov-96	Dec-96
Halogenated Hydrocarbons																								
Bromodichloromethane		<1	<1	<1	<1	<1	<1	<1	5.3	0.63	5.3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	1.1	<1	<1	<1	<1	<1	<1	18.2	16.0	20.3	21.2	11.7	20.9	20.6	9.4	12.4	<1	8.6	10.4	12.7	12.6	8.1	5.7
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	3.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	6	5.6	<1	1.3	1.2	1.3	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	1.2	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	2.8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	2.0	<1	3.8	3.9	5.6	<1	<1	1.1	0.85	1.3	1.2	<1	<1	<1	<1	<1	<1	<1	<1	1.7	1.4	1.2	<1
Freon-11		2.7	<1	1.1	1.0	1.4	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2
Freon-113	1200	53.0	<1	<1	131.6	264.2	970.0	960.0	90.1	100	96.5	113	207.0	106.0	198.0	64.9	73.0	81.0	64.4	63.9	92.1	94.9	107.0	69.2
Total Halogenated Hydrocarbons		65.6		6.2	137.7	272.5	970.0	960.0	109.4	116.9	124.4	135.4	218.7	126.9	218.6	74.3	85.4	81.0	73.0	74.3	106.5	108.9	116.3	74.9

Detected Compounds	MCL	Jan-97	Feb-97	Mar-97	Apr-97	May-97	Jun-97	Jul-97	Aug-97	Sep-97	Oct-97	Nov-97	Dec-97	Jan-98*	Feb-98	Mar-98	Apr-98	May-98	Jun-98	Jul-98	Aug-98	Sep-98	Oct-98	Nov-98
Halogenated Hydrocarbons																								
Bromodichloromethane		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	2.2	2.2	3.5	5.9	5.6	7.4	8.2	8.1	8.3	10.1	8.7	5.7	4.7	1.2	2.8	2.0	1.9	1.8	2.0	2.0	2.0	1.8	1.7
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<1	<1	<1	1.3	1.2	1.6	2.1	1.9	2.1	2.6	2.5	1.8	1.8	<1	1.5	1.0	1.1	1.0	1.1	1.2	1.1	1.1	<1
Freon-11		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Freon-113	1200	29.1	43.9	61.2	91.8	80.1	80.1	50.1	44.3	25.6	42.0	32.6	67.8	54.0	20.0	66.9	47.5	45.9	42.7	45.8	39.0	22.8	16.3	13.0
Total Halogenated Hydrocarbons		31.3	46.1	64.7	99.0	86.9	89.1	60.4	54.3	36.0	54.7	43.8	75.3	60.5	21.2	71.2	50.5	48.9	45.5	48.9	42.2	25.9	19.2	14.7

Detected Compounds	MCL	Dec-98	Jan-99	Feb-99	Mar-99	Apr-99	May-99	Jun-99	Jul-99	Aug-99	Sep-99	Oct-99	Nov-99	Dec-99	Jan-00	Feb-00	Mar-00	Mar-00	Apr-00	May-00	Jun-00
Halogenated Hydrocarbons																					
Bromodichloromethane		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	2.0	2.3	1.5	<1	<1	<1	1.3	2.4	2.3	2.3	2.5	3.0	1.3	3.3	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	8.8	<1	<1	<1	<1	<1	<1	<1
Methylene Chloride		<1	<1	<1	<1	<1	<1	<1	<1	1.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	1.3	1.6	1.1	<1	<1	<1	1.2	2.5	2.4	2.8	3.0	3.8	3.1	4.2	2.4	<1	1.0	1.6	1.8	2.9
Freon-11		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Freon-113	1200	32.9	42.7	46.9	16.2	30.4	33.1	37.7	38.9	31.7	29.8	16.9	18.8	11.8	20.1	20.9	21.5	20.9	25.7	16.7	24.2
Total Halogenated Hydrocarbons		36.2	46.6	49.5	16.2	30.4	33.1	40.2	43.8	37.5	34.9	22.4	25.6	25.0	27.6	23.3	21.5	21.9	27.3	18.5	27.1

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit

* = Analysis by BC Laboratories
(D) = Duplicate sample

51Hydr VOC Sum

Table A4.6-4 (Cont'd)
LBNL Hydrauger Monitoring Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

