Previous

N00236.000847
ALAMEDA POINT
SSIC NO. 5090.3

TABLES

FINAL
SOLID WASTE WATER QUALITY ASSESSMENT TEST AND DATA SUMMARY REPORT FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY FOR PHASES 5 AND 6

DATED 30 APRIL 1993

TABLE 8-1

SOIL SAMPLE RESULTS FROM WAHLER ASSOCIATES STUDY

Sample Number	WA-1	WA-2	WA-3	WA-4	WA-5
Date Sampled	10/12/84	10/12/84	10/15/84	10/17/84	10/19/84
Depth of Sample	6.0-6.5 ft	6.0-6.5 ft	6.0-6.5 ft	6.0-6.5 ft	6.0-6.5 ft
Physical Parameters - Lab					
pH (Std. Units)	8.8	8	7.9	8.4	8
Electrical Cond. (umhos/ cm)	240	580	330	210	60
Gross alpha, pCi/g	4.4±3.3	8.0±5.4	0.1±4.8	9.6±7.2	45.7±10.8
Gross beta, pCi/g	31.7±4.4	16.1±4.4	10.5±3.3	17.6±4.2	11.2±3.5
Metals mg/kg					
Antimony	<5	<5	<5	<5	<5
Arsenic	<5	<5	5.3	<5	9.1
Barium	80	49	250	13	57
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5
Cadmium	24	1.6	19	0.65	1
Chromium	90	29	56	21	49
Cobalt	3.8	6.4	8.2	3.7	9.4
Copper	160	31	330	7.8	57
Lead	1100	38	700	<5	6.5
Mercury	0.1	0.14	2.3	<0.1	<0.1
Molybdenum	<10	<10	<10	<10	<10
Nickel	70	28	53	18	68
Selenium	<1	<1	<1	<1	<1
Silver	<2	<2	<2	<2	<2
Thallium	<5	<5	<5	<5	<5
Vanadium	7.5	22	17	14	21
Zinc	420	64	1800	16	49
Volatile Organic Compounds mg/kg					
Trichloroethylene	<0.001	<0.001	<0.001	<0.001	<0.001
Trans-1,2-dichloroethylene	<0.001	<0.001	<0.001	<0.001	<0.001
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001
Acetone	0.058	<0.010	<0.010	<0.010	<0.010
Semivolatile Organic Compounds mg/kg					
Bis(2-ethylhexyl) phthalate	<0.040	0.625	<0.040	<0.100	<0.001
Di-n-butyl phthalate	2.7	0.665	<0.040	<0.100	<0.001
Acenaphthene	<0.040	<0.040	2.03	<0.100	<0.001
Acenapthylene	<0.040	<0.040	<0.040	<0.100	<0.001
Napthalene	<0.040	<0.040	5.2	<0.100	<0.001
Benzo(a)anthracene	<0.040	<0.040	0.37	<0.100	<0.001
Benzo(b)fluoranthene	<0.040	<0.040	0.58	<0.100	<0.001
Benzo(ghi)perylene	<0.040	<0.040	0.44	<0.100	<0.001
Benzo(a)pyrene	<0.040	<0.040	1.33	<0.100	<0.001
Ideno(1,2,3-cd)pyrene	<0.040	<0.040	1	<0.100	<0.001
Pyrene	<0.040	<0.040	<0.040	<0.100	<0.001
Chrysene	<0.040	<0.040	0.47	<0.100	<0.001
Fluorene	<0.040	<0.040	1.84	<0.100	<0.001
Phenanthrene	<0.040	<0.040	0.2	<0.100	<0.001
Dibenzofuran	<0.040	<0.040	1.36	<0.100	<0.001
2-methylnapthalene	<0.040	<0.040	0.8	<0.100	<0.001
2-cyclohexen-1-one	<0.040	<0.040	<0.040	<0.100	<0.001
2,5-diethyltetrahydrofuran	<0.040	<0.040	<0.040	<0.100	<0.001

< = Analyte reported below detection limit

TABLE 8-2

WATER SAMPLE RESULTS FROM WAHLER ASSOCIATES STUDY

Sample Number	**WA-1**	**WA-2**	**WA-3**	**WA-4**	**WA-5**
Date Sampled	**1/21/85**	**1/21/85**	**1/21/85**	**1/21/85**	**1/22/85**
Sample Depth	**16 ft**	**17 ft**	**16 ft**	**16 ft**	**15 ft**
Screened Depth	**5 to 25 ft**	**6 to 20 ft**	**6 to 16 ft**	**5 to 25 ft**	**4 to 24 ft**
Physical Parameters - Lab					
pH (Std. Units)	7.6	7.6	7.4	7.4	6.7
Electrical Cond. (umhos/ cm)	1080	3200	11800	7000	750
Gross alpha, pCi/L	7.2±6.6	5.5±10.8	NR	NR	0.4±2.8
Gross beta, pCi/L	69.3±31.6	33.8±57.4	NR	NR	50.4±16.8
Metals mg/L					
Antimony	<1	<1	<1	<1	<1
Arsenic	<1	<1	<1	<1	<1
Barium	<0.5	<0.5	<0.5	<0.5	<0.5
Beryllium	<0.05	<0.05	<0.05	<0.05	<0.05
Cadmium	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1
Cobalt	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	<0.1	<0.1	<0.1	<0.1	<0.1
Mercury	<1	<1	<1	<1	<1
Molybdenum	<0.01	<0.01	0.77	<0.01	<0.01
Nickel	<0.1	<0.1	<0.1	<0.1	<0.1
Selenium	<0.5	<0.5	<0.5	<0.5	<0.5
Silver	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	<1	<1	<1	<1	<1
Vanadium	<0.5	<0.5	<0.5	<0.5	<0.5
Zinc	0.13	<0.1	<0.1	<0.1	<0.1
Volatile Organic Compounds mg/L					
Trichloroethylene	0.291	0.005	<0.001	<0.001	<0.001
Trans-1,2-dichloroethylene	- 0.957	0.246	0.008	<0.001	<0.001
Benzene	<0.001	<0.002	<0.001	<0.001	<0.009
Acetone	<0.010	<0.010	<0.010	<0.010	<0.010
Semivolatile Organic Compounds mg/L					
Bis(2-ethylhexyl) phthalate	0.06	<0.001	<0.001	<0.001	<0.001
Di-n-butyl phthalate	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene	<0.001	0.064	<0.001	<0.001	<0.001
Acenapthylene	<0.001	0.005	<0.001	<0.001	<0.001
Napthalene	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(a)anthracene	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(b)fluoranthene	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(ghi)perylene	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(a)pyrene	<0.001	<0.001	<0.001	<0.001	<0.001
Ideno(1,2,3-cd)pyrene	<0.001	<0.001	<0.001	<0.001	<0.001
Pyrene	<0.001	0.043	<0.001	<0.001	<0.001
Chrysene	<0.001	<0.001	<0.001	<0.001	<0.001
Fluorene	<0.001	0.016	<0.001	<0.001	<0.001
Phenanthrene	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzofuran	<0.001	0.014	<0.001	<0.001	<0.001
2-methylnapthalene	<0.001	<0.001	<0.001	<0.001	<0.001
2-cyclohexen-1-one	<0.001	<0.001	0.01	<0.001	<0.001
2,5-diethyltetrahydrofuran	<0.001	<0.001	0.043	<0.001	<0.001

NR = Not Reported

< = Analyte reported below detection limit

TABLE 8-3

SITE 1 - DISPOSAL AREA
GEOTECHNICAL SAMPLE LABORATORY TEST RESULTS

Sample Number	Depth (ft)	Soil Classification Laboratory (USCS)	Soil Classification Field (USCS	Stratigraphic Unit	Moisture Content (%)	Dry Density (pcf)	Specific Gravity	CEC (meq/100g)	Permeability Effective Stresses (psi)	Permeability Hydraulic Conductivity (cm/s)
M-001A	10.5-11	NA	SW/GW	Fill	NA	NA	NA	26.0	NA	NA
M-001B	60.5-61.5	SP	SP	PE	20.5	109.5	2.73	7.2	NA	NA
M-001E	28.5-29	CL	CL	HBM	43.5	78.0	NA	NA	15	3.16E-08
M-002E	20.5-21	CL	CL	HBM	68.5	62.5	NA	NA	10	2.53E-08
M-003A	10.5-11	SP/SC	SP	Fill	NA	NA	NA	6.1	NA	NA
M-004A	10.5-11	SP	SP	Fill	NA	NA	NA	NA	NA	NA
M-005A	11.5-12.5	SC	GM/SM	Fill	NA	NA	2.6	10.2	NA	NA
M-006A	10-10.5	SP/SC	SP	Fill	NA	NA	NA	NA	NA	NA
M-007A	8-8.5	SP	SP	Fill	19.5	103.5	2.74	5.5	NA	NA
M-007C	83.5-84	CH	CL	PE	46.5	74.0	NA	NA	42	4.64E-09
M-008A	10-10.5	SP/SC	SP	Fill	NA	NA	NA	NA	NA	NA
M-009A	11-11.5	SP	SP	Fill	23.5	96.5	2.74	8.0	NA	NA
M-025C	83-83.5	CH	CL	PE	29.0	84.0	NA	NA	42	3.13E-09
M-025E	28.5-29	SC	CL	HBM	39.0	83.0	NA	NA	15	4.56E-08

TABLE 8-3

SITE 1 - DISPOSAL AREA
GEOTECHNICAL SAMPLE LABORATORY TEST RESULTS

Sample Number	Depth (ft)	Soil Classification Laboratory	Soil Classification Field	Stratigraphic Unit	Moisture Content (%)	Dry Density (pcf)	Specific Gravity	CEC (meq/100g)	Permeability Effective Stresses (psi)	Permeability Hydraulic Conductivity (cm/s)
M-026A	11.5-12	SP	SP	Fill	22.0	109.0	2.74	4.2	NA	NA
M-027B	57.5-58	SC	SM	H/P-A/E	20.0	110.5	2.73	28.2	NA	NA
M-027C	91-91.5	NA	CL	PE	45.5	74.5	NA	NA	30	4.22E-09
M-027E	20.5-21	SP/SC	SP	Fill	NA	NA	NA	NA	NA	NA
M-028A	10.5-11	SP/SC	SW/GW	Fill	13.5	108.5	2.71	10.8	NA	NA

NA - Not Analyzed
Parameters not detectect are reported as less than method detection limit.
HBM - Holocene Bay Mud
H/P-A/E - Holocene/Pleistocene Aluvial/Eolian Deposit
PE - Pleistocene Estuarine Deposits

Laboratory Methods (Units):
Soil Classification - Unified Soil Classification System (USCS) - ASTM D2488-90
USCS described in Appendix E
Moisture Content - ASTM D2216 (percent)
Dry Density - ASTM D2937 (pounds per cubic foot)
Specific Gravity - ASTM D854
Cation Exchange Capacity (CEC) - EPA 9080 (milliequivalents per 100 grams)
Total Organic Carbon (TOC) - ASA-SSSA chp 29 (percent wet weight)
Effective Stress - EPA 9100 (pounds per square inch)
Hydraulic Conductivity - EPA 9100 (centimeters per second)

Table 8-4 - Site 1 Analytical Results for Soil in Fill - Organic Compounds

Sample Number	M-001A-013	M-001B-000	M-001E-005	M-002A-000	Duplicate M-002A-000	M-002A-006	M-002E-022	M-003A-000	M-003A-005	M-004A-000
Date Sampled	04/24/91	04/24/91	04/26/91	05/16/91	05/16/91	05/23/91	05/23/91	05/17/91	05/23/91	05/17/91
Depth of Sample	13.0 ft	0.0 ft	5.0 ft	0.0 ft	0.0 ft	6.0 ft	22.0 ft	0.0 ft	5.0 ft	0.0 ft
PARAMETER REPORTED										
Volatile Organics (µg/kg-Dry)										
Acetone	250	NA	110UJ	NA	NA	< 11	740	NA	310	NA
Carbon Disulfide	11	NA	< 6.2	NA	NA	< 5.3	< 37	NA	< 29	NA
Semivolatile Organics (µg/kg-Dry)										
2-Methylnaphthalene	< 3400	< 530	< 310UJ	< 100	< 100	< 110	< 150	< 100	140	< 100
Acenaphthene	< 2700R	< 420	< 250UJ	< 72	< 82	< 84	< 120	< 81	< 94	< 82
Anthracene	< 2700	< 420	< 250UJ	< 72	< 82	< 84	< 120	< 81	< 94	< 82
Benzo(a)anthracene	< 3400R	< 530	< 310UJ	180	360	< 110	< 150	< 100	< 120	< 100
Benzo(a)pyrene	< 4700	< 740	< 430UJ	260	430	< 150	< 210	< 140	< 160	< 140
Benzo(b)fluoranthene	< 3400	< 530	< 310UJ	460	720	< 110	< 150	< 100	< 120	< 100
Benzo(g,h,i)perylene	< 5400	< 850	< 490UJ	< 160	< 160	< 170	< 240	< 160	< 190	< 160
Benzo(k)fluoranthene	< 3400	< 530	< 310UJ	120	290	< 110	< 150	< 100	< 120	< 100
Bis(2-ethylhexyl)phthalate	9600J	4700	1600J	160	170	1600UJ	540UJ	< 100	370UJ	< 100
Butylbenzylphthalate	< 3400	< 530	< 310UJ	< 100	< 100	< 110	< 150	< 100	< 120	< 100
Chrysene	< 3400R	< 530	< 310UJ	430	670	< 110	< 150	120	< 120	130
Di-N-Butyl Phthalate	< 2700	< 420	< 250UJ	1100	1600	< 84	< 120	< 81	< 94	< 82
Di-N-Octyl Phthalate	< 4700	< 740	< 430UJ	< 140	< 140	< 150	< 210	< 140	< 160	< 140
Dibenzo(a,h)anthracene	< 5400	< 850	< 490UJ	< 160	< 160	< 170	< 240	< 160	< 190	< 160
Diethyl Phthalate	< 2700R	< 420	410J	< 72	< 82	< 84	< 120	< 81	< 94	< 82
Fluoranthene	< 2700R	< 420	< 250UJ	540	1300	< 84	150	160	< 94	210
Indeno(1,2,3-cd)pyrene	< 5400	< 850	< 490UJ	< 160	< 160	< 170	< 240	< 160	< 190	< 160
Naphthalene	< 2700	< 420	< 250UJ	< 72	< 82	< 84	< 120	< 81	110	< 82
Phenanthrene	< 2700	< 420	< 250UJ	130	190	< 84	< 120	< 81	< 94	200
Pyrene	< 2700R	< 420	< 250UJ	910	710	< 84J	230J	120	< 94UJ	210
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	< 9.02	< 7.04	< 8.24	< 6.81	< 6.81	< 7.02	< 9.88	< 6.75	< 7.82	< 6.84
4,4'-DDE	< 4.51	< 3.52	< 4.12	< 3.40	< 3.40	< 3.51	< 4.94	< 3.37	< 3.91	< 3.42
4,4'-DDT	< 9.02	< 7.04	< 8.24	< 6.81	< 6.81	< 7.02	< 9.88	< 6.75	< 7.82	< 6.84
Dieldrin	< 4.51	< 3.52	< 4.12	< 3.40	< 3.40	< 3.51	< 4.94	< 3.37	< 3.91	< 3.42
Alpha-Chlordane	< 4.51	< 3.52	< 4.12	< 3.40	< 3.40	< 3.51	< 4.94	< 3.37	< 3.91	< 3.42
Gamma-Chlordane	< 4.51	< 3.52	< 4.12	< 3.40	< 3.40	< 3.51	< 4.94	< 3.37	< 3.91	< 3.42
Aroclor-1260	430	140	750	260J	370J	110	< 49	64J	< 39	< 34
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons,Petroleum	NA	546	NA	1080	539	NA	NA	295	NA	182
Oil And Grease (mg/kg-Dry)										
Oil&Gr,IR	NA	2120	NA	3250	1420	NA	NA	438	NA	342

Notes NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit.

Table 8-4 - Site 1 Analytical Results for Soil in Fill - Organic Compounds

Sample Number	M-004A-004	M-005A-000	Duplicate M-005A-000	M-005A-003	M-006A-000	M-006A-005	M-007A-000	M-007A-004	M-008A-000	M-008A-004
Date Sampled	05/28/91	05/17/91	05/17/91	05/29/91	05/17/91	05/29/91	05/17/91	05/29/91	05/17/91	05/29/91
Depth of Sample	2.0 ft	0.0 ft	0.0 ft	0.5 ft	0.0 ft	2.5 ft	0.0 ft	1.0 ft	0.0 ft	0.5 ft
PARAMETER REPORTED										
Volatile Organics (µg/kg-Dry)										
Acetone	420	NA	NA	54UJ	NA	960	NA	110UJ	NA	1000
Carbon Disulfide	< 33	NA	NA	< 5.2	NA	< 28	NA	< 5.8	NA	< 30
Semivolatile Organics (µg/kg-Dry)										
2-Methylnaphthalene	< 130	< 100	< 100	< 100	< 100	< 110	< 100	< 120	< 100	< 120
Acenaphthene	< 110	< 81	< 71	< 72	< 82	< 78	< 84	< 82	< 83	< 95
Anthracene	< 110	< 81	< 71	< 72	< 82	< 78	< 84	< 82	< 83	< 95
Benzo(a)anthracene	< 130	< 100	< 100	< 100	< 100	< 110	< 100	< 120	< 100	< 120
Benzo(a)pyrene	< 190	< 140	< 140	< 140	< 140	< 160	< 150	< 160	< 140	< 170
Benzo(b)fluoranthene	< 130	< 100	< 100	< 100	< 100	< 110	< 100	< 120	< 100	< 120
Benzo(g,h,i)perylene	< 210	< 160	< 160	< 170	< 160	< 180	< 170	< 190	< 170	< 190
Benzo(k)fluoranthene	< 130	< 100	< 100	< 100	< 100	< 110	< 100	< 120	< 100	< 120
Bis(2-ethylhexyl)phthalate	390	< 100	< 100	1200J	110	< 110UJ	410	620UJ	150	180
Butylbenzylphthalate	< 130	< 100	< 100	< 100	< 100	< 110	< 100	< 120	< 100	< 120
Chrysene	< 130	< 100	< 100	< 100	< 100	< 110	< 100	< 120	< 100	< 120
Di-N-Butyl Phthalate	< 110	< 81	< 71	< 72	< 82	< 78	< 84	< 82	< 83	< 95
Di-N-Octyl Phthalate	< 190	< 140	< 140	420	< 140	< 160	< 150	< 160	< 140	< 170
Dibenzo(a,h)anthracene	< 210	< 160	< 160	< 170	< 160	< 180	< 170	< 190	< 170	< 190
Diethyl Phthalate	< 110	< 81	< 71	< 72	< 82	< 78	< 84	< 82	< 83	< 95
Fluoranthene	< 110	< 81	< 71	< 72	< 82	< 78	< 84	< 82	< 83	< 95
Indeno(1,2,3-cd)pyrene	< 210	< 160	< 160	< 170	< 160	< 180	< 170	< 190	< 170	< 190
Naphthalene	< 110	< 81	< 71	< 72	< 82	< 78	< 84	< 82	< 83	< 95
Phenanthrene	120	< 81	< 71	< 72	< 82	< 78	< 84	< 82	< 83	< 95
Pyrene	130	< 81	< 71	< 72	< 82	< 78	< 84	< 82	< 83	< 95
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	< 8.83	< 6.75	< 6.75	< 6.88	< 6.84	< 7.43	< 6.98	< 7.79	< 6.89	< 7.92
4,4'-DDE	< 4.42	< 3.38	< 3.37	< 3.44	< 3.42	< 3.72	< 3.49	< 3.89	< 3.44	< 3.96
4,4'-DDT	< 8.83	25.9	< 6.75	< 6.88	< 6.84	< 7.43	< 6.98	< 7.79	< 6.89	< 7.92
Dieldrin	< 4.42	< 3.38	< 3.37	< 3.44	< 3.42	< 3.72	< 3.49	< 3.89	< 3.44	< 3.96
Alpha-Chlordane	< 4.42	< 3.38	< 3.37	< 3.44	< 3.42	< 3.72	< 3.49	< 3.89	< 3.44	< 3.96
Gamma-Chlordane	< 4.42	< 3.38	< 3.37	< 3.44	< 3.42	< 3.72	< 3.49	< 3.89	< 3.44	< 3.96
Aroclor-1260	< 44	< 34	< 34	< 34	591	< 37	1601	< 39	< 34	< 40
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons,Petroleum	NA	379	234	NA	324	NA	4480	NA	68.7	NA
Oil And Grease (mg/kg-Dry)										
Oil&Gr,IR	NA	552	379	NA	633	NA	422	NA	721	NA

Notes NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit.

Table 8-4 - Site 1 Analytical Results for Soil in Fill - Organic Compounds

Sample Number	M-009A-000	M-009A-003	M-025A-004	M-025C-000	M-025E-022	M-026A-000	M-026A-004	M-026E-020	Duplicate M-026E-020	M-027A-003
Date Sampled	05/16/91	05/30/91	05/24/91	04/25/91	05/24/91	04/25/91	05/02/91	05/02/91	05/02/91	05/13/91
Depth of Sample	0.0 ft	2.0 ft	4.0 ft	0.0 ft	22.0 ft	0.0 ft	2.0 ft	15.0 ft	15.0 ft	0.5 ft
PARAMETER REPORTED										
Volatile Organics (µg/kg-Dry)										
Acetone	NA	65UJ	330	NA	220	NA	28UJ	47UJ	120UJ	1100
Carbon Disulfide	NA	< 5.7	< 27	NA	< 6.2	NA	< 5.6	< 6.0	< 6.3	< 27
Semivolatile Organics (µg/kg-Dry)										
2-Methylnaphthalene	< 110	< 110	< 110	< 540	< 120	< 530UJ	< 56	< 60	< 63	< 110
Acenaphthene	< 75	< 91	< 86	< 440	< 99	< 420UJ	< 44	< 48	< 50	97
Anthracene	< 75	< 91	< 86	< 440	< 99	< 420UJ	< 44	< 48	< 50	110
Benzo(a)anthracene	< 110	< 110	< 110	< 540	< 120	< 530UJ	< 56	< 60	< 63	730
Benzo(a)pyrene	< 150	< 160	< 150	< 760	< 170	< 740UJ	< 78	< 84	< 88	1100
Benzo(b)fluoranthene	< 110	< 110	< 110	< 540	< 120	< 530UJ	< 56	< 60	< 63	820
Benzo(g,h,i)perylene	< 170	< 180	< 170	< 870	< 200	< 840UJ	< 89	< 96	< 100	860
Benzo(k)fluoranthene	< 110	< 110	< 110	< 540	< 120	< 530UJ	< 56	< 60	< 63	860
Bis(2-ethylhexyl)phthalate	130	< 110	110	< 540	210	< 530UJ	610	260	160	390UJ
Butylbenzylphthalate	< 110	< 110	< 110	< 540	< 120	< 530UJ	< 56	< 60	< 63	< 110
Chrysene	< 110	< 110	< 110	< 540	< 120	< 530UJ	< 56	< 60	< 63	870
Di-N-Butyl Phthalate	< 75	< 91	< 86	< 440	< 99	< 420UJ	< 44	< 48	< 50	< 86
Di-N-Octyl Phthalate	< 150	< 160	< 150	< 760	< 170	< 740UJ	< 78	< 84	< 88	< 150
Dibenzo(a,h)anthracene	< 170	< 180	< 170	< 870	< 200	< 840UJ	< 89	< 96	< 100	230
Diethyl Phthalate	< 75	< 91	< 86	< 440	< 99	< 420UJ	< 44	< 48	< 50	< 86
Fluoranthene	< 75	< 91	< 86	< 440	< 99	< 420UJ	< 44	< 48	< 50	930
Indeno(1,2,3-cd)pyrene	< 170	< 180	< 170	< 870	< 200	< 840UJ	< 89	< 96	< 100	660
Naphthalene	< 75	< 91	< 86	< 440	< 99	< 420UJ	< 44	< 48	< 50	< 86
Phenanthrene	< 75	< 91	< 86	< 440	< 99	< 420UJ	< 44	< 48	< 50	380
Pyrene	< 75	< 91	< 86	< 440	< 99	< 420UJ	< 44	< 48	< 50	870
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	< 7.10	< 7.56	< 7.21	< 7.26	< 8.25	< 7.02	< 7.41	< 8.03UJ	< 8.33	16.8
4,4'-DDE	< 3.55	< 3.78	< 3.60	< 3.63	< 4.13	< 3.51	< 3.71	< 4.02UJ	< 4.17	7.64
4,4'-DDT	< 7.10	< 7.56	< 7.21	< 7.26	< 8.25	17	< 7.41	< 8.03UJ	< 8.33	< 7.17
Dieldrin	< 3.55	< 3.78	< 3.60	< 3.63	< 4.13	< 3.51	< 3.71	< 4.02UJ	< 4.17	< 3.58
Alpha-Chlordane	< 3.55	< 3.78	< 3.60	< 3.63	< 4.13	< 3.51	< 3.71	< 4.02UJ	< 4.17	< 3.58
Gamma-Chlordane	< 3.55	< 3.78	< 3.60	< 3.63	< 4.13	< 3.51	< 3.71	< 4.02UJ	< 4.17	6.61
Aroclor-1260	< 35	< 38	< 36	120	< 41	< 35	< 37	< 40UJ	< 42	390J
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons,Petroleum	3450	NA	NA	910	NA	303	NA	NA	NA	NA
Oil And Grease (mg/kg-Dry)										
Oil&Gr,IR	9570	NA	NA	2570	NA	793	NA	NA	NA	NA

Notes NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit.

Table 8-4 - Site 1 Analytical Results for Soil in Fill - Organic Compounds

Sample Number	M-027B-005	M-027C-000	M-027E-019	M-028A-000	M-028A-007	M-028E-006	M-029A-000	M-029A-004	M-029E-002	Duplicate M-029E-002
Date Sampled	04/29/91	04/25/91	05/13/91	04/25/91	04/30/91	05/01/91	04/24/91	04/29/91	04/29/91	04/29/91
Depth of Sample	5.5 ft	0.0 ft	16.5 ft	0.0 ft	2.5 ft	3.0 ft	0.0 ft	4.0 ft	2.0 ft	2.0 ft
PARAMETER REPORTED										
Volatile Organics (µg/kg-Dry)										
Acetone	55UJ	NA	49UJ	NA	610	84UJ	NA	170	17UJ	18UJ
Carbon Disulfide	< 6.1	NA	< 6.4	NA	< 29	< 6.5	NA	< 5.5	< 5.4	< 5.5
Semivolatile Organics (µg/kg-Dry)										
2-Methylnaphthalene	< 61	< 530	< 130	< 5100R	< 2900UJ	< 65	< 540	< 270	< 270	< 550UJ
Acenaphthene	< 48	< 420	< 100	< 4100R	< 2400R	< 52	< 440	< 220	< 210	< 440UJ
Anthracene	< 48	< 420	< 100	< 4100R	< 2400R	< 52	< 440	< 220	< 210	< 440UJ
Benzo(a)anthracene	< 61	1600	< 130	57000J	14000J	< 65	< 540	< 270	< 270	< 550UJ
Benzo(a)pyrene	< 85	910	< 180	81000J	18000J	< 91	< 760	< 380	< 380	< 770UJ
Benzo(b)fluoranthene	< 61	1100	< 130	59000J	17000J	< 65	< 540	< 270	< 270	< 550UJ
Benzo(g,h,i)perylene	< 97	910	< 200	82000J	12000J	210	< 870	< 440	< 430	< 880UJ
Benzo(k)fluoranthene	< 61	640	< 130	56000J	10000J	< 65	< 540	< 270	< 270	< 550UJ
Bis(2-ethylhexyl)phthalate	470	7600	730UJ	< 5100R	< 2900R	1000	< 540	1300	2800	3000J
Butylbenzylphthalate	< 61	9500	< 130	< 5100R	< 2900R	< 65	< 540	< 270	< 270	< 550UJ
Chrysene	< 61	1600	< 130	72000J	17000J	< 65	< 540	< 270	< 270	< 550UJ
Di-N-Butyl Phthalate	< 48	440	< 100	< 4100R	< 2400R	13000	< 440	< 220	1100	1600J
Di-N-Octyl Phthalate	< 85	< 740	< 180	< 7100R	< 4100R	< 91	< 760	< 380	< 380	< 770UJ
Dibenzo(a,h)anthracene	< 97	< 840	< 200	21000J	< 4700R	< 100	< 870	< 440	< 430	< 880UJ
Diethyl Phthalate	< 48	< 420	< 100	< 4100R	< 2400R	< 52	< 440	< 220	< 210	< 440UJ
Fluoranthene	< 48	1700	< 100	33000J	9200	110	< 440	< 220	< 210	< 440UJ
Indeno(1,2,3-cd)pyrene	< 97	< 840	< 200	61000J	13000J	140	< 870	< 440	< 430	< 880UJ
Naphthalene	< 48	< 420	< 100	< 4100R	< 2400R	< 52	< 440	< 220	< 210	< 440UJ
Phenanthrene	< 48	1700	< 100	7500J	2700J	95	< 440	< 220	< 210	< 440UJ
Pyrene	< 48	2700	< 100	66000J	20000J	180	< 440	< 220	< 210	< 440UJ
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	< 8.08UJ	< 7.04	< 8.48	< 6.76	24.2	< 8.69	85.3	19.7	15.8	42.4
4,4'-DDE	< 4.04UJ	< 3.52	< 4.24	< 3.38	38.2	6.13	347	4.36	7.28	13.9
4,4'-DDT	< 8.08UJ	< 7.04	< 8.48	< 6.76	57.5	11.7	364	< 7.31	< 7.15	< 7.37
Dieldrin	< 4.04UJ	< 3.52	< 4.24	< 3.38	< 3.93	< 4.35	19.3	< 3.66	< 3.58	< 3.69
Alpha-Chlordane	< 4.04UJ	< 3.52	< 4.24	< 3.38	< 3.93	< 4.35	3.82	< 3.66	< 3.58	65.1
Gamma-Chlordane	< 4.04UJ	< 3.52	< 4.24	< 3.38	22.1	< 4.35	< 3.63	4.98	< 3.58	90.9
Aroclor-1260	< 40UJ	77	< 42	< 34	210	< 43	< 36	73	210	480
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons,Petroleum	NA	1600	NA	100	NA	NA	69.9	NA	NA	NA
Oil And Grease (mg/kg-Dry)										
Oil&Gr,IR	NA	3570	NA	181	NA	NA	146	NA	NA	NA

Notes NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit.

Table 8-5- Site 1 Summary of Organic Analytical Results for Soil in Fill

PARAMETER REPORTED	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/kg-Dry)									
Acetone	1	12	11	170	1100	0	-	-	0
Carbon Disulfide	23	0	1	11	11	0	-	-	0
Semivolatile Organics (µg/kg-Dry)									
2-Methylnaphthalene	34	4	1	140	140	0	-	-	1
Acenaphthene	33	3	1	97	97	0	-	-	3
Anthracene	34	3	1	110	110	0	-	-	2
Benzo(a)anthracene	30	3	4	180	1600	2	14000	57000	1
Benzo(a)pyrene	31	3	4	260	1100	2	18000	81000	0
Benzo(b)fluoranthene	31	3	4	460	1100	2	17000	59000	0
Benzo(g,h,i)perylene	32	3	3	210	910	2	12000	82000	0
Benzo(k)fluoranthene	31	3	4	120	860	2	10000	56000	0
Bis(2-ethylhexyl)phthalate	7	8	19	110	7600	4	1200	9600	2
Butylbenzylphthalate	34	3	1	9500	9500	0	-	-	2
Chrysene	28	3	6	120	1800	2	17000	72000	1
Di-N-Butyl Phthalate	30	2	5	440	13000	1	1600	1600	2
Di-N-Octyl Phthalate	34	3	1	420	420	0	-	-	2
Dibenzo(a,h)anthracene	34	3	1	230	230	1	21000	21000	1
Diethyl Phthalate	34	2	0	-	-	1	410	410	3
Fluoranthene	26	3	9	110	9200	1	33000	33000	1
Indeno(1,2,3-cd)pyrene	33	3	2	140	660	2	13000	61000	0
Naphthalene	34	3	1	110	110	0	-	-	2
Phenanthrene	28	3	7	95	1700	2	2700	7500	0
Pyrene	23	5	8	120	2700	3	230	66000	1
Pesticides/PCBs (µg/kg-Dry)									
4,4'-DDD	32	2	6	15.8	85.3	0	-	-	0
4,4'-DDE	31	2	7	4.36	347	0	-	-	0
4,4'-DDT	33	2	5	11.7	364	0	-	-	0
Dieldrin	37	2	1	19.3	19.3	0	-	-	0
Alpha-Chlordane	36	2	2	3.82	65.1	0	-	-	0
Gamma-Chlordane	34	2	4	4.98	90.9	0	-	-	0
Aroclor-1260	22	2	10	73	750	6	59	390	0
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)	0	0	16	68.7	4480	0	-	-	0
Oil and Grease by IR (mg/kg-Dry)	0	0	16	146	9570	0	-	-	0

Table 8-6 - Site 1 Analytical Results for Soil in Fill - Metals

Sample Number	M-001A-013	M-001B-000	M-001E-005	M-002A-000	Duplicate M-002A-000	M-002A-006	M-002E-022
Date Sampled	04/24/91	04/24/91	04/26/91	05/16/91	05/16/91	05/23/91	05/23/91
Depth of Sample	13.0 ft	0.0 ft	5.0 ft	0.0 ft	0.0 ft	6.0 ft	22.0 ft
Parameter Reported							
Metals (mg/kg-Dry)							
Aluminum	12800J	6280J	12400J	8460J	6530J	8720J	12200J
Antimony	600	< 2.6	31	4J	2.6J	< 2.6	< 3.1
Arsenic	98.1	1.77	29.1	4.17	3.33	5.91	6.74
Barium	332	112	348	6990	4700	124J	43J
Beryllium	4.55	0.75	2.81	1.22	0.784	1.51	2.02
Cadmium	42J	0.477J	54.9	2.23	1.75	0.848	< 0.372
Calcium	9340J	7150J	11200J	7050J	5230J	5750J	30100J
Chromium	73J	24.1J	184J	34J	30.9J	30.7J	34.9J
Cobalt	12.4	6.01	12.1	14	12.9	7.16	9.14
Copper	1800J	11.2J	417J	46.3J	31.2J	81.5J	20.8J
Iron	51900J	11100J	28500J	15400J	12300J	14900J	18300J
Lead	45700J	20.4J	9540J	118	110J	34.3	11.6
Magnesium	6690	3600	5240	4830	4270	4510J	5920
Manganese	1670J	245J	565J	296	294	258	292J
Mercury	0.897	0.134	1.04	0.533	0.345J	0.109	0.158
Nickel	114	25	69.3	35.6J	29.7J	31.3	33.1
Potassium	1080	745	1950	1340	1150	979	2010
Selenium	< 0.259UJ	< 0.207UJ	< 0.258UJ	< 0.212UJ	< 0.209UJ	< 0.221UJ	< 0.310UJ
Silver	17.8	< 0.508	10.2	2.16	2.09	0.706	< 0.607
Sodium	1020	361	1350	322J	330J	386	5160
Thallium	< 0.333	< 0.266	< 0.332	< 0.272	< 0.268	< 0.284	< 0.398
Vanadium	39.3	20.4	40.5	30	21.7	29	38
Zinc	3300J	46.7J	1240J	438J	472J	67.2	41.3

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-6 - Site 1 Analytical Results for Soil in Fill - Metals