51-01-02

Detected Compounds	MCL	Feb-94	Mar-94	Jan-95	May-95	Dec-95	Feb-96	Mar-96	Mar-96	Apr-96	May-96	Jun-96	Jul-96	Aug-96	Sep-96	Oct-96	Nov-96	Dec-96	Jan-97	Feb-97	Mar-97	Apr-97	May-97
Halogenated Hydrocarbons																							
1,1-Dichloroethane	5	3.1	3.7	4.3	5.5	3.7	1.6	1.8	1.7	1.6	2.5	<1	2.3	2.2	2.0	1.9	2.7	2.3	<1	1.2	1.3	2.1	2.0
1,1-Dichloroethene	6	3.2	3.0	4.1	5.1	2.7	1.7	1.8	1.6	1.7	2.2	<1	2.0	1.5	1.2	1.0	1.0	1.3	1.0	<1	1.3	2.2	2.2
cis-1,2-Dichloroethene	6	1.4	2.2	4.6	<1	1.9	<1	<1	<1	<1	1.1	1.4	1.5	1.5	<1	<1	1.2	1.0	<1	<1	<1	1.0	<1
Tetrachloroethene	5	<1	<1	7.3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	3.8	4.6	<1	<1	3.3	1.8	1.8	1.7	<1	2.4	2.1	2.2	2.1	2.5	2.3	2.9	2.6	1.2	1.4	2.2	3.1	2.7
Freon-113	1200	<1	7.7	26.8	6.2	<1	2.9	2.7	8.0	2.3	<1	1.3	<1	<1	1.2	<1	<1	<1	2.3	4.2	1.4	<1	2.8
Freon-123A																							
Total Halogenated Hydrocarbons		11.5	21.2	47.1	16.8	11.6	8.0	8.1	13.0	5.6	8.2	4.8	8.0	7.3	6.9	5.2	7.8	7.2	4.5	6.8	6.2	8.4	9.7

Detected Compounds	MCL	Jun-97	Jul-97	Aug-97	Sep-97	Oct-97	Nov-97	Dec-97	Jan-98*	Feb-98	Mar-98	Apr-98	May-98	Jun-98	Jul-98	Aug-98	Sep-98	Oct-98	Nov-98	Dec-98	Feb-99	Mar-99	Apr-99
Halogenated Hydrocarbons																							
1,1-Dichloroethane	5	1.8	2.1	1.5	1.4	2.4	1.8	2.1	2.5	<1	<1	1.3	1.4	<1	1.5	<1	1.2	1.3	1.2	<1	1.3	<1	1.1
1,1-Dichloroethene	6	1.7	1.6	<1	<1	<1	<1	1.4	2.4	<1	<1	1.7	2.2	<1	<1	<1	<1	<1	<1	<1	1.0	1.1	1.3
cis-1,2-Dichloroethene	6	<1	<1	<1	<1	1.2	<1	1.1	1.4	<1	<1	<1	<1	1.0	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	2.7	2.8	2.1	1.8	2.6	2.3	3.1	3.8	1.2	2.1	4.5	4.6	4.6	3.6	1.9	1.8	1.8	1.5	1.1	2.6	1.7	3.0
Freon-113	1200	1.6	1.2	<1	<1	<1	<1	1.3	3.9	2.6	4.0	3.1	6.7	8.1	3.2	<1	<1	<1	<1	<1	<1	3.3	1.3
Freon-123A												3.1	3.6	4.3	3.4	<1	1.2	<1	<1	<1	1.8	1.9	2.8
Total Halogenated Hydrocarbons		7.8	7.7	3.6	3.2	6.2	4.1	9.0	14.0	3.8	6.1	13.7	18.5	18.0	11.7	1.9	4.2	3.1	2.7	1.1	6.7	8.0	9.5

Detected Compounds	MCL	May-99	Jun-99	Jul-99	Aug-99	Sep-99	Oct-99	Nov-99	Dec-99	Jan-00	Feb-00	Mar-00	Mar-00	Apr-00	May-00	Jun-00
Halogenated Hydrocarbons																
1,1-Dichloroethane	5	<1	1.3	2.1	2.0	2.2	1.5	1.7	3.0	2.6	1.5	<1	<1	1.2	1.4	1.5
1,1-Dichloroethene	6	1.1	1.2	2.0	1.8	1.2	<1	<1	1.4	1.4	1.2	<1	<1	<1	1.5	1.5
cis-1,2-Dichloroethene	6	<1	<1	<1	<1	<1	<1	1.0	1.6	2.6	<1	<1	<1	<1	<1	1.9
Tetrachloroethene	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	3.7	3.7	5.6	5.0	4.2	2.9	3.4	5.3	4.7	3.3	2.6	2.5	3.7	4.6	5.3
Freon-113	1200	1.6	<1	3.6	2.7	1.4	<1	<1	1.4	<1	2.4	<1	4.2	4.3	2.7	2.0
Freon-123A		2.6	2.7	3.5	3.0	3.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		9.0	8.9	16.8	14.5	12.7	4.4	6.1	12.7	11.3	8.4	2.6	6.7	9.2	10.2	12.2