Sample Number	M-003A-000	M-003A-005	M-004A-000	M-004A-004	M-005A-000	Duplicate M-005A-000
Date Sampled	05/17/91	05/23/91	05/17/91	05/28/91	05/17/91	05/17/91
Depth of Sample	0.0 ft	5.0 ft	0.0 ft	2.0 ft	0.0 ft	0.0 ft
Parameter Reported						
Metals (mg/kg-Dry)						
Aluminum	11300J	3600J	11000J	8550J	7640J	5590J
Antimony	3.1J	< 2.8	3.6J	3.5J	< 2.5UJ	< 2.5UJ
Arsenic	41.1	14	5.45	4.83	7.75	8.88
Barium	97.5	32.7J	56.5	30.1J	42.8	36.6
Beryllium	0.735	0.847	0.714	1.28J	0.715	0.426
Cadmium	2.55	< 0.334	0.721	< 0.381	2.9	3.34
Calcium	7100J	24500J	17400J	97000J	4190J	2960J
Chromium	39.3J	17.5J	69.7J	33.1J	33.9J	26.5J
Cobalt	9.96	4.55	11.4	9.16	7.14	5.93
Copper	57.6J	25.7J	28.3J	15.6	25.4J	24.1J
Iron	18200J	5920J	17300J	14900J	12400J	10000J
Lead	116	12.6	63.5	14.6	94.7	94.6
Magnesium	5830	1480	8820	5630	3580	2870
Manganese	344	87.5J	280	274J	182	161
Mercury	0.339J	< 0.058	0.183J	0.076	0.095	0.134J
Nickel	41J	14	71.1J	35.6	28.3J	25J
Potassium	1290	572	1420	1170	908	770
Selenium	< 0.206UJ	< 0.240UJ	< 0.209UJ	< 0.231UJ	< 0.209UJ	< 0.206UJ
Silver	0.96	< 0.546	0.803	< 0.623	< 0.482	0.498
Sodium	415J	387	385J	1360	321J	299J
Thallium	< 0.265	< 0.309	< 0.268	< 0.298	< 0.269	< 0.265
Vanadium	38.9	14.7	37.6	28.9	34.4	24.2
Zinc	125J	14.1	95J	38.4	80.6J	71.7J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-6 - Site 1 Analytical Results for Soil in Fill - Metals

Sample Number	M-005A-003	M-006A-000	M-006A-005	M-007A-000	M-007A-004	M-008A-000
Date Sampled	05/29/91	05/17/91	05/29/91	05/17/91	05/29/91	05/17/91
Depth of Sample	0.5 ft	0.0 ft	2.5 ft	0.0 ft	1.0 ft	0.0 ft
Parameter Reported						
Metals (mg/kg-Dry)						
Aluminum	10200J	9530J	6430J	7100J	4450J	4630J
Antimony	2.8J	3.1J	2.7J	2.6J	< 2.8UJ	< 2.5UJ
Arsenic	3.31	8.93	1.12	1.04J	0.891	1.9
Barium	39J	156	31.5J	33.5	11.2J	31.6
Beryllium	1.19J	0.946	1.18J	0.819	0.51J	0.3
Cadmium	1.13	1.52	0.378	< 0.304	< 0.333	0.325
Calcium	7590J	4080J	3350J	4010J	1990J	2310J
Chromium	23.1J	39.5J	28.1J	38.4J	26.9J	28.2J
Cobalt	7.58	7.58	5.12	6.58	4.49	4.85
Copper	37.6	46.1J	8.27	5.25J	3.11	7.76J
Iron	14300J	27000J	14900J	15500J	8770J	7970J
Lead	27.4	165	7.7	6.3	1.42	19.5
Magnesium	4980	3580	2800	3810	2280	2220
Manganese	223J	748	212J	195	109J	109
Mercury	0.046	2.71J	0.233	0.142J	< 0.058	< 0.094UJ
Nickel	23.3	27.5J	25.6	21J	27.2	23.6J
Potassium	780	1280	511	653	517	732
Selenium	< 0.167UJ	< 0.214UJ	< 0.222UJ	< 0.216UJ	< 0.213UJ	< 0.209UJ
Silver	0.522	0.572	< 0.425	0.695	< 0.544	0.544
Sodium	416	318J	257	450J	281	242J
Thallium	< 0.215	< 0.276	< 0.286	< 0.278	< 0.273	< 0.269
Vanadium	37.3	41.6	27.8	23.2	19.6	20.9
Zinc	41.8	191J	72.2	24.1J	14.4	27.5J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-6 - Site 1 Analytical Results for Soil in Fill - Metals

Sample Number	M-008A-004	M-009A-000	M-009A-003	M-025A-004	M-025C-000	M-025E-022	M-026A-000
Date Sampled	05/29/91	05/16/91	05/30/91	05/24/91	04/25/91	05/24/91	04/25/91
Depth of Sample	0.5 ft	0.0 ft	2.0 ft	4.0 ft	0.0 ft	22.0 ft	0.0 ft
Parameter Reported							
Metals (mg/kg-Dry)							
Aluminum	4480J	6550J	4180J	6350J	3540J	5720J	4890J
Antimony	< 3.0UJ	< 2.7UJ	< 2.8UJ	< 2.6UJ	< 2.7	2.8J	< 2.6
Arsenic	1.11	2.25	1.1	1.74	3.51	1.28	2.09
Barium	30.5J	97	49.9J	42J	68.3	57.4J	39.8
Beryllium	0.92J	0.499	0.676J	0.968J	0.644	1.1J	< 0.136
Cadmium	< 0.355	0.435	< 0.329	0.595	1.11J	< 0.307	0.385J
Calcium	2100J	4260J	2370J	3690J	2630J	2300J	3520J
Chromium	29.6J	31.5J	28J	36.2J	17.4J	34.7J	22.4J
Cobalt	4.29	5.97	4.08	5.84	4.28	5.84	5.49
Copper	5.09	18.1J	5.96	19.4	21.9	6.33	11.8J
Iron	8330J	10600J	7800J	11600J	6810J	10100J	8450J
Lead	4.04	34.3	5.61	27.5	31.3	3.74	28.5J
Magnesium	2440	3320	1970	3290	2330	3390	3150
Manganese	98.3J	204	90.3J	160J	172J	121J	157J
Mercury	< 0.050	0.217J	0.21	0.165	0.195	< 0.058	< 0.102
Nickel	25.3	28.7J	21.8	31	19.6	31.1	19.2
Potassium	673	1140	609	951	713	974	992
Selenium	< 0.209UJ	< 0.217UJ	< 0.213UJ	< 0.199UJ	< 0.203UJ	< 0.258	< 0.200UJ
Silver	< 0.580	0.661	0.582	0.665	< 0.520	0.593	< 0.511
Sodium	232	516J	241	851	293	1260	452
Thallium	< 0.269	< 0.279	< 0.273UJ	< 0.255	< 0.261	< 0.332	< 0.257
Vanadium	21.2	27	19.7	26.3	13.6	23.9	19
Zinc	17.3	53.2J	16.1	57.5	52.2J	23.1	44.7J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-6 - Site 1 Analytical Results for Soil in Fill - Metals

Sample Number	M-026A-004	M-026E-020	Duplicate M-026E-020	M-027A-003	M-027B-005	M-027C-000	M-027E-019
Date Sampled	05/02/91	05/02/91	05/02/91	05/13/91	04/29/91	04/25/91	05/13/91
Depth of Sample	2.0 ft	15.0 ft	15.0 ft	0.5 ft	5.5 ft	0.0 ft	16.5 ft
Parameter Reported							
Metals (mg/kg-Dry)							
Aluminum	9190J	3500J	2990J	8840J	6790J	4990J	7160J
Antimony	< 2.5	< 3.0	< 2.7	8.3	3	< 2.4	< 3.0
Arsenic	2.82	1.62	1.58	4.13	7.21	2.61	2.19
Barium	89.4	19.8	16.7	238J	62.3	524	54.8J
Beryllium	0.542	0.519	0.491	1.43	0.721	0.171	1.14
Cadmium	0.469J	< 0.359	< 0.327	16.6	9.68J	2.01J	< 0.358
Calcium	3120J	2240J	3190J	4570J	2990J	5100J	3110J
Chromium	35.4J	21.8J	22.1J	57.9J	45.9J	32J	44J
Cobalt	9.17	4.52	4.12	6.37	7.46	5.37	7.55
Copper	17.1J	4.24J	4.45J	270J	507J	66.9	8.3J
Iron	14000J	5910J	5270J	17300J	25100J	8510J	12600J
Lead	7.39J	3.93J	3.73J	261	159J	46.2J	3.34
Magnesium	3830	1830	1700	2760	1910	3060	3320
Manganese	229	69.6	67.6J	258J	711	149J	128J
Mercury	< 0.109	< 0.114	< 0.106	9.57	0.575	0.192	< 0.056
Nickel	44.9	19.5	17	41.2	44	31.1	40.2
Potassium	1270	604	542	762	586	682	1070
Selenium	< 0.217UJ	< 0.236UJ	< 0.240	< 0.222UJ	< 0.249UJ	< 0.208	< 0.266UJ
Silver	< 0.483	< 0.586	< 0.534	2.1	4.64	< 0.470	< 0.585
Sodium	1550	962	914	375	311	351	1380
Thallium	< 0.279	< 0.304	< 0.309	< 0.286	< 0.320	< 0.267	< 0.343
Vanadium	26.6	15.6	14.3	27.7	17.7	21.6	31.5
Zinc	40.4J	22J	17.2J	555	332J	87.3J	29

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-6 - Site 1 Analytical Results for Soil in Fill - Metals

Sample Number	M-028A-000	M-028A-007	M-028E-006	M-029A-000	M-029A-004	M-029E-002	Duplicate M-029E-002
Date Sampled	04/25/91	04/30/91	05/01/91	04/24/91	04/29/91	04/29/91	04/29/91
Depth of Sample	0.0 ft	2.5 ft	3.0 ft	0.0 ft	4.0 ft	2.0 ft	2.0 ft
Parameter Reported							
Metals (mg/kg-Dry)							
Aluminum	3040J	23500J	91600J	7780J	17100J	4680J	4320J
Antimony	< 2.5	22	42	< 2.5	7.4	8.2	< 2.4
Arsenic	2.52	14.1	9.15	2.91	11.4	2.07	1.88
Barium	23	551	322	58.7	86.8	51.6	37.6
Beryllium	< 0.130	2.49	3	0.751	1.53	0.629	0.186
Cadmium	< 0.300J	55.1J	92.7J	0.471J	35J	11.7J	11.4J
Calcium	6550J	14600J	20600J	3280J	10900J	3370J	2440J
Chromium	24.4J	174J	89.5J	35.6	345J	51.1J	53.7J
Cobalt	3.89	12.2	11	7.76	17.1	5.05	4.65
Copper	5.52J	1760	6210	17.8	1560	81.5	47.9J
Iron	7140J	68300	99400	13000	42200	12300	8570J
Lead	44.1	1190J	875J	33.5	498J	171J	80.6J
Magnesium	1760	2970	2500	3040	4040	2230	2070
Manganese	116J	941J	1110J	269	478J	212J	138J
Mercury	< 0.088	0.554	0.334	0.113	0.953	0.357	0.606
Nickel	18	116	120	32.4	431	36	31.7
Potassium	385	834	478	894	713	640	632
Selenium	< 0.206UJ	< 0.233UJ	< 0.267UJ	< 0.228UJ	< 0.226UJ	< 0.221UJ	< 0.225UJ
Silver	< 0.490	16	21.8	< 0.488	2.14	1.29	0.741
Sodium	238	744	1230	459	435	333	283
Thallium	< 0.265	< 0.300	< 0.343	< 0.293	< 0.291	< 0.284	< 0.289
Vanadium	14.8	37.1	42.8	29.7	20.7	21.1	20
Zinc	37.8J	2510J	2060J	58	1500J	408J	125J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-7 - Site 1 Summary of Metals Results for Soil Samples in Fill

	Upper Limit 95%/95% Statistical Tolerance Interval (mg/kg)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (mg/kg)	Maximum Value (mg/kg)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (mg/kg)	Maximum Value (mg/kg)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	9458.42	0	0	-	-	-	40	2990	91600	10	0
Antimony	2.31	22	8	3	600	8	10	2.6	4	10	0
Arsenic	15.13	0	39	0.891	98.1	3	1	1.04	1.04	0	0
Barium	101.88	0	27	16.7	6990	9	13	11.2	238	2	0
Beryllium	1.51	2	30	0.171	4.55	6	8	0.51	1.28	0	0
Cadmium	1.97	12	15	0.325	54.9	6	13	0.385	92.7	8	0
Chromium	65.45	0	1	35.6	35.6	0	39	17.4	345	6	0
Cobalt	37.45	0	40	3.89	17.1	0	0	-	-	-	0
Copper	19.74	0	15	3,11	6210	7	25	4.24	1800	15	0
Lead	31.80	0	25	1.42	261	11	15	3.73	45700	10	0
Mercury	0.09	11	22	0.046	9.57	20	7	0.134	2.71	7	0
Nickel	65.46	0	30	14	431	5	10	21	71.1	1	0
Selenium	1.26	0	40	385	2010	40	0	-	-	-	0
Silver	1.24	40	0	-	-	-	0	-	-	-	0
Thallium	0.21	17	23	0.498	21.8	23	0	-	-	-	0
Vanadium	30.84	40	0	-	-	-	0	-	-	-	0
Zinc	41.76	0	40	13.6	42.8	1	0	-	-	-	0

Table 8-8 - Site 1 Analytical Results for Late Pleistocene and Holocene Alluvial/Eolian Deposits - Organic Compounds

Sample Number	M-001B-057	M-007C-078	Duplicate M-007C-078	M-025C-080	M-027C-090
Date Sampled	05/10/91	06/03/91	06/03/91	05/22/91	05/31/91
Depth of Sample	57.0 ft	78.0 ft	78.0 ft	80.0 ft	88.0 ft
PARAMETER REPORTED					
Volatile Organics (µg/kg-Dry)					
Acetone	16UJ	20UJ	16UJ	230	100UJ
Semivolatile Organics (µg/kg-Dry)					
Bis(2-ethylhexyl)phthalate	190	170UJ	250UJ	480UJ	< 130
Pesticides/PCBs (µg/kg-Dry)	ND	ND	ND	ND	ND

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 8-9 - Site 1 Summary of Organic Analytical Results for Soil in Late Pleistocene and Holocene Alluvial/Eolian Deposits

PARAMETER REPORTED	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/kg-Dry)									
Acetone	0	4	1	230	230	0	-	-	0
Semivolatile Organics (µg/kg-Dry)									
Bis(2-ethylhexyl)phthalate	1	3	1	190	190	0	-	-	0
Pesticides/PCBs (µg/kg-Dry)	5	0	0	-	-	0	-	-	0

Table 8-10 - Site1 Analytical Results for Late Pleistocene and Holocene Alluvial/Eolian Deposits - Metals

Sample Number	M-001B-057	M-007C-078	Duplicate M-007C-078	M-025C-080	M-027C-090
Date Sampled	05/10/91	06/03/91	06/03/91	05/22/91	05/31/91
Depth of Sample	57.0 ft	78.0 ft	78.0 ft	80.0 ft	88.0 ft
Parameter Reported					
Metals (mg/kg-Dry)					
Aluminum	5750J	3790J	4260J	17400J	12100J
Antimony	< 3.0	< 3.1	< 2.5	3.5	3.7J
Arsenic	1.63	3.16	1.81J	13.4	3.49
Barium	36.5	16.3	17.2	82.6J	81.3J
Beryllium	0.918J	1.14	1.05	2.15	1.99J
Cadmium	< 0.356	< 0.376	< 0.303	< 0.302	< 0.331
Calcium	1820J	1550	1760	3180J	3680J
Chromium	39.6J	27.4	30.5	70.8J	57J
Cobalt	7.61	5.96	6.19	12.7	11.2
Copper	6.58	4.15	4.55	39.9J	18.7
Iron	12600J	8290J	10500J	26500	20600J
Lead	2.11J	1.77J	1.86J	5.65J	5.35
Magnesium	3480	3640	3410	9070	7560
Manganese	163J	117J	350J	210J	228J
Mercury	< 0.117	< 0.122	< 0.117	0.145	0.063
Nickel	39.6	36.6J	33.9J	58	60.8
Potassium	850	405	777	3330	2520
Selenium	< 0.253UJ	< 0.240UJ	< 0.249UJ	< 0.234UJ	< 0.264UJ
Silver	< 0.581UJ	< 0.613	< 0.495	0.558	0.722
Sodium	1740	1490	1390	1300	1840
Thallium	< 0.326	< 0.308	< 0.320	< 0.301	< 0.340
Vanadium	30.7	20.1J	24.5J	54	43.2
Zinc	24.6	17.6	18.2	69.7	44.5

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-11 Site 1 Summary of Metals Results for Soil Samples in Late Pleistocene and Holocene Alluvial/Eolian Deposits

Metals (mg/kg-Dry)	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Aluminum	0	0	0	-	-	5	3790	17400	0
Antimony	3	0	1	3.5	3.5	1	3.7	3.7	0
Arsenic	0	0	4	1.63	13.4	1	1.81	1.81	0
Barium	0	0	3	16.3	36.5	2	81.3	82.6	0
Beryllium	0	0	3	1.05	2.15	2	0.918	1.99	0
Cadmium	5	0	0	-	-	0	-	-	0
Calcium	0	0	2	1550	1760	3	1820	3680	0
Chromium	0	0	2	27.4	30.5	3	39.6	70.8	0
Cobalt	0	0	5	5.96	12.7	0	-	-	0
Copper	0	0	4	4.15	18.7	1	39.9	39.9	0
Iron	0	0	1	26500	26500	4	8290	20600	0
Lead	0	0	1	5.35	5.35	4	1.77	5.65	0
Magnesium	0	0	5	3410	9070	0	-	-	0
Manganese	0	0	0	-	-	5	117	350	0
Mercury	3	0	2	0.063	0.145	0	-	-	0
Nickel	0	0	3	39.6	60.8	2	33.9	36.6	0
Potassium	0	0	5	405	3330	0	-	-	0
Selenium	0	5	0	-	-	0	-	-	0
Silver	2	1	2	0.558	0.722	0	-	-	0
Sodium	0	0	5	1300	1840	0	-	-	0
Thallium	5	0	0	-	-	0	-	-	0
Vanadium	0	0	3	30.7	54	2	20.1	24.5	0
Zinc	0	0	5	17.6	69.7	0	-	-	0

Table 8-12 - Site1 Groundwater Analyical Results For "A" and "E" Wells - Organic Compounds

Sample Number	1st Qtr M-001A	2nd Qtr M-001A	3rd Qtr M-001A	4th Qtr M-001A	1st Qtr M-001E	2nd Qtr M-001E	3rd Qtr M-001E	4th Qtr M-001E	1st Qtr M-002A	2nd Qtr M-002A	3rd Qtr M-002A	4th Qtr M-002A
Date Sampled	**06/17/91**	**09/19/91**	**01/14/92**	**03/26/92**	**06/17/91**	**09/19/91**	**01/14/92**	**03/27/92**	**06/19/91**	**09/20/91**	**01/14/92**	**03/30/92**
PARAMETER REPORTED												
Volatile Organics (µg/L)												
1,1-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0
1,2-Dichloroethene, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	17	17	47	44
Acetone	8.5UJ	< 2.0	< 2.0	< 2.0	2.8UJ	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0
Benzene	1.0	1.0	< 1.0	< 1.0	3.1	2.6	3.4	4.9	< 1.0	< 1.0	< 2.0	< 2.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	6.2	3.8	6.6	12	< 1.0	< 1.0	< 2.0	< 2.0
Ethylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	2.1	1.7	2.2	4.7	< 1.0	< 1.0	< 2.0	< 2.0
Methylene Chloride	< 1.0	< 1.0	< 1.0	1.2	1.4	< 1.0	< 1.0	< 1.0	1.2	< 1.0	< 2.0	< 2.0
Toluene	< 1.0	< 1.0	< 1.0	< 1.0	1.2	1.1	1.3	1.6	< 1.0	< 1.0	< 2.0	< 2.0
Trichloroethene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	18	13	39	45
Vinyl Chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0
Xylenes, Total	2.4	1.6	< 1.0	< 1.0	12	8.9	12	23	< 1.0	< 1.0	< 2.0	< 2.0
Semivolatile Organics (µg/L)												
1,2-Dichlorobenzene	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 2.0	< 1.0	< 2.0	< 1.0
1,4-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	< 2.0	< 2.0	< 4.0	< 2.0	53	39	45	42	< 4.0	< 2.0	< 4.0	< 2.0
2-Methlynaphthalene	< 1.0	< 1.0	< 2.0	< 2.0	3.1	3.5	3.4	3.8	< 2.0	< 1.0	< 4.0	< 2.0
2-Methylphenol	< 2.0	< 2.0	< 4.0	< 2.0	2.2	< 4.0	< 4.0	2.8	< 4.0	< 2.0	< 4.0	< 2.0
4-Methylphenol	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 4.0	< 4.0	< 2.0	< 4.0	< 2.0	< 4.0	< 2.0
Acenaphthene	< 1.0	< 1.0	< 2.0	< 1.0	3.4	3.7	3.1	3.5	< 2.0	< 1.0	< 2.0	< 1.0
Acenaphthylene	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 2.0	< 1.0	< 2.0	< 1.0
Bis(2-chloroisopropyl)ether	< 1.0	< 1.0	2.0	2.1	< 1.0	4.4	3.3	< 1.0	< 2.0	< 1.0	< 2.0	< 1.0
Bis(2-chloroethyl)ether	< 1.5	< 1.5	< 3.0	< 1.0	< 1.5	< 3.0	< 3.0	< 1.0	< 3.0	< 1.5	< 2.0	< 1.0
Bis(2-ethylhexyl)phthalate	< 2.0	3.0UJ	< 4.0	2.9UJ	< 2.0	4.6	< 4.0	7.4UJ	< 4.0	< 2.0	< 2.0	6.1UJ
Chrysene	< 2.5	< 2.5	< 5.0	< 1.0	< 2.5	< 5.0	< 5.0	< 1.0	< 5.0	< 2.5	< 2.0	< 1.0
Diethylphthalate	< 1.0	< 1.0	< 2.0	110	< 1.0	< 2.0	< 2.0	180	< 2.0	< 1.0	< 2.0	< 1.0
Fluoranthene	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 2.0	< 1.0	< 2.0	< 1.0
Fluorene	< 1.0	< 1.0	< 2.0	< 1.0	1.2	< 2.0	< 2.0	1.5	< 2.0	< 1.0	< 2.0	< 1.0
Naphthalene	< 1.0	< 1.0	< 2.0	< 1.0	99	100	110	100	< 2.0	< 1.0	< 2.0	< 1.0
Phenanthrene	< 1.0	< 1.0	< 2.0	< 1.0	1.8	< 2.0	< 2.0	2	< 2.0	< 1.0	< 2.0	< 1.0
Phenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.2	< 2.0	< 2.0	< 2.0	< 2.0
Pyrene	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 2.0	< 1.0	< 2.0	< 1.0
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)												
Hydrocarbons, Petroleum	1.7	1	0.4UJ	< 0.2	< 0.2	0.7	0.3UJ	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 8-12 - Site1 Groundwater Analyical Results For "A" and "E" Wells - Organic Compounds

Sample Number	1st Qtr M-002E	2nd Qtr M-002E	3rd Qtr M-002E	4th Qtr M-002E	1st Qtr M-003A	2nd Qtr M-003A	3rd Qtr M-003A	4th Qtr M-003A	4th Qtr M-003A Duplicate	1st Qtr M-004A	2nd Qtr M-004A	3rd Qtr M-004A	4th Qtr M-004A
Date Sampled	06/19/91	09/20/91	01/14/92	03/30/92	06/17/91	09/20/91	01/15/92	04/10/92	04/13/92	06/18/91	09/20/91	01/15/92	04/13/92
PARAMETER REPORTED													
Volatile Organics (µg/L)													
1,1-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	< 1.0	< 1.0	< 1.0	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acetone	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	15UJ	< 2.0	< 2.0	< 2.0
Benzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	1.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	< 1.0	< 1.0	2.1	1.8	1.4	1.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	1.1	3.0	1.3	1.3
Xylenes, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)													
1,2-Dichlorobenzene	< 2.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
1,4-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	< 4.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0
2-Methlynaphthalene	< 2.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 4.0	< 2.0	< 2.0	< 1.0	< 1.0	< 4.0	< 2.0
2-Methylphenol	< 4.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0
4-Methylphenol	< 4.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0
Acenaphthene	< 2.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Acenaphthylene	< 2.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Bis(2-chloroisopropyl)ether	< 2.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Bis(2-chloroethyl)ether	< 3.0	< 1.5	< 3.0	< 1.0	< 1.5	< 1.5	< 2.0	< 1.0	< 1.0	< 1.5	< 1.5	< 2.0	< 1.0
Bis(2-ethylhexyl)phthalate	< 4.0	2.9	20UJ	3.8UJ	< 2.0	< 2.0	4.6	72UJ	64UJ	< 2.0	4	7.3	120UJ
Chrysene	< 5.0	< 2.5	< 5.0	< 1.0	< 2.5	< 2.5	< 2.0	< 1.0	< 1.0	< 2.5	< 2.5	< 2.0	< 1.0
Diethylphthalate	< 2.0	< 1.0	< 2.0	24	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Fluoranthene	< 2.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Fluorene	< 2.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Naphthalene	< 2.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Phenanthrene	< 2.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Phenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Pyrene	< 2.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)													
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 8-12 - Site1 Groundwater Analyical Results For "A" and "E" Wells - Organic Compounds

Sample Number	1st Qtr M-005A	1st Qtr M-005A Duplicate	2nd Qtr M-005A	3rd Qtr M-005A	4th Qtr M-005A	1st Qtr M-006A	2nd Qtr M-006A	2nd Qtr M-006A Duplicate	3rd Qtr M-006A	4th Qtr M-006A
Date Sampled	06/18/91	06/18/91	09/20/91	01/15/92	04/09/92	07/01/91	09/23/91	09/23/91	01/15/92	04/09/92
PARAMETER REPORTED										
Volatile Organics (µg/L)										
1,1-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	2.4	2.6	2.1	2.5	1.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acetone	2.6UJ	< 2.0	4.0	< 2.0	< 2.0	< 2.0	< 2.0	3.0UJ	< 2.0	< 2.0
Benzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	2.0	2.7	4.5	2.1	1.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)										
1,2-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
1,4-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	< 2.0	< 2.0	< 2.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0R
2-Methlynaphthalene	< 1.0	< 1.0	< 1.0	< 2.5	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 1.0
2-Methylphenol	< 2.0	< 2.0	< 2.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0R
4-Methylphenol	< 2.0	< 2.0	< 2.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0
Acenaphthene	< 1.0	< 1.0	< 1.0	< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Acenaphthylene	< 1.0	< 1.0	< 1.0	< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Bis(2-chloroisopropyl)ether	< 1.0	< 1.0	< 1.0	< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Bis(2-chloroethyl)ether	< 1.5	< 1.5	< 1.5	< 3.8	< 1.5	< 1.5	< 1.0	< 1.0	< 2.0	< 1.5
Bis(2-ethylhexyl)phthalate	< 2.0	< 2.0	2.3	< 5.0	6.5UJ	< 2.0	3.7UJ	45UJ	11	6.5UJ
Chrysene	< 2.5	< 2.5	< 2.5	< 6.3	< 1.5	< 2.5	< 1.0	< 1.0	< 2.0	< 1.5
Diethylphthalate	< 1.0	< 1.0	< 1.0	< 2.5	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	5.4
Fluoranthene	< 1.0	< 1.0	1.0	< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Fluorene	< 1.0	< 1.0	< 1.0	< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Naphthalene	< 1.0	< 1.0	< 1.0	< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	1.2
Phenanthrene	< 1.0	< 1.0	< 1.0	< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Phenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0R
Pyrene	< 1.0	< 1.0	1.0	< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)										
Hydrocarbons, Petroleum	< 0.2	0.6UJ	0.3	< 0.2	< 0.2	< 0.2	0.3	< 0.2	< 0.2	< 0.2

Notes: ND = None detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 8-12 - Site1 Groundwater Analyical Results For "A" and "E" Wells - Organic Compounds

Sample Number	1st Qtr M-007A	2nd Qtr M-007A	3rd Qtr M-007A	3rd Qtr M-007A Duplicate	4th Qtr M-007A	1st Qtr M-008A	2nd Qtr M-008A	3rd Qtr M-008A	4th Qtr M-008A	1st Qtr M-009A	2nd Qtr M-009A	3rd Qtr M-009A	4th Qtr M-009A
Date Sampled	07/02/91	09/23/91	01/15/92	01/15/92	04/10/92	07/01/91	09/23/91	01/15/92	04/22/92	07/16/91	10/04/91	02/07/92	04/23/92
PARAMETER REPORTED													
Volatile Organics (µg/L)													
1,1-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0
1,2-Dichloroethene, Total	< 1.0	1.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0
Acetone	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	< 10.0
Benzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0
Ethylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0
Methylene Chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0
Toluene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0
Trichloroethene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0
Vinyl Chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0
Xylenes, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.2	< 1.0	< 1.0	< 5.0	< 5.0
Semivolatile Organics (µg/L)													
1,2-Dichlorobenzene	< 1.0	< 1.2	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	< 2.0	< 2.3	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Methlynaphthalene	< 1.0	< 2.3	< 2.0	< 4.0	< 2.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0
2-Methylphenol	< 2.0	< 2.3	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
4-Methylphenol	< 2.0	< 2.3	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Acenaphthene	< 1.0	< 1.2	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acenaphthylene	< 1.0	< 1.2	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-chloroisopropyl)ether	< 1.0	< 1.2	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-chloroethyl)ether	< 1.5	< 1.2	< 3.0	< 2.0	< 1.0	< 1.5	< 1.0	< 3.0	< 1.5	< 1.5	< 1.0	< 1.0	< 1.5
Bis(2-ethylhexyl)phthalate	< 2.0	26UJ	6.7UJ	3.5	840	2	14UJ	< 4.0	2.4UJ	< 2.0	< 1.0	2.7	4.8UJ
Chrysene	< 2.5	< 1.2	< 5.0	< 2.0	< 1.0	< 2.5	< 1.0	< 5.0	< 1.5	< 2.5	< 1.0	< 1.0	< 1.5
Diethylphthalate	< 1.0	< 1.2	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0
Fluoranthene	< 1.0	< 1.2	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Fluorene	< 1.0	< 1.2	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	< 1.0	< 1.2	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenanthrene	< 1.0	< 1.2	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Pyrene	< 1.0	< 1.2	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)													
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 8-12 - Site1 Groundwater Analyical Results For "A" and "E" Wells - Organic Compounds

Sample Number	1st Qtr M-025A	2nd Qtr M-025A	3rd Qtr M-025A	4th Qtr M-025A	4th Qtr M-025A Duplicate	1st Qtr M-025E	2nd Qtr M-025E	3rd Qtr M-025E	4th Qtr M-025E	1st Qtr M-026A	2nd Qtr M-026A	3rd Qtr M-026A	4th Qtr M-026A
Date Sampled	06/28/91	10/02/91	01/23/92	03/31/92	03/31/92	06/28/91	10/02/91	01/23/92	03/31/92	06/27/91	10/02/91	01/23/92	03/26/92
PARAMETER REPORTED													
Volatile Organics (µg/L)													
1,1-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	< 1.0	1.1	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acetone	3.5UJ	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.7	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	3.8	5.9	4.9	2.6	4.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)													
1,2-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Methlynaphthalene	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0
2-Methylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
4-Methylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Acenaphthene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acenaphthylene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-chloroisopropyl)ether	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-chloroethyl)ether	< 1.5	< 1.5	< 1.5	< 1.0	< 1.0	< 1.5	< 1.5	< 1.5	< 1.0	< 1.5	< 1.5	< 1.5	< 1.0
Bis(2-ethylhexyl)phthalate	< 2.0	< 2.0	5.4UJ	8.4UJ	8.8UJ	< 2.0	< 2.0	< 2.0	54	< 2.0	< 2.0	2.4UJ	12UJ
Chrysene	< 2.5	< 2.5	< 2.5	< 1.0	< 1.0	< 2.5	< 2.5	< 2.5	< 1.0	< 2.5	< 2.5	< 2.5	< 1.0
Diethylphthalate	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.1	< 1.0	< 1.0	1.3	< 1.0	< 1.0	< 1.0	< 1.0
Fluoranthene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Fluorene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenanthrene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Pyrene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)													
Hydrocarbons, Petroleum	2.9	< 0.2	0.4	0.7	1.6	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 8-12 - Site1 Groundwater Analyical Results For "A" and "E" Wells - Organic Compounds

Sample Number	1st Qtr M-026E	2nd Qtr M-026E	3rd Qtr M-026E	3rd Qtr M-026E Duplicate	4th Qtr M-026E	1st Qtr M-027A	2nd Qtr M-027A	3rd Qtr M-027A	4th Qtr M-027A	1st Qtr M-027E	2nd Qtr M-027E	3rd Qtr M-027E	4th Qtr M-027E
Date Sampled	06/27/91	10/02/91	01/23/92	01/23/92	03/26/92	06/25/91	10/03/91	01/31/92	03/26/92	06/26/91	10/03/91	01/31/92	03/26/92
PARAMETER REPORTED													
Volatile Organics (µg/L)													
1,1-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	6.9	7.3	7.0	3.8	5.7	8.9	5.9	7
Acetone	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	6.7	2.5UJ	< 2.0	< 2.0
Benzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	< 1.0	< 1.0	< 1.0	1.1
Toluene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)													
1,2-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Methlynaphthalene	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 1.0	< 2.0	< 1.0	< 2.0	< 1.0	< 2.0
2-Methylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
4-Methylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Acenaphthene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acenaphthylene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-chloroisopropyl)ether	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-chloroethyl)ether	< 1.5	< 1.5	< 1.5	< 1.5	< 1.0	< 1.5	< 1.0	< 1.5	< 1.0	< 1.5	< 1.0	< 1.5	< 1.0
Bis(2-ethylhexyl)phthalate	< 2.0	< 2.0	< 2.0	2.2UJ	53	< 2.0	1.7	4.1	8.7UJ	< 2.0	1.5	2.8	5.6UJ
Chrysene	< 2.5	< 2.5	< 2.5	< 2.5	< 1.0	< 2.5	< 1.0	< 2.5	< 1.0	< 2.5	< 1.0	< 2.5	< 1.0
Diethylphthalate	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Fluoranthene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Fluorene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenanthrene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Pyrene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)													
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 8-12 - Site1 Groundwater Analyical Results For "A" and "E" Wells - Organic Compounds

Sample Number	1st Qtr M-028A	1st Qtr M-028A Duplicate	2nd Qtr M-028A	3rd Qtr M-028A	4th Qtr M-028A	4th Qtr M-028A Duplicate	4th Qtr M-028A Duplicate	1st Qtr M-028E	2nd Qtr M-028E	3rd Qtr M-028E	4th Qtr M-028E
Date Sampled	06/24/91	06/24/91	10/11/91	02/04/92	04/27/92	04/27/92	04/27/92	06/25/91	10/11/91	02/04/92	04/27/92
PARAMETER REPORTED											
Volatile Organics (µg/L)											
1,1-Dichloroethane	< 2500	< 1000	< 500	11	< 10.0	< 10.0	< 10.0	< 1.0	< 2.0	1.1	< 5.0
1,2-Dichloroethane	< 2500	< 1000	< 500	< 10.0	< 10.0	< 10.0	< 10.0	< 1.0	< 2.0	< 5.0	< 5.0
1,2-Dichloroethene, Total	45000	29000	10000	14	160	120	59	2.3	< 2.0	1.5	100
Acetone	< 5000	< 2000	1600	< 20	< 20	< 20	< 20	< 2.0	10.0UJ	< 10.0	< 10.0
Benzene	< 2500	< 1000	< 500	26	19	13	14	7.1	21	8.6	13
Chlorobenzene	< 2500	< 1000	< 500	51	20	16	16	4.2	15	3.8	13
Ethylbenzene	< 2500	< 1000	< 500	26	13	< 10.0	< 10.0	< 1.0	< 2.0	< 5.0	< 5.0
Methylene Chloride	< 2500	< 1000	< 500	< 10.0	< 10.0	< 10.0	< 10.0	< 1.0	< 2.0	< 5.0	< 5.0
Toluene	< 2500	1100	1200	69	< 10.0	< 10.0	< 10.0	< 1.0	< 2.0	< 5.0	< 5.0
Trichloroethene	< 2500	< 1000	< 500	< 10.0	< 10.0	< 10.0	< 10.0	< 1.0	< 2.0	< 5.0	< 5.0
Vinyl Chloride	15000	6000	11000	170	310	160	160	< 1.0	3.5	69	140
Xylenes, Total	< 2500	< 1000	< 500	78	17	13	13	< 1.0	< 2.0	< 5.0	< 5.0
Semivolatile Organics (µg/L)											
1,2-Dichlorobenzene	< 40	< 80R	< 100R	< 10.0	3.1	8.9	NA	< 2.0	1.1	1.1	1.3
1,4-Dichlorobenzene	< 100	< 100	< 100	< 10	< 1.0	2.3	NA	< 1.0	< 1.0	< 1.0	1.3
2,4-Dimethylphenol	1600	2100J	4000J	260	< 2.0	4.8	NA	< 4.0	< 2.0	< 2.0	< 2.0
2-Methlynaphthalene	< 40.0	< 80.0R	< 200R	< 20.0	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0
2-Methylphenol	210J	190J	480J	< 20	< 2.0	< 2.0	NA	< 4.0	< 2.0	< 2.0	< 2.0
4-Methylphenol	< 80	390J	< 200R	< 20	< 2.0	< 2.0	NA	< 4.0	< 2.0	< 2.0	< 2.0
Acenaphthene	< 40	< 80R	< 100R	< 10.0	< 1.0	< 1.0	NA	< 2.0	< 1.0	< 1.0	< 1.0
Acenaphthylene	< 40	< 80R	< 100R	< 10.0	< 1.0	< 1.0	NA	< 2.0	1.2	< 1.0	< 1.0
Bis(2-chloroisopropyl)ether	< 40	< 80R	< 100R	< 10.0	< 1.0	2.1	NA	< 2.0	< 1.0	< 1.0	< 1.0
Bis(2-chloroethyl)ether	< 60	< 120R	< 100R	< 10.0	< 1.0	< 1.0	NA	< 3.0	< 1.0	< 1.0	< 1.0
Bis(2-ethylhexyl)phthalate	< 80	< 160R	< 100R	< 10.0	3.7	1.5	NA	< 4.0	< 1.0	8.9UJ	26
Chrysene	< 100	< 200R	< 100R	< 10.0	< 2.5	< 2.5	NA	< 5.0	< 1.0	< 1.0	< 2.5
Diethylphthalate	< 40	< 80R	< 100R	< 10.0	< 1.0	< 1.0	NA	< 2.0	< 1.0	< 1.0	< 1.0
Fluoranthene	< 40	< 80R	< 100R	< 10.0	< 1.0	< 1.0	NA	< 2.0	< 1.0	< 1.0	< 1.0
Fluorene	< 40	< 80R	< 100R	< 10.0	< 1.0	< 1.0	NA	< 2.0	< 1.0	< 1.0	< 1.0
Naphthalene	< 40	< 80R	< 100R	15	2.1	6.5	NA	< 2.0	< 1.0	< 1.0	< 1.0
Phenanthrene	< 40	< 80R	< 100R	< 10.0	< 1.0	< 1.0	NA	< 2.0	< 1.0	< 1.0	< 1.0
Phenol	< 200	< 200	< 200	< 20	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0
Pyrene	< 40	< 80R	< 100R	< 10.0	< 1.0	< 1.0	NA	< 2.0	< 1.0	< 1.0	< 1.0
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)											
Hydrocarbons, Petroleum	0.5	0.6	0.2	0.6	0.5	0.6	NA	< 0.2	0.3	< 0.2	< 0.2

Notes: ND = None detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 8-12 - Site1 Groundwater Analyical Results For "A" and "E" Wells - Organic Compounds

Sample Number	1st Qtr M-029A	2nd Qtr M-029A	3rd Qtr M-029A	4th Qtr M-029A	1st Qtr M-029E	2nd Qtr M-029E	2nd Qtr M-029E Duplicate	3rd Qtr M-029E	4th Qtr M-029E
Date Sampled	06/20/91	10/10/91	02/04/92	03/27/92	06/21/91	10/10/91	10/10/91	02/04/92	03/27/92
PARAMETER REPORTED									
Volatile Organics (µg/L)									
1,1-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	1.6	1.6	1.4	< 1.0	12	10.0	7.8	5.4	5
Acetone	< 2.0	6.8UJ	< 2.0	< 2.0	5.4UJ	3.8UJ	3.7UJ	< 2.0	< 2.0
Benzene	3.7	6.0	5.7	6.5	1.8	2.2	2.0	1.8	1.4
Chlorobenzene	2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.2	< 1.0	< 1.0
Toluene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	1.4	1.6	< 1.0	< 1.0	< 1.0	3.9	2.8	1.3	< 1.0
Xylenes, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)									
1,2-Dichlorobenzene	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Methlynaphthalene	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Methylphenol	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0
4-Methylphenol	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0
Acenaphthene	< 2.0	4.0	4.0	3.2	< 2.0	1.4	1.4	1.6	1.3
Acenaphthylene	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-chloroisopropyl)ether	< 2.0	6.3	5.9	6.4	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-chloroethyl)ether	< 3.0	1.3	1.6	< 1.0	< 3.0	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-ethylhexyl)phthalate	< 4.0	3.4	5.8	2.9UJ	< 4.0	< 1.0	1.5J	3.0	2.7UJ
Chrysene	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	1.1	< 1.0	< 1.0
Diethylphthalate	< 2.0	< 1.0	< 1.0	11	< 2.0	< 1.0	< 1.0	< 1.0	85
Fluoranthene	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	1.7	4.1	2.0	< 1.0
Fluorene	< 2.0	1.4	1.4	1.1	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	1.1	< 1.0	1.8	1.4
Phenanthrene	< 2.0	< 1.0	1.4	< 1.0	< 2.0	1.5	1.6	1.9	1.1
Phenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Pyrene	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	2.1	4.2J	2.5	< 1.0
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)									
Hydrocarbons, Petroleum	1.9	0.9	7.9	4.0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 8-13 - Site1 Summary of Organic Analytical Results for Quarterly Groundwater Sampling in "A" and"E" Wells

First Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
1,1-Dichloroethane	23	0	0	-	-	0	-	-	0
1,2-Dichloroethane	23	0	0	-	-	0	-	-	0
1,2-Dichloroethene, Total	13	0	10	1.6	45000	0	-	-	0
Acetone	16	6	1	6.7	6.7	0	-	-	0
Benzene	18	0	5	1	7.1	0	-	-	0
Chlorobenzene	20	0	3	2	6.2	0	-	-	0
Ethylbenzene	21	0	2	1.4	2.1	0	-	-	0
Methylene Chloride	19	0	4	1	1.4	0	-	-	0
Toluene	21	0	2	1.2	1100	0	-	-	0
Trichloroethene	21	0	2	1.4	18	0	-	-	0
Vinyl Chloride	16	0	7	1.1	15000	0	-	-	0
Xylenes, Total	21	0	2	2.4	12	0	-	-	0
Semivolatile Organics (µg/L)									
1,2-Dichlorobenzene	23	0	0	-	-	0	-	-	0
2,4-Dimethylphenol	20	0	2	53	1600	1	2100	2100	0
2-Methlynaphthalene	22	0	1	3.1	3.1	0	-	-	0
2-Methylphenol	20	0	1	2.2	2.2	2	190	210	0
4-Methylphenol	22	0	0	-	-	1	390	390	0
Acenaphthene	22	0	1	3.4	3.4	0	-	-	0
Acenaphthylene	23	0	0	-	-	0	-	-	0
Bis(2-chloroisopropyl)ether	23	0	0	-	-	0	-	-	0
Bis(2-chloroethyl)ether	23	0	0	-	-	0	-	-	0
Bis(2-ethylhexyl)phthalate	22	0	1	2	2	0	-	-	0
Chrysene	23	0	0	-	-	0	-	-	0
Diethylphthalate	22	0	1	3.1	3.1	0	-	-	0
Fluoranthene	23	0	0	-	-	0	-	-	0
Fluorene	22	0	1	1.2	1.2	0	-	-	0
Naphthalene	22	0	1	99	99	0	-	-	0
Phenanthrene	22	0	1	1.8	1.8	0	-	-	0
Pyrene	23	0	0	-	-	0	-	-	0
Pesticides/PCBs (µg/L)	23	0	0	-	-	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	17	1	5	0.5	2.9	0	-	-	0

Table 8-13 - Site1 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "A" and "E" Wells

Second Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
1,1-Dichloroethane	23	0	0	-	-	0	-	-	0
1,2-Dichloroethane	22	0	1	2	2	0	-	-	0
1,2-Dichloroethene, Total	13	0	10	1.1	10000	0	-	-	0
Acetone	15	6	2	4	1600	0	-	-	0
Benzene	17	0	6	1	21	0	-	-	0
Chlorobenzene	21	0	2	3.8	15	0	-	-	0
Ethylbenzene	22	0	1	1.7	1.7	0	-	-	0
Methylene Chloride	22	0	1	1.2	1.2	0	-	-	0
Toluene	21	0	2	1.1	1200	0	-	-	0
Trichloroethene	21	0	2	1.8	13	0	-	-	0
Vinyl Chloride	15	0	8	1.6	11000	0	-	-	0
Xylenes, Total	20	0	3	1.3	8.9	0	-	-	0
Semivolatile Organics (µg/L)									
1,2-Dichlorobenzene	22	0	1	1.1	1.1	0	-	-	0
2,4-Dimethylphenol	21	0	1	39	39	1	4000	4000	0
2-Methlynaphthalene	22	0	1	3.5	3.5	0	-	-	0
2-Methylphenol	22	0	0	-	-	1	480	480	0
4-Methylphenol	23	0	0	-	-	0	-	-	0
Acenaphthene	19	0	4	1.4	4	0	-	-	0
Acenaphthylene	22	0	1	1.2	1.2	0	-	-	0
Bis(2-chloroisopropyl)ether	21	0	2	4.4	6.3	0	-	-	0
Bis(2-chloroethyl)ether	22	0	1	1.3	1.3	0	-	-	0
Bis(2-ethylhexyl)phthalate	10	5	7	1.5	4.6	1	1.5	1.5	0
Chrysene	22	0	1	1.1	1.1	0	-	-	0
Diethylphthalate	23	0	0	-	-	0	-	-	0
Fluoranthene	20	0	3	1	4.1	0	-	-	0
Fluorene	22	0	1	1.4	1.4	0	-	-	0
Naphthalene	21	0	2	1.1	100	0	-	-	0
Phenanthrene	21	0	2	1.5	1.6	0	-	-	0
Pyrene	20	0	2	1	2.1	1	4.2	4.2	0
Pesticides/PCBs (µg/L)	23	0	0	-	-	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	16	0	7	0.2	1	0	-	-	0

Table 8-13 - Site1 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "A" and "E" Wells

Third Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
1,1-Dichloroethane	21	0	2	1.1	11	0	-	-	0
1,2-Dichloroethane	23	0	0	-	-	0	-	-	0
1,2-Dichloroethene, Total	14	0	9	1	47	0	-	-	0
Acetone	22	0	1	2.7	2.7	0	-	-	0
Benzene	18	0	5	1.8	26	0	-	-	0
Chlorobenzene	19	0	4	1.7	51	0	-	-	0
Ethylbenzene	21	0	2	2.2	26	0	-	-	0
Methylene Chloride	23	0	0	-	-	0	-	-	0
Toluene	21	0	2	1.3	69	0	-	-	0
Trichloroethene	21	0	2	2.1	39	0	-	-	0
Vinyl Chloride	17	0	6	1.3	170	0	-	-	0
Xylenes, Total	21	0	2	12	78	0	-	-	0
Semivolatile Organics (µg/L)									
1,2-Dichlorobenzene	22	0	1	1.1	1.1	0	-	-	0
2,4-Dimethylphenol	21	0	2	45	260	0	-	-	0
2-Methlynaphthalene	22	0	1	3.4	3.4	0	-	-	0
2-Methylphenol	23	0	0	-	-	0	-	-	0
4-Methylphenol	23	0	0	-	-	0	-	-	0
Acenaphthene	20	0	3	1.6	4	0	-	-	0
Acenaphthylene	23	0	0	-	-	0	-	-	0
Bis(2-chloroisopropyl)ether	20	0	3	2	5.9	0	-	-	0
Bis(2-chloroethyl)ether	22	0	1	1.6	1.6	0	-	-	0
Bis(2-ethylhexyl)phthalate	8	6	9	2.7	11	0	-	-	0
Chrysene	23	0	0	-	-	0	-	-	0
Diethylphthalate	23	0	0	-	-	0	-	-	0
Fluoranthene	22	0	1	2	2	0	-	-	0
Fluorene	22	0	1	1.4	1.4	0	-	-	0
Naphthalene	20	0	3	1.8	110	0	-	-	0
Phenanthrene	21	0	2	1.4	1.9	0	-	-	0
Pyrene	22	0	1	2.5	2.5	0	-	-	0
Pesticides/PCBs (µg/L)	23	0	0	-	-	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	18	2	3	0.4	7.9	0	-	-	0

Table 8-13 - Site 1 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "A" and "E" Wells

Fourth Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
1,2-Dichloroethene, Total	14	0	11	1.1	160	0	-	-	0
Benzene	18	0	7	1.4	19	0	-	-	0
Chlorobenzene	20	0	5	12	20	0	-	-	0
Ethylbenzene	23	0	2	4.7	13	0	-	-	0
Methylene Chloride	22	0	3	1.1	1.2	0	-	-	0
Toluene	24	0	1	1.6	1.6	0	-	-	0
Trichloroethene	23	0	2	1.8	45	0	-	-	0
Vinyl Chloride	16	0	9	1.1	310	0	-	-	0
Xylenes, Total	20	0	5	2.2	23	0	-	-	0
Semivolatile Organics (µg/L)									
1,2-Dichlorobenzene	21	0	3	1.3	8.9	0	-	-	0
1,4-Dichlorobenzene	22	0	2	1.3	2.3	0	-	-	0
2,4-Dimethylphenol	22	0	2	4.8	42	0	-	-	0
2-Methlynaphthalene	23	0	1	3.8	3.8	0	-	-	0
2-Methyl phenol	23	0	1	2.8	2.8	0	-	-	0
Acenaphthene	21	0	3	1.3	3.5	0	-	-	0
Bis(2-chloroisopropyl)ether	21	0	3	2.1	6.4	0	-	-	0
Bis(2-ethylhexyl)phthalate	0	18	6	1.5	840	0	-	-	0
Dimethylpthalate	17	0	7	1.3	180	0	-	-	0
Fluorene	22	0	2	1.1	1.5	0	-	-	0
Naphthalene	19	0	5	1.2	100	0	-	-	0
Phenanthrene	22	0	2	1.1	2	0	-	-	0
Phenol	23	0	1	2.2	2.2	0	-	-	0
Pesticides/PCBs (µg/L)	24	0	0	-	-	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	19	0	5	0.5	4	0	-	-	0

Table 8-14 - Site 1 Groundwater Analytical Results For "A" and "E" Wells - Metals

Sample Number	1st Qtr M-001A	2nd Qtr M-001A	3rd Qtr M-001A	4th Qtr M-001A	1st Qtr M-001E	2nd Qtr M-001E	3rd Qtr M-001E	4th Qtr M-001E
Date Sampled	**06/17/91**	**09/19/91**	**01/14/92**	**03/26/92**	**06/17/91**	**09/19/91**	**01/14/92**	**03/27/92**
PARAMETER REPORTED								
Metals (µg/L)								
Aluminum	< 31.0	< 31.0	< 40.7	43.0	121	57.1	< 40.7	< 40.7
Antimony	< 25.1	< 25.1	< 37.5	< 37.5	< 25.1	< 25.1	< 37.5	< 37.5
Arsenic	< 2.6	< 2.6	< 1.9	< 1.9	< 2.6	< 2.6	3.9	< 1.9
Barium	394	353	390	254	54.6	50.0	61.2	99.4
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	55700	37700	56400	62600	4850	4300	7700	4870
Chromium	< 5.7	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2
Copper	< 2.1	< 2.1	4.4	< 3.8	< 2.1	< 2.1	4.5	< 3.8
Iron	38.3	25.8UJ	131	689	139	55	36.1UJ	85.2
Lead	< 2.0UJ	< 2.0UJ	< 1.3	1.8	< 2.0	< 2.0	1.6	< 1.3
Magnesium	46500	39500	31200	26800	4920	3760	13900	5090
Manganese	397	235	314	238	28.0	27.7	46.6	34.3
Mercury	< 0.2UJ	< 0.2	< 0.2	< 0.2	< 0.2UJ	< 0.2	< 0.2UJ	< 0.2
Nickel	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2
Potassium	35300	37200	25900	19600J	34600	31400	48100	38800J
Selenium	< 2.1	< 2.1	< 2.0	< 2.0UJ	< 2.1	< 2.1	< 2.0UJ	< 2.0UJ
Silver	< 4.9	< 4.9	< 4.8	< 4.8	< 4.9	< 4.9	< 4.8	< 4.8
Sodium	373000J	431000	201000	138000	520000J	395000	821000	602000
Thallium	< 2.7UJ	< 2.7UJ	< 1.7UJ	< 1.7UJ	< 2.7UJ	< 2.7UJ	< 8.5UJ	< 1.7UJ
Vanadium	6.5	< 4.2	< 6.0	< 6.0	6.0	< 4.2	6.3	< 6.0
Zinc	3.5UJ	< 2.3	< 4.6	13.3	6.7UJ	6.4	< 4.6	< 4.6

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-14 - Site 1 Groundwater Analytical Results For "A" and "E" Wells - Metals

Sample Number	1st Qtr M-002A	2nd Qtr M-002A	3rd Qtr M-002A	4th Qtr M-002A	1st Qtr M-002E	2nd Qtr M-002E	3rd Qtr M-002E	4th Qtr M-002E
Date Sampled	**06/19/91**	**09/20/91**	**01/14/92**	**03/30/92**	**06/19/91**	**09/20/91**	**01/14/92**	**03/30/92**
PARAMETER REPORTED								
Metals (µg/L)								
Aluminum	39.9	< 31.0	< 40.7	41.2	35.3	< 31.0	48.2	62.9
Antimony	37.6	< 25.1	< 37.5	< 37.5	40.1	< 25.1	< 37.5	< 37.5
Arsenic	< 2.6	< 2.6	< 1.9	< 1.9	5.3	< 2.6UJ	< 1.9	< 1.9
Barium	266	217	90.8	109	164	128	97.9	71.7
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	368000	230000	124000	179000	326000	275000	322000	184000
Chromium	< 5.7	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	7.7	< 6.1	< 17.2	< 17.2
Copper	< 2.1	< 2.1	14.5	< 3.8	< 2.1	< 2.1	20.2	< 3.8
Iron	139	759	< 7.7	191	< 6.2	< 6.2	< 7.7	< 7.7
Lead	< 2.0UJ	< 2.0UJ	2.6UJ	< 1.3	< 10.0UJ	< 2.0UJ	< 1.3	< 1.3
Magnesium	183000	137000	78800	76700	435000	465000	281000	168000
Manganese	529	275	93.7	265	616	500	84.2	31.9
Mercury	< 0.2UJ	< 0.2	< 0.2	< 0.2	< 0.2UJ	< 0.2	< 0.2	< 0.2
Nickel	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2
Potassium	53000	45300	24600	19600J	122000	139000	84700	53000J
Selenium	< 2.1	< 2.1UJ	< 2.1UJ	< 2.0UJ	< 2.1	< 10.5UJ	< 2.0UJ	< 2.0UJ
Silver	< 4.9	< 4.9	< 4.8	< 4.8	< 4.9	< 4.9	< 4.8	< 4.8
Sodium	1820000J	1530000	433000	490000	4320000J	4610000	2460000	1570000
Thallium	< 2.7UJ	< 2.7UJ	< 1.7UJ	< 1.7UJ	< 13.5UJ	< 13.5	< 8.5UJ	< 1.7UJ
Vanadium	16.8	16.0	12.0	13.1	15.2	8.9	20.5	20.7
Zinc	< 2.3	5.0	46.3	< 4.6	5.8UJ	< 2.3	< 4.6	7.8

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-14 - Site 1 Groundwater Analytical Results For "A" and "E" Wells - Metals

Sample Number	1st Qtr M-003A	2nd Qtr M-003A	3rd Qtr M-003A	4th Qtr M-003A	4th Qtr M-003A Duplicate	1st Qtr M-004A	2nd Qtr M-004A	3rd Qtr M-004A	4th Qtr M-004A
Date Sampled	**06/17/91**	**09/20/91**	**01/15/92**	**04/10/92**	**04/13/92**	**06/18/91**	**09/20/91**	**01/15/92**	**04/13/92**
PARAMETER REPORTED									
Metals (µg/L)									
Aluminum	33.3	< 31.0	< 40.7	181	165	34	< 31.0	< 40.7	109
Antimony	< 25.1	< 25.1	< 37.5	< 37.5	< 37.5	< 25.1	< 25.1	< 37.5	< 37.5
Arsenic	< 2.6	< 2.6	< 1.9	2.3J	< 1.9	2.6	< 2.6UJ	2.1	3.1
Barium	60.2	52.3	185	54.4	47.6	43.7	40.1	86.7	55.3
Beryllium	1.5	< 1.3	< 2.5	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	125000	126000	84600	128000	110000	57100	55500	109000	108000
Chromium	< 5.7	< 5.7	< 6.3	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2
Copper	< 2.1	< 2.1	12.5	< 3.8	< 3.8	< 2.1	< 2.1	< 3.8	< 3.8
Iron	< 6.2	12.8UJ	11.7UJ	221	256	< 6.2	11.0	14.3UJ	119
Lead	< 2.0	< 2.0	2.5UJ	< 2.0UJ	9.5	< 2.0UJ	< 2.0UJ	1.7UJ	< 2.0
Magnesium	15500	18000	29500	14300	69700	63600	62500	70400	68100
Manganese	20.7	8.4	43.2	25.1	233	215	304	445	286
Mercury	< 0.2UJ	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2UJ	< 0.2	< 0.2	< 0.2
Nickel	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2
Potassium	5380UJ	6410	17300	3720	32000	45900	46700	40700	31300
Selenium	< 2.1	< 2.1	< 2.1	< 2.0	< 10.0UJ	< 2.1	< 2.1UJ	< 2.1UJ	< 2.0
Silver	< 4.9	< 4.9	< 4.8	< 4.8	< 4.8	< 4.9	< 4.9	< 4.8	< 4.8
Sodium	17700J	28000	70100	20100	402000J	703000J	673000	472000	369000
Thallium	< 2.7	< 2.7	< 1.7UJ	< 1.7	< 1.7	< 2.7UJ	< 2.7UJ	< 1.7UJ	< 1.7
Vanadium	11.1	< 4.2	9.9	< 6.0	9.0J	15.4	9.2	17.0	8.9
Zinc	6.1UJ	7.8	< 4.6	< 4.6	< 4.6	< 2.3	< 2.3	< 4.6	< 4.6

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-14 - Site 1 Groundwater Analytical Results For "A" and "E" Wells - Metals

Sample Number	1st Qtr M-005A	1st Qtr M-005A Duplicate	2nd Qtr M-005A	3rd Qtr M-005A	4th Qtr M-005A	1st Qtr M-006A	2nd Qtr M-006A	2nd Qtr M-006A Duplicate	3rd Qtr M-006A	4th Qtr M-006A
Date Sampled	**06/18/91**	**06/18/91**	**09/20/91**	**01/15/92**	**04/09/92**	**07/01/91**	**09/23/91**	**09/23/91**	**01/15/92**	**04/09/92**
PARAMETER REPORTED										
Metals (µg/L)										
Aluminum	< 31.0	71.9	< 31.0	< 40.7	193	< 31.0	< 31.0	< 31.0	< 40.7	< 40.7
Antimony	< 25.1	< 25.1	< 25.1	< 37.5	< 37.5	< 25.1	< 25.1	< 25.1	< 37.5	< 37.5
Arsenic	13	14.8	7.0J	9.0	7.0	3.3	< 2.6	< 2.6	2.4	2.0
Barium	42.7	42.7	41.3	56.0	37.8	36.0	58.8	53.5	50.0	93.2
Beryllium	1.5	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	28000	33800	31000	47500	32400	35000J	34800	34600	33800	57400
Chromium	< 5.7	< 5.7	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 6.1	< 17.2	< 17.2	< 6.1	< 6.1	< 6.1	< 17.2	< 17.2
Copper	< 2.1	< 2.1	< 2.1	5.2	< 3.8	< 2.1	< 2.1	< 2.1	< 3.8	< 3.8
Iron	25.2	40.3	267	69.3	574	77.3J	731	571	72.2	1310
Lead	< 2.0	< 2.0	< 2.0	< 1.3	< 2.0UJ	< 2.0	< 2.0	2.5	< 1.3	< 2.0UJ
Magnesium	24300	33600	32700	43300	28600	18100J	15100	15100	15400	18600
Manganese	434	274	620	645	524	784	839	831	691	1640
Mercury	< 0.2UJ	< 0.2UJ	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.2	< 0.2	< 0.2
Nickel	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	30.8
Potassium	24400	26700	30200	31200	23000	15800J	14900	15400	16300	11700
Selenium	< 2.1	< 2.1	< 2.1	< 2.0UJ	< 2.0	< 2.1	< 2.1	12.5	< 2.1	< 2.0
Silver	< 4.9	< 4.9	< 4.9	< 4.8	< 4.8	< 4.9	< 4.9	< 4.9	< 4.8	< 4.8
Sodium	250000J	272000J	283000	244000	229000	162000	161000	143000	158000	102000
Thallium	< 2.7	< 2.7	< 2.7	< 1.7UJ	< 1.7UJ	< 2.7	< 2.7	< 2.7	< 1.7UJ	< 1.7UJ
Vanadium	18.5	21.8	< 4.2	11.3	< 6.0	< 4.2	< 4.2	5.6	< 6.0	< 6.0
Zinc	3.5UJ	11.2UJ	12.6	< 4.6	4.9	< 2.3	7.4	< 2.3	< 4.6	< 4.6

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-14 - Site 1 Groundwater Analytical Results For "A" and "E" Wells - Metals

Sample Number	1st Qtr M-007A	2nd Qtr M-007A	3rd Qtr M-007A	3rd Qtr M-007A Duplicate	4th Qtr M-007A	1st Qtr M-008A	2nd Qtr M-008A	3rd Qtr M-008A	4th Qtr M-008A
Date Sampled	07/02/91	09/23/91	01/15/92	01/15/92	04/10/92	07/01/91	09/23/91	01/15/92	04/22/92
PARAMETER REPORTED									
Metals (µg/L)									
Aluminum	44.8	41.8	< 40.7	< 40.7	< 40.7	6390	159	42.7	3330
Antimony	< 25.1	< 25.1	< 37.5	< 37.5	< 37.5	< 25.1	< 25.1	< 37.5	< 37.5
Arsenic	16.9	9.2	13.9	12.2	10.5	7.4	13.8	5.5	5.8
Barium	12.3	11.3	14.3	14.6	11.9	40.8	8.3	12.8	43.5
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	8220J	9780	15800	16300	11600	998J	898	2790	3260
Chromium	< 5.7	< 5.7	< 6.3	< 6.3	< 6.3	26.4	< 5.7	< 6.3	14.2
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	< 17.2	7.6	< 6.1	< 17.2	< 17.2
Copper	4.4	2.5	6.7	8.2	< 3.8	10.2	10.0	10.5	11.5
Iron	144J	82.5	242	212	188	9000	608	21.9UJ	4850J
Lead	< 2.0	< 2.0	< 1.3	< 1.3	< 2.0	5.6	2.1	< 1.3	2.0J
Magnesium	5830J	6020	10600	10900	7310	2480J	884	3040	4590
Manganese	140	166	533	538	359	102	31.8	87.5	187
Mercury	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	19.1	< 13.2	< 13.2	15.5
Potassium	8590J	9730	8190	9590	6910	5810J	6060	9300	9800
Selenium	< 2.1	< 2.1UJ	< 2.0	< 2.1	< 2.0	< 2.1	< 2.1	< 2.0	< 2.0UJ
Silver	< 4.9	< 4.9	< 4.8	< 4.8	< 4.8	< 4.9	< 4.9	< 4.8	< 4.8
Sodium	71900	102000	63100	68600	79100	58600J	67400	46400	50300
Thallium	< 2.7	< 2.7	< 1.7UJ	< 1.7UJ	< 1.7	< 2.7	< 2.7	< 1.7UJ	< 1.7
Vanadium	7.1	5.7	11.9	14.4	< 6.0	24.9	4.6	7.5	10.5
Zinc	3.5	6.3	7.4	8.5	< 4.6	21.3	3.4	6.3	18.7J

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-14 - Site 1 Groundwater Analytical Results For "A" and "E" Wells - Metals

Sample Number	1st Qtr M-009A	2nd Qtr M-009A	3rd Qtr M-009A	4th Qtr M-009A	1st Qtr M-025A	2nd Qtr M-025A	3rd Qtr M-025A	4th Qtr M-025A	4th Qtr M-025A Duplicate
Date Sampled	**07/16/91**	**10/04/91**	**02/07/92**	**04/23/92**	**06/28/91**	**10/02/91**	**01/23/92**	**03/31/92**	**03/31/92**
PARAMETER REPORTED									
Metals (µg/L)									
Aluminum	60.6	< 31.0	68.2UJ	< 40.7	< 31.0	33.5	52.8	< 40.7	< 40.7
Antimony	< 25.1	< 25.1	< 37.5	< 37.5	< 25.1	30.5	63.9	< 37.5	< 37.5
Arsenic	4.0	3.7UJ	< 1.9	< 2.5	< 2.6	< 10.4	< 1.9	< 1.9	< 1.9
Barium	85.8	95.7	47.6	166	277	76.3	41.2	42.0	42.2
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9	< 3.9
Calcium	13900	13300	16900	26900	119000	132000	91400	23800	25500
Chromium	< 5.7	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2	< 17.2
Copper	19.2	10.3	9.1	< 3.8	< 2.1	7.2	4.7	< 3.8	< 3.8
Iron	77.5	657	118UJ	42.9J	783	2680	322	98.3	64.2
Lead	< 2.0UJ	< 2.0	< 1.3	< 2.0	< 2.0	< 20.0	< 1.3UJ	< 1.3	< 1.3
Magnesium	31300	30300	6770	27300	304000	324000	257000	57100	60800
Manganese	418	433	118	331	577	384	141	45.6	49.5
Mercury	< 0.2	< 0.2UJ	< 0.2	< 0.2	0.3J	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	< 13.2	< 13.2UJ	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2
Potassium	31000	30200	8660	22800	112000	136000	101000	40200J	43200J
Selenium	< 2.1	< 2.1UJ	< 2.0	< 2.0UJ	< 21.0	< 8.4UJ	< 2.0UJ	< 2.0UJ	< 2.0UJ
Silver	< 4.9	< 4.9	< 4.8	< 4.8	< 4.9	< 4.9	4.9	< 4.8	< 4.8
Sodium	978000	957000	168000	693000	2560000	2900000	2750000	979000	1090000
Thallium	< 2.7	< 2.7UJ	< 1.7UJ	< 1.7	< 27.0	< 10.8	< 1.7UJ	< 1.7UJ	< 1.7UJ
Vanadium	5.7	4.4	< 6.0	< 6.0	5.1	9.5	17.7	< 6.0	7.3
Zinc	< 2.3	6.9UJ	13.1	17.3J	3.2	< 2.3	< 4.6	< 4.6	< 4.6

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-14 - Site 1 Groundwater Analytical Results For "A" and "E" Wells - Metals

Sample Number	1st Qtr M-025E	2nd Qtr M-025E	3rd Qtr M-025E	4th Qtr M-025E	1st Qtr M-026A	2nd Qtr M-026A	3rd Qtr M-026A	4th Qtr M-026A
Date Sampled	**06/08/91**	**10/02/91**	**01/23/92**	**03/31/92**	**06/27/91**	**10/02/91**	**01/23/92**	**03/26/92**
PARAMETER REPORTED								
Metals (µg/L)								
Aluminum	< 31.0	34.0	53.8	< 40.7	< 31.0	59.6	< 40.7	< 40.7
Antimony	< 25.1	< 25.1	< 37.5	< 37.5	< 25.1	< 25.1	< 37.5	< 37.5
Arsenic	18.2	15.6	15.8	13.9	3.1	< 10.4	5.8	6.2
Barium	57.9	44.9	34.1	19.4	29.3	19.2	27.0	28.7
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	18400J	37200	26500	18200	234000J	210000	44500	34300
Chromium	< 5.7	< 5.7	< 6.3	< 6.3	< 5.7	11.9	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2
Copper	< 2.1	26.7	6.0	4.7	2.9	25.5	9.0	7.2
Iron	21.4UJ	473	397	44.1	< 6.2	213	< 7.7	15.8
Lead	< 2.0	< 20.0	< 1.3	< 1.3	< 10.0UJ	< 20.0UJ	< 1.3	< 1.3
Magnesium	39500J	98500	66600	44500	677000J	543000	116000	39800
Manganese	352	837	561	398	14.4	13.7	5.1	93.5
Mercury	< 0.2	< 0.2UJ	< 0.2	< 0.2	0.3J	< 0.2UJ	< 0.2	< 0.2
Nickel	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2
Potassium	26800J	55400	40100	28000J	262000J	229000	54600	30800J
Selenium	< 2.1	< 8.4	< 2.0UJ	< 2.0UJ	< 21.0	< 8.4UJ	< 2.0UJ	< 2.0UJ
Silver	< 4.9	< 4.9	< 4.8	< 4.8	< 4.9	< 4.9	< 4.8	< 4.8
Sodium	602000	1320000	982000	680000	6700000	5390000	979000	367000
Thallium	< 13.5	< 10.8UJ	< 1.7UJ	< 1.7UJ	< 27.0	< 10.8UJ	< 1.7UJ	< 1.7UJ
Vanadium	< 4.2	11.6	7.8	6.2	< 4.2	< 4.2	16.8	14.1
Zinc	11.4	21.3	< 4.6	8.1	33.4	< 2.3	4.6UJ	14.3

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-14 - Site 1 Groundwater Analytical Results For "A" and "E" Wells - Metals

Sample Number	1st Qtr M-026E	2nd Qtr M-026E	3rd Qtr M-026E	3rd Qtr M-026E Duplicate	4th Qtr M-026E	1st Qtr M-027A	2nd Qtr M-027A	3rd Qtr M-027A	4th Qtr M-027A
Date Sampled	**06/27/91**	**10/02/91**	**01/23/92**	**01/23/92**	**03/26/92**	**06/25/91**	**10/03/91**	**01/31/92**	**03/26/92**
PARAMETER REPORTED									
Metals (µg/L)									
Aluminum	< 31.0	45.6	< 40.7	< 40.7	< 40.7	< 31.0	42.4	47.6UJ	< 40.7
Antimony	< 25.1	< 25.1	< 37.5	< 37.5	< 37.5	< 25.1	< 25.1	< 37.5	< 37.5
Arsenic	4.2	< 10.4	5.2	5.8	3.8	5.4	< 10.4	5.3	2.4
Barium	113	185	204	206	74.6	145	140	166	216
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	77200J	120000	156000	158000	54100	94000J	88900	91800	184000
Chromium	< 5.7	< 5.7	< 6.3	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2
Copper	< 2.1	18.9	5.3	< 3.8	< 3.8	< 2.1	16.8	< 3.8	< 3.8
Iron	372	1010	1250	1680	24.8	294	887	282	1730
Lead	< 2.0	< 20.0	< 1.3	< 1.3	< 1.3	< 2.0	< 20.0	< 1.3	< 1.3
Magnesium	102000J	186000	246000	247000	81700	46100J	42400	47300	59100
Manganese	579	618	1120	1110	421	563	482	569	977
Mercury	< 0.2	< 0.2UJ	< 0.2	< 0.2	< 0.2	< 0.2UJ	< 0.2UJ	< 0.2	1.3
Nickel	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2
Potassium	55700J	88600	85400	84500	49200J	48300J	53900	47600	53200J
Selenium	< 2.1	< 8.4	< 2.0UJ	< 2.0UJ	< 2.0UJ	< 2.1	< 8.4UJ	< 2.0UJ	< 2.0UJ
Silver	< 4.9	< 4.9	< 4.8	< 4.8	< 4.8	< 4.9	< 4.9	< 4.8	< 4.8
Sodium	1250000	1750000	2180000	2050000	1160000	277000	264000	334000	216000
Thallium	< 13.5	< 10.8UJ	< 1.7UJ	< 1.7UJ	< 1.7UJ	< 2.7	< 10.8UJ	< 1.7UJ	< 1.7UJ
Vanadium	8.2	12.5	13.8	12.2	9.9	< 4.2	4.3	8.4	8.5
Zinc	8.6	15.8	< 4.6	< 4.6	< 4.6	49.8	15.3	7.5	7.8