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
= Compound not included in analysis

* = Analysis by BC Laboratories

Table A4.6-4 (Cont'd)
LBNL Hydrauger Monitoring Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

51-01-03

Detected Compounds	MCL	Jan-93	Jan-94	Feb-94	Mar-94	Jan-95	May-95	Dec-95	Feb-96	Mar-96	Apr-96	May-96	Jun-96	Jun-96	Jul-96	Aug-96	Sep-96	Oct-96	Nov-96	Dec-96	Jan-97	Feb-97	Mar-97
Halogenated Hydrocarbons																							
Chloroform	100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.2	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	1.8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	6	2.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	15.7	50.2	22.2	35.1	15.4	14.1	24.2	7.3	9.9	10.3	13.3	23.4	22.7	24.2	25.4	20.6	22.1	22.3	25.1	3.8	5.7	7.9
trans-1,2-DCE	10	3.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	33.0	24.4	32.0	33.8	67.8	25.6	32.3	20.1	18.5	24.6	27.0	27.6	27.7	25.0	26.4	24.6	23.6	23.6	25.1	8.8	8.5	10.9
1,1,1-Trichloroethane	200	<1	<1	<1	<1	1.3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	14.0	28.5	31.4	43.7	40.5	38.4	37.2	27.3	25.0	32.7	30.6	36.3	36.5	34.8	37.2	50.5	48.5	45.2	44.4	11.8	16.2	20.4
Vinyl Chloride	0.5	<1	3.4	1.2	1.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		70.1	106.5	86.8	114.3	125.0	78.1	93.7	54.7	53.4	67.6	70.9	87.3	86.9	84.0	91.3	95.7	94.2	91.1	94.6	24.4	30.4	39.2

Detected Compounds	MCL	Apr-97	May-97	Jun-97	Jul-97	Aug-97	Sep-97	Oct-97	Nov-97	Dec-97	Jan-98*	Feb-98	Mar-98	Apr-98	May-98	Jun-98	Jul-98	Aug-98	Sep-98	Oct-98	Nov-98	Dec-98	Jan-99
Halogenated Hydrocarbons																							
Chloroform	100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	12.1	12.5	16.3	16.2	15.7	18.9	25.3	27.7	16.4	23.0	3.4	4.9	8.8	14.0	19.2	19.1	15.9	22.4	23.3	25.5	22.2	30.4
trans-1,2-DCE	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.62	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	14.9	16.5	20.1	20.6	19.2	20.7	20.8	20.7	19.5	19.0	8.5	8.2	11.3	12.0	12.8	11.8	9.1	8.9	9.1	9.0	10.5	10.0
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	27.3	25.2	28.8	27.8	24.7	24.1	25.6	24.9	20.2	24.0	7.2	11.2	16.2	19.5	20.1	18.5	14.1	12.6	12.4	12.0	13.1	14.1
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.64	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		54.3	54.2	65.2	64.6	59.6	63.7	71.7	73.3	56.1	67.3	19.1	24.3	36.3	45.5	52.1	49.4	39.1	43.9	44.8	46.5	45.8	54.5

Detected Compounds	MCL	Feb-99	Mar-99	Apr-99	May-99	Jun-99	Jul-99	Aug-99	Sep-99	Oct-99	Nov-99	Dec-99	Jan-00	Feb-00	Mar-00	Apr-00	May-00	Jun-00
Halogenated Hydrocarbons																		
Chloroform	100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	18.4	4.2	11.0	10.7	13.5	15.1	15.0	17.7	17.1	22.2	25.5	25.9	10.3	<1	5.5	9.3	12.5
trans-1,2-DCE	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	11.3	7.3	9.3	7.0	7.0	6.5	6.2	5.5	5.1	7.7	7.4	7.7	7.4	5.8	6.1	5.9	5.3
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	14.7	6.5	12.2	9.1	8.7	11.3	10.4	11.0	10.2	10.8	11.7	10.6	7.7	4.3	5.3	7.0	7.2
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		44.4	18.0	32.5	26.8	29.2	32.9	31.6	34.2	32.4	40.7	44.6	44.2	25.4	10.1	16.9	22.2	25.0

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories

51Hydr VOC Sum

Table A4.6-4 (Cont'd)
LBNL Hydrauger Monitoring Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