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-14 - Site 1 Groundwater Analytical Results For "A" and "E" Wells - Metals

Sample Number	1st Qtr M-027E	2nd Qtr M-027E	3rd Qtr M-027E	4th Qtr M-027E	1st Qtr M-028A	1st Qtr M-028A Duplicate	2nd Qtr M-028A	3rd Qtr M-028A	4th Qtr M-028A	4th Qtr M-028A Duplicate
Date Sampled	**06/26/91**	**10/03/91**	**01/31/92**	**03/26/92**	**06/24/91**	**06/24/91**	**10/11/91**	**02/04/92**	**04/27/92**	**04/27/92**
PARAMETER REPORTED										
Metals (µg/L)										
Aluminum	< 31.0	< 31.0	58.0UJ	< 40.7	< 31.0	35.9	< 31.0	43.2UJ	< 40.7	< 40.7
Antimony	< 25.1	< 25.1	< 37.5	< 37.5	< 25.1	< 25.1	< 25.1	< 37.5	< 37.5	< 37.5
Arsenic	6.6	6.3	5.5	6.0	18.3	18.6	22.1	6.6	3.5UJ	4.5UJ
Barium	92.4	126	129	96.7	321	303	388	239	195	195
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	2.4	1.7	1.7	< 2.5	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.0	< 3.9	< 3.9	< 3.9
Calcium	61700J	70800	74700	32100	147000J	143000J	132000	73100	84400	83400
Chromium	< 5.7	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 5.7	< 6.3	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	< 6.1	< 6.1	< 6.1	< 17.2	< 17.2	< 17.2
Copper	< 2.1	21.7	< 3.8	< 3.8	< 2.1	< 2.1	5.1	4.4	4.3	< 3.8
Iron	141	913	374	41.1	34200	32600	37500	7260	6770J	6870J
Lead	< 10.0	< 2.0UJ	< 1.3	2.5J	< 2.0	< 2.0	< 2.0	< 1.3	< 2.0	< 2.0
Magnesium	165000J	181000	186000	54400	38800J	37200J	32400	35000	44800	43400
Manganese	1490	1670	1620	432	1630	1570	1330	370	527	517
Mercury	< 0.2UJ	< 0.2UJ	< 0.2	< 0.2	< 0.2UJ	< 0.2UJ	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	< 13.2	< 13.2UJ	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2UJ	< 13.2	< 13.2	< 13.2
Potassium	73800J	79500	75200	39200J	62800J	59900J	64900	32700	35600	32900
Selenium	< 2.1	< 2.1UJ	< 2.0UJ	< 2.0UJ	< 2.1	< 2.1	< 2.1UJ	< 2.07U	< 2.0UJ	< 2.0UJ
Silver	< 4.9	< 4.9	< 4.8	< 4.8	< 4.9	< 4.9	< 4.9	< 4.8	< 4.8	< 4.8
Sodium	2110000	2230000	2330000	925000	97100	91500	80300	103000	123000	119000
Thallium	< 2.7UJ	< 2.7UJ	< 8.5UJ	< 1.7UJ	< 2.7	< 2.7UJ	< 2.7UJ	< 1.7UJ	< 1.7UJ	< 1.7UJ
Vanadium	11.0	11.9	18.5	11.5	5.4	6.7	5.9	< 6.0	< 6.0	< 6.0
Zinc	259	< 2.3	< 4.6	< 4.6	5.2	7.2	14.2UJ	12.9	< 4.6UJ	< 4.6UJ

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-14 - Site 1 Groundwater Analytical Results For "A" and "E" Wells - Metals

Sample Number	1st Qtr M-028E	2nd Qtr M-028E	3rd Qtr M-028E	4th Qtr M-028E	1st Qtr M-029A	2nd Qtr M-029A	3rd Qtr M-029A	4th Qtr M-029A
Date Sampled	**06/25/91**	**10/11/91**	**02/04/92**	**04/27/92**	**06/20/91**	**10/10/91**	**02/04/92**	**03/27/92**
PARAMETER REPORTED								
Metals (µg/L)								
Aluminum	< 31.0	< 31.0	< 40.7	< 40.7	< 31.0	< 31.0	66.7UJ	< 40.7
Antimony	< 25.1	< 25.1	< 37.5	< 37.5	< 25.1	< 25.1	< 37.5	< 37.5
Arsenic	15.2	12.8	11.7	9.5	< 2.6UJ	< 2.6	< 1.9	< 1.9
Barium	109	203	286	186	135	153	196J	205
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	58100J	56500	87200	69200	19700J	19000	24800	34900
Chromium	< 5.7	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2
Copper	< 2.1	3.2	6.7	< 3.8	2.4	< 2.1	< 3.8	< 3.8
Iron	1670	1720	2750	2020J	33.3UJ	874	84.8UJ	50.4
Lead	< 2.0	3.2	< 1.3	< 2.0	< 2.0UJ	< 2.0	< 1.3UJ	4.9
Magnesium	38400J	59400	77400	73800	35400J	40600	49500	44500
Manganese	613	495	547	538	70.4	64.7	86.8J	115
Mercury	< 0.2UJ	< 0.2	< 0.2	< 0.2	< 0.2	0.3	< 0.2	< 0.2
Nickel	< 13.2	< 13.2UJ	< 13.2	< 13.2	< 13.2	< 13.2UJ	< 13.2	< 13.2
Potassium	33100J	41300	45200	45700	28800J	32800	31800	27200J
Selenium	< 2.1	< 2.1UJ	< 2.0UJ	< 2.0UJ	< 2.1	< 2.1UJ	< 2.0	< 2.0
Silver	< 4.9	< 4.9	< 4.8	< 4.8	< 4.9	< 4.9	< 4.8	< 4.8
Sodium	252000	547000	479000	833000	203000	153000	207000	186000
Thallium	< 2.7UJ	< 2.7UJ	< 1.7	< 1.7UJ	23.5	< 2.7UJ	< 1.7UJ	< 1.7UJ
Vanadium	< 4.2	< 4.2	8.6	7.1	< 4.2	< 4.2	< 6.0	< 6.0
Zinc	6.2	12.4UJ	5.1	< 4.6UJ	2.7	4.0UJ	< 4.6	< 4.6

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-14 - Site 1 Groundwater Analytical Results For "A" and "E" Wells - Metals

Sample Number	1st Qtr M-029E	2nd Qtr M-029E	2nd Qtr M-029E Duplicate	3rd Qtr M-029E	4th Qtr M-029E
Date Sampled	**06/21/91**	**10/10/91**	**10/10/91**	**02/04/92**	**03/27/92**
PARAMETER REPORTED					
Metals (µg/L)					
Aluminum	< 31.0	< 31.0	< 31.0	55.0UJ	< 40.7
Antimony	< 25.1	< 25.1	< 25.1	< 37.5	< 37.5
Arsenic	2.6	< 2.6	< 2.6	< 1.9	< 1.9
Barium	251	411	377	316J	250
Beryllium	1.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	20900	20700	24300	17500	16300
Chromium	< 5.7	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 6.1	< 17.2	< 17.2
Copper	< 2.1	5.5	< 2.1	4.9	< 3.8
Iron	9.7	3750	1040	45.9UJ	32.5
Lead	< 2.0	< 2.0	< 2.0	< 1.3UJ	< 1.3
Magnesium	40000	41800	49000	38300	34300
Manganese	107	113	134	51.8J	36.4
Mercury	< 0.2UJ	< 0.2UJ	< 0.2	< 0.2	< 0.2
Nickel	< 13.2	< 13.2UJ	< 13.2UJ	< 13.2	< 13.2
Potassium	33900	41200	41800	36800	27600J
Selenium	< 2.1	< 2.1UJ	< 2.1UJ	< 2.0UJ	< 2.0
Silver	< 4.9	< 4.9	< 4.9	< 4.8	< 4.8
Sodium	376000J	415000	476000	352000	236000
Thallium	< 2.7	< 2.7UJ	< 2.7UJ	< 1.7UJ	< 1.7UJ
Vanadium	7.7	< 4.2	4.8	< 6.0	< 6.0
Zinc	5.9UJ	7.7UJ	7.2UJ	6.1	< 4.6

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-15 - Site 1 Summary of Metals Results for Quarterly Groundwater Samples in "A" and "E" Wells

First Quarter

Metals (ug/L)	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	6687.63	13	10	33.3	6390	0	0	-	-	-	0
Antimony	12.55	21	2	37.6	40.1	2	0	-	-	-	0
Arsenic	23.54	6	17	2.6	18.6	0	0	-	-	-	0
Barium	163.08	0	23	12.3	394	7	0	-	-	-	0
Beryllium	0.65	18	5	1.5	2.4	5	0	-	-	-	0
Cadmium	1.50	23	0	-	-	-	0	-	-	-	0
Chromium	23.21	22	1	26.4	26.4	1	0	-	-	-	0
Cobalt	3.05	21	2	7.6	7.7	2	0	-	-	-	0
Copper	50.37	18	5	2.4	19.2	0	0	-	-	-	0
Lead	12.04	22	1	5.6	5.6	0	0	-	-	-	0
Mercury	0.10	21	0	-	-	-	2	0.3	0.3	2	0
Nickel	23.97	22	1	19.1	19.1	0	0	-	-	-	0
Selenium	1.05	23	0	-	-	-	0	-	-	-	0
Silver	2.45	23	0	-	-	-	0	-	-	-	0
Thallium	1.35	22	1	23.5	23.5	1	0	-	-	-	0
Vanadium	93.67	6	17	5.1	24.9	0	0	-	-	-	0
Zinc	19.64	11	12	2.7	259	4	0	-	-	-	0

Table 8-15 - Site 1 Summary of Metals Results for Quarterly Groundwater Samples in "A" and "E" Wells

Second Quarter

Metals (ug/L)	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	510.39	15	8	33.5	159	0	0	-	-	-	0
Antimony	12.55	22	1	30.5	30.5	1	0	-	-	-	0
Arsenic	26.09	16	6	6.3	22.1	0	1	7	7	0	0
Barium	126.83	0	23	8.3	411	10	0	-	-	-	0
Beryllium	0.65	22	1	1.7	1.7	1	0	-	-	-	0
Cadmium	1.50	23	0	-	-	-	0	-	-	-	0
Chromium	2.85	22	1	11.9	11.9	1	0	-	-	-	0
Cobalt	3.05	23	0	-	-	-	0	-	-	-	0
Copper	39.68	11	12	2.5	26.7	0	0	-	-	-	0
Lead	4.66	20	3	2.1	3.2	0	0	-	-	-	0
Mercury	0.37	21	2	0.2	0.3	0	0	-	-	-	0
Nickel	6.60	23	0	-	-	-	0	-	-	-	0
Selenium	1.05	22	1	12.5	12.5	1	0	-	-	-	0
Silver	2.45	23	0	-	-	-	0	-	-	-	0
Thallium	1.35	23	0	-	-	-	0	-	-	-	0
Vanadium	56.31	9	14	4.3	16	0	0	-	-	-	0
Zinc	23.45	13	10	3.4	21.3	0	0	-	-	-	0

Table 8-15 - Site 1 Summary of Metals Results for Quarterly Groundwater Samples in "A" and "E" Wells

Third Quarter

	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	450.77	19	4	42.7	53.8	0	0	-	-	-	0
Antimony	43.45	22	1	63.9	63.9	1	0	-	-	-	0
Arsenic	15.29	8	15	2.1	15.8	1	0	-	-	-	0
Barium	128.96	0	21	12.8	390	8	2	196	316	2	0
Beryllium	1.25	23	0	-	-	-	0	-	-	-	0
Cadmium	1.95	23	0	-	-	-	0	-	-	-	0
Chromium	6.65	23	0	-	-	-	0	-	-	-	0
Cobalt	8.60	23	0	-	-	-	0	-	-	-	0
Copper	19.00	6	17	4.4	20.2	1	0	-	-	-	0
Lead	9.27	22	1	1.6	1.6	0	0	-	-	-	0
Mercury	0.10	23	0	-	-	-	0	-	-	-	0
Nickel	6.60	23	0	-	-	-	0	-	-	-	0
Selenium	1.00	23	0	-	-	-	0	-	-	-	0
Silver	6.61	22	1	4.9	4.9	0	0	-	-	-	0
Thallium	0.85	23	0	-	-	-	0	-	-	-	0
Vanadium	40.81	6	17	6.3	20.5	0	0	-	-	-	0
Zinc	17.04	14	9	5.1	46.3	1	0	-	-	-	0

Table 8-15 - Site 1 Summary of Metals Results for Quarterly Groundwater Samples in "A" and "E" Wells

Fourth Quarter

	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	3169.62	16	8	41.2	3330	1	0	-	-	-	0
Antimony	18.75	24	0	-	-	-	0	-	-	-	0
Arsenic	30.70	12	11	2	13.9	0	1	2.3	2.3	0	0
Barium	71.89	0	24	11.9	254	13	0	-	-	-	0
Beryllium	1.25	24	0	-	-	-	0	-	-	-	0
Cadmium	1.95	24	0	-	-	-	0	-	-	-	0
Chromium	17.50	23	1	14.2	14.2	0	0	-	-	-	0
Cobalt	8.60	24	0	-	-	-	0	-	-	-	0
Copper	28.91	20	4	4.3	11.5	0	0	-	-	-	0
Lead	1.50	19	3	1.8	9.5	3	2	2	2.5	2	0
Mercury	0.10	23	1	1.3	1.3	1	0	-	-	-	0
Nickel	54.41	22	2	15.5	30.8	0	0	-	-	-	0
Selenium	6.42	24	0	-	-	-	0	-	-	-	0
Silver	2.40	24	0	-	-	-	0	-	-	-	0
Thallium	0.85	24	0	-	-	-	0	-	-	-	0
Vanadium	50.77	12	11	6.2	20.7	0	1	9	9	0	0
Zinc	13.89	16	6	4.9	14.3	1	2	17.3	18.7	2	0

Table 8-16 - Site1 Groundwater Analytical Results For "A" and "E" Wells- General Chemicals

Sample Number	1st Qtr M-001A	2nd Qtr M-001A	3rd Qtr M-001A	4th Qtr M-001A	1st Qtr M-001E	2nd Qtr M-001E	3rd Qtr M-001E	4th Qtr M-001E	1st Qtr M-002A	2nd Qtr M-002A	3rd Qtr M-002A	4th Qtr M-002A
Date Sampled	**06/17/91**	**09/19/91**	**01/14/92**	**03/26/92**	**06/17/91**	**09/19/91**	**01/14/92**	**03/27/92**	**06/19/91**	**09/20/91**	**01/14/92**	**03/30/92**
PARAMETER REPORTED												
Physical Parameters-Lab												
Acidity, total (mg/L-CaCO3)	9.6J	13.8J	13.1	< 1.0	< 1.0UJ	< 1.0UJ	< 1.0	< 1.0	41.9J	26.9J	9.9	40.6
Alkalinity, total (mg/L-CaCO3)	401	359	500	373	428	375	500	476	448	365	293	337
COD (mg/L)	290.0J	141.0	53.0	< 50.0	130.0J	317.0	528.0	97	226.0J	153.0	< 50.0	141
Hardness (mg/L-CaCO3)	356	330	300	224	48.0	24.0	96.0	40	3200	2200	676	1010
Total Dissolved Solids, TDS (mg/L)	1340	1530	841	672	1420	1390	1570	1970	7030	5330	1970	3180
Spec. cond., lab (umhos/cm)	2570	2840	1390	1160	3260	2640	2780	3560	11200	8710	3220	5110
Physical Parameters-Field												
Spec. cond., field @25 C (umhos/cm)	1600	2400	NA	800	2280	30000	NA	2500	9000	7000	NA	3900
Water Temp (deg C)	17.8	20.0	16.5	17	17.7	20.0	17.6	17.8	17.5	20.0	12.2	15.3
pH, Field (Std units)	7.84	7.00	7.49	7.75	8.90	7.00	8.78	7.3	6.83	7.00	7.28	7.04
Total Organic Carbon (mg/L)												
Carbon, TOC	15.7	35.6	34.1	17.6	16	44.1	62.8	34.3	8.1	16.2	18.3	16.3
Asbestos												
Asbestos, Mass (ug/L)	0.0	0.0433	0.0136	0.000376	0.229	0.00163	2.14	0.00616	0.218	0.00510	0.0584	0.00289
Asbestos, Total Structures (MAS/L)	0.0	200	269	7.16	295	32.6	2290	74.7	385	41.2	760	66.6
Anions												
Chloride (mg/L)	568.1	688	227.2	161.3	584.6	555.9	643.3	866.1	3265	2564	893.1	1408
Cyanide (ug/L)	< 10.0	< 10.0	< 5.0	< 5.0UJ	< 10.0	12	< 5.0	12.8J	< 10.0	< 10.0	< 5.0	< 5.0UJ
Fluoride (mg/L)	0.54UJ	< 0.80	0.22UJ	0.2UJ	0.68	< 0.20	0.39	0.49	< 5.00	< 1.00	< 2.00	0.32
Nitrogen, NO2+NO3 (mg/L-as N)	< 0.250	< 0.010	0.012	0.02	< 0.010	0.015	< 0.010	0.015	0.026	0.036	0.536	0.274
Sulfate (mg/L)	10.98	12.17	38.84	23.07	4.3	3.566	3.047	2.779	481.9	451.1	125.2	207.6
Radiochemicals (pCi/L)												
Alpha, gross	< 0.1	< 0.1	< 0.1	1.5	11.2	< 0.1	29.0	2.6	41.5	< 0.1	< 0.1	27.2
Alpha, gross, ct.error (+/- pCi/L)	10.9	8.3	7.5	4	20.1	13.7	24.1	11.3	47.7	20.2	13.4	25
Beta, gross	55	23	44.2	21.1	78	18	92	31.9	16	35	17.5	59.7
Beta, gross, ct.error (+/- pCi/L)	18.2	18.1	13.3	8.2	22.4	23.5	29.3	20.5	40.2	50.5	27.4	44
Radium 226	4.1	8.5	1.8	0.9	3.6	3.3	5	0.5UJ	3.6	4.1	1.1	3.4UJ
Radium 226, ct.error (+/- pCi/L)	1.0	1.8	0.5	0.8	1.1	1.2	0.7	0.8	1.2	1.2	0.4	1.1
Radium 228	0.3	< 0.3	2.3	< 0.3	< 0.3	< 0.3	3.4J	< 0.3	0.3	< 0.3	0.8	2UJ
Radium 228, ct.error (+/- pCi/L)	0.9	0.8	1.1	1.9	0.9	0.8	1.1	1.8	0.9	0.9	1.0	0.7

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-16 - Site1 Groundwater Analytical Results For "A" and "E" Wells- General Chemicals

Sample Number	1st Qtr M-002E	2nd Qtr M-002E	3rd Qtr M-002E	4th Qtr M-002E	1st Qtr M-003A	2nd Qtr M-003A	3rd Qtr M-003A	4th Qtr M-003A	4th Qtr M-003A Duplicate	1st Qtr M-004A	2nd Qtr M-004A	3rd Qtr M-004A	4th Qtr M-004A
Date Sampled	06/19/91	09/20/91	01/14/92	03/30/92	06/17/91	09/20/91	01/15/92	04/10/92	04/13/92	06/18/91	09/20/91	01/15/92	04/13/92
PARAMETER REPORTED													
Physical Parameters-Lab													
Acidity, total (mg/L-CaCO3)	42.3J	32.4J	48.4	49.1	14.1J	29.2J	4.3	38.5	42.6	13.4J	20.7J	17.9	27.9
Alkalinity, total (mg/L-CaCO3)	368	273	336	163	328	282	327	308	401	684	595	647	450
COD (mg/L)	496.0J	528.0	290.0	177	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	97.0J	130.0	< 50.0	53
Hardness (mg/L-CaCO3)	4400	4300	3000	2150	520	428	360	380	620	532	420	588	580
Total Dissolved Solids, TDS (mg/L)	16100	16300	8910	10000	763	616	609	541	1790	2400	2370	2260	1840
Spec. cond., lab (umhos/cm)	24800	24700	15200	15000	985	883	904	790	2780	4110	4170	3500	2750
Physical Parameters-Field													
Spec. cond., field @25 C (umhos/cm)	20000	1900	NA	13000	790	700	500	600	600	3600	3200	2800	2200
Water Temp (deg C)	16.6	20.0	15.0	16	19.3	20.0	14.9	17.9	17.9	18.2	20.0	16.2	18.8
pH, Field (Std units)	7.01	7.00	6.90	7	7.35	7.00	7.34	6.95	6.95	7.80	7.00	7.47	7.2
Total Organic Carbon (mg/L)													
Carbon, TOC	7.3	23.0	18.6	12.2	3.7	15.1	8.3	3.6	13.7J	19.6	55.8	31.2	23.3
Asbestos													
Asbestos, Mass (ug/L)	0.125	0.0618	0.140	0.000759	0.00244	0.0	0.00290	0	0	0.0	0.00960	0.00858	0.000553
Asbestos, Total Structures (MAS/L)	241	328	267	21.7	6.07	0.0	75.2	0	0	0.0	40.3	143	0.314
Anions													
Chloride (mg/L)	8360	8719	5043	4909	48.38	64.35	107.4	38.77	624.8	920.3	936.2	826.4	619.4
Cyanide (ug/L)	< 10.0	< 10.0	< 5.0	< 5.0UJ	< 10.0	< 10.0	< 5.0	< 5.0	< 5.0	< 10.0	< 10.0	< 5.0	< 5.0
Fluoride (mg/L)	< 5.00	< 5.00	< 200	< 1.00	0.32UJ	0.35	0.31UJ	0.15UJ	0.57	1.44	1.56	1.43	0.73
Nitrogen, NO2+NO3 (mg/L-as N)	0.060	0.329	0.298	0.161	3.34	13.6	0.422	3.98	0.014UJ	< 0.010	0.130	< 0.010	0.08
Sulfate (mg/L)	1237	1274	1042	720.2	53.15	61.97	39.92	60.51	158.8	104.7	93.12	153.4	157.4
Radiochemicals (pCi/L)													
Alpha, gross	< 0.1	< 0.1	27.3	15.7	< 0.1	3.9	12.5	4.6	11.2	6.6	8.7	19.7	1.3UJ
Alpha, gross, ct.error (+/- pCi/L)	97.9	30.3	64.2	55.2	3.1	3.8	6.9	5.1	8.8	13.0	10.4	13.6	9.2
Beta, gross	< 0.3	100	291	133	10.0	0.4	27.5	13.4	36.8	22	< 0.3	28.6	26.7
Beta, gross, ct.error (+/- pCi/L)	113	126	119	76.2	5.6	6.6	7.5	6.9	18.9	25.9	25.9	22.9	19.8
Radium 226	8.3	4.4	5.4	3.1UJ	1.3	3.8	0.8UJ	0.3	1	3.8	7	0.9UJ	1UJ
Radium 226, ct.error (+/- pCi/L)	1.6	1.3	0.7	1	0.7	1.3	0.3	0.5	1.1	1.0	1.5	0.4	1
Radium 228	< 0.3	2.0	6.6	1.7UJ	0.3	0.7	2.5	1.4UJ	0.8UJ	< 0.3	< 0.3	5.2	0.7
Radium 228, ct.error (+/- pCi/L)	0.9	1.0	1.1	0.9	0.9	0.7	1.1	0.6	1	0.9	0.8	1.1	0.4

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-16 - Site1 Groundwater Analytical Results For "A" and "E" Wells- General Chemicals

Sample Number	1st Qtr M-005A	1st Qtr M-005A Duplicate	2nd Qtr M-005A	3rd Qtr M-005A	4th Qtr M-005A	1st Qtr M-006A	2nd Qtr M-006A	2nd Qtr M-006A Duplicate	3rd Qtr M-006A	4th Qtr M-006A
Date Sampled	06/18/91	06/18/91	09/20/91	01/15/92	04/09/92	07/01/91	09/23/91	09/23/91	01/15/92	04/09/92
PARAMETER REPORTED										
Physical Parameters-Lab										
Acidity, total (mg/L-CaCO3)	13.2J	15.4J	16.2J	23.5	15.2	15.9	18.4J	16.9J	6.0	43.4
Alkalinity, total (mg/L-CaCO3)	504	380	317	164	486	376	363	392	432	306
COD (mg/L)	388.0J	345.0	331.0	188.0	< 50.0	141.0J	53.0	< 50.0	53.0	< 50.0
Hardness (mg/L-CaCO3)	232	240	248	320	216	5000	160	176	160	26
Total Dissolved Solids, TDS (mg/L)	1120	1060	1030	1120	963	805	613	665	664	616
Spec. cond., lab (umhos/cm)	3330	1520	1630	1540	1490	1070	918	1020	921	874
Physical Parameters-Field										
Spec. cond., field @25 C (umhos/cm)	1400	1400	1400	1230	1000	900	800	800	525	700
Water Temp (deg C)	19.6	19.6	20.0	16.0	17	20.5	20.0	20.0	15.4	16.8
pH, Field (Std units)	7.60	7.60	7.00	7.42	7.33	7.91	7.00	7.00	7.37	6.85
Total Organic Carbon (mg/L)										
Carbon, TOC	24.6	31.1J	53.2	36.5	35.6	15.4	14.8	15.5	25.4	22.1
Asbestos										
Asbestos, Mass (ug/L)	0.0161	0.0	0.00174	0.256	0.000476	0.489	0.0125	0.000382	0.0487	0
Asbestos, Total Structures (MAS/L)	67.0	0.0	49.6	1120	8.6	352	46.3	10.0	481	0
Anions										
Chloride (mg/L)	169.7	165.7	167.4	171.1	162.9	56.41	25.12	37.64	39.94	30.98
Cyanide (ug/L)	< 10.0	< 10.0	< 10.0	< 5.0	< 5.0	< 10.0	< 10.0	< 10.0	< 5.0	< 5.0
Fluoride (mg/L)	0.97	0.9	1.01	0.74	0.78	1.1	0.52UJ	1.01	0.82	0.49
Nitrogen, NO2+NO3 (mg/L-as N)	< 0.100	< 0.100	0.129	< 0.010	0.043	< 0.010	0.050	0.032	0.118	0.362
Sulfate (mg/L)	52.26	49.34	34.26	111.5	81.2	103.7	63.39	72.03	80.32	80
Radiochemicals (pCi/L)										
Alpha, gross	63.8	18.0	4.8	14.6	13.7	10.2	< 0.1	< 0.1	16.1	11.2
Alpha, gross, ct.error (+/- pCi/L)	42.3	27.1	14.8	12.3	6.1	10.6	3.0	3.4	8.2	5.3
Beta, gross	60	57	32	71.6	36.7	45	4.1	2.7	31.6	33.1
Beta, gross, ct.error (+/- pCi/L)	50.4	27.6	26.9	13.4	8.4	15.7	6.6	7.7	12.6	10.1
Radium 226	17	11	5	3.3	< 0.1	9.3UJ	2.6	3.5	2.3	0.1UJ
Radium 226, ct.error (+/- pCi/L)	2.1	2.5	1.4	0.6	0.6	1.8	1.0	2.0	0.5	0.6
Radium 228	0.7	1.6	1.1	5.1	0.5	0.7	< 0.3	3.2	0.8	1.5
Radium 228, ct.error (+/- pCi/L)	0.9	1.7	0.9	1.2	0.4	0.8	0.8	0.8J	1.0	0.5

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-16 - Site1 Groundwater Analytical Results For "A" and "E" Wells- General Chemicals

Sample Number	1st Qtr M-007A	2nd Qtr M-007A	3rd Qtr M-007A	3rd Qtr M-007A Duplicate	4th Qtr M-007A	1st Qtr M-008A	2nd Qtr M-008A	3rd Qtr M-008A	4th Qtr M-008A	1st Qtr M-009A	2nd Qtr M-009A	3rd Qtr M-009A	4th Qtr M-009A
Date Sampled	07/02/91	09/23/91	01/15/92	01/15/92	04/10/92	07/01/91	09/23/91	01/15/92	04/22/92	07/16/91	10/04/91	02/07/92	04/23/92
PARAMETER REPORTED													
Physical Parameters-Lab													
Acidity, total (mg/L-CaCO3)	6.8	3.5UJ	7.0	< 1.0	12.2	< 1.0	< 1.0UJ	2.0UJ	6.1	12.9J	14.3J	7.0	19.1
Alkalinity, total (mg/L-CaCO3)	128	179	147	107	182	164	96.0	1050	113	560	700	267	352
COD (mg/L)	108.0J	53.0	< 50.0	< 50.0	< 50.0	165.0J	97.0	< 50.0	< 50.0	85	74	85.0	< 50.0
Hardness (mg/L-CaCO3)	80.0	60.0	84.0	100.0	80	40.0	20.0	26.0	28	180	180	69.6	208
Total Dissolved Solids, TDS (mg/L)	369	517	356	411	353	2110	452	1690	240	2030	2860	684	2190
Spec. cond., lab (umhos/cm)	398	567	399	630	499	925	345	6230	296	3840	4970	958	3540
Physical Parameters-Field													
Spec. cond., field @25 C (umhos/cm)	370	500	430	430	400	390	250	231	250	4300	3300	700	3500
Water Temp (deg C)	20.4	21.0	15.0	15.0	16.1	18.3	21.0	15.7	16.5	19.1	19.0	14.2	16.6
pH, Field (Std units)	7.54	7.00	7.23	7.23	7.5	8.89	7.00	7.96	7.1	7.70	7.00	7.80	6.9
Total Organic Carbon (mg/L)													
Carbon, TOC	2.1UJ	12.5	13.9J	17.3	18UJ	8.00	7.1	5.6UJ	7.4UJ	64.6	16.6	23.1	22.3
Asbestos													
Asbestos, Mass (ug/L)	0.573	0.00706	0.0	0.00145	0	0.131	0.0	0.0	0.000223	0.00936	0.0317	0.00181	0
Asbestos, Total Structures (MAS/L)	696	95.0	0.0	19.5	0	1360	0.0	0.0	6.65	124	120	8.02	0
Anions													
Chloride (mg/L)	32.86	45.62	51.87	72.05	47.67	27.3	26.91	14.51	25.28	746.7	1200	104.6	845.2
Cyanide (ug/L)	< 10.0	< 10.0	< 5.0	< 5.0	< 5.0	< 10.0	< 10.0	< 5.0	< 5.0	< 10.0	< 2.5	< 5.0	< 5.0
Fluoride (mg/L)	< 0.40	0.39UJ	< 0.20	0.28UJ	0.22UJ	1.00	0.46UJ	< 0.20	0.27UJ	< 0.20	1.87	0.33	0.64
Nitrogen, NO2+NO3 (mg/L-as N)	< 0.100	0.013	< 0.010	< 0.010	0.013	< 0.100	0.017	< 0.010	< 0.010	< 0.010	0.060	0.509	< 0.010
Sulfate (mg/L)	15.89	23.8	21.17	33.68	17.83	15.36	15.51	11.66	16.71	82.99	90.23	54.18	85.12
Radiochemicals (pCi/L)													
Alpha, gross	4.7	6.4	1.4	< 0.1	4.9UJ	189	50.8	17.6	3.3	< 0.1	7.5	4.6	5.3
Alpha, gross, ct.error (+/- pCi/L)	6.5	4.8	3.1	3.0	2.2	87.7	31.5	7.6	1.5	12.4	14.7	4.8	23
Beta, gross	21	< 0.5	31.2	28.6	10	200	< 0.5	18.1	12.7	50	9.8	16.9	24.2
Beta, gross, ct.error (+/- pCi/L)	8.3	4.6	9.2	9.2	3.6	51.4	24.0	7.2	2.5	43.2	25.0	7.4	35.7
Radium 226	8.5UJ	4.6	0.2UJ	0.3UJ	< 0.1	39UJ	3.0	1.7	0.7	4.3UJ	1.4	0.5	0.4
Radium 226, ct.error (+/- pCi/L)	1.9	1.0	0.3	0.6	1.3	3.9	0.9	0.4	0.5	1.2	0.7	0.4	0.7
Radium 228	< 0.3	2.3	2.1J	< 0.3	1.8	< 0.3	2.2J	2.0	0.8	0.9	1.6J	< 0.3	< 0.3
Radium 228, ct.error (+/- pCi/L)	0.8	0.7	0.9	2.1	0.7	0.8	0.7J	0.9	0.7	0.9	0.6	0.5	0.6

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-16 - Site1 Groundwater Analytical Results For "A" and "E" Wells- General Chemicals

Sample Number	1st Qtr M-025A	2nd Qtr M-025A	3rd Qtr M-025A	4th Qtr M-025A	4th Qtr M-025A Duplicate	1st Qtr M-025E	2nd Qtr M-025E	3rd Qtr M-025E	4th Qtr M-025E	1st Qtr M-026A	2nd Qtr M-026A	3rd Qtr M-026A	4th Qtr M-026A
Date Sampled	06/28/91	10/02/91	01/23/92	03/31/92	03/31/92	06/28/91	10/02/91	01/23/92	03/31/92	06/27/91	10/02/91	01/23/92	03/26/92
PARAMETER REPORTED													
Physical Parameters-Lab													
Acidity, total (mg/L-CaCO3)	25.3	25.1J	20.1	12.9	9J	7.4	19.4J	19.1	19.6	15.8	21.1J	16.9	12.2
Alkalinity, total (mg/L-CaCO3)	312	396	362	446	429	448	1530	149	253	224	240	370	424
COD (mg/L)	504.0J	1108	165.0	303	277	108.0J	212.0	388.0	63	1198J	1916	226.0	141
Hardness (mg/L-CaCO3)	2500	2200	1710	290	275	400	1000	419	375	6000	4800	1200	272
Total Dissolved Solids, TDS (mg/L)	9780	10300	9850	3240	2930	2890	4430	3560	3340	23800	19700	4010	1250
Spec. cond., lab (umhos/cm)	15200	15000	42400	5470	5340	5080	6960	36500	5720	39700	26800	21400	2100
Physical Parameters-Field													
Spec. cond., field @25 C (umhos/cm)	14000	23000	12500	10000	10000	5000	5050	4100	1000	37000	30000	5000	1300
Water Temp (deg C)	18.1	19.0	15.2	17.4	17.4	17.1	21.0	16.7	19.3	16.6	21.0	13.2	16.6
pH, Field (Std units)	7.37	7.00	7.77	7.5	7.5	7.31	7.00	7.48	7.38	7.70	7.00	7.46	7.35
Total Organic Carbon (mg/L)													
Carbon, TOC	17.6	92.3	< 1.0	17.7	27.5	8.7	8.5	11.5	27.8	6.7	14.7	11.8	13.8
Asbestos													
Asbestos, Mass (ug/L)	0.325	0.0	0.0	0.000595	0.00388	0.0102	0.0950	0.0	0.00156	0.00230	0.0234	0.00120	0.000009
Asbestos, Total Structures (MAS/L)	251	0.0	0.0	14.9	131	120	23.7	0.0	32.5	7.06	9.34	6.55	0.359
Anions													
Chloride (mg/L)	5305	5386	5209	1484	1431	1341	2224	1662	1562	12900	10760	1941	384.2
Cyanide (ug/L)	21.7	14.4	16.4	27	28.7	< 10.0	< 2.5	< 5.0	< 5.0	< 10.0	< 2.5	< 5.0	< 5.0UJ
Fluoride (mg/L)	< 5.00	< 5.00	< 2.50	0.64	0.42	2.82	3.12	3.11	1.96	< 5.00	< 5.00	0.78	0.82
Nitrogen, NO2+NO3 (mg/L-as N)	< 1.00	< 0.010	0.025	0.028	0.031J	< 0.100	< 0.050	0.018	0.036	0.128	0.132	0.050	0.036
Sulfate (mg/L)	567.7	602.4	539.9	148.6	103.9	98.8	143	112.3	105.5	1827	1555	296.5	94.2
Radiochemicals (pCi/L)													
Alpha, gross	64.5	11.7	52.6	67.3	50.5	49.8	59.7	27.8	51.4	< 0.1	142	19.3UJ	0.7
Alpha, gross, ct.error (+/- pCi/L)	78.7	32.4	80.6	28.7	16.3	30.7	50.4	43.3	16.2	240	174	37.8	5.6
Beta, gross	76	100	39.8	120	141	< 0.3	53	45.9	74	32	300	16.4	37.8
Beta, gross, ct.error (+/- pCi/L)	74.7	49.1	70.0	52.7	21.3	41.0	48.0	45.9	20.8	161	178	56.1	10.3
Radium 226	2.9	1.6	0.8	2.2UJ	0.6UJ	2.2	1.3	0.7	0.3UJ	0.5	2.2	0.2	0.5UJ
Radium 226, ct.error (+/- pCi/L)	0.9	1.0	0.5	0.9	1	0.8	1.0	0.5	0.5	0.6	1.1	0.3	0.6
Radium 228	0.6	2.1UJ	1.2	4	2.7UJ	0.5	2.7	< 0.3	1.7UJ	0.9	2.1UJ	< 0.3	< 0.3
Radium 228, ct.error (+/- pCi/L)	0.8	0.7	0.6	1	0.9	0.8	0.7	0.6	0.7	0.8	0.7	0.7	1.9