51-01-03A

Detected Compounds	MCL	Jan-93	Jan-94	Feb-94	Mar-94	Jan-95	May-95	Dec-95	Feb-96	Mar-96	Mar-96	Apr-96	May-96	Jun-96	Jun-96	Aug-96	Sep-96	Oct-96	Nov-96	Dec-96	Jan-97	Feb-97	Mar-97
Halogenated Hydrocarbons																							
Chloroform	100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.8	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	1.8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	6	2.2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	31.3	50.8	27.4	37.6	15.3	14.8	23.9	7.9	9.2	10.3	10.6	16.3	29.2	26.1	28.0	19.8	24.2	25.8	25.3	3.8	5.8	8.3
trans-1,2-DCE	10	3.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.2	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	13.1	15.4	39.9	40.4	69.0	29.1	42.4	21.9	17.6	17.8	29.4	30.1	25.8	28.7	28.0	21.9	26.0	24.9	27.6	8.8	8.6	11.2
1,1,1-Trichloroethane	200	<1	<1	<1	<1	1.3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	8.9	22.8	39.2	48.3	43.0	39.3	40.2	28.1	25.0	25.0	32.1	31.0	33.0	34.9	38.7	47.9	51.2	46.8	43.6	11.2	15.8	20.9
Vinyl Chloride	0.5	1.3	3.8	3.8	2.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		62.3	92.8	110.3	128.8	128.6	83.2	106.5	57.9	51.8	53.1	72.1	77.4	88.0	89.7	97.7	89.6	101.4	97.5	96.5	23.8	30.2	40.4

Detected Compounds	MCL	Apr-97	May-97	Jun-97	Jul-97	Aug-97	Sep-97	Oct-97	Nov-97	(D)	Dec-97	Jan-98*	Feb-98	Mar-98	Apr-98	May-98	Jun-98	Jul-98	Aug-98	Sep-98	Oct-98	Nov-98	Dec-98
Halogenated Hydrocarbons																							
Chloroform	100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	13.2	15.5	18.7	17.4	19.8	23.9	31.9	32.9	32.4	20.9	32.0	3.6	5.4	9.5	16.6	25.3	29.3	23.2	34.4	36.4	35.2	28.5
trans-1,2-DCE	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.83	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	16.3	16.6	20.2	20.4	17.8	16.0	14.4	12.9	13.2	18.3	16.0	8.5	8.4	12.1	12.8	11.0	6.5	5.8	4.7	4.7	4.6	9.8
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	27.9	25.8	29.3	26.2	23.9	18.9	17.8	15.5	15.8	17.3	19.0	7.1	11.9	17.8	18.5	14.1	8.8	8.1	5.5	4.8	4.8	9.3
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		57.4	57.9	68.2	64.0	61.5	58.8	64.1	61.3	61.4	56.5	69.0	19.2	25.7	39.4	47.9	50.4	44.6	37.1	44.6	45.9	44.6	47.6

Detected Compounds	MCL	Jan-99	Feb-99	Mar-99	Apr-99	May-99	Jun-99	Jul-99	Aug-99	Sep-99	Oct-99	Nov-99	Dec-99	Jan-00	Feb-00	Mar-00	Apr-00	May-00	Jun-00
Halogenated Hydrocarbons																			
Chloroform	100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	40.9	23.9	5.4	12.0	11.9	15.9	20.0	18.7	18.7	22.5	25.1	32.4	28.1	11.0	4.6	6.5	10.4	14.9
trans-1,2-DCE	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	5.9	10.8	8.2	12.7	10.4	8.6	6.6	4.1	3.0	2.7	3.7	3.6	2.9	9.9	5.8	6.6	7.3	4.8
1,1,1-Trichloroethane	200	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	6.5	11.1	7.1	13.9	10.1	7.8	8.0	5.2	3.9	4.0	3.6	4.0	3.1	7.7	4.3	6.0	6.9	4.9
Vinyl Chloride	0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		53.3	45.8	20.7	38.6	32.4	32.3	34.6	28.0	25.6	29.2	32.4	40.0	35.2	28.6	14.7	19.1	24.6	24.6

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by RC Laboratories

(D) = Duplicate sample

51 VOC Sum

Table A4.6-4 (Cont'd)
LBNL Hydrauger Monitoring Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