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-16 - Site1 Groundwater Analytical Results For "A" and "E" Wells- General Chemicals

Sample Number	1st Qtr M-026E	2nd Qtr M-026E	3rd Qtr M-026E	3rd Qtr M-026E Duplicate	4th Qtr M-026E	1st Qtr M-027A	2nd Qtr M-027A	3rd Qtr M-027A	4th Qtr M-027A	1st Qtr M-027E	2nd Qtr M-027E	3rd Qtr M-027E	4th Qtr M-027E
Date Sampled	06/27/91	10/02/91	01/23/92	01/23/92	03/26/92	06/25/91	10/03/91	01/31/92	03/26/92	06/26/91	10/03/91	01/31/92	03/26/92
PARAMETER REPORTED													
Physical Parameters-Lab													
Acidity, total (mg/L-CaCO3)	21.5	15.6J	37.3	18.0	15.5	14.4J	17.9J	20.3	39.2	74.5J	62.6J	52	24.7
Alkalinity, total (mg/L-CaCO3)	608	352	68.0	380	500	372	544	489	455	1010	548	415	391
COD (mg/L)	306.0	264.0	97.0	< 100.0	97	63.0J	< 50.0	63.0	85	345.0J	153.0J	201.0	264
Hardness (mg/L-CaCO3)	800	1400	1800	1640	568	540	312	454	780	920	1900	1080	920
Total Dissolved Solids, TDS (mg/L)	5420	5830	8760	8030	3910	1580	1280	1420	1620	8610	8360	7480	6630
Spec. cond., lab (umhos/cm)	5370	9010	82900	105000	6920	3440	2110	2360	2500	791	13100	12600	11400
Physical Parameters-Field													
Spec. cond., field @25 C (umhos/cm)	4900	9000	8000	8000	3800	1950	2300	1750	1900	680	9000	11000	4900
Water Temp (deg C)	15.8	19.0	13.9	13.9	18	16.2	19.0	15.8	17.4	16.6	20.0	17.8	18.8
pH, Field (Std units)	7.66	7.00	7.41	7.41	7.6	7.21	6.50	7.32	7.15	7.08	7.00	7.17	7.6
Total Organic Carbon (mg/L)													
Carbon, TOC	11.5	9.0	11.0	9.3	12.3	9.2	6.6	11.4	17.4	30.5J	3.2	13.4	63.2
Asbestos													
Asbestos, Mass (ug/L)	0.00447	0.0	0.00343	0.000109	0.00412	0.000076	0.0	0.0	0	0.000541	0.0	0.0	0.0312
Asbestos, Total Structures (MAS/L)	24.5	0.0	18.8	1.27	34.8	0.945	0.0	0.0	0	18.0	0.0	0.0	351
Anions													
Chloride (mg/L)	2730	2926	4684	4178	1900	555.1	405.6	400.5	330.6	1300	4471	3793	3397
Cyanide (ug/L)	< 10.0	10.5	12.0	12	8.9J	< 10.0	< 2.5	< 5.0	6.6J	< 10.0	6.0	5.2	< 5.0UJ
Fluoride (mg/L)	2.39	< 2.00	< 1.00	< 2.50	< 1.00	1.01	0.94	0.71	0.41	< 0.20	< 2.00	1.21	1.12
Nitrogen, NO2+NO3 (mg/L-as N)	< 0.010	0.022	0.015J	0.017	0.015	< 0.010	0.023	< 0.010	1420	< 0.010	< 0.010	< 0.010	0.049
Sulfate (mg/L)	202.7	389.1	493.1	478.1	150.8	133	63.47	171.2	329.6	171.9	154.6	122.7	142.7
Radiochemicals (pCi/L)													
Alpha, gross	3.4	16.5	7.3UJ	79.9	11.5	1.5	4.2	24.2	13.5	11.9	53.8	9.4	< 0.1
Alpha, gross, ct.error (+/- pCi/L)	23.9	41.8	62.0	70.0	19.5	7.7	18.5	17.6	12.5	61.9	53.7	31.8	31.4
Beta, gross	22	120	20.7	147	74.8	< 0.3	43	27.9	64.5	29	87	35.8	106
Beta, gross, ct.error (+/- pCi/L)	42.1	53.3	83.8	61.4	33.7	12.2	15.4	23.7	22.6	76.6	45.8	51.6	73.5
Radium 226	3.7	1.4	1.8	0.9	1.5	0.7	2.7	0.8	2.7	0.7	2.1	0.7	1.6
Radium 226, ct.error (+/- pCi/L)	1.0	0.6	0.8	0.9	1.1	0.6	1.0	0.5	1.3	0.8	0.8	0.5	1
Radium 228	< 0.3	2.8	1.4	0.6	< 0.3	0.8	2.6	0.4	< 0.3	< 0.3	3.7	< 0.3	< 0.3
Radium 228, ct.error (+/- pCi/L)	0.7	0.7	0.7	1.2	2	0.8	0.8	0.5	2	0.8	0.8	0.5	2.1

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-16 - Site1 Groundwater Analytical Results For "A" and "E" Wells- General Chemicals

Sample Number	1st Qtr M-028A	1st Qtr M-028A Duplicate	2nd Qtr M-028A	3rd Qtr M-028A	4th Qtr M-028A	4th Qtr M-028A Duplicate	1st Qtr M-028E	2nd Qtr M-028E	3rd Qtr M-028E	4th Qtr M-028E
Date Sampled	06/24/91	06/24/91	10/11/91	02/04/92	04/27/92	04/27/92	06/25/91	10/11/91	02/04/92	04/27/92
PARAMETER REPORTED										
Physical Parameters-Lab										
Acidity, total (mg/L-CaCO3)	75.7J	54.8J	105	21.8	27.7	54.2J	26.7J	17.7	25.6	21.1
Alkalinity, total (mg/L-CaCO3)	372	356	386	435	271	103	404	424	473	371
COD (mg/L)	165.0J	153.0	239	74.0	< 50.0	63	165.0J	97	97.0	53
Hardness (mg/L-CaCO3)	720	552	900	344	420	410	640	900	516	362
Total Dissolved Solids, TDS (mg/L)	1000	941	1060	665	847	850	1250	1190	2210	924
Spec. cond., lab (umhos/cm)	1890	205	1540	1230	1360	1310	2340	1810	4100	1490
Physical Parameters-Field										
Spec. cond., field @25 C (umhos/cm)	1400	1400	1500	10000	1100	1100	1500	1900	1700	1500
Water Temp (deg C)	16.3	16.3	19.0	16.3	19.2	19.2	16.4	19.0	15.3	19
pH, Field (Std units)	6.81	6.81	7.00	6.94	6.32	6.32	7.10	7.00	7.00	6.42
Total Organic Carbon (mg/L)										
Carbon, TOC	45.4J	33.0J	2.9	22.5	25.1	33.4J	26.4J	10.2	18.3	26.4
Asbestos										
Asbestos, Mass (ug/L)	0.000189	0.0	0.0	0.0	0	0.00126	0.0	0.000613	0.00345	0
Asbestos, Total Structures (MAS/L)	9.45	0.0	0.0	0.0	0	8.15	0.0	20.4	49.3	0
Anions										
Chloride (mg/L)	320.9	275.7	293.2	125.5	160.1	152.9	465.1	383.9	1040	217.8
Cyanide (ug/L)	< 10.0	< 10.0	< 10.0	< 5.0	< 5.0	< 5.0	< 10.0	< 10.0	< 5.0	7.5
Fluoride (mg/L)	1.54	0.43U	< 0.80	< 0.40	< 0.40	0.21UJ	0.91	0.98	0.64	0.63
Nitrogen, NO2+NO3 (mg/L-as N)	< 0.250	< 0.010	0.022	< 0.050	0.011	< 0.010	< 0.010	0.02	< 0.010	0.056J
Sulfate (mg/L)	22.99	28.9	5.67	31.6	81.95	91.49	28.88	24.22	91.81	59.43
Radiochemicals (pCi/L)										
Alpha, gross	3.0	< 0.1	1.1	6.0	4.3	26.5	17.2	80.7	4.1	2.4
Alpha, gross, ct.error (+/- pCi/L)	7.5	7.0	9.6	5.2	5.5	8.3	20.6	33.7	11.7	6.3
Beta, gross	30	42	56	30.3	38.2	54.6	0.6	8.2	36.3	28.1
Beta, gross, ct.error (+/- pCi/L)	16.1	11.0	13.2	10.9	12.6	13.2	15.8	25.5	19.7	13.1
Radium 226	5.0	3.9	3.2	1.9	3.2	2.2	2.4	4.7	0.8	1
Radium 226, ct.error (+/- pCi/L)	1.3	1.6	1.1	0.8	1	1.4	0.9	1.1	0.5	0.7
Radium 228	0.5	< 0.3	2.7UJ	< 0.3	1.2	2.6	< 0.3	2	< 0.3	1.9
Radium 228, ct.error (+/- pCi/L)	0.9	1.5	0.6	0.5	0.8	1.5	0.7	0.5	0.6	0.8

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-16 - Site1 Groundwater Analytical Results For "A" and "E" Wells- General Chemicals

Sample Number	1st Qtr M-029A	2nd Qtr M-029A	3rd Qtr M-029A	4th Qtr M-029A	1st Qtr M-029E	2nd Qtr M-029E	2nd Qtr M-029E Duplicate	3rd Qtr M-029E	4th Qtr M-029E
Date Sampled	06/20/91	10/10/91	02/04/92	03/27/92	06/21/91	10/10/91	10/10/91	02/04/92	03/27/92
PARAMETER REPORTED									
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	10.3J	8.8UJ	5.6J	9.5	< 1.0UJ	6.3UJ	1.6UJ	< 1.0	6.5
Alkalinity, total (mg/L-CaCO3)	512	438	500	482	444	478	432	468	433
COD (mg/L)	188.0J	74	108.0	130	97.0J	108.0J	119.0J	108.0	< 50.0
Hardness (mg/L-CaCO3)	300	700	226	290	250	800	288	190	190
Total Dissolved Solids, TDS (mg/L)	838	772	878	880	1230	2030	1500	1070	867
Spec. cond., lab (umhos/cm)	13400	1280	1740	1520	2210	3320	2530	2070	1680
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	1200	1300	1200	1180	1700	2000	2000	1500	1300
Water Temp (deg C)	15.5	19.0	14.8	17	15.7	20.0	20.0	16.1	17.7
pH, Field (Std units)	8.08	7.00	7.35	8.1	8.24	7.00	7.00	7.54	8.44
Total Organic Carbon (mg/L)									
Carbon, TOC	30.1J	3.7	12	33.6	16.5J	2.5	12.1	6.7	34
Asbestos									
Asbestos, Mass (ug/L)	0.0	0.0	0.00723	0.000347	0.0234	0.00663	0.00610	0.00185	0
Asbestos, Total Structures (MAS/L)	0.0	0.0	71.6	6.5	65.5	50.4	135	9.24	0
Anions									
Chloride (mg/L)	214.5	179	228.3	187.3	466.1	917.4	575.6	387	284.6
Cyanide (ug/L)	< 10.0	< 10.0R	5.1UJ	< 5.0UJ	< 10.0	< 10.0	< 10.0	5.4UJ	< 5.0UJ
Fluoride (mg/L)	< 0.40	< 0.80	0.19UJ	< 0.40	0.51	0.97	< 0.80	0.21UJ	< 0.40
Nitrogen, NO2+NO3 (mg/L-as N)	< 0.100	0.024	0.029	< 0.010	< 0.100	0.027	0.024	< 0.010	0.031
Sulfate (mg/L)	4.717	3.789	15.71	45.66	5.865	28.95	12.59	5.012	18.33
Radiochemicals (pCi/L)									
Alpha, gross	6.6	< 0.3	9.8	6.4	< 0.1	16.6	13.5	1.0	0.8
Alpha, gross, ct.error (+/- pCi/L)	8.6	4.5	7.9	6.2	10.8	32.6	10.0	7.7	0.4
Beta, gross	< 0.3	26	33.3	26.2	30	44	19	31.4	36.3
Beta, gross, ct.error (+/- pCi/L)	10.7	9.0	13.3	11.5	17.5	27.9	14.3	12.4	12.4
Radium 226	2.1	2.2	1.4	2.2	1.7	4.4	12	1.5	1.5
Radium 226, ct.error (+/- pCi/L)	0.8	0.7	0.6	1.2	0.7	1.1	2.9	0.6	1
Radium 228	< 0.3	1.1	0.9	< 0.3	< 0.3	1.9UJ	4.5UJ	< 0.3	< 0.3
Radium 228, ct.error (+/- pCi/L)	0.8	0.5	0.6	2	0.9	0.6	1.2	0.5	2

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-17 - Site1 Summary of General Chemical Results for Quarterly Groundwater Samples in "A" and "E" Wells

First Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	1	2	6	6.8	25.3	14	9.6	75.7	0
Alkalinity, total (mg/L-CaCO3)	0	0	23	128	1010	0	-	-	0
COD (mg/L)	1	0	4	85	345	18	63	1198	0
Hardness (mg/L-CaCO3)	0	0	23	40	6000	0	-	-	0
Residue, Dissolved (mg/L)	0	0	23	369	23800	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	23	205	39700	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	23	370	37000	0	-	-	0
Water Temp (deg C)	0	0	23	15.5	20.5	0	-	-	0
pH, Field (Std units)	0	0	23	6.81	8.9	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	0	1	15	3.7	64.6	7	16.5	45.4	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	23	0	0.573	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	23	0	1360	0	-	-	0
Anions									
Chloride (mg/L)	0	0	23	27.3	12900	0	-	-	0
Cyanide (ug/L)	22	0	1	21.7	21.7	0	-	-	0
Fluoride (mg/L)	8	2	12	0.51	2.82	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	19	0	4	0.026	3.34	0	-	-	0
Sulfate (mg/L)	0	0	23	4.3	1827	0	-	-	0

Table 8-17 - Site1 Summary of General Chemical Results for Quarterly Groundwater Samples in "A" and "E" Wells

Second Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	0	6	2	17.7	105	15	13.8	62.6	0
Alkalinity, total (mg/L-CaCO3)	0	0	23	96	1530	0	-	-	0
COD (mg/L)	3	0	17	53	1916	3	108	153	0
Hardness (mg/L-CaCO3)	0	0	23	20	4800	0	-	-	0
Residue, Dissolved (mg/L)	0	0	23	452	19700	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	23	345	26800	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	23	250	30000	0	-	-	0
Water Temp (deg C)	0	0	23	19	21	0	-	-	0
pH, Field (Std units)	0	0	23	6.5	7	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	0	0	23	2.5	92.3	0	-	-	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	23	0	0.095	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	23	0	328	0	-	-	0
Anions									
Chloride (mg/L)	0	0	23	25.12	10760	0	-	-	0
Cyanide (ug/L)	19	0	4	6	14.4	0	-	-	0
Fluoride (mg/L)	11	3	9	0.35	3.12	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	4	0	19	0.013	13.6	0	-	-	0
Sulfate (mg/L)	0	0	23	3.566	1555	0	-	-	0

Table 8-17 - Site1 Summary of General Chemical Results for Quarterly Groundwater Samples in "A" and "E" Wells

Third Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	3	1	18	4.3	52	1	5.6	5.6	0
Alkalinity, total (mg/L-CaCO3)	0	0	23	68	1050	0	-	-	0
COD (mg/L)	7	0	16	53	528	0	-	-	0
Hardness (mg/L-CaCO3)	0	0	23	26	3000	0	-	-	0
Residue, Dissolved (mg/L)	0	0	23	356	9850	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	23	399	105000	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	19	231	12500	0	-	-	0
Water Temp (deg C)	0	0	23	12.2	17.8	0	-	-	0
pH, Field (Std units)	0	0	23	6.9	8.78	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	1	1	20	6.7	62.8	1	13.9	13.9	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	23	0	2.14	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	23	0	2290	0	-	-	0
Anions									
Chloride (mg/L)	0	0	23	14.51	5209	0	-	-	0
Cyanide (ug/L)	17	2	4	5.2	16.4	0	-	-	0
Fluoride (mg/L)	8	5	10	0.33	3.11	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	11	0	11	0.012	0.536	1	0.015	0.015	0
Sulfate (mg/L)	0	0	23	3.047	1042	0	-	-	0

Table 8-17 - Site 1 Summary of General Chemical Results for Quarterly Groundwater Samples in "A" and "E" Wells

Fourth Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	2	0	20	6.1	49.1	2	9	54.2	0
Alkalinity, total (mg/L-CaCO3)	0	0	24	103	500	0	-	-	0
COD (mg/L)	10	0	14	53	303	0	-	-	0
Hardness (mg/L-CaCO3)	0	0	24	26	2150	0	-	-	0
Residue, Dissolved (mg/L)	0	0	24	240	10000	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	24	296	15000	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	24	250	13000	0	-	-	0
Water Temp (deg C)	0	0	24	15.3	19.3	0	-	-	0
pH, Field (Std units)	0	0	24	6.32	8.44	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	0	2	20	3.6	63.2	2	13.7	33.4	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	24	0	0.0312	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	24	0	351	0	-	-	0
Anions									
Chloride (mg/L)	0	0	24	25.28	4909	0	-	-	0
Cyanide (ug/L)	11	7	3	7.5	28.7	3	6.6	12.8	0
Fluoride (mg/L)	5	5	14	0.32	1.96	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	4	1	17	0.011	1420	2	0.031	0.056	0
Sulfate (mg/L)	0	0	24	2.779	720.2	0	-	-	0

Table 8-18 - Site 1 Groundwater Analytical Results For "B" and "C" Wells- Organic Compounds

Sample Number	1st Qtr M-001B	2nd Qtr M-001B	2nd Qtr M-001B Duplicate	3rd Qtr M-001B	4th Qtr M-001B
Date Sampled	**06/18/91**	**09/19/91**	**09/19/91**	**01/14/92**	**03/27/92**
PARAMETER REPORTED					
Volatile Organics (µg/L)					
Acetone	< 2.0	< 2.0	3.1	< 2.0	< 2.0
Carbon Disulfide	< 1.0	7.3	7.2	< 1.0	< 1.0
Chloroform	1.8	1.8	1.5	< 1.0	< 1.0
Chloromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)					
Bis(2-ethylhexyl)phthalate	< 2.0	8	21	< 2.0	3.7UJ
Butylbenzylphthalate	< 1.5	< 1.5	2	< 3.0	< 1.5
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)					
Hydrocarbons, Petroleum	< 0.2	< 0.2	0.2UJ	< 0.2	< 0.2

Notes: ND = None detected
NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 8-18 - Site 1 Groundwater Analytical Results For "B" and "C" Wells- Organic Compounds

Sample Number	1st Qtr M-007C	2nd Qtr M-007C	2nd Qtr M-007C	3rd Qtr M-007C	3rd Qtr M-007C Duplicate	4th Qtr M-007C
Date Sampled	**07/02/91**	**09/23/91**	**10/15/91**	**02/05/92**	**02/05/92**	**04/09/92**
PARAMETER REPORTED						
Volatile Organics (µg/L)						
Acetone	< 2.0	14	NA	< 2.0	< 2.0	< 2.0
Carbon Disulfide	< 1.0	< 5.0	NA	< 1.0	< 1.0	< 1.0
Chloroform	< 1.0	< 5.0	NA	< 1.0	< 1.0	< 1.0
Chloromethane	< 1.0	< 5.0	NA	< 1.0	< 1.0	< 1.0
Toluene	< 1.0	< 5.0	NA	< 1.0	< 1.0	2.5
Semivolatile Organics (µg/L)						
Bis(2-ethylhexyl)phthalate	< 2.0	NA	< 1.0	1.1UJ	10.0	3.0UJ
Butylbenzylphthalate	< 1.5	NA	< 1.5	< 1.5	< 1.5	< 1.5
Pesticides/PCBs (µg/L)	ND	ND	NA	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)						
Hydrocarbons, Petroleum	< 0.2	< 0.2	NA	< 0.2	< 0.2	< 0.2

Notes: ND = None detected
NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 8-18 - Site 1 Groundwater Analytical Results For "B" and "C" Wells- Organic Compounds

Sample Number	1st Qtr M-025C	2nd Qtr M-025C	3rd Qtr M-025C	4th Qtr M-025C	1st Qtr M-027B	2nd Qtr M-027B	2nd Qtr M-027B Duplicate	3rd Qtr M-027B	4th Qtr M-027B
Date Sampled	**06/28/91**	**10/02/91**	**02/03/92**	**04/08/92**	**06/26/91**	**10/03/91**	**10/03/91**	**01/31/92**	**04/07/92**
PARAMETER REPORTED									
Volatile Organics (µg/L)									
Acetone	< 2.0	< 2.0	< 2.0	< 2.0	29	< 2.0	< 2.0	2.6	< 2.0
Carbon Disulfide	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	< 1.0	< 1.0	< 1.0	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.0	< 1.0
Toluene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)									
Bis(2-ethylhexyl)phthalate	< 2.0	< 2.0	2.6	5.2UJ	< 2.0	< 1.0	1	3	15UJ
Butylbenzylphthalate	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)									
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None detected
NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 8-18 - Site 1 Groundwater Analytical Results For "B" and "C" Wells- Organic Compounds

Sample Number	1st Qtr M-027C	2nd Qtr M-027C	3rd Qtr M-027C	4th Qtr M-027C	4th Qtr M-027C Duplicate
Date Sampled	**06/26/91**	**10/03/91**	**01/31/92**	**04/06/92**	**04/06/92**
PARAMETER REPORTED					
Volatile Organics (µg/L)					
Acetone	< 2.0	2.1UJ	< 2.0	< 2.0	< 2.0
Carbon Disulfide	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	< 1.0	< 1.0	< 1.0	2	1.9
Semivolatile Organics (µg/L)					
Bis(2-ethylhexyl)phthalate	< 2.0	< 1.0	5	290UJ	150UJ
Butylbenzylphthalate	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)					
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None detected
NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 8-19 - Site 1 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "B" and "C" Wells

First Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
Acetone	4	0	1	29	29	0	-	-	0
Carbon Disulfide	5	0	0	-	-	0	-	-	0
Chloroform	4	0	1	1.8	1.8	0	-	-	0
Chloromethane	5	0	0	-	-	0	-	-	0
Semivolatile Organics (µg/L)									
Bis(2-ethylhexyl)phthalate	5	0	0	-	-	0	-	-	0
Butylbenzylphthalate	5	0	0	-	-	0	-	-	0
Pesticides/PCBs (µg/L)	5	0	0	-	-	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	5	0	0	-	-	0	-	-	0

Table 8-19 - Site 1 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "B" and "C" Wells

Second Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
Acetone	4	1	2	3.1	14	0	-	-	0
Carbon Disulfide	5	0	2	7.2	7.3	0	-	-	0
Chloroform	5	0	2	1.5	1.8	0	-	-	0
Chloromethane	7	0	0	-	-	0	-	-	0
Semivolatile Organics (µg/L)									
Bis(2-ethylhexyl)phthalate	4	0	3	1.3	21	0	-	-	0
Butylbenzylphthalate	6	0	1	2.2	2.2	0	-	-	0
Pesticides/PCBs (µg/L)	7	0	0	-	-	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	6	1	0	-	-	0	-	-	0

Table 8-19 - Site 1 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "B" and "C" Wells

Third Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
Acetone	5	0	1	2.6	2.6	0	-	-	0
Carbon Disulfide	6	0	0	-	-	0	-	-	0
Chloroform	6	0	0	-	-	0	-	-	0
Chloromethane	5	0	1	3	3	0	-	-	0
Semivolatile Organics (µg/L)									
Bis(2-ethylhexyl)phthalate	1	1	4	2.6	10	0	-	-	0
Butylbenzylphthalate	6	0	0	-	-	0	-	-	0
Pesticides/PCBs (µg/L)	6	0	0	-	-	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	6	0	0	-	-	0	-	-	0

Table 8-19 - Site 1 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "B" and "C" Wells

Fourth Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
Chloroform	5	0	1	1.1	1.1	0	-	-	0
Toluene	3	0	3	1.9	2.5	0	-	-	0
Semivolatile Organics (µg/L)									
Bis(2-ethylhexyl)phthalate	0	6	0	-	-	0	-	-	0
Pesticides/PCBs (µg/L)	6	0	0	-	-	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	6	0	0	-	-	0	-	-	0

Table 8-20 - Site 1 Groundwater Analytical Results For "B" and "C" Wells - Metals

Sample Number	1st Qtr M-001B	2nd Qtr M-001B	2nd Qtr M-001B Duplicate	3rd Qtr M-001B	4th Qtr M-001B	1st Qtr M-007C	2nd Qtr M-007C	3rd Qtr M-007C	3rd Qtr M-007C Duplicate	4th Qtr M-007C
Date Sampled	**06/18/91**	**09/19/91**	**09/19/91**	**01/14/92**	**03/27/92**	**07/02/91**	**09/23/91**	**02/05/92**	**02/05/92**	**04/09/92**
PARAMETER REPORTED										
Metals (µg/L)										
Aluminum	< 31.0	35.2	< 31.0	55.2	44.6	34.1	< 31.0	199UJ	200UJ	54.9
Antimony	< 25.1	< 25.1	< 25.1UJ	< 37.5	< 37.5	< 25.1	< 25.1	< 37.5	189	< 37.5
Arsenic	2.8	< 2.6	< 2.6	1.9	< 9.5UJ	4.5	3.5	< 3.8UJ	5.2	3.1
Barium	87.1	116	81.7	88.7	97.9	78.3	105	88.7J	79.9J	90.4
Beryllium	< 1.3	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9	< 3.9
Calcium	414000	403000	417000J	435000	423000	444000J	481000	468000	446000J	476000
Chromium	< 5.7	< 5.7	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3UJ	< 6.3
Cobalt	15.6	< 6.1	< 6.1UJ	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2UJ	< 17.2
Copper	< 2.1	< 2.1	< 2.1	10.3	< 3.8	< 2.1	< 2.1	< 3.8	< 3.8UJ	23.8
Iron	< 6.2	77.4	122	< 7.7	< 7.7	970	501	1420J	1170J	1340
Lead	< 10.0	< 2.0UJ	< 2.0UJ	< 6.5	2.2	< 4.0	< 20.0	12.9UJ	3.4	< 2.0UJ
Magnesium	742000	746000	762000J	804000	785000	718000J	763000	757000	668000J	751000
Manganese	5730	6270	6170J	6410	6220	7340	7700	7740J	7200J	7600
Mercury	< 0.2UJ	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	< 13.2	< 13.2	13.4J	< 13.2	13.8	< 13.2	< 13.2	< 13.2	< 13.2UJ	< 13.2
Potassium	97400	95900	10800J0	104000	99600J	46000J	51000	47700	43200	50900
Selenium	< 10.5	< 10.5UJ	< 10.5UJ	< 10.5UJ	< 10.0UJ	< 10.5	< 2.1	< 2.0UJ	< 10.0UJ	< 2.0
Silver	< 4.9	5.0	< 4.9	4.9	< 4.8	5.6	< 4.9	< 4.8	15.2	< 4.8
Sodium	5890000J	4230000	47400J00	4900000	4470000	3940000	4330000	4060000	34800J00	3890000
Thallium	< 13.5UJ	< 13.5	< 2.7	< 8.5UJ	< 8.5UJ	< 13.5	< 2.7UJ	< 8.5UJ	< 8.5UJ	< 1.7
Vanadium	< 4.2	< 4.2	< 4.2UJ	< 6.0	< 6.0	< 4.2	< 4.2	< 6.0	22.7	< 6.0
Zinc	15.1UJ	< 2.3	< 2.3UJ	14.8	77	39.3	< 2.3	26.4	5.0	250

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-20 - Site 1 Groundwater Analytical Results For "B" and "C" Wells - Metals

Sample Number	1st Qtr M-025C	2nd Qtr M-025C	3rd Qtr M-025C	4th Qtr M-025C	1st Qtr M-027B	2nd Qtr M-027B	2nd Qtr M-027B Duplicate	3rd Qtr M-027B	4th Qtr M-027B
Date Sampled	**06/28/91**	**10/02/91**	**02/03/92**	**04/08/92**	**06/26/91**	**10/03/91**	**10/03/91**	**01/31/92**	**04/07/92**
PARAMETER REPORTED									
Metals (µg/L)									
Aluminum	< 31.0	< 31.0	46.0J	< 40.7	< 31.0	74.6	50.6	66.5UJ	61.7
Antimony	< 25.1	< 25.1	< 37.5	< 37.5	< 25.1	< 25.1	< 25.1	< 37.5	48.2
Arsenic	2.8	< 10.4	< 1.9UJ	2.1	26.1	12.8	17.8	21.2	27.4
Barium	267	264	219J	173	349	345	346	348	414
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	92400	102000	93400	89600	234000J	232000	228000	249000	238000
Chromium	< 5.7	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	< 6.1	< 6.1	< 6.1	< 17.2	< 17.2
Copper	< 2.1	36.7	< 3.8	4.4	< 2.1	29.5	14.2	< 3.8	< 3.8
Iron	4590	2850	4640J	3840	5050	3350	3590	5260	6330
Lead	< 2.0	< 20.0	< 1.3UJ	< 2.0	< 10.0	< 20.0	< 2.0	< 1.3	< 2.0UJ
Magnesium	161000	168000	165000	156000	486000J	476000	469000	519000	483000
Manganese	1650	1720	1790J	1720	4660	4740	4720	5260	4970
Mercury	< 0.2	< 0.2UJ	< 0.2	< 0.2	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2	< 0.2
Nickel	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2
Potassium	55700	62800	59800	57300	56200J	56800	54700	58800	54300
Selenium	< 2.1	< 8.4	< 10.0	< 2.0	< 2.1	< 8.4	< 10.5	< 10.0UJ	< 2.0
Silver	< 4.9	< 4.9	< 4.8	< 4.8	< 4.9	6.0	< 4.9	5.8	< 4.8
Sodium	1030000	993000	1160000	1150000	2990000	2850000	2910000	3360000	3190000
Thallium	< 13.5	< 10.8UJ	< 1.7UJ	< 1.7UJ	< 13.5UJ	< 10.8UJ	< 13.5	< 17.0UJ	< 1.7UJ
Vanadium	10.1	11.3	8.1	15.3	< 4.2	< 4.2	< 4.2	8.1	16.4
Zinc	62.7	5.1UJ	14.7	70.4	57.6	41.9	48.3	47.0	216

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-20 - Site 1 Groundwater Analytical Results For "B" and "C" Wells - Metals

Sample Number	1st Qtr M-027C	2nd Qtr M-027C	3rd Qtr M-027C	4th Qtr M-027C	4th Qtr M-027A Duplicate
Date Sampled	06/26/91	10/03/91	01/31/92	04/06/92	04/06/92
PARAMETER REPORTED					
Metals (µg/L)					
Aluminum	< 31.0	50.4	57.5	44.7	< 40.7
Antimony	< 25.1	< 25.1UJ	< 37.5	< 37.5	< 37.5
Arsenic	4.3	< 10.4UJ	3.6	4.6	4.3J
Barium	126	96.4J	98.4	86	87.9
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0UJ	< 3.9	< 3.9	< 3.9UJ
Calcium	329000J	315000J	328000	323000	332000J
Chromium	< 5.7	< 5.7UJ	< 6.3	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1UJ	< 17.2	< 17.2	< 17.2
Copper	2.7	45.8J	5.0	23.3	12.3
Iron	1060	2520J	1050	418	376
Lead	< 10.0UJ	< 20.0	< 2.6	< 2.0	< 2.0UJ
Magnesium	695000J	659000J	690000	659000	679000J
Manganese	5270	5180J	5450	5180	5330
Mercury	< 0.2UJ	< 0.2UJ	< 0.2	< 0.2	< 0.2
Nickel	< 13.2	< 13.2UJ	< 13.2	< 13.2	< 13.2
Potassium	91200J	89400J	88200	87300	89500
Selenium	< 10.5	< 8.4	< 10.0	< 2.0UJ	< 2.0UJ
Silver	5.7	5.1	< 4.8	< 4.8	< 4.8
Sodium	3860000	3890000	4070000	3990000	4030000J
Thallium	< 13.5UJ	< 10.8UJ	< 17.0UJ	< 1.7UJ	< 1.7UJ
Vanadium	< 4.2	< 4.2UJ	< 6.0	< 6.0	< 6.0
Zinc	205	< 2.3	15.7	380	398

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-21 - Site 1 Summary of Metals Results for Quarterly Groundwater Samples in "B" and "C" Wells

First Quarter

	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	116.71	4	1	34.1	34.1	0	0	-	-	-	0
Antimony	697.10	5	0	-	-	-	0	-	-	-	0
Arsenic	70.44	0	5	2.8	26.1	0	0	-	-	-	0
Barium	434.47	0	5	78.3	349	0	0	-	-	-	0
Beryllium	0.65	5	0	-	-	-	0	-	-	-	0
Cadmium	1.50	5	0	-	-	-	0	-	-	-	0
Chromium	2.85	5	0	-	-	-	0	-	-	-	0
Cobalt	36.69	4	1	15.6	15.6	0	0	-	-	-	0
Copper	102.86	4	1	2.7	2.7	0	0	-	-	-	0
Lead	26.58	5	0	-	-	-	0	-	-	-	0
Mercury	0.10	5	0	-	-	-	0	-	-	-	0
Nickel	6.60	5	0	-	-	-	0	-	-	-	0
Selenium	37.07	5	0	-	-	-	0	-	-	-	0
Silver	29.95	3	2	5.6	5.7	0	0	-	-	-	0
Thallium	47.66	5	0	-	-	-	0	-	-	-	0
Vanadium	116.65	4	1	10.1	10.1	0	0	-	-	-	0
Zinc	390.57	1	4	39.3	205	0	0	-	-	-	0

Table 8-21 - Site 1 Summary of Metals Results for Quarterly Groundwater Samples in "B" and "C" Wells

Second Quarter

	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	139.05	3	4	35.2	74.6	0	0	-	-	-	0
Antimony	457.01	7	0	-	-	-	0	-	-	-	0
Arsenic	25.69	4	3	3.5	17.8	0	0	-	-	-	0
Barium	333.76	0	6	81.7	346	2	1	96.4	96.4	0	0
Beryllium	0.65	7	0	-	-	-	0	-	-	-	0
Cadmium	1.50	7	0	-	-	-	0	-	-	-	0
Chromium	2.85	7	0	-	-	-	0	-	-	-	0
Cobalt	27.30	7	0	-	-	-	0	-	-	-	0
Copper	90.78	3	3	14.2	36.7	0	1	45.8	45.8	0	0
Lead	16.74	7	0	-	-	-	0	-	-	-	0
Mercury	0.10	7	0	-	-	-	0	-	-	-	0
Nickel	71.45	6	0	-	-	-	1	13.4	13.4	0	0
Selenium	5.25	7	0	-	-	-	0	-	-	-	0
Silver	23.15	4	3	5	6	0	0	-	-	-	0
Thallium	6.75	7	0	-	-	-	0	-	-	-	0
Vanadium	338.39	6	1	11.3	11.3	0	0	-	-	-	0
Zinc	354.40	5	2	41.9	48.3	0	0	-	-	-	0

Table 8-21 - Site 1 Summary of Metals Results for Quarterly Groundwater Samples in "B" and "C" Wells

Third Quarter

	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	224.70	3	2	55.2	57.5	0	1	46	46	0	0
Antimony	18.75	5	1	189	189	1	0	-	-	-	0
Arsenic	30.59	2	4	1.9	21.2	0	0	-	-	-	0
Barium	234.95	0	3	88.7	348	1	3	79.9	219	0	0
Beryllium	1.25	6	0	-	-	-	0	-	-	-	0
Cadmium	1.95	6	0	-	-	-	0	-	-	-	0
Chromium	3.15	6	0	-	-	-	0	-	-	-	0
Cobalt	8.60	6	0	-	-	-	0	-	-	-	0
Copper	1.90	4	2	5	10.3	2	0	-	-	-	0
Lead	10.44	5	1	3.4	3.4	0	0	-	-	-	0
Mercury	0.10	6	0	-	-	-	0	-	-	-	0
Nickel	68.05	6	0	-	-	-	0	-	-	-	0
Selenium	5.00	6	0	-	-	-	0	-	-	-	0
Silver	15.45	3	3	4.9	15.2	0	0	-	-	-	0
Thallium	18.85	6	0	-	-	-	0	-	-	-	0
Vanadium	3.00	3	3	8.1	22.7	3	0	-	-	-	0
Zinc	466.08	0	6	5	47	0	0	-	-	-	0

Table 8-21 - Site 1 Summary of Metals Results for Quarterly Groundwater Samples in "B" and "C" Wells

Fourth Quarter

Metals (ug/L)	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	162.88	2	4	44.6	61.7	0	0	-	-	-	0
Antimony	525.68	5	1	48.2	48.2	0	0	-	-	-	0
Arsenic	23.59	1	4	2.1	27.4	1	1	4.3	4.3	0	0
Barium	301.84	0	6	86	414	1	0	-	-	-	0
Beryllium	1.25	6	0	-	-	-	0	-	-	-	0
Cadmium	1.95	6	0	-	-	-	0	-	-	-	0
Chromium	3.15	6	0	-	-	-	0	-	-	-	0
Cobalt	8.60	6	0	-	-	-	0	-	-	-	0
Copper	79.99	2	4	4.4	23.8	0	0	-	-	-	0
Lead	11.57	5	1	2.2	2.2	0	0	-	-	-	0
Mercury	0.10	6	0	-	-	-	0	-	-	-	0
Nickel	42.42	5	1	13.8	13.8	0	0	-	-	-	0
Selenium	25.54	6	0	-	-	-	0	-	-	-	0
Silver	14.29	6	0	-	-	-	0	-	-	-	0
Thallium	6.50	6	0	-	-	-	0	-	-	-	0
Vanadium	35.93	4	2	15.3	16.4	0	0	-	-	-	0
Zinc	306.26	0	6	70.4	398	2	0	-	-	-	0

Table 8-22 - Site1 Groundwater Analytical Results For "B" and "C" Wells- General Chemicals

Sample Number	1st Qtr M-001B	2nd Qtr M-001B	2nd Qtr M-001B Duplicate	3rd Qtr M-001B	4th Qtr M-001B	1st Qtr M-007C	2nd Qtr M-007C	3rd Qtr M-007C	3rd Qtr M-007C Duplicate	4th Qtr M-007C
Date Sampled	06/18/91	09/19/91	09/19/91	01/14/92	03/27/92	07/02/91	09/23/91	02/05/92	02/05/92	04/09/92
PARAMETER REPORTED										
Physical Parameters-Lab										
Acidity, total (mg/L-CaCO3)	51.8J	61.7J	60.8J	54.9	60.5	83.1	83.2J	82.1	92.6	88.4
Alkalinity, total (mg/L-CaCO3)	368	395	399	434	400	512	494	576	500	158
COD (mg/L)	733.0J	520.0	426.0	674.0	634	581.0J	504.0	388.0J	1024	330
Hardness (mg/L-CaCO3)	12500	6000	6200	7500	5900	5500	8500	3880	3820	5500
Total Dissolved Solids, TDS (mg/L)	19600	17900	19500	18900	21700	16100	16500	16500	16700	19400
Spec. cond., lab (umhos/cm)	28800	28100	23900	26600	31600	21800	25800	26900	26600	26100
Physical Parameters-Field										
Spec. cond., field @25 C (umhos/cm)	24000	26000	26000	NA	24000	23000	19000	20000	20000	22000
Water Temp (deg C)	16.8	19.0	19.0	16.8	18.9	19.0	20.0	17.3	17.3	17.5
pH, Field (Std units)	7.10	7.00	7.00	6.92	7.15	7.00	7.00	7.32	7.32	7
Total Organic Carbon (mg/L)										
Carbon, TOC	3.8	13.8	27.8	13.0	17.9	13.0	8.8	3.3	4.9	11.4UJ
Asbestos										
Asbestos, Mass (ug/L)	0.00369	0.0	0.485	0.00261	0	0.0	0.0831	0.0	0.0	0.0286
Asbestos, Total Structures (MAS/L)	4.61	0.0	47.8	37.3	0	0.0	51.9	0.0	0.0	14.6
Anions										
Chloride (mg/L)	10240	10110	10510	10690	10980	9529	8951	9388	9215	9233
Cyanide (ug/L)	< 10.0	< 10.0	< 10.0	< 5.0	< 5.0UJ	< 10.0	< 10.0	< 5.0	< 5.0	< 5.0
Fluoride (mg/L)	< 5.00	< 5.00	< 5.00	< 10.00	< 2.50	< 5.00	< 5.00	< 2.50	< 2.50	< 2.50
Nitrogen, NO2+NO3 (mg/L-as N)	0.168	0.152	0.316	0.014	0.018	0.013UJ	0.078	0.018	0.017	0.031
Sulfate (mg/L)	1317	1319	1436	1322	1359	987.7	991.3	968.3	951.5	983.3
Radiochemicals (pCi/L)										
Alpha, gross	< 0.1	< 0.1	< 0.1	90.1	12.3	117	< 0.3	< 0.1	39.5	50
Alpha, gross, ct.error (+/- pCi/L)	115	67.2	41.3	93.1	80.3	91.6	100.0	75.1	94.7	69.9
Beta, gross	110	< 0.3	< 0.3	137	247	< 0.3	42	67.9	9.6	144
Beta, gross, ct.error (+/- pCi/L)	82.3	104	121	128	172	127	102	121	120	101
Radium 226	0.9	2.3	2.4	3.3	2.9	2.6UJ	3.5	1.3	1.5	1.4UJ
Radium 226, ct.error (+/- pCi/L)	0.7	1.1	1.0	0.6	1.3	1.0	1.0	0.6	0.9	1.1
Radium 228	0.6	2.0	< 0.3	4.1	< 0.3	0.6	3.6	2.5	2.0UJ	2.1
Radium 228, ct.error (+/- pCi/L)	0.9	1.0	1.7	1.0	1.9	0.8	0.8	0.6	0.7	0.5

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-22 - Site1 Groundwater Analytical Results For "B" and "C" Wells- General Chemicals

Sample Number	1st Qtr M-025C	2nd Qtr M-025C	3rd Qtr M-025C	4th Qtr M-025C	1st Qtr M-027B	2nd Qtr M-027B	2nd Qtr M-027B Duplicate	3rd Qtr M-027B	4th Qtr M-027B	1st Qtr M-027C	2nd Qtr M-027C	3rd Qtr M-027C	4th Qtr M-027C
Date Sampled	**06/28/91**	**10/02/91**	**02/03/92**	**04/08/92**	**06/26/91**	**10/03/91**	**10/03/91**	**01/31/92**	**04/07/92**	**06/26/91**	**10/03/91**	**01/31/92**	**04/06/92**
PARAMETER REPORTED													
Physical Parameters-Lab													
Acidity, total (mg/L-CaCO3)	54.5	59.7	71	98.2	96.3J	88.2J	90.6J	85.2	93.3	77.2J	66.9J	68.7	67.2
Alkalinity, total (mg/L-CaCO3)	1100	1100	1070	401	592	688	288	500	465	496	564	533	440
COD (mg/L)	165.0J	153.0	141.0	141	447.0J	512.0	581.0J	290.0	345	599.0J	965.0	545.0	581
Hardness (mg/L-CaCO3)	1350	1300	1000	967	3450	140	3600	3070	3200	4800	4800	4490	4500
Total Dissolved Solids, TDS (mg/L)	3840	3980	3940	3970	11400	11800	11700	11900	13200	16200	15900	16600	17400
Spec. cond., lab (umhos/cm)	6760	6060	7030	6930	17800	17200	17000	18300	18900	22100	23100	25800	25800
Physical Parameters-Field													
Spec. cond., field @25 C (umhos/cm)	5000	6000	5000	6000	16000	16000	16000	14000	16400	20000	22500	18500	21000
Water Temp (deg C)	16.6	19.0	16.9	17.7	16.0	18.0	18.0	16.6	18.9	16.0	20.0	15.9	14.8
pH, Field (Std units)	6.83	7.00	7.00	7.07	7.04	7.00	7.00	6.90	6.52	6.99	7.00	7.00	6.91
Total Organic Carbon (mg/L)													
Carbon, TOC	16.9	55.6	10.9	15.7UJ	< 5.0	8.8	6.8J	3.9UJ	4.1UJ	< 5.0	10	3.0UJ	2.4UJ
Asbestos													
Asbestos, Mass (ug/L)	0.0166	0.362	0.0	0.157	0.0	0.0	0.0	0.0	0	0.0	0.00255	0.0	0.000312
Asbestos, Total Structures (MAS/L)	135	629	0.0	1440	0.0	0.0	0.0	0.0	0	0.0	69.5	0.0	10.4
Anions													
Chloride (mg/L)	1772	1757	1797	1749	6475	6668	6202	6476	6563	9018	8854	8833	14980
Cyanide (ug/L)	< 10.0	< 2.5	< 5.0	< 5.0	< 10.0	< 2.5	< 2.5	< 5.0	< 5.0	< 10.0	< 2.5	< 5.0	< 5.0
Fluoride (mg/L)	< 0.40	< 0.20	0.31	0.45UJ	< 5.00	< 2.00	< 5.00	< 2.50	< 2.50	< 5.00	< 5.00	< 2.50	< 2.50
Nitrogen, NO2+NO3 (mg/L-as N)	< 0.010	0.017	< 0.010	0.01	< 0.010	0.034	0.019	0.029	< 0.010	< 0.010	0.033	0.014	< 0.010
Sulfate (mg/L)	2.224	1.137	< 0.500	0.77	474.2	530.0	497.1	499.3	508.9	993.2	1006	970.1	1013
Radiochemicals (pCi/L)													
Alpha, gross	52.0	8.5	0.5	41.1	70.6	45.3	< 0.3	< 0.1	186	41.7	< 0.3	< 0.1	269
Alpha, gross, ct.error (+/- pCi/L)	25.5	9.6	2.0	23.9	71.3	40.7	31.1	60.5	75.7	98.3	57.0	89.7	106
Beta, gross	< 0.3	62	< 0.3	148	< 0.3	57	< 0.5	< 0.3	190	< 0.3	110	74.5	246
Beta, gross, ct.error (+/- pCi/L)	38.4	27.1	3.0	34.5	75.5	39.8	104	142	75.9	113	77.9	160	107
Radium 226	1.7	1.6	1.4	1.3UJ	1.9	1.9	4.3	0.3	1.4UJ	1.0	1.8	0.6	0.9
Radium 226, ct.error (+/- pCi/L)	0.7	1.0	0.7	1	0.9	0.8	1.8	0.4	1.1	0.8	0.8	0.4	1
Radium 228	< 0.3	2.8	1.1	0.6	0.7	2.8	4.1	0.5	1.7	1.5	3.4	1.8	1.6
Radium 228, ct.error (+/- pCi/L)	0.7	0.8	0.6	0.5	0.7	0.9	0.8	0.6	0.5	0.7	0.9	0.6	0.4

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 8-23 - Site1 Summary of General Chemical Results for Quarterly Groundwater Samples in "B" and "C" Wells

First Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	0	0	2	54.5	83.1	3	51.8	96.3	0
Alkalinity, total (mg/L-CaCO3)	0	0	5	368	1100	0	-	-	0
COD (mg/L)	0	0	0	-	-	5	165	733	0
Hardness (mg/L-CaCO3)	0	0	5	1350	12500	0	-	-	0
Total Dissolved Solids (mg/L)	0	0	5	3840	19600	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	5	6760	28800	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	5	5000	24000	0	-	-	0
Water Temp (deg C)	0	0	5	16	19	0	-	-	0
pH, Field (Std units)	0	0	5	6.83	7.1	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	2	0	3	3.8	16.9	0	-	-	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	5	0	0.0166	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	5	0	135	0	-	-	0
Anions									
Chloride (mg/L)	0	0	5	1772	10240	0	-	-	0
Cyanide (ug/L)	5	0	0	-	-	0	-	-	0
Fluoride (mg/L)	5	0	0	-	-	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	3	1	1	0.168	0.168	0	-	-	0
Sulfate (mg/L)	0	0	5	2.224	1317	0	-	-	0

Table 8-23 - Site1 Summary of General Chemical Results for Quarterly Groundwater Samples in "B" and "C" Wells

Second Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	0	0	1	59.7	59.7	6	60.8	90.6	0
Alkalinity, total (mg/L-CaCO3)	0	0	7	288	1100	0	-	-	0
COD (mg/L)	0	0	6	153	965	1	581	581	0
Hardness (mg/L-CaCO3)	0	0	7	140	8500	0	-	-	0
Total Dissolved Solids (mg/L)	0	0	7	3980	19500	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	7	6060	28100	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	7	6000	26000	0	-	-	0
Water Temp (deg C)	0	0	7	18	20	0	-	-	0
pH, Field (Std units)	0	0	7	7	7	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	0	0	6	8.8	55.6	1	6.8	6.8	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	7	0	0.485	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	7	0	629	0	-	-	0
Anions									
Chloride (mg/L)	0	0	7	1757	10510	0	-	-	0
Cyanide (ug/L)	7	0	0	-	-	0	-	-	0
Fluoride (mg/L)	7	0	0	-	-	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	0	0	7	0.017	0.316	0	-	-	0
Sulfate (mg/L)	0	0	7	1.137	1436	0	-	-	0

Table 8-23 - Site1 Summary of General Chemical Results for Quarterly Groundwater Samples in "B" and "C" Wells

Third Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	0	0	6	54.9	92.6	0	-	-	0
Alkalinity, total (mg/L-CaCO3)	0	0	6	434	1070	0	-	-	0
COD (mg/L)	0	0	5	141	1024	1	388	388	0
Hardness (mg/L-CaCO3)	0	0	6	1000	7500	0	-	-	0
Total Dissolved Solids (mg/L)	0	0	6	3940	18900	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	6	7030	26900	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	5	5000	20000	0	-	-	0
Water Temp (deg C)	0	0	6	15.9	17.3	0	-	-	0
pH, Field (Std units)	0	0	6	6.9	7.32	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	0	2	4	3.3	13	0	-	-	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	6	0	0.00261	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	6	0	37.3	0	-	-	0
Anions									
Chloride (mg/L)	0	0	6	1797	10690	0	-	-	0
Cyanide (ug/L)	6	0	0	-	-	0	-	-	0
Fluoride (mg/L)	5	0	1	0.31	0.31	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	1	0	5	0.014	0.029	0	-	-	0
Sulfate (mg/L)	1	0	5	499.3	1322	0	-	-	0

Table 8-23 - Site 2 Summary of General Chemical Results for Quarterly Groundwater Samples in "B" and "C" Wells

Fourth Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	0	0	5	60.5	98.2	1	92.9	92.9	0
Alkalinity, total (mg/L-CaCO3)	0	0	6	158	465	0	-	-	0
COD (mg/L)	0	0	5	141	634	1	306	306	0
Hardness (mg/L-CaCO3)	0	0	6	967	5900	0	-	-	0
Total Dissolved Solids (mg/L)	0	0	6	3970	21700	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	6	6930	31600	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	6	6000	24000	0	-	-	0
Water Temp (deg C)	0	0	6	14.8	18.9	0	-	-	0
pH, Field (Std units)	0	0	6	6.52	7.15	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	0	5	1	17.9	17.9	0	-	-	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	6	0	0.157	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	6	0	1440	0	-	-	0
Anions									
Chloride (mg/L)	0	0	6	1749	14980	0	-	-	0
Cyanide (ug/L)	5	1	0	-	-	0	-	-	0
Fluoride (mg/L)	5	1	0	-	-	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	2	0	4	0.01	0.098	0	-	-	0
Sulfate (mg/L)	0	0	6	0.77	1359	0	-	-	0

9.0 SITE 2 - WEST BEACH LANDFILL

9.1 SITE DESCRIPTION AND BACKGROUND

Site 2 (the West Beach Landfill) occupies approximately 110 acres in the southwestern corner of NAS Alameda and is located south of Site 1 (the 1943-1956 Disposal Area). The western and southern borders of Site 2 are on San Francisco Bay (Figure 9-1). A portion of the southwest half of Site 2 (approximately 42 acres) is within the City and County of San Francisco. The remainder of Site 2 is located in the City and County of Alameda.

9.1.1 Fill History

Construction of the seawall on the southern and western sides of Site 2 began in 1956 along with the placement of 15 to 20 feet of hydraulic sand fill material (Cristi, 1973). However, the average thickness of the fill material, as determined through drilling of Phase 5 borings at Site 2, is 27 feet on the eastern side and 46 feet on the western side.

An aerial photo from Pacific Aerial Surveys dated May 3, 1957, shows the progress of the hydraulic fill operations at Site 2 (Figure 9-2). The sea wall had been completed and the southern portion of the site had been filled to above sea level.

An aerial photo from Pacific Aerial Surveys dated May 19, 1969, shows that the northern half of the southern portion of Site 2 was still covered by water (Figure 9-3). Disposal operations were conducted in the northern half of Site 2 and the south half of the southern portion of Site 2. The surface water was connected to the bay by an open culvert through the seawall. This surface water was believed to be tidally influenced when a flap-gate was installed in 1968 (HLA, 1983).

An aerial photo from Pacific Aerial Surveys dated April 30, 1973, shows that Site 2 had been divided into two general areas (Figure 9-4). The northern half and the northeastern portion of the southern half of the site were used for disposal operations. The remainder of the southern half was being used for disposal of dredge spoils (HLA, 1983). The surface water observed in the 1969 aerial photo does not appear to be present in the 1973 photograph, and the area appears to be filled in with sediment and void of vegetation.

An aerial photo from Pacific Aerial Surveys dated June 21, 1983, shows that Site 2 had been divided into three general areas (Figure 9-5). The first area is the northern half and the northeastern portion of the southern half which was occupied with disposal operations. The remainder of the southern half was divided into two areas. The southeastern portion of the southern half was an active dredge spoils disposal area. The western and northern portions of the southern half became an inactive dredge spoils disposal area (HLA, 1983).

On November 26, 1985, the RWQCB was informed by the Navy that the southwestern portion of the landfill, where borrow material was being dredged for cover material, was declared a wetland (Figure 9-6). The wetland covers approximately 35 acres. This area could no longer be dredged for borrow material. In 1986 an earthen berm approximately 15 feet wide and 5 feet above the surface of the landfill was constructed around Site 2.

9.1.2 Disposal History

From approximately 1952 to March 1978, the landfill received almost all of the waste generated by the base and lesser amounts of waste generated by nearby Navy bases (Canonie, 1990d). These nearby Navy bases included the Oak Knoll Naval Hospital (now Oakland Naval Hospital); Naval Supply Center, Oakland; and Naval Station Treasure Island. During this period, E&E estimated that 1.6 million tons of waste were disposed of in Site 2. Between approximately 30,000 and 500,000 tons of the material were considered hazardous (E&E, 1983). Site 2 went into full operation after Site 1 was closed in 1956.

Known materials that were disposed of in Site 2 include waste chemical drums; municipal garbage; solvents; oily waste and sludges; paint waste, strippers, thinners, and sludges; plating wastes; industrial strippers and cleaners; acids; mercury; PCB-contaminated fluids and rags (TAC rags); batteries; low-level radiological wastes; scrap metal; inert ordnance; spoiled food; asbestos; pesticides, both solids and liquids; tear gas agent (CS, ortho-chlorobenzylidene malononitrile); infectious waste; creosote; dredge spoils; and waste medicines and reagents. The estimated quantities of particular materials that were disposed of in the landfill were presented in the E&E Initial Assessment Study dated 1983. According to E&E and HLA reports, disposal of hazardous materials was discontinued by the early 1970s.

A map which originally appeared in the Initial Assessment Study (E&E, 1983) indicates the approximate locations of some of the hazardous materials disposed of in the landfill. This figure is reproduced as Figure 9-7. Canonie did not consider this figure to be accurate but thought it could be used for general guidance (Canonie, 1990d).

The disposal method at Site 2 is similar to that employed at Site 1. Between 1956 and the mid-1970s, trenches were excavated to about 20 feet into the hydraulic sand fill, and then filled with waste material. A bulldozer was used to spread and compact the material and the waste disposal area was intermittently covered with the excavated soil (E&E, 1983). During the late 1970s, the primary disposal method changed to excavating to the water table and then filling with waste (HLA, 1983).

9.2 PREVIOUS INVESTIGATIONS

After disposal activities ceased in March 1978, the Navy developed plans to close the landfill as a Class II landfill in accordance with local and state regulations. Several contractors investigated Site 2 and designed closure plans, none of which were approved by the regulatory agencies. A brief chronological summary of these investigations is presented below.

In August 1978, Harding-Lawson Associates (HLA) submitted the Sanitary Landfill Site Study (HLA, 1978) to bring Site 2 for closure as a Class II landfill facility to the California Department of Health Services (DHS) for review. Groundwater was estimated to be moving to the south and west from the northern and eastern boundaries. Groundwater samples were collected and analyzed during this study. Results of the study suggest that leachate from the landfill appeared to be seeping into San Francisco Bay. However, chemical results indicated that the concentrations of chemicals detected in the groundwater samples collected at the sea wall were not significantly greater than those found in the bay waters adjacent to Site 2. The study also indicated that the cover material at Site 2 was inadequate to prevent infiltration of surface water.

In June 1980, the California Regional Water Quality Control Board-San Francisco Region (RWQCB) received the Draft Sanitary Landfill Closure Plan (HLA, 1980a) for review. The plan included construction plans and specifications for the closure of the landfill and proposed the following:

- Remove the existing surface material and resurface the landfill with 1 foot of compacted low-permeable borrow material from the existing dredge material;
- Construct a dike around the entire 110-acre site to accommodate future dredge materials;
- Construct a storm drain system to handle future surface runoff;
- Construct a barrier (slurry wall) along a portion of the western perimeter of the landfill to prevent leachate from seeping into San Francisco Bay; and
- Construct a continuous gas venting system along the northern and eastern boundaries of the landfill to prevent methane gas migration.

On September 9, 1983, the RWQCB issued a Tentative Order of Closure Requirements for Site 2. This Tentative Order was followed by Order No. 83-35 on September 28, 1983. Requirements of the Order specified a final cover, leachate cutoff barrier, methane gas control, earthquake damage control, drainage control, erosion control, and compliance reports (California RWQCB, 1983).

On October 19, 1983, HLA submitted the Confirmation Study (HLA, 1983). In this study, additional groundwater samples from the wells installed within the landfill by HLA were collected and analyzed. The results indicated that the groundwater was not significantly impacted by chemicals disposed of at the site, and the report recommended that the site be closed as a Class II landfill.

In June 1985, the Navy notified the RWQCB that the slurry wall had been installed along a portion of the western perimeter of the landfill to prevent seepage of leachate into the bay (Figure 9-6) and that sea wall repairs had been completed in October 1984. In addition, it was reported that the landfill cover thickness was less than specified (Canonie, 1990d).

On November 26, 1985, the Navy informed the RWQCB that the southwestern portion of the landfill, where borrow material was being dredged for cover material, was declared a wetland (Figure 9-6). This area could no longer be dredged for borrow material (Canonie, 1990d).

On March 28, 1986, the RWQCB received as-built drawings of the Solid Waste Disposal System prepared by HLA. The drawings show the approximate boundaries between the dredge spoil area (wetland) and disposal area; the construction details of the perimeter dike (earthen berm) surrounding the landfill; the slurry wall along the northwestern side of the landfill; the gas venting system along the northern and eastern borders of the landfill outside of the dike; drainage swales and ditches; and decant weir (HLA, 1986). The dike or earthen berm (Figure 9-6) that surrounds the landfill is approximately 15 feet wide and 5 feet above the surface of the landfill and is located about 30 feet from San Francisco Bay on the southern and western sides of the site. The slurry wall installed by HLA is about 820 feet long, 2 feet wide, and extends to a depth of approximately 20 to 30 feet, with 2 feet extending into the underlying the Holocene Bay Mud Unit (Canonie, 1990d).

On April 25, 1986, the Navy informed the RWQCB that approximately 75,000 cubic yards of additional material would be necessary to bring the cover thickness up to the original specifications. A contractor had located a source and was spreading 20,000 cubic yards of imported material on the landfill (Canonie, 1990d).

On June 11, 1986, the Navy received a request from the RWQCB for a proposal to address the ponding of water at Site 2 (Canonie, 1990d). In November 1986, the Navy submitted a plan to the RWQCB for grading the site to prevent ponding of water. The grading was completed in December 1986 (Canonie, 1990d).

During 1987 and 1988 the Navy sent requests the RWQCB to possibly deposit dredge spoils from projects in the vicinity of the air station for cover material in Site 2. Due to funding and scheduling problems of the dredging projects, no dredge spoils have been deposited at Site 2 (Canonie, 1990d).

On June 11, 1987, the Navy was notified by the RWQCB of the requirement to perform a SWAT at Sites 1 and 2 (Canonie, 1990d).

In early 1990, Canonie drilled four borings (Figure 9-1) into the late Pleistocene estuarine deposits (San Antonio formation). The tasks performed by Canonie were part of the preliminary work for the SWAT work. These borings were drilled at the northwestern, northeastern, southeastern, and southwestern corners of the landfills. Results of this preliminary investigation will be presented in a future data summary report for the Phases 1 and 2A work.

9.3 CURRENT USE

Site 2 is bounded on the west and south by San Francisco Bay, and to the north and east the site is fenced with lockable gates from Perimeter Road and the Runway Area (Figure 9-1). The landfill is surrounded by an earthen berm approximately 55 feet wide which stands about 7 feet above the landfill surface. There are a number of piles of construction debris in the southeastern portion of the site. The refuse disposal area is moderately to well vegetated with grasses and supports a variety of wildlife. The wetland area provides a nesting area for birds and is well vegetated with grasses. Site 2 is not used for air station operations or activities.

9.4 SWAT INVESTIGATION

The current field investigation for this site focussed on surface and subsurface soils, groundwater, and surface water in and adjacent to Site 2. Surface soil samples were collected from Site 2 using a surveyed grid size of approximately 200 feet by 200 feet (Figure 9-8). One hundred sixty-eight surface soil samples were collected from the landfill surface for chemical analyses. Fifteen of the samples were duplicates and three were resamples.

Surface water and sediment samples were collected from the wetland located in the southwestern portion of Site 2. Twelve sediment samples (Figure 9-9) were collected and 23 surface water samples (Figure 9-10) were collected from the water bodies in the wetland.

Twenty-nine wells were installed around Site 2 during this investigation and the CTO No. 0085 portion of the investigation. Fifteen of the wells were installed with screen straddling the water table of the first water-bearing zone in the fill material (designated as "A" wells) (Figure 2-7). Seven of the wells were completed on the western perimeter of the site, adjacent to San Francisco Bay, at the base of the first water-bearing zone and above the Holocene Bay Mud Unit (designated as "E" wells). Five of the wells were completed in the second water-bearing zone in the late Pleistocene and Holocene alluvial/eolian deposits, below the Holocene Bay Mud Unit (designated as "B" wells). Finally, two of the wells were completed at the base of the late Pleistocene and Holocene alluvial/eolian deposits above the late Pleistocene estuarine deposits (San Antonio formation equivalent) (designated as "C" wells).

Three each of the "A" wells and "B" wells were installed during the CTO No. 0085 portion of the investigation. During well construction, a total of 38 surface and subsurface soil samples were collected for chemical and geotechnical testing.

9.4.1 Site Geology/Hydrogeology

Figures 2-3, 2-4, and 2-5 are a series of geologic cross sections across Sites 1, 2, and the Runway Area. The upper 30 feet is fill material consisting primarily of silty sands and clays. Locally, the fill contains clean sands, gravel, concrete rubble, asphaltic material, and municipal and industrial waste. Trace shell and clay fragments found throughout the fill indicate that it is probably hydraulic fill and/or dredging material.

Below the fill material is the Holocene Bay Mud Unit, which consists of predominantly fine-grained material, silt and clay with sand lenses. This unit varies in thickness from 5 to approximately 40 feet in thickness. In the south west corner of Site 2 the Holocene Bay Mud Unit is silty sand with little or no clay.

Beneath the Holocene Bay Mud Unit is the late Pleistocene/Holocene alluvial/eolian deposits. This unit consists of eolian sand that is 25 to 50 feet thick, with a 4- to 5-foot clayey sand layer at the top. The alluvial deposits consist of sands interbedded with clays and silts, similar to the sandy portions of the Holocene Bay Mud Unit. Stratigraphically, the contact between the two units is difficult to determine in locations where the sandy portion of the Holocene Bay Mud Unit directly overlies the alluvial deposits.

Below the late Pleistocene/Holocene alluvial/eolian deposits is the late Pleistocene estuarine deposits. The upper portion consists of fat clay. The deepest borings drilled during this study were terminated in the late Pleistocene estuarine deposits.

Geotechnical sample results are summarized in Table 9-1. Geotechnical samples were collected and selected samples were analyzed from the fill material in the first water-bearing zone, the Holocene Bay Mud Unit, the late Pleistocene/Holocene alluvial/eolian deposits in the second water-bearing zone, and the late Pleistocene estuarine deposits (San Antonio formation). The results generally corroborate field descriptions of soils at Site 2. The vertical hydraulic conductivity of the clayey zones in the Holocene Bay Mud Unit ranges from 2.20E-08 cm/sec to 3.06E-08 cm/sec. The clayey sand unit at the top of the late Pleistocene/Holocene eolian deposits in one sample had a vertical hydraulic conductivity of 2.87E-07 cm/sec. The clayey zone in the late Pleistocene estuarine deposits have a hydraulic conductivity ranging from 3.38E-08 cm/sec to 7.31E-09 cm/sec. The geotechnical laboratory results are in Appendix F.

Over most of Site 2, groundwater is found in two distinct zones. The first water-bearing zone is unconfined and occurs between the Holocene Bay Mud Unit and the water table. The second water-bearing zone occurs between

the late Pleistocene estuarine deposits and the Holocene Bay Mud Unit. The clayey portion of the Holocene Bay Mud Unit is not present along the western corner of Site 2 (M-019 cluster). The hydraulic separation between the two water-bearing zones is possibly leaky in areas where the clayey portion of the Holocene Bay Mud Unit is absent.

In situ permeability tests were conducted in the wells at Site 2. The hydraulic conductivities, as determined by the rising-head method of Bouwer and Rice, ranged from 1.045E-03 cm/sec to 5.155E-05 cm/sec for the first water-bearing zone, which is unconfined, and 2.3E-03 cm/sec to 7.6E-04 cm/sec for the second water-bearing zone, which is confined (Bouwer and Rice, 1976; Bouwer, 1989; Cooper et al., 1967; Cooper and Jacob, 1946). The in situ permeability test data are presented in Appendix G.

Groundwater in the vicinity of the site is influenced by fluctuations in the tides to varying degrees. Groundwater elevation data are summarized in Appendix J. Figure 2-11 shows groundwater elevations for the first water-bearing zone, for filtered data and water level fluctuations. Groundwater flow directions and gradients can be estimated from these figures; the flow direction in the first water-bearing zone appears to be outward from the area around well M-109-A in the Runway Area to the north, south, and west, with an estimated gradient of 0.003 feet/foot near the eastern boundary of Site 2 and the Runway Area. These shallow gradients in combination with the low hydraulic conductivities indicate low groundwater velocities; hence, groundwater discharge rates from this zone are likely to be low.

Water level fluctuations in the first water-bearing zone are most likely caused by bay water infiltrating the uppermost shallow fill soils at the margins of the air station along the bay during the rise of the flood tide and then draining during the drop of water level as the tide ebbs. Heterogeneity and stratification of soils in the first water-bearing zone determine to a large degree the rate in which water levels respond to tidal fluctuations. Lag time between "A" and "E" well responses may indicate poor vertical hydraulic communication within the first water-bearing zone; the horizontal hydraulic conductivities are likely to be much greater than vertical hydraulic conductivities.

The disparity in lag times in the "A" wells is likely to be attributed to the wide range of permeabilities in the fill material. The tidal influences attenuate quickly (tens of feet wide) with increasing distance from the seawall. Behind (landward) this attenuation zone is a buffer, or "dead" zone, which experiences small water level changes but not cyclic groundwater flow direction changes. The width of these zones is a function of beach slope and water-bearing zone characteristics.

Figure 2-12 presents the estimated water level contours in the second water-bearing zone for filtered data and water level fluctuations. Groundwater flow directions and gradients can be estimated from these figures; the flow direction in the second water-bearing zone appears to be outward from the area around the wells in the Runway Area (M-103-B, M-105-B, and M-108-B), to the north, south, and west, toward Sites 1 and 2, with a gradient of 0.0011

feet/foot at low tide. The gradient is estimated to be 0.0006 feet/foot at high tide. These shallow gradients in combination with the low hydraulic conductivities indicate low groundwater velocities; hence, groundwater discharge rates from this zone are likely to be low.

The fluctuations in the water levels measured in the second water-bearing zone were more uniform in range; the water levels in all monitoring wells located along the western seawall fluctuated from 1 to 2 feet during the daily tidal cycle. The second water-bearing zone is semi-confined, and, therefore, the water level response in the semi-confined "B" and "C" wells is caused by pressure changes in response to tidal rise and fall. This occurs because the semi-confined second water-bearing zone experiences hydraulic pressure changes rather than the slower infiltration/drain process observed in the first water-bearing zone wells. These responses also imply a hydraulic communication between the bay and the second water-bearing zone, a hydraulic communication that may have been enhanced by the periodic dredging in the estuary and the channel or turning basin located on the southern side of the air station.