51-01-04

Detected Compounds	MCL	Jan-93	Jan-94	Feb-94	Mar-94	Jan-95	Feb-95	May-95	Dec-95	Feb-96	Mar-96	Mar-96	Apr-96	May-96	Jun-96	Jun-96	Jul-96	Aug-96	Sep-96	Oct-96	Nov-96	Dec-96	Jan-97
Halogenated Hydrocarbons																							
1,1-Dichloroethane	5	5.8	1.1	<1	<1	2.2	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	6	4.4	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	16.6	8.8	9.7	9.5	42.8	8.1	7.9	10.2	10.2	7.2	7.4	5.4	3.9	6.1	4.8	4.8	4.3	2.2	2.5	2.8	4.2	4.7
trans-1,2-DCE	10	2.3	<1	<1	<1	1.9	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	15.4	16.1	15.7	17.1	26.4	7.2	7.3	10.4	6.4	5.5	5.3	7.1	6.7	5.9	5.7	5.3	5.2	3.8	4.2	3.9	4.9	4.2
Trichloroethene	5	17.5	16.9	18.3	19.1	38.1	8.4	8.9	11.7	9.3	6.8	6.1	6.4	5.3	5.7	5.3	4.7	4.6	5.6	6.1	5.9	7.6	5.3
Total Halogenated Hydrocarbons		62.0	42.9	43.7	45.7	111.4	23.7	24.1	32.3	25.9	19.5	18.8	18.9	15.9	17.7	15.8	14.8	14.1	11.6	12.8	12.6	16.7	14.2

Detected Compounds	MCL	Feb-97	Mar-97	Apr-97	May-97	Jun-97	Jul-97	Aug-97	Sep-97	Oct-97	Nov-97	Dec-97	Jan-98*	Feb-98	Mar-98	Apr-98	May-98	Jun-98	Jul-98	Aug-98	Sep-98	Oct-98	Nov-98
Halogenated Hydrocarbons																							
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.63	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	3.3	4.2	4.1	3.2	3.0	2.4	1.8	2.0	2.0	2.1	4.5	6.4	3.1	2.5	3.8	3.5	4.1	3.2	2.1	2.1	2.5	2.3
trans-1,2-DCE	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	2.9	2.9	3.6	3.1	3.3	4.0	3.1	3.7	3.8	4.2	5.9	6.0	3.2	3.4	3.3	3.6	3.9	3.3	2.6	2.5	2.9	2.9
Trichloroethene	5	3.6	4.6	5.3	4.3	4.7	4.6	3.8	4.4	4.6	5.3	7.4	8.4	3.0	4.3	4.6	5.4	5.7	4.8	3.7	3.1	3.3	3.3
Total Halogenated Hydrocarbons		9.8	11.7	13.0	10.6	11.0	11.0	8.7	10.1	10.4	11.6	17.8	21.4	9.3	10.2	11.7	12.5	13.7	11.3	8.4	7.7	8.7	8.5

Detected Compounds	MCL	Dec-98	Jan-99	Feb-99	Mar-99	Apr-99	May-99	Jun-99	Jul-99	Aug-99	Sep-99	Oct-99	Nov-99	Dec-99	Jan-00	Feb-00	Mar-00	Apr-00	May-00	Jun-00
Halogenated Hydrocarbons																				
Chloroform	100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.7	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	4.0	6.0	6.5	2.5	3.5	2.7	2.6	2.6	2.4	2.4	2.3	3.2	5.6	5.6	5.9	4.5	4.2	4.1	4.4
trans-1,2-DCE	10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	3.7	3.8	3.7	2.5	3.2	2.9	2.7	3.3	3.1	2.5	2.2	3.3	4.4	4.0	4.2	3.2	3.3	2.6	2.8
Trichloroethene	5	4.8	4.9	4.7	2.2	3.5	3.1	2.8	4.8	4.6	4.5	4.1	4.4	7.1	5.6	4.5	3.3	3.2	3.1	3.3
Total Halogenated Hydrocarbons		12.5	14.7	14.9	7.2	10.2	8.7	8.1	10.7	10.1	9.4	8.6	12.6	17.1	15.2	14.6	11.0	10.7	9.8	10.5

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories

Table A4.6-4 (Cont'd)
LBNL Hydrauger Monitoring Results
Volatile Organic Compounds - EPA Method 8260
(concentrations in µg/L)

51-01-09

Detected Compounds	MCL	May-95	Feb-96	Mar-96	Jan-97	Feb-97	Jan-98*	Feb-98	Mar-98	Feb-99	Mar-99	Apr-99	Dec-99	Jan-00	Feb-00	Mar-00	Apr-00
Halogenated Hydrocarbons																	
cis-1,2-Dichloroethene	6	4.9	1.2	3.2	2.2	2.1	<0.5	1.8	4.3	2.9	1.5	1.8	1.1	<1	3.4	4.2	3.3
Tetrachloroethene	5	<1	2.3	1.7	4.6	2.1	<0.5	3.9	5.4	2.6	2.8	1.3	<1	<1	1.1	3.9	1.3
Trichloroethene	5	2.0	3.8	4.4	7.1	4.9	<0.5	4.9	8.4	4.8	3.2	2.5	<1	<1	2.7	4.4	2.6
Freon-113	1200	5.3	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Halogenated Hydrocarbons		12.2	7.3	9.3	13.9	9.1		10.6	18.1	10.3	7.5	5.6	1.1		7.2	12.5	7.2

Firetrail Hydrauger flowing to sump

Detected Compounds	MCL	Apr-99
Halogenated Hydrocarbons		
cis-1,2-Dichloroethene	6	<1
Tetrachloroethene	5	<1
Trichloroethene	5	2.7
Freon-113	1200	<1
Total Halogenated Hydrocarbons		2.7

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories

Table A4.6-5
Sampling Results from Subdrains, Catch Basins, Drainlines, and Weepholes - Bevalac Area
Volatile Organic Compounds - EPA Method 8260
(Concentrations in µg/L)

Constituent	MCL	51 Spring Subdrain		51 Cooling Tower Subdrain		B64 Subdrain		B51L Catch Basin		NE Drainline in B51L Catch Basin	S Drainline in B51L Catch Basin	Power Tunnel Drainline
		Nov-98*	Dec-98	Nov-98*	Dec-98	Nov-98	Dec-98*	May-99	Sep-99	Jun-99	Jun-99	Jun-99
Aromatic and Non-Halogenated Hydrocarbons												
Benzene	1	<0.5	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
n-Butylbenzene		<0.5	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
sec-Butylbenzene		<0.5	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
ter-Butylbenzene		<0.5	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
Chlorobenzene		<0.5	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
Ethylbenzene	700	<0.5	<1	<0.5	<1	<1	<0.5	54.1	<1	<1	<1	<1
Isopropylbenzene		<0.5	<2	<0.5	<2	<2	<0.5	<20	<2	<2	<2	<2
p-Isopropyltoluene		<0.5	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
Methyl tert-Butyl Ether		<0.5	<5	0.83	<5	<5	<0.5	<50	<5	<5	<5	<5
Naphthalene		<0.5	<2	<0.5	<2	<2	<0.5	<20	<2	<2	<2	<2
n-Propylbenzene		<0.5	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
Toluene	150	<0.5	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
1,2,4-Trichlorobenzene	70	<0.5	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<0.5	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
1,3,5-Trimethylbenzene		<0.5	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
Xylenes, total	1750	<1	<2	<1	<2	<2	<1	294.0	<2	<2	<2	<2
Total Aromatic Hydrocarbons				0.83				348.1				
Halogenated Non-Aromatic Hydrocarbons												
Bromodichloromethane		<0.5	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
Carbon Tetrachloride	0.5	<0.5	<2	<0.5	<2	<1	<0.5	11.8	<1	<1	5.9	<1
Chloroform	100	<0.5	<1	<0.5	<1	<1	<0.5	10.8	<1	<1	<1	<1
Chloroethane		<0.5	<1	<0.5	<1	<30	<0.5	<300	<30	<30	<30	<30
1,1-Dichloroethane	5	3.9	7.6	<0.5	2.0	15.3	38.0	<10	1.3	<1	<1	<1
1,2-Dichloroethane	0.5	<0.5	<2	<0.5	<2	<2	<0.5	<20	<2	<2	<2	<2
1,1-Dichloroethene	6	<0.5	1.2	<0.5	<1	2.7	8.7	<10	<1	<1	<1	<1
cis-1,2-Dichloroethene	6	41.0	44.9	<0.5	11.2	<1	1.1	584.0	80.9	<1	7.5	<1
trans-1,2-Dichloroethene	10	0.74	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<0.5	<2	<0.5	<2	<2	<0.5	<20	<2	<2	<2	<2
Tetrachloroethene	5	64.0	165.0	<0.5	68.4	1.6	6.5	33.2	4.2	<1	11.3	<1
1,1,1-Trichloroethane	200	<0.5	1.4	<0.5	<1	32.9	24.0	<10	<1	<1	<1	<1
1,1,2-Trichloroethane	5	<0.5	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
Trichloroethene	5	47.0	97.8	<0.5	26.9	7.7	17.0	453.0	78.6	<1	29.2	<1
Freon-113	1200	<0.5	<1	<0.5	<1	<1	<0.5	<10	<1	<1	<1	<1
Vinyl Chloride	0.5	<0.5	<1	<0.5	<1	<1	1.9	<10	<1	<1	<1	<1
Total Halogenated Hydrocarbons		156.6	317.9		108.5	60.2	97.2	1092.8	165.0		53.9	
Total Concentration of VOCs		156.6	317.9	0.83	108.5	60.2	97.2	1440.9	165.0		53.9	