9.4.1.1 Geophysical Survey. Two geophysical surveys were conducted at Sites 1 and 2. A magnetic survey was conducted in Site 2 to locate metallic objects. A transient electromagnetic (TEM) survey was conducted over both Sites 1 and 2. This survey method was utilized to assess the stratigraphy beneath the two sites. The magnetic survey and the TEM surveys are discussed below. These surveys were conducted by NORCAL Geophysical Consultants of Petaluma, California; their report is included as Appendix H of this report.

9.4.1.1.1 Magnetic Survey. Total magnetic field and vertical gradient magnetic field data were obtained on the ground in two locations in Site 2 (Figure 9-11). Data were obtained on rectangular grids with 20-foot station spacing. The northern one-third of Site 2, an area of approximately 40 acres designated as the North Area, was covered with 4,200 stations. A 4-acre area in the southeastern quadrant of Site 2 designated as the South Area was covered with 444 stations.

The purpose of the magnetic survey was to aid in the location of ferrous metal objects, such as chemical drums, that might be buried at shallow depths. The greater the mass of a ferrous object, the greater the depth at which it can be detected. While it would be possible to detect a single drum at a depth of a few feet, the survey was designed to locate larger concentrations of ferrous metal, such as several drums, down to a depth of approximately 20 feet. The vertical magnetic gradient survey is particularly sensitive to near surface objects.

The location of the survey areas is shown in NORCAL Plate 2 in Appendix H, and contour maps providing different presentations of the magnetic data are shown in NORCAL Plates 3, C1 and C2 for the North Area, and Plates 4 and C3 for the South Area. Regardless of the data presentation, these maps define the locations of the same features - numerous concentrations of ferrous metal scattered throughout the survey areas. The shallowest and most

significant of these features are clearly defined on Plates 3 and 4, which show the magnetic gradient data with low amplitude anomalies removed.

9.4.1.1.2 Transient Electromagnetic Survey. The transient electromagnetic (TEM) sounding method was used in an effort to help assess the stratigraphy beneath Sites 1 and 2. Soundings were performed at approximately 200-foot intervals along two north-south and two east-west profile lines. The field survey and numerical modeling of the data were conducted by NORCAL Geophysical Consultants of Petaluma, California.

The purpose of this method is to define differences in electrical resistivity as a function of depth in the geologic formations beneath the site. Many geologic units can be differentiated on the basis of their electrical resistivities. With the exception of metals, mineral grains are highly resistive (low electrical conductivity). Saturated geologic formations become more electrically conductive with increased porosity and increased salinity of the pore water. Moist clays are very conductive.

The data for each site are modeled using a numerical algorithm to generate horizontal layers with varying thicknesses and electrical resistivities. The model results for each profile line are displayed as a cross-section, which is then correlated with other data, such as borehole logs, and interpreted in terms of geologic units. The NORCAL report includes such cross-sections, which indicate several horizons differentiated on the basis of their electrical resistivities.

In general, the data indicate that the near surface materials are very resistive, becoming less resistive and then very conductive at depth. At nearly all sites, the very resistive and moderately resistive surface layer extends from the surface to a depth between approximately 20 and 60 feet. This is consistent with dry fill material (very resistive), underlain by fill material partially or fully saturated with water low in dissolved solids (moderate resistivity). Higher conductivity at depth can be associated with clay and/or saline water.

It was believed that this survey might resolve the top surface of the late Pleistocene/Holocene eolian deposits beneath the Holocene Bay Mud Unit so that the hypothesized existence and location of a paleochannel dissecting the late Pleistocene/Holocene eolian deposits could be established. This feature would be difficult to locate with any geophysical method, and using the TEM method probably represents the most reasonable and cost effective approach. However, the survey was not successful in resolving the horizons at depth issue - at least not horizons consistent with borehole data. This is not surprising as these deeper materials are clays, sands, and silts saturated with brackish water or saltwater, all of which would be expected to be very electrically conductive. This is substantiated by measurements indicating high conductivity of groundwater samples obtained from the second water-bearing zone.

At depths beneath near-surface fill materials, the TEM survey results do not appear to correlate well with lithologic data obtained from boreholes in the survey area. A probable explanation is that these deeper sedimentary formations are all saturated with saline water, making them very electrically conductive and indistinguishable to surface electromagnetic (and probably any other) geophysical techniques. As a result, the TEM data have not been incorporated in our analysis and interpretation of subsurface conditions.

9.4.2 Analytical Results - Surface Soil Samples

One hundred sixty-eight surface soil samples were collected from a grid pattern of approximately 200 feet by 200 feet from Site 2. Fifteen of the samples were duplicates and three were resamples due to laboratory mishaps or sample breakage in transit. The surface samples were identified by a letter for the row and a 200-series number for placement along the row (Figure 9-8). Surface soil samples were analyzed for semivolatile organic compounds (SVOC), pesticides/PCBs, total recoverable petroleum hydrocarbons (TRPH), metals, and radionuclides. Organic compounds and metals detected in surface soil samples are listed in Tables 9-2 and 9-4, respectively. Analytical results for organic compounds and metals are summarized in Tables 9-3 and 9-5, respectively. The summary tables list the number of detected, non-detected, rejected, and qualified results for each analyte listed in Tables 9-2 and 9-4. Laboratory QA/QC data are summarized in the QCSR submitted under separate cover.

9.4.2.1 Semivolatile Organic Compounds. SVOC were detected in 129 of the 168 surface soil samples (Table 9-2). Polycyclic aromatic hydrocarbons (PAH) are a subset of SVOC. The suite of PAH present in the surface soil samples are anthracene, benzo(a)anthracene benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene. PAH detected in surface soil samples are summarized in Table 9-3. Surface soil sample I-206 was below detection limits for PAH, but after QC was rejected. There are 11 samples that had concentrations of PAH over 1,000 µg/kg. The highest concentration of total PAH were detected in sample F-200, located on the west side of the landfill outside the berm, at 17,380 µg/kg. The six (A-201, A-203, C-207, D-203, D-207, and D-208) of the other 10 surface samples are located in the northern half of Site 2. The remaining four surface soil samples are G-207, H-208, L-207, and N-202. Samples G-207 and H-208 are located in the central portion of Site 2 and L-207 and N-202 are located in the southern portion.

Several phthalate compounds, which are also a subset of SVOC, were detected in the surface soil samples at Site 2. These compounds are bis(2-ethylhexyl)phthalate, butylbenzylphthalate, di-n-butylphthalate, and di-n-octylphthalate. Phthalates were detected in 114 surface soil samples at concentrations that ranged from 100 µg/kg to 25,000 µg/kg. Phthalates detected in surface soil samples are summarized in Table 9-3. Surface soil sample I-206 was below detection limits for phthalates, but after QC was rejected. There is no apparent pattern to the distribution of phthalates at Site 2.

9.4.2.2 Pesticides/PCBs. Pesticides were detected in 94 of the 168 surface soil samples (Table 9-2). A suite of pesticides were detected in the surface soil samples which consisted of 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, endrin, endrin ketone, heptachlor, heptachlor epoxide, alpha-chlordane, delta-BHC, and gamma-chlordane. Pesticides detected in surface soil samples are summarized in Table 9-3. Surface soil sample B-203 was below detection limits for pesticides, but after QC was rejected. There is no discernible pattern to the distribution of pesticides at Site 2.

PCBs (Aroclor-1248 and Aroclor-1260) were detected in 133 of the surface soil samples. PCBs detected in surface soil samples are summarized in Table 9-3. Surface soil sample B-203 was below detection limits for PCBs, but after QC was rejected. Three samples (B-208, C-206, and D-205) had concentrations over 1,000 µg/kg for Aroclor-1260, all three are in the northern half of Site 2.

9.4.2.3 Total Recoverable Petroleum Hydrocarbons. TRPH were detected in 156 surface soil samples (Table 9-2). TRPH were not analyzed in the three resamples collected from Site 2. TRPH detected in surface soil samples are summarized in Table 9-3. TRPH were detected in a majority of the surface soil samples and are widely distributed. Eight samples had concentrations over 1,000 mg/kg. Five (F-200, N-201, N-203, N-207, and N-209) of the 8 samples are located on the road on the western and southern sides of Site 2.

9.4.2.4 Metals. Results from metals analyses are compared to the upper limit of the 95 percent/95 percent statistical tolerance interval of background concentrations measured in the upgradient Runway Area samples. The 95 percent/95 percent statistical tolerance interval is the range within which the measured concentration of 95 percent of the samples is expected to fall 95 percent of the time. Samples that have a concentration greater than the upper limit of the 95 percent/95 percent statistical tolerance interval may exceed background conditions. A summary of this comparison is presented in Table 9-5. The number of qualified detections, non-qualified detections, and non-detected values are listed along with the minimum and maximum values reported and the number of samples with concentrations exceeding background. Only arsenic, cadmium, copper, and mercury exceeded the typical range for metals concentrations in soil (Dragun, 1988) (see Table 7-6), but were well within the limits for the extreme range.

9.4.2.5 Radionuclides. A detailed surface soil survey was conducted in Site 2. Surface soil samples were collected at 150 locations on a grid, with duplicate samples acquired at 15 locations. The nominal sampling interval was 200 feet. The sample locations are shown on Figure 9-8 and the data are presented in Appendix D. A discussion of the radionuclide data is presented in Appendix K. The range of values is:

Gross alpha	< 0.4 ± 2.2 pCi/g	to	14.1 ± 4.0 pCi/g
Gross beta	< 0.3 ± 0.5 pCi/g	to	12.5 ± 1.9 pCi/g
Radium 226	0.6 ± 0.2 pCi/g	to	13.0 ± 1.3 pCi/g
Radium 228	< 0.3 ± 0.2 pCi/g	to	1.0 ± 0.3 pCi/g

9.4.3 Analytical Results - Wetland Sediment Samples

Thirteen sediment samples were collected from the wetlands, one of which was a duplicate sample. The wetland sediment samples were identified by a 300-series number followed by "SD" (Figure 9-9). The samples coincided with 12 of the surface water samples collected in the wetlands. Wetland sediment samples were analyzed for VOC, SVOC, pesticides/PCBs, TRPH, and metals. Organic compounds and metals detected in wetland sediment samples are listed in Tables 9-6 and 9-8, respectively. Analytical results for organic compounds and metals are summarized in Tables 9-7 and 9-9, respectively. The summary tables list the number of detected, non-detected, rejected, and qualified results for each analyte listed in Tables 9-6 and 9-8. Laboratory QA/QC data are summarized in the QCSR.

9.4.3.1 Volatile Organic Compounds. Acetone was the only VOC detected in the wetland sediment samples. It was detected in nine of the sediment samples (Table 9-6), none of which were estimated. The highest concentration was detected in sample 304SD at 380 µg/kg.

9.4.3.2 Semivolatile Organic Compounds. SVOC were detected in eight wetland sediment samples. SVOC detected in sediment samples are summarized in Table 9-7.

PAH, (benzo(b)fluoranthene, fluoranthene, and pyrene), were detected in six wetland sediment samples and summarized in Table 9-7. One detection of pyrene was estimated. There is no pattern for the PAH detected in the wetland sediment samples. The highest concentration of PAH was detected in sample 304SD at 700 µg/kg.

Only one phthalate was detected in the sediment samples. Bis(2-ethylhexyl)phthalate was detected in four samples (Table 9-7), one of which was estimated. There is no pattern for the phthalate detected in the wetland sediment samples. The highest concentration of bis(2-ethylhexyl)phthalate was detected in sample 309SD at 270 µg/kg.

Phenol was detected in one sediment sample (302SD) at a concentration of 240 µg/kg.

9.4.3.3 Pesticides/PCBs. Pesticides were detected in eight sediment samples (Table 9-6), none of the detections were estimated. A suite of pesticides was detected in six of the wetland sediment samples. This suite consisted of 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT (Table 9-7). Sediment sample 304SD had the highest concentration of total pesticides, 897.8 µg/kg.

Aroclor-1260 was the only PCB detected in the sediment samples. It was detected in eight of the wetland sediment samples (Table 9-7), seven of which were estimated. There is no pattern for Aroclor-1260 detected in the

wetland sediment samples. The highest concentration of Aroclor-1260 was detected in the duplicate sample of 310SD at 260 µg/kg, sample 310SD had a concentration of 130 that was estimated.

9.4.3.4 Total Recoverable Petroleum Hydrocarbons. TRPH were detected in seven sediment samples (Table 9-7), none of which were estimated. There is no pattern for TRPH detected in the wetland sediment samples. The highest concentration of TRPH was detected in sample 309SD at 85.8 mg/kg,

9.4.3.5 Metals. Results from metals analyses are compared to the upper limit of the 95 percent/95 percent statistical tolerance interval of background concentrations measured in the upgradient Runway Area samples. The 95 percent/95 percent statistical tolerance interval is the range within which the measured concentration of 95 percent of the samples is expected to fall 95 percent of the time. Samples that have a concentration greater than the upper limit of the 95 percent/95 percent statistical tolerance interval may exceed background conditions. A summary of the comparison of the wetland sediment samples to the upgradient Runway Area samples is presented in Table 9-9. The number of qualified detections, non-qualified detections, and non-detected values are listed along with the minimum and maximum values reported and the number of samples with concentrations exceeding background. Only arsenic, and mercury exceeded the typical range for metals concentrations in soil (Dragun, 1988) see Table 7-6, but were well within the limits for the extreme range.

9.4.4 Analytical Results - Wetland Surface Water Samples

Twenty-five surface water samples were collected from the wetland area in Site 2, two of which were duplicate samples. The wetland surface water samples were identified by a 300-series number followed by "SW" (Figure 9-10). Wetland surface water samples were analyzed for VOC, SVOC, pesticides/PCBs, metals, and general chemicals. Organic compounds, metals, and general chemicals detected in wetland surface water samples are listed in Tables 9-10, 9-12, and 9-14, respectively Analytical results for organic compounds, metals, and general chemicals are summarized in Tables 9-11, 9-13, and 9-15, respectively. The summary tables list the number of detected, non-detected, rejected, and qualified results for each analyte listed in Tables 9-10, 9-12, and 9-14. Laboratory QA/QC data are summarized in the QCSR.

9.4.4.1 Volatile Organic Compounds. VOC were detected in 11 of the wetland surface water samples (Table 9-10), three of which were estimated. Acetone, chloromethane, and methylene chloride were detected in the surface water samples and are summarized in Table 9-11. There is no pattern for VOC detected in the wetland surface water samples.

9.4.4.2 Semivolatile Organic Compounds. No PAH or phenol compounds were detected in the wetland surface water samples. Phthalates were the only SVOC detected in the surface water samples. Phthalates were detected in four surface water samples (Table 9-11), none of which were estimated. Bis(2-ethylhexyl)phthalate

was detected in three samples at concentrations ranging from 2.6 µg/L to 12 µg/L (Table 9-11). One sample (323SW) had a concentration of di-n-butylphthalate at 1.4 µg/L.

9.4.4.3 Pesticides/PCBs. Pesticides and PCBs were not detected in any of the wetland surface water samples (Tables 9-10 and 9-11).

9.4.4.4 Total Recoverable Petroleum Hydrocarbons. TRPH were detected in only one surface water sample (323SW) at a concentration of 0.3 mg/L (Tables 9-10 and 9-11).

9.4.4.5 Metals. Table 9-12 lists the detected concentrations of metals in all the surface water samples collected. Table 9-13 is a summary of the metals concentrations detected in the wetland surface water samples.

9.4.4.6 General Chemicals. General chemical analyses performed on the surface water samples include total acidity, total alkalinity, hardness, total dissolved solids (TDS), total suspended solids, specific conductance, pH, temperature, total organic carbon, chloride, fluoride, and sulfate. Results of the general chemical analyses are listed in Table 9-14 and a summary of the analytic data is in Table 9-15. The estimated TDS concentrations in the surface water in the wetland area range from 10,900 mg/L to 91,500 mg/L; this range is saline to very saline (Freeze and Cherry, 1979). The highest TDS concentration was detected in sample 321SW at 91,500 mg/L.

9.4.5 Analytical Results - Soil Samples from Fill

Thirty-five samples were collected from the fill material. Twelve of the samples were collected from the surface at well cluster locations (Figure 9-1). Twenty of the 35 samples were collected from depths ranging from 1.5 feet to 45 feet below ground surface. Two of the soil samples are duplicates and one sample was recollected because the laboratory broke the extract bottle for semivolatile analysis. Soil samples from the fill material were analyzed for VOC; SVOC which include aromatic hydrocarbons, PAH, phthalates, and furans; pesticides/PCBs; TRPH; oil and grease (O&G); metals; asbestos; and radionuclides. Organic compounds and metals detected in soil samples from fill are listed in Tables 9-16 and 9-18, respectively. Analytical results for organic compounds and metals are summarized in Tables 9-17 and 9-19, respectively. The summary tables list the number of detected, non-detected, rejected, and qualified results for each analyte listed in Tables 9-16 and 9-18. Laboratory QA/QC data are summarized in the QCSR.

9.4.5.1 Volatile Organic Compounds. Four VOC were detected in the soil samples collected from the fill: acetone, chlorobenzene, ethylbenzene, and xylenes (Table 9-16). The VOC are summarized in Table 9-17. Acetone was detected in 7 soil samples (Table 9-17), and there is no pattern to the distribution of VOC in the soil samples from the fill.

Chlorobenzene was detected in the two samples from boring M-024E, from depths ranging from 3 feet to 10 feet below ground surface. The concentration in the 3-foot sample was 40 µg/kg and 370 µg/kg in the sample from 10 feet. Ethylbenzene and xylenes were detected in the soil sample from boring M-024E (3 feet below ground surface) at concentrations of 7.1 µg/kg and 14 µg/kg, respectively.

9.4.5.2 Semivolatile Organic Compounds. SVOC were detected in 25 soil samples collected from the fill (Table 9-16 and 9-17).

Aromatic hydrocarbons (1,4-dichlorobenzene, 2,4-dinitrotoluene), 2-methylnaphthalene, acenaphthene, anthracene, and dibenzofuran were all detected in one soil sample collected from boring M-024E from 10 feet below ground surface, at concentrations of 400 µg/kg, 180 µg/kg, 2,100 µg/kg, 860 µg/kg, 100 µg/kg, and 470 µg/kg, respectively. Four soil samples were collected from well cluster M-024. The surface soil sample, the 1 to 3 foot sample, the sample from 10 feet, and the sample from 19 feet had total PAH concentrations of 3,630 µg/kg, 11,500 µg/kg, 7,670 µg/kg, and 130 µg/kg, respectively. Only four of the PAH compounds are the same between the surface sample and the 10 foot sample (Table 9-16). The sample collected from 1 to 3 feet has three of the four PAH in common with the surface and 10 foot samples.

The suite of PAH present in the soil samples collected from the fill material are 2-methylnaphthalene, acenaphthene, anthracene, benzo(a)anthracene benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, and pyrene. PAH were detected in 14 soil samples at concentrations that ranged from 73 to 3,600 µg/kg (Table 9-17).

Several phthalate compounds were detected in the fill material soil samples from Site 2 (Table 9-16). These compounds are bis(2-ethylhexyl)phthalate, butylbenzylphthalate, and di-n-butylphthalate. Phthalates were detected in 19 soil samples at concentrations that ranged from 110 µg/kg to 6,500 µg/kg (Table 9-17).

One furan compound was detected in the samples collected from the fill. Dibenzofuran was detected in the sample from boring M-024E from 10 feet below ground surface, at a concentration of 470 µg/kg.

9.4.5.3 Pesticides/PCBs. Pesticides were detected in 14 soil samples (Table 9-16). A suite of pesticides were detected in the soil samples from the fill. The suite included 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, heptachlor, alpha-chlordane, and gamma-chlordane (Table 9-17). Nine of the sample with pesticides detected were in surface soil samples and five were collected from 1 to 4 feet below ground surface. The surface sample with the highest concentration of pesticides is M-024A-000 at 542.8 µg/kg (which was estimated) and the subsurface sample from M-022A-005 at 96.4 µg/kg.

PCBs (Aroclor-1248 and Aroclor-1260) were detected in 14 of the soil samples (Table 9-17). All of the samples with detections of Aroclor-1260 were estimated. Aroclor-1248 was only detected in one sample (M-022A-005) at a concentration of 330 µg/kg. The samples with the highest concentrations of PCBs are from the M-024 well cluster. The surface soil sample had a concentration of 1,200 µg/kg and sample M-024A-003 had a concentration of 1,800 µg/kg.

9.4.5.4 Total Recoverable Petroleum Hydrocarbons. Twelve soil samples were analyzed for TRPH (Table 9-16). The samples were collected from the surface at 12 of the boring locations (Tables 9-16 and 9-17). TRPH were detected in all 12 surface soil samples. Sample M-011A-000 had the highest concentration of TRPH at 2,100 mg/kg.

9.4.5.5 Oil and Grease. Twelve soil samples were analyzed for O&G (Table 9-16). The samples were collected from the surface at 12 of the boring locations (Table 9-17). O&G were detected in all 12 surface soil samples. Sample M-011A-000 had the highest concentration of O&G at 4,790 mg/kg.

9.4.5.6 Metals. Results from metals analyses are compared to the upper limit of the 95 percent/95 percent statistical tolerance interval of background concentrations measured in the upgradient Runway Area samples. The 95 percent/95 percent statistical tolerance interval is the range within which the measured concentration of 95 percent of the samples is expected to fall 95 percent of the time. Samples that have a concentration greater than the upper limit of the 95 percent/95 percent statistical tolerance interval may exceed background conditions. A summary of the comparison of the fill soil samples to the upgradient Runway Area samples is presented in Table 9-19. The number of qualified detections, non-qualified detections, and non-detected values are listed along with the minimum and maximum values reported and the number of samples with concentrations exceeding background. Only arsenic, cadmium, and mercury exceeded the typical range for metals concentrations in typical soil (Dragun, 1988) (see Table 7-6), but were well within the limits for the extreme range.

9.4.5.7 Asbestos. Twenty two soil samples collected from the fill were analyzed for asbestos. Two percent asbestos was identified in only one sample (M-022A-005) from the fill. The analytical results for asbestos are presented in Appendix D.

9.4.5.8 Radionuclides. Surface (depth 0.0 to 0.5 foot) soil samples were collected at each of 15 well cluster locations around the eastern, southern, and western borders of Site 2. Well locations are shown on Figure 9-1, and the data are in Appendix D. A discussion of the radionuclide data is presented in Appendix K. The range of values is:

Gross alpha	1.1 ± 0.5 pCi/g	to	4.3 ± 1.2 pCi/g
Gross beta	< 0.3 ± 0.7 pCi/g	to	3.5 ± 1.1 pCi/g
Radium 226	< 0.1 ± 0.1 pCi/g	to	4.0 ± 0.8 pCi/g
Radium 228	< 0.3 ± 0.4 pCi/g	to	0.6 ± 0.5 pCi/g

In addition, the PRC team collected 12 subsurface soil samples from the fill from nine of the well cluster locations at depths of 1.0 to 20.0 feet. The range of values is:

Gross alpha	0.9 ± 0.5 pCi/g	to	5.2 ± 1.7 pCi/g
Gross beta	< 0.3 ± 0.6 pCi/g	to	3.2 ± 1.0 pCi/g
Radium 226	0.9 ± 0.3 pCi/g	to	6.0 ± 0.8 pCi/g
Radium 228	< 0.3 ± 0.4 pCi/g	to	< 0.3 ± 0.6 pCi/g

9.4.6 Analytical Results - Soil Samples Late Pleistocene/Holocene Alluvial/Eolian Deposits/Holocene Bay Mud Unit

Three soil samples were collected from the late Pleistocene/Holocene alluvial/eolian deposits/Holocene Bay Mud Unit horizon (second water-bearing zone). Soil sample depths were 57 feet, 70 feet, and 92 feet below ground surface, from borings M-20B, M-013C, and M-021C, respectively. The three soil samples were analyzed for VOC, SVOC, pesticides/PCBs, metals, asbestos, and radionuclides. Organic compounds and metals detected in soil samples from the late Pleistocene/Holocene alluvial/eolian deposits/Holocene Bay Mud Unit are listed in Tables 9-20 and 9-22, respectively. Analytical results for organic compounds and metals are summarized in Tables 9-21 and 9-23, respectively. The summary tables list the number of detected, non-detected, rejected, and qualified results for each analyte listed in Tables 9-20 and 9-22. Laboratory QA/QC data are summarized in the QCSR.

9.4.6.1 Volatile Organic Compounds. Acetone was the only VOC detected (Table 9-20). The concentration of acetone in sample M-021C-092 was 170 µg/kg (Table 9-21).

9.4.6.2 Semivolatile Organic Compounds. Two SVOC were detected in the three samples (Table 9-20). Benzo(a)pyrene a PAH, was detected in only one of the three samples. The sample from boring M-021C from a depth of 92 feet, at a concentration of 340 µg/kg.

Bis(2-ethylhexyl)phthalate a phthalate, was detected in all three samples from this horizon (Table 9-21). The concentrations detected in samples from borings M-013C, M-20B, and M-021C were 400 µg/kg, 320 µg/kg, and 170 µg/kg, respectively.

9.4.6.3 Pesticides/PCBs. Pesticides/PCBs were not detected in any of the samples collected from this horizon (Tables 9-20 and 9-21).

9.4.6.4 Metals. Table 9-22 shows analytical results for metals from the late Pleistocene/Holocene alluvial/eolian deposits/Holocene Bay Mud Unit horizon. All of the soil samples from the second water-bearing zone (Table 9-23) fall within the limits of metal concentrations found in typical soils (Table 7-2). Only arsenic, and mercury exceeded the typical range for metals concentrations in typical soil (Dragun, 1988) (see Table 7-6), but were well within the limits for the extreme range.

9.4.6.5 Asbestos. Asbestos was not detected in any of the soil samples. The analytical results for asbestos are presented in Appendix D.

9.4.6.6 Radionuclides. As part of Phase I, Canonie (Canonie, 1990e) collected five subsurface soil samples from the second water-bearing zone from four wells at depths of 46.0 to 63.0 feet. A discussion of the radionuclide data is presented in Appendix K. The range of values is:

Gross alpha	0.0 ± 1.3 pCi/g	to	5.7 ± 4.1 pCi/g
Gross beta	6.2 ± 4.9 pCi/g	to	14 ± 7 pCi/g
Radium 226	0.0 ± 0.6 pCi/g	to	0.6 ± 0.5 pCi/g
Radium 228	0.0 ± 1.0 pCi/g	to	0.6 ± 1.3 pCi/g

9.4.7 Analytical Results - Groundwater Samples "A" and "E" Wells

Groundwater samples from "A" and "E" wells (Figure 9-1) were analyzed for VOC, SVOC, pesticides/PCBs, TRPH, metals, general chemicals, and radionuclides. Organic compounds, metals, and general chemicals detected in groundwater samples from "A" and "E" wells are listed in Tables 9-24, 9-26, and 9-28, respectively. Analytical results for organic compounds, metals, and general chemicals are summarized in Tables 9-25, 9-27, and 9-29, respectively. The summary tables list the number of detected, non-detected, rejected, and qualified results for each analyte listed in Tables 9-24, 9-26, and 9-28. Laboratory QA/QC data are summarized in the QCSR.

9.4.7.1 Volatile Organic Compounds. The concentrations of the VOC detected in groundwater at Site 2 are presented in Table 9-24 and on Figure 9-12. A suite of VOC were detected in the groundwater samples from the "A" and "E" wells. These include 1,2-dichloroethane (1,2-DCA), 1,2-dichloroethene (1,2-DCE), acetone, benzene, carbon disulfide, chlorobenzene, chloroethane, and methylene chloride. Table 9-25 summarizes the detections of these VOC during the four quarters of groundwater sampling.

Acetone and methylene chloride were detected in groundwater upgradient and downgradient of Site 2 (Figure 9-12). After QC review only one detection of acetone upgradient of Site 2 (M-010A, second quarter sampling event) was considered a valid detection.

1,2-DCA, was only detected in well M-011A at a concentration of 1.3 µg/L in the first quarter of groundwater sampling. 1,2-DCE and chlorobenzene were detected in two consecutive quarters (first and second) in well M-011A (Figure 9-12). 1,2-DCE was also detected in the fourth quarter sample from M-011A at a concentration of 1.2 µg/L.

Chloroethane was detected in all four quarters from the sample from well M-022A (Figure 9-12). The concentration in the samples decreased with time.

Carbon disulfide was detected in a total of three groundwater samples during the four quarters of sampling at Site 2. It was detected in two samples (M-021A and M-023E) in the second round of sampling and in the fourth quarter sample from well M-022A.

Chlorobenzene was detected in wells M-011A, M-023A, M-024A, and M-024E. The highest concentration was detected in well M-024A in the second quarter sampling event (330 µg/L). Chlorobenzene was detected in samples from all four quarters from wells M-023A, M-024A, and M-024E, and the first two quarters in samples from well M-011A. Chlorobenzene was detected in M-024E, with the concentrations of chlorobenzene increasing over time.

Benzene was detected in samples from wells M-024A and M-024E. Benzene was detected in the third and fourth quarter sampling events in wells M-024A and M-024E at a concentrations ranging from 11 µg/L to 13 µg/L.

9.4.7.2 Semivolatile Organic Compounds. The concentrations of the SVOC detected in the groundwater at Site 2 (Table 9-24) are presented on Figure 9-13. Aromatic hydrocarbons (1,3-dichlorobenzene, 1,4-dichlorobenzene), phenols (2,4-dimethylphenol, methylphenol, 2-chlorophenol, and phenol), PAH (2-methylnaphthalene, acenaphthene, fluorene, naphthalene, and phenanthrene), furan (dibenzofuran), phthalates (bis(2-ethylhexyl)phthalate and dimethylphthalate), miscellaneous SVOC (3-nitroaniline, and n-nitrosodiphenylamine). The all of the SVOC were detected in the northwest corner of Site 2 (Figure 9-13), from wells M-022A M-023A, M-024A, and M-024E. Phthalates were detected in all of the wells during at least on sampling event. Dimethylphthalate was only detected in samples collected during the fourth quarter sampling event.

1,4-Dichlorobenzene was detected in all four quarterly sampling events in samples from wells M-022A, M-024A, and M-024E and in the first three sampling events in samples from M-023A (Figure 9-13).

Acenaphthene was detected in all four quarters in samples from wells M-024A and M-024E and in the first three sampling events in samples from M-023A and only in the first quarter sampling event in well M-022A (Figure 9-13).

9.4.7.3 Pesticides/PCBs. Dieldrin was detected in the first, second, and fourth quarter groundwater samples from well M-018A, at concentrations of 1.17 µg/L, 0.558 µg/L, and 0.89 µg/L, respectively, and not detected in the third quarter sample. Aldrin was detected at a concentration of 0.051 µg/L in the sample from well M-024A during the fourth quarter sampling round.

9.4.7.4 Total Recoverable Petroleum Hydrocarbons. The concentrations of TRPH detected in the groundwater at Site 2 are presented in Table 9-24 and on Figure 9-14, and summarized in Table 9-25. TRPH were only detected downgradient of Site 2 in wells M-021A, M-022A, M-022E, M-023A, M-023E, M-024A, and M-024E. It was detected in all four quarterly samples from wells M-022A, M-023A, and M-024A. The highest concentration of TRPH was 3.2 mg/L in the first quarter sample from well M-022A.

9.4.7.5 Metals. Table 9-26 shows analytical results for metals detected in the "A" and "E" wells. Results from the metals analyses from each quarter's groundwater samples are compared to the upper limit of the 95 percent/95 percent statistical tolerance interval of background concentrations measured in upgradient Runway Area samples for that quarter. The tolerance interval is calculated independently for each quarterly sampling event in order to take seasonal fluctuations into account. A summary of this comparison is presented in Table 9-27. The number of qualified detections, non-qualified detections, and non-detected values are listed along with the minimum and maximum values reported and the number of samples with concentrations exceeding background. There are no trends in the levels of metals in the groundwater samples from Site 2.

9.4.7.6 General Chemicals. General chemical analyses performed on the groundwater samples from the "A" and "E" wells include total acidity, total alkalinity, chemical oxygen demand, hardness, TDS, specific conductance, pH, temperature, total organic carbon, asbestos, chloride, cyanide, fluoride, nitrogen (nitrite and nitrate), and sulfate. Results of the general chemical analyses are listed in Table 9-28 and summarized in Table 9-29 for the four quarters of groundwater sampling.

TDS concentrations range from 202 mg/L to 31,300 mg/L; according to Freeze and Cherry (1979) and the state Water Resources Control Board Resolution Number 88-63, the water would be considered fresh to saline.

9.4.7.7 Radionuclides. Wells at 15 locations were used to obtain 98 water samples from the "A" and "E" wells; 67 samples from the "A" wells and 31 from the "E" wells. The well locations are shown on Figure 9-1 and the data are presented in Table 9-28. A discussion of the radionuclide data is presented in Appendix K. The range of values is:

Gross alpha	< 0.1 ± 39.3 pCi/g	to	645 ± 316 pCi/L
Gross beta	< 0.3 ± 7.3 pCi/g	to	918 ± 174 pCi/g
Radium 226	< 0.3 ± 1.0 pCi/g	to	23 ± 2.9 pCi/g
Radium 228	< 0.3 ± 0.4 pCi/g	to	9.6 ± 1.0 pCi/g

9.4.8 Analytical Results - Groundwater Samples "B" and "C" Wells

Groundwater samples from "B" and "C" wells (Figure 9-1) were analyzed for VOC, SVOC, pesticides/PCBs, TRPH, metals, general chemicals, and radionuclides. Organic compounds, metals, and general chemicals detected in groundwater samples from "B" and "C" wells are listed in Tables 9-30, 9-32, and 9-34, respectively. Analytical results for organic compounds, metals, and general chemicals are summarized in Tables 9-31, 9-33, and 9-35, respectively. The summary tables list the number of detected, non-detected, rejected, and qualified results for each analyte listed in Tables 9-30, 9-32, and 9-34. Laboratory QA/QC data are summarized in the QCSR.

9.4.8.1 Volatile Organic Compounds. Two VOC were detected in the groundwater from the "B" and "C" wells at Site 2: acetone and methylene chloride (Table 9-30). Acetone was detected in three samples (as valid detections) at concentrations ranging from 53 µg/L to 6,100 µg/L (Table 9-31). The highest concentration detected, 6,100 µg/L was in the sample from second quarter sampling event from well M-013C. Acetone was not detected in the first, third, or fourth quarter samples from well M-013C. Methylene chloride was detected in the first quarter groundwater sample from well M-021C at a concentration of 1 µg/L.

9.4.8.2 Semivolatile Organic Compounds. Bis(2-ethylhexyl)phthalate was the only SVOC detected in groundwater samples from "B" and "C" wells during the quarterly sampling program (Tables 9-30). Table 9-31 summarizes the detections of bis(2-ethylhexyl)phthalate in the second water-bearing zone. Bis(2-ethylhexyl)phthalate was detected in six samples (as valid detections after QC review) during the third quarter sampling at concentrations ranging from 2.5 µg/L to 19 µg/L (Table 9-31).

9.4.8.3 Pesticides/PCBs. Neither pesticides nor PCBs were detected in the groundwater from "B" and "C" wells at Site 2 (Tables 9-30 and 9-31).

9.4.8.4 Total Recoverable Petroleum Hydrocarbons. TRPH were detected only in the first quarter sample from well M-020B at the detection limit. It was not detected in the groundwater from any of the other "B" and "C" wells at Site 2 (Tables 9-30 and 9-31).

9.4.8.5 Metals. Table 9-32 shows analytical results for metals detected in the "B" and "C" wells. Results from the metals analyses from each quarter's groundwater samples are compared to the upper limit of the 95

percent/95 percent statistical tolerance interval of background concentrations measured in upgradient Runway Area samples for that quarter. The tolerance interval is calculated independently for each quarterly sampling event in order to take seasonal fluctuations into account. A summary of this comparison is presented in Table 9-33. The number of qualified detections, non-qualified detections, and non-detected values are listed along with the minimum and maximum values reported and the number of samples with concentrations exceeding background.