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted

< = Less than Quantitation Limit
* = Analysis by BC Laboratories

Table A4.6-5 (Cont'd)
Sampling Results from Subdrains, Catch Basins, Drainlines, and Weepholes - Bevalac Area
Volatile Organic Compounds - EPA Method 8260
(Concentrations in µg/L)

Constituent	MCL	B51 N Cooling Tower Weepholes					Firetrail Weephole W16	Weephole SW of B51L
		Apr-95*	May 4 '95*†	May 12 '95*††	May-95*	(D)	Feb-00	Feb-00
Aromatic and Non-Halogenated Hydrocarbons								
Benzene	1	<0.5	<0.5	<0.5	<0.5	<1	<1	<1
n-Butylbenzene		<0.5	<0.5	<0.5	<0.5	<1	<1	<1
sec-Butylbenzene		<0.5	<0.5	<0.5	<0.5	<1	<1	<1
ter-Butylbenzene		<0.5	<0.5	<0.5	<0.5	<1	<1	<1
Chlorobenzene		<0.5	<0.5	<0.5	<0.5	<1	<1	<1
Ethylbenzene	700	<0.5	<0.5	<0.5	<0.5	<1	<1	<1
Isopropylbenzene		<0.5	<0.5	<0.5	<0.5	<1	<2	<2
p-Isopropyltoluene		<0.5	<0.5	<0.5	<0.5	<1	<1	<1
Methyl tert-Butyl Ether							<5	<5
Naphthalene		<0.5	<0.5	<0.5	<0.5	<1	<2	<2
n-Propylbenzene		<0.5	<0.5	<0.5	<0.5	<1	<1	<1
Toluene	150	<0.5	<0.5	<0.5	<0.5	<1	<1	<1
1,2,4-Trichlorobenzene	70	<0.5	<0.5	<0.5	<0.5	<1	<1	<1
1,2,4-Trimethylbenzene		<0.5	<0.5	<0.5	<0.5	<1	<1	<1
1,3,5-Trimethylbenzene		<0.5	<0.5	<0.5	<0.5	<1	<1	<1
Xylenes, total	1750	<1	<1	<1	<1	<1	<2	<2
Total Aromatic Hydrocarbons								
Halogenated Non-Aromatic Hydrocarbons								
Bromodichloromethane		<0.5	<0.5	<0.5	0.57	5.3	<1	<1
Carbon Tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1
Chloroform	100	2.9	<0.5	1.7	9.0	12.7	<1	<1
Chloroethane		<0.5	<0.5	<0.5	<0.5	<1	<30	<30
1,1-Dichloroethane	5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<2
1,1-Dichloroethene	6	<0.5	<0.5	<0.5	<0.5	<1	<1	<1
cis-1,2-Dichloroethene	6	<0.5	<0.5	<0.5	<0.5	<1	<1	<1
trans-1,2-Dichloroethene	10	<0.5	<0.5	<0.5	<0.5	<1	<1	<1
Methylene Chloride	5	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<0.5	<0.5	<0.5	<0.5	<1	<2	<2
Tetrachloroethene	5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1
1,1,1-Trichloroethane	200	<0.5	<0.5	<0.5	<0.5	<1	<1	<1
1,1,2-Trichloroethane	5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1
Trichloroethene	5	0.52	<0.5	<0.5	<0.5	<1	<1	<1
Freon-113	1200	23.0	<0.5	7.6	<0.5	4.0	<1	<1
Vinyl Chloride	0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1
Total Halogenated Hydrocarbons		26.42		9.3	9.57	22.0		
Total Concentration of VOCs		26.42		9.3	9.57	22.0		

MCL = Maximum contaminant level for drinking water
All analyses by LBNL EML unless otherwise noted
†Taken from end of drainage channel that collects weephole water
††Taken from second drainage channel

< = Less than Quantitation Limit
= Not analyzed

* = Analysis by BC Laboratories
(D) = Duplicate sample

Table A4.6-6
Water Sampling Results from Drains - Bevalac Area
Metals
(Concentrations in µg/L)

			Sb	As	Ba	Be	Cd	Cr	Cr6	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
		MCL:	6	50	1000	4	5	50		NS	1000 (a)	15 (b)	2	NS	100	50	100 (a)	2	NS	5000 (a)
LOCATION	LAB	DATE																		
B51 Spring Drain	BC	Nov-98							3.3											
	BC	Dec-98							4											
B51 Cooling Tower Drain	BC	Nov-98							<2											
	BC	Dec-98							4											

MCL: Maximum contaminant level for drinking water (determined by California DTSC)
(BC) = Analysis by BC Laboratories

(a): secondary MCL
(b): action level
NS: Not Specified

< = Not detected above reporting limit (reporting limit shown)
= Not analyzed

Table A4.6-7
Sediment Sampling Results - North Fork Strawberry Creek
Organics, PCBs and Fuels
(Concentrations in mg/kg)

Location	Sample ID	Date	Lab	8240	8270	PCBs	TPH-Gas	TPH-Diesel
North Fork Strawberry Creek	SSBC-1/2A-0.4#	Apr-93	Q	ND	ND		49*	<0.2
(at LBNL Boundary Line)	SSBC-3/4A-0.5			Toluene 0.013	ND		<5*	<0.2
	SS-NFStraw-96-1A-0	Aug-96	BC		ND			
	SS-NFStraw-96-2A-0				ND			
	SS-NFStraw-96-3A-0				ND			
	SS-NFStraw-96-4A-0				ND			
	SS-NFStraw-96-5A-0				ND			
	SS-NFStraw-98-1-0	Jan-98	BC			<0.02		
	SS-NFStraw-98-2-0					<0.02		
	SS-NFStraw-98-3-0					<0.02		

BC = Analysis by BC Laboratories
Q = Analysis by Quanteq
# - sample collected at erosion control basin
* = Oil detected

<	= Not detected above reporting limit (reporting limit shown)
ND	= Not detected above reporting limit (reporting limit varies with analyte)
	= Not analyzed

Table A4.6-8
Sediment Sampling Results - North Fork Strawberry Creek
Metals
(Concentrations in mg/kg)

Location	Sample ID	Date	Lab	Sb	As	Ba	Be	Cd	Cr	Cr6	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
ECB	SSBC-1/2A-0.4	Apr-93	Q	<2	3	140	<0.2	0.6	59		8.9	47	180	0.3	0.6	32	<2	3.5	<3	28	160
BL	SSBC-3/4A-0.5/0.8	Apr-93	Q	<2	5	79	<0.2	0.6	45		11	40	53	0.6	<0.6	38	<2	<0.2	<3	35	160
ECB	SS-ERBAS-N-L-1-0	Jan-95	BC											<0.2							
ECB	SS-ERBAS-N-U-1-0													<0.2							
ECB	SS-ERBAS-S-U-1-0													<0.2							
ECB	SS-ERBAS-S-L-1-0													<0.2							
ECB	SS-ERBAS-S-U-2-0	Jul-95	BC	<5	2.6	334	<0.5	<0.5	36		6.8	28	17	<0.2	<2.5	26	<0.5	<1	5.4	31	130
ECB	SS-ERBAS-S-U-3-0			<5	1.9	93	<0.5	0.57	42		6.5	38	73	<0.2	<2.5	29	<0.5	<1	<5	32	259
ECB	SS-ERBAS-S-U-4-0			<5	2.0	52	<0.5	0.5	33		8.0	55	45	0.22	<2.5	27	<0.5	<1	<5	29	182
ECB	SS-ERBAS-S-U-5-0			<5	2.5	47	<0.5	<0.5	79	<1	6.8	216	69	<0.2	<2.5	27	<0.5	<1	<5	32	314
BL	SS-Nfstraw-96-1A-0	Aug-96	BC	<10	3.5	98	<1	<1	129		7.1	19	17	<0.2	15	105	1.0	<2	<10	37	109
BL	SS-Nfstraw-96-2A-0			<10	4.7	83	<1	1.2	43		8.7	30	49	<0.2	<5	27	1.6	<2	<10	53	108
BL	SS-Nfstraw-96-3A-0			<10	9.2	1300	<1	2.5	21		13	44	21	<0.2	<5	181	2.6	<2	<10	48	148
BL	SS-Nfstraw-96-4A-0			<10	4.1	78	<1	<1	31		6.1	18	20	<0.2	<5	20	1.1	<2	<10	37	115
BL	SS-Nfstraw-96-5A-0			<10	4.2	81	<1	<1	29		7.3	26	19	<0.2	<5	22	1.0	<2	<10	49	144
BL	SS-NFStraw-FL-99-1-0	Jul-99	BC							<0.1											
ECB	SS-NFStraw-BSN-99-1-0									<0.1											

BL = North Fork Strawberry Creek at LBNL Boundary Line
ECB = North Fork Strawberry Creek at Erosion Control Basin

BC = Analysis by BC Laboratories
Q = Analysis by Quanteq

< = Not detected above quantitation limit
= Not analyzed