9.4.8.6 General Chemicals. General chemical analyses performed on the groundwater samples from the "B" and "C" wells include total acidity, total alkalinity, chemical oxygen demand, hardness, TDS, specific conductance, pH, temperature, total organic carbon, asbestos, chloride, cyanide, fluoride, nitrogen (nitrite and nitrate), and sulfate. Results of the general chemical analyses are listed in Table 9-34 and summarized in Table 9-35.

TDS concentrations range from 5,220 mg/L to 27,400 mg/L; according to Freeze and Cherry (1979) the water would be considered brackish to saline. Generally the TDS concentration reported in the wells were consistent from quarter to quarter during the sampling program.

9.4.8.7 Radionuclides. Wells at seven locations were used to obtain 30 water samples from the second water-bearing zone, 21 samples from the "B" wells and nine from the "C" wells. The well locations are shown on Figure 9-1 and the data are presented in Table 9-34. A discussion of the radionuclide data is presented in Appendix K. The range of values is:

Gross alpha	< 0.1 ± 4.9 pCi/g	to	267 ± 278 pCi/L
Gross beta	< 0.3 ± 54.6 pCi/g	to	222 ± 159 pCi/g
Radium 226	0.8 ± 0.5 pCi/g	to	10.0 ± 2.0 pCi/g
Radium 228	< 0.3 ± 0.8 pCi/g	to	5.8 ± 0.9 pCi/g

9.5 SUMMARY AND CONCLUSIONS

The purposes of the site investigation conducted at Site 2 was to collect adequate information to evaluate if the landfill is leaking. Results of the investigation concluded the following:

9.5.1 Soils and Sediments

A total of 219 surface soil, wetland sediment, and subsurface soil samples were collected from Site 2 for chemical testing.

9.5.1.1 Surface Soil Samples. SVOC, pesticides, PCB, and TRPH were detected in surface soil samples collected in the landfill area at maximum concentrations of 25 mg/kg, 0.306 mg/kg, 11 mg/kg, and 3,000

mg/kg, respectively. Adequate quality and quantity of surface soil data for VOC, SVOC, pesticides, PCBs, metals, and general chemicals have been collected to proceed with the baseline risk assessment.

Thirteen metals are present in surface soil samples at concentrations above 95 percent/95 percent statistical tolerance limit of background concentrations for this site. Radionuclides were detected at concentrations above background levels. The significance of the presence of metals and radionuclides above the background levels will be further evaluated during the risk assessment to be performed during the comprehensive RI/FS process.

9.5.1.2 Wetland Sediment Samples. Low levels of acetone (<0.38 mg/kg), PAH (<0.31 mg/kg), and TRPH (<85.8 mg/kg) were detected in sediment samples. Pesticides were detected at low levels with the exception of one sediment sample which contains total pesticides concentration of less than 1 mg/kg. There is no consistent pattern to indicate that significant sources exist in the Wetland Area. Adequate sediment data for VOC, SVOC, TRPH, O&G, pesticides/PCBs, metals, and general chemicals have been collected to proceed with the baseline risk assessment.

Only a few of the metals are detected in sediment samples at concentrations above 95 percent/95 percent statistical tolerance limit of background concentrations for this site. The significance of the presence of metals above the background levels will be further evaluated during the risk assessment to be performed during the comprehensive RI/FS process.

9.5.1.3 Fill Samples. Acetone, SVOC, PCBs, TRPH, and O&G were primarily detected in soil samples collected from soil boring M-22A, and M-24A which are located on the (downgradient of the landfill) western side and the northwestern corner of Site 2, respectively. Based on the review of aerial photographs, the northwest corner of Site 2 appears to have been the main entrance to the landfill during its operations and therefore, could be a localized source for these chemicals detected in soil samples collected from borings at well cluster M-024. Adequate soil data for VOC, SVOC, pesticides, PCBs, metals, and general chemicals have been collected from the fill to proceed with the baseline risk assessment.

TRPH and O&G were detected in surface soil samples collected from borings at this area. Similar to the discussion presented in Section 10.5.1, results of the TRPH analysis included both the light and heavy fractions of petroleum hydrocarbons. Therefore, any assessment and conclusions of the extent of petroleum hydrocarbons in subsurface soil under this area made based on these results would not be appropriate.

Only a few of the metals are detected in soil samples at concentrations above 95 percent/95 percent statistical tolerance limit of background concentrations for this site. Radionuclides were found at concentrations above the background levels. The significance of the presence of metals and radionuclides above the background levels will be further evaluated during the risk assessment to be performed during the comprehensive RI/FS process.

9.5.1.4 Late Pleistocene/Holocene Alluvial/Eolian Deposits and Holocene Bay Mud Unit Samples. Only a low level of benzo(a)pyrene was detected in one soil sample collected from boring M-21C. The soil in this horizon does not appear to have been impacted by organic compounds. Adequate soil data for VOC, SVOC, pesticides, PCBs, metals, and general chemicals have been collected from the late Pleistocene/Holocene alluvial/eolian deposits and Holocene Bay Mud Unit to proceed with the baseline risk assessment.

Metals detected in soil samples collected from the late Pleistocene/Holocene deposits are in similar ranges detected in the upgradient background soil samples collected in the Runway Area. Levels of radionuclides found in soil samples collected from Site 2 are also above the background concentrations. The potential impact of these metals and radionuclides concentrations to human health and environment will be evaluated during the comprehensive RI/FS process to be conducted for this site.

9.5.2 Surface Water and Groundwater

For the purpose of this report, the sediments beneath NAS Alameda are subdivided into two aquifers. The first aquifer consists of two water-bearing zones (Figure 2-7). The first water-bearing zone is in the fill, and the second water-bearing zone is in the late Pleistocene/Holocene deposits. The deeper or second aquifer is in the undivided Pliocene/Pleistocene terrestrial deposits (Alameda formation). The second aquifer was not part of this investigation.

9.5.2.1 Wetland Surface Water. The TDS concentrations in the surface water in the wetland area range from 10,900 mg/L to 91,500 mg/L; this range is saline to very saline (SWQCB, 1988a; Freeze and Cherry, 1979).

There is no pattern for VOC detected in the wetland surface water samples. Phthalates were the only SVOC detected in the surface water samples. Pesticides and PCBs were not detected in any of the wetland surface water samples. TRPH were detected in one sample (323SW) at a concentration of 0.3 mg/L.

9.5.2.2 First Water-Bearing Zone. Groundwater flow in the first water-bearing zone is south and west from the Runway Area toward San Francisco Bay as determined during the tidal influence study.

The groundwater in the first water-bearing zone is generally classified as fresh to saline based on TDS criteria (California SWQCB, 1988a; Freeze and Cherry, 1979), as shown on Figures 2-8 and 2-9. The California SWQCB states that any water with a concentration of TDS over 3,000 mg/L is not potable. The groundwater is considered as fresh from wells along the eastern boundary of Site 2. The groundwater in the wells on the southern and western sides of Site 2 are considered saline. Groundwater in the fill at Site 2 is influenced by freshwater

recharge, based on the amount of unpaved area at Site 2 to accept rainfall and the pattern of TDS concentrations in samples from wells in the first water-bearing zone. Saltwater from the nearby San Francisco Bay would likely replace any perched fresh water in the first water-bearing zone, if it were to be pumped. Because of probable saltwater intrusion, the shallow portion of the first water-bearing zone is not a practical drinking water source.

VOC and SVOC were detected in wells located along the northwestern edge of Site 2 (M-023A, M-024A, and M-024E). A slurry wall was constructed by HLA and is located between the northwestern boundary of the site and well clusters M-022 and M-023. These well clusters are located on the bay side of the slurry wall. The slurry wall was designed to act as a barrier between Site 2 and the bay. However, as-built drawings for the slurry wall have not been located to evaluate whether it has inhibited groundwater flow from the landfill to the "A" and "E" wells in clusters M-022 through M-023. Therefore, it is likely that the groundwater underneath Site 2 is the potential source of the VOC and SVOC detected in the wells. However, VOC and SVOC detected in well cluster M-024 are similar to the organic compounds detected in well cluster M-023, but at higher concentrations. It is also likely that the chemicals detected in well clusters M-023 and M-024 result from the same source.

VOC detected in downgradient "A" and "E" well clusters (M-018 through M-021) include acetone and methylene chloride. These wells are located along the southwestern and southern edges of the site. Both acetone and methylene chloride, (which are common laboratory contaminants) were detected at levels near their detection limits. No VOC were detected in other downgradient "A" and "E" well clusters (M-015 through M-017) located along the southern edge of the site.

No SVOC other than phthalates were detected in the "A" and "E" well clusters M-010 through M-021. Dimethylpthalate was only detected in the samples collected during the fourth quarter sampling event.

TRPH were only detected downgradient of Site 2 in wells M-021A, M-022A, M-022E, M-023A, M-023E, M-024A, and M-024E.

Dieldrin was detected in the first, second, and fourth quarter groundwater samples from well M-018A, located near the wetland area, at concentrations of 1.17 µg/L, 0.558 µg/L, and 0.89 µg/L, respectively, and not detected in the third quarter sample. Aldrin was only detected once in the sample from well M-024A during the fourth quarter sampling round.

Only a few of the metals are detected in groundwater samples at concentrations above 95 percent/95 percent statistical tolerance limit of background concentrations for this site. Radionuclides were found at concentrations above the background levels. The significance of the presence of metals and radionuclides above the background levels will be further evaluated during the risk assessment to be performed during the comprehensive RI/FS process.

9.5.2.3 Second Water-Bearing Zone. Groundwater flow in the second water-bearing zone is outward from the area around the wells in the Runway Area to the north, south, and west, to the San Francisco Bay as determined during the tidal influence study.

The groundwater in the second water-bearing zone is generally classified as brackish to saline based on TDS criteria (California SWQCB, 1988a; Freeze and Cherry, 1979) and the TDS concentrations in the wells are relatively consistent year round.

Acetone, methylene chloride, and bis(2-ethylhexyl)phthalate were detected at low levels in groundwater samples collected from the "B" and "C" wells. As discussed above, acetone and methylene chloride are common laboratory contaminants, and the presence of bis(2-ethylhexyl)phthalate could be associated with any plastic material, such as, the nylon rope used during groundwater sampling. No pesticides/PCBs were detected in these groundwater samples at concentrations above the detection limits. TRPH was detected in only one groundwater sample collected during first quarter sampling from well M-020B at the detection limit (0.2 mg/L) .

Only a few of the metals are detected in groundwater samples at concentrations above 95 percent/95 percent statistical tolerance limit of background concentrations for this site. Radionuclides were found at concentrations above the background levels. The significance of the presence of metals and radionuclides above the background levels will be further evaluated during the risk assessment to be performed during the comprehensive RI/FS process.

9.5.3 Landfill Leakage

A comparison of groundwater from the upgradient well clusters M-011 through M-015 and the downgradient well clusters M-016 through M-024 indicate that organic compounds were primarily detected in groundwater samples collected in the northwestern corner of Site 2, on the downgradient side of the landfill. The presence of organic chemicals in groundwater underneath the northwestern corner could possibly be due to a source in the vicinity of well cluster M-024 or from the groundwater leaving the landfill. Existing information indicates that groundwater from the first water-bearing zone is not migrating vertically to the second water-bearing zone in the vicinity of well clusters M-022 north to M-024.

The current groundwater monitoring network is adequate to monitor the quality of groundwater in the first and second water-bearing zones leaving Site 2. With the exception of TRPH data, adequate soil data are available to conduct the baseline risk assessment and therefore, no additional soil sampling is required at this site for VOC, SVOC, metals, and general chemicals. Groundwater monitoring should be continued in selected wells that have elevated concentrations of chemicals.

N00236.000847
ALAMEDA POINT
SSIC NO. 5090.3

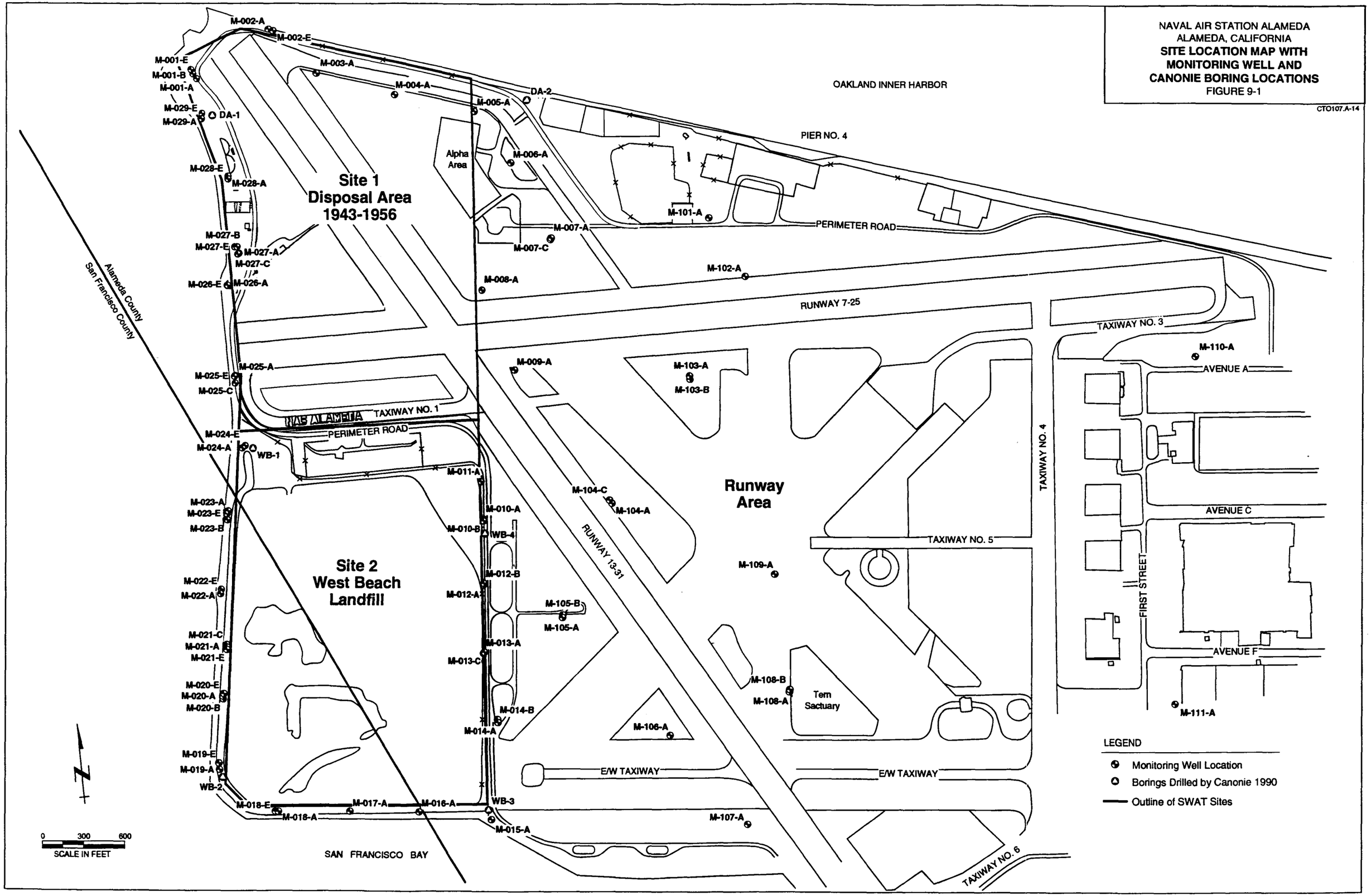
FIGURES

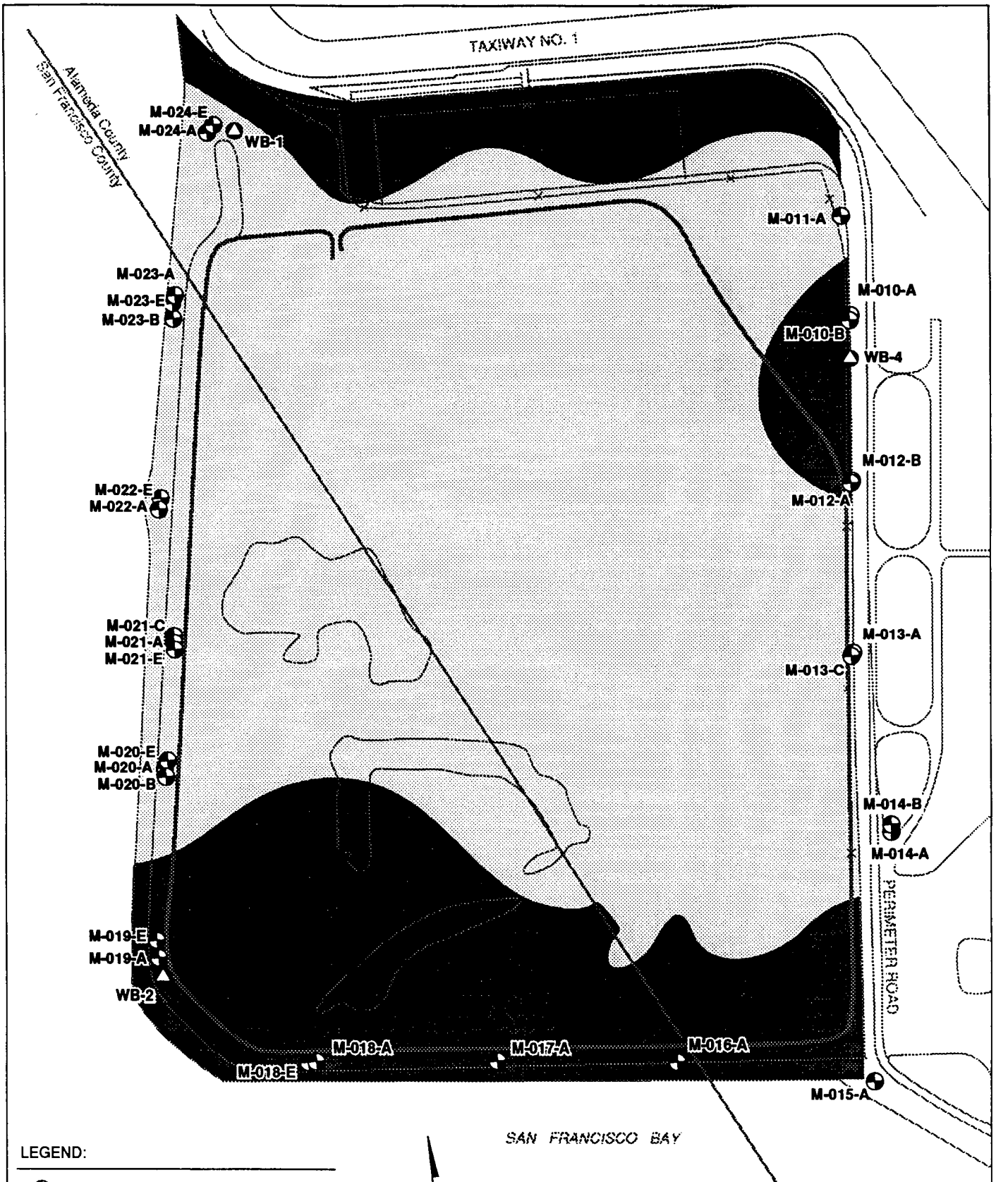
FINAL
SOLID WASTE WATER QUALITY ASSESSMENT TEST AND DATA SUMMARY REPORT FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY FOR PHASES 5 AND 6

DATED 30 APRIL 1993

NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA
SITE LOCATION MAP WITH MONITORING WELL AND CANONIE BORING LOCATIONS
FIGURE 9-1

CTO107.A-14





LEGEND:

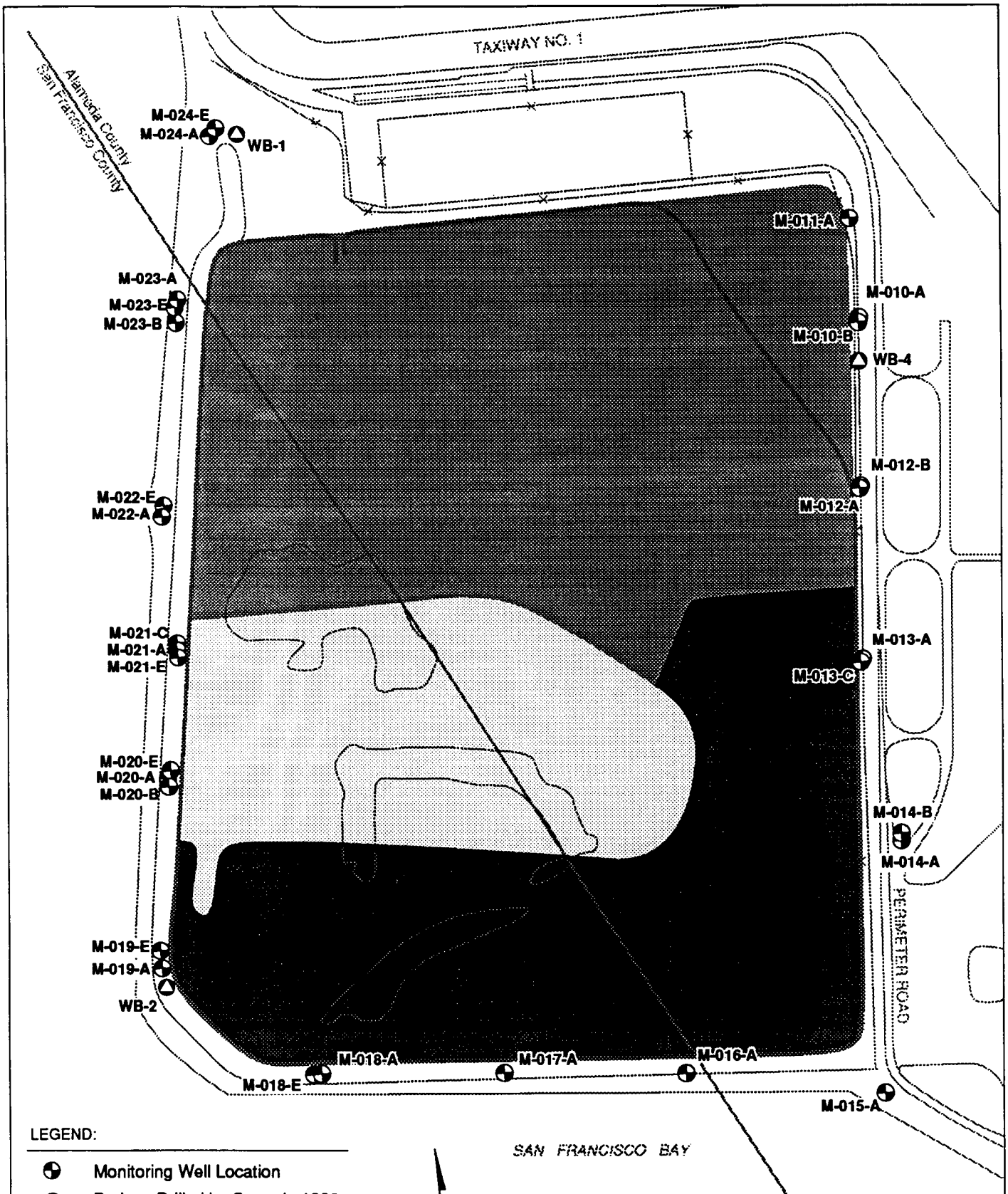
- Monitoring Well Location
- Borings Drilled by Canonie 1990
- Partially Filled Below Sea Level
- Hydraulically Filled Above Sea Level
- Berm

Source: Pacific Aerial Surveys, 1957

0 200 400
SCALE IN FEET

CTO107.A-16

NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA
SITE 2 - WEST BEACH LANDFILL
HISTORICAL USE
MAY 3, 1957
FIGURE 9-2



LEGEND:

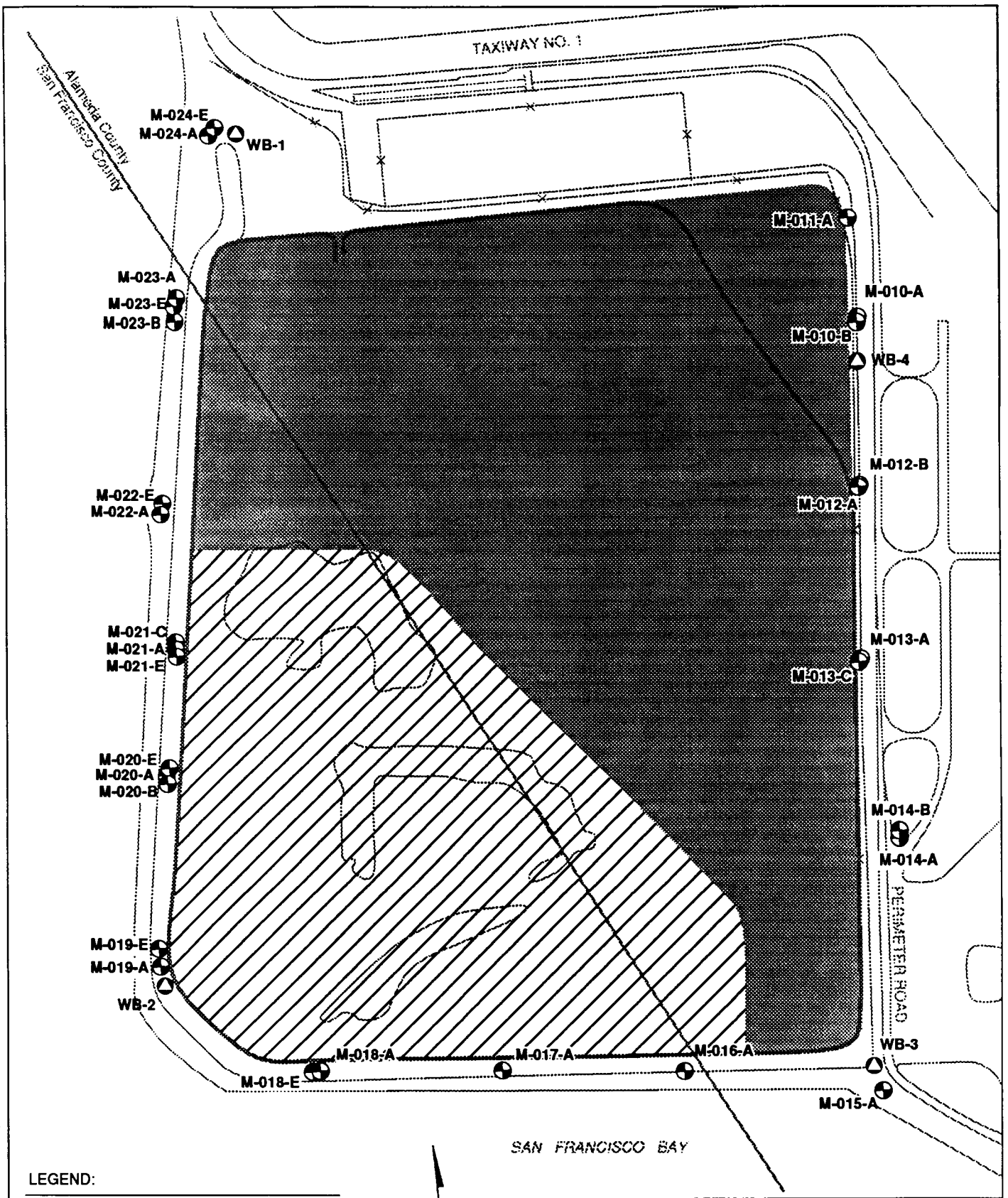
- Monitoring Well Location
- Borings Drilled by Canonie 1990
- Partially Filled Below Sea Level
- Disposal Operations
- Hydraulically Filled Above Sea Level
- Berm

Source: Pacific Aerial Surveys, 1969

0 200 400
SCALE IN FEET

CTO107.A-16

NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA
SITE 2 - WEST BEACH LANDFILL
HISTORICAL USE
May 19, 1969
FIGURE 9-3



LEGEND:

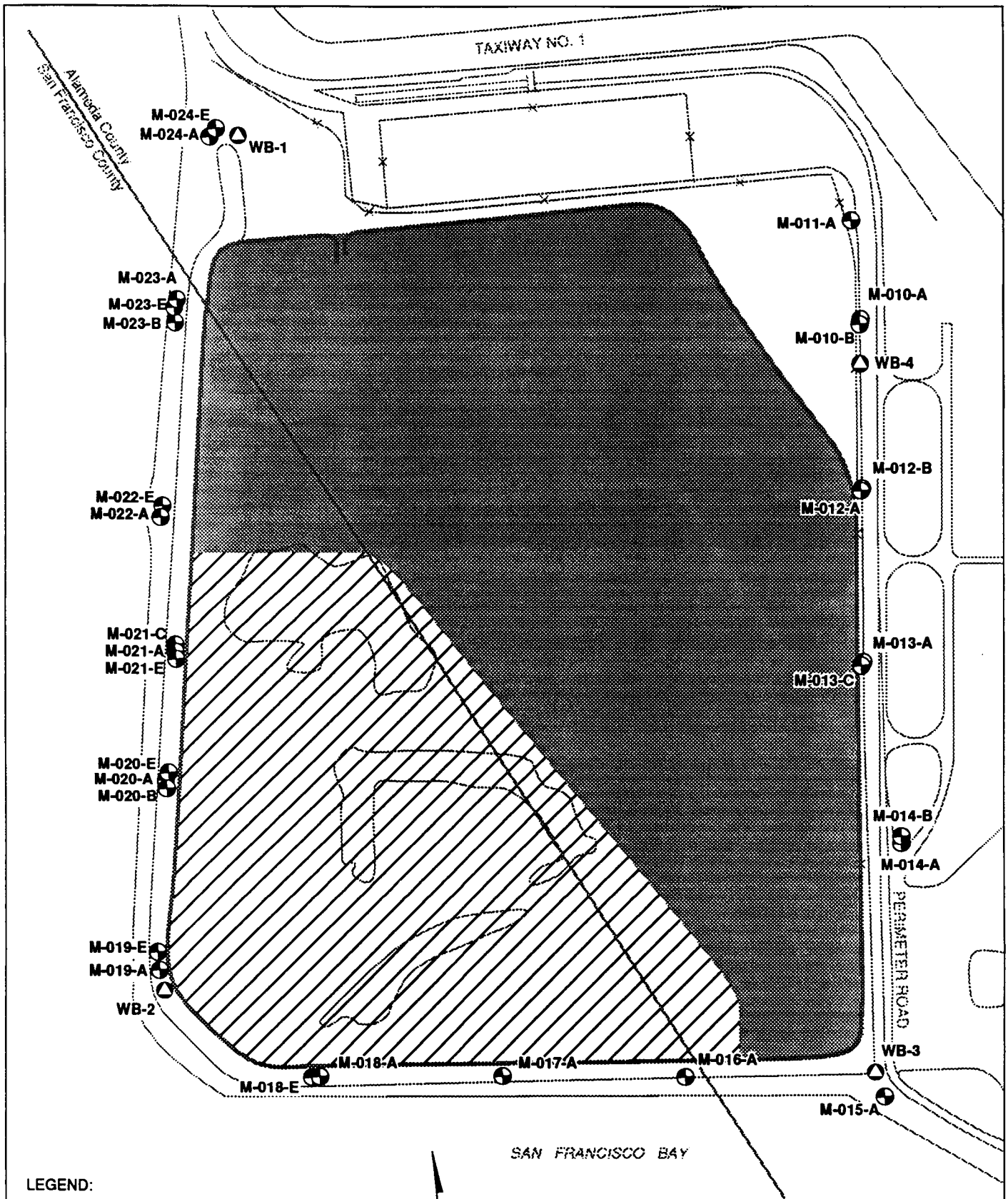
- Monitoring Well Location
- Borings Drilled by Canonie 1990
- Dredge Spoils
- Disposal Operations
- Berm

Source: Pacific Aerial Surveys, 1973

0 200 400
SCALE IN FEET

CTO107.A-16

NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA
SITE 2 - WEST BEACH LANDFILL
HISTORICAL USE
APRIL 30, 1973
FIGURE 9-4



LEGEND:

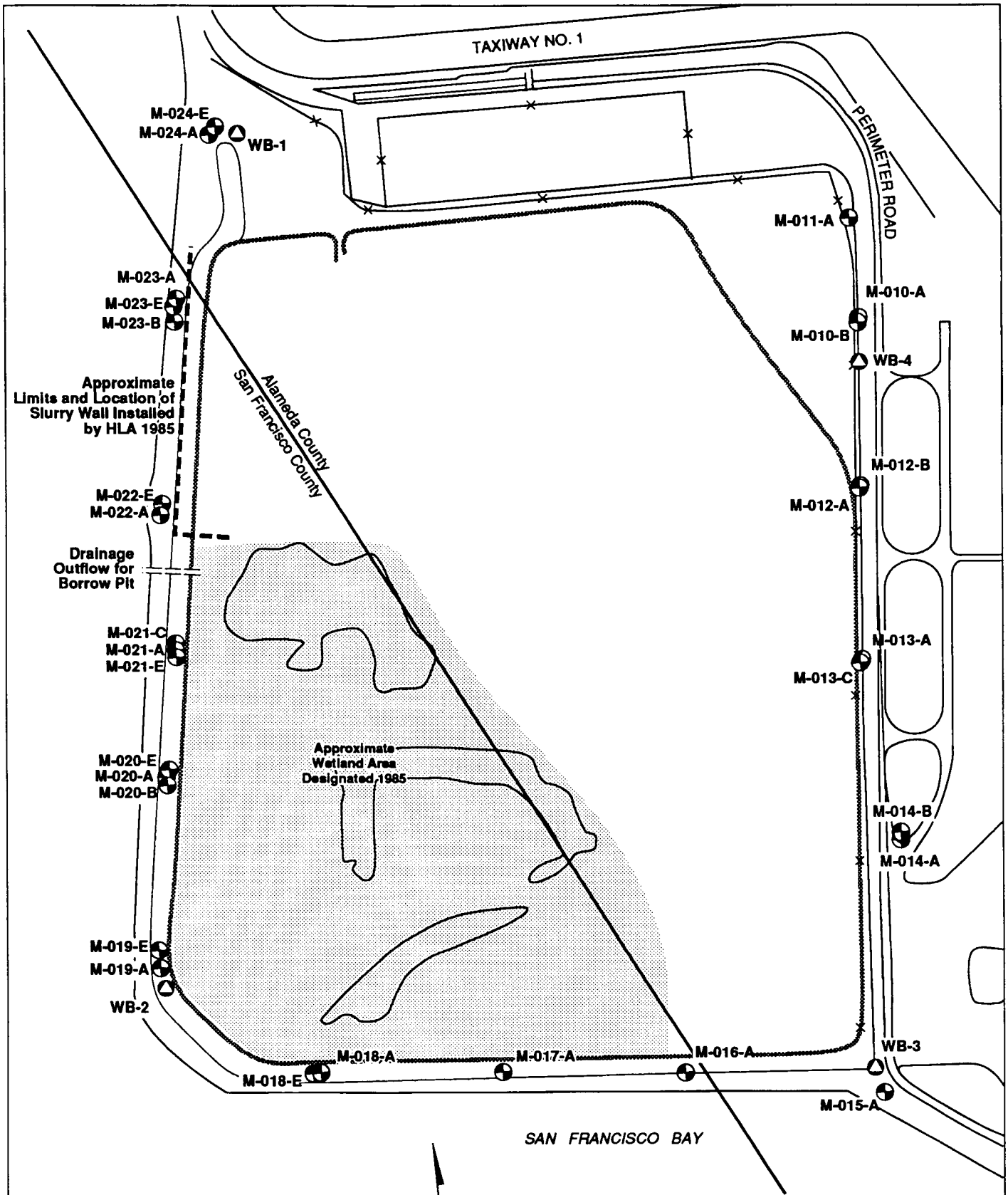
- Monitoring Well Location
- Borings Drilled by Canonie 1990
- Dredge Spills
- Disposal Activities
- Berm

Source: Pacific Aerial Surveys, 1983

0 200 400
SCALE IN FEET

CTO107.A-16

NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA
SITE 2 - WEST BEACH LANDFILL
HISTORICAL USE
JUNE 21, 1983
FIGURE 9-5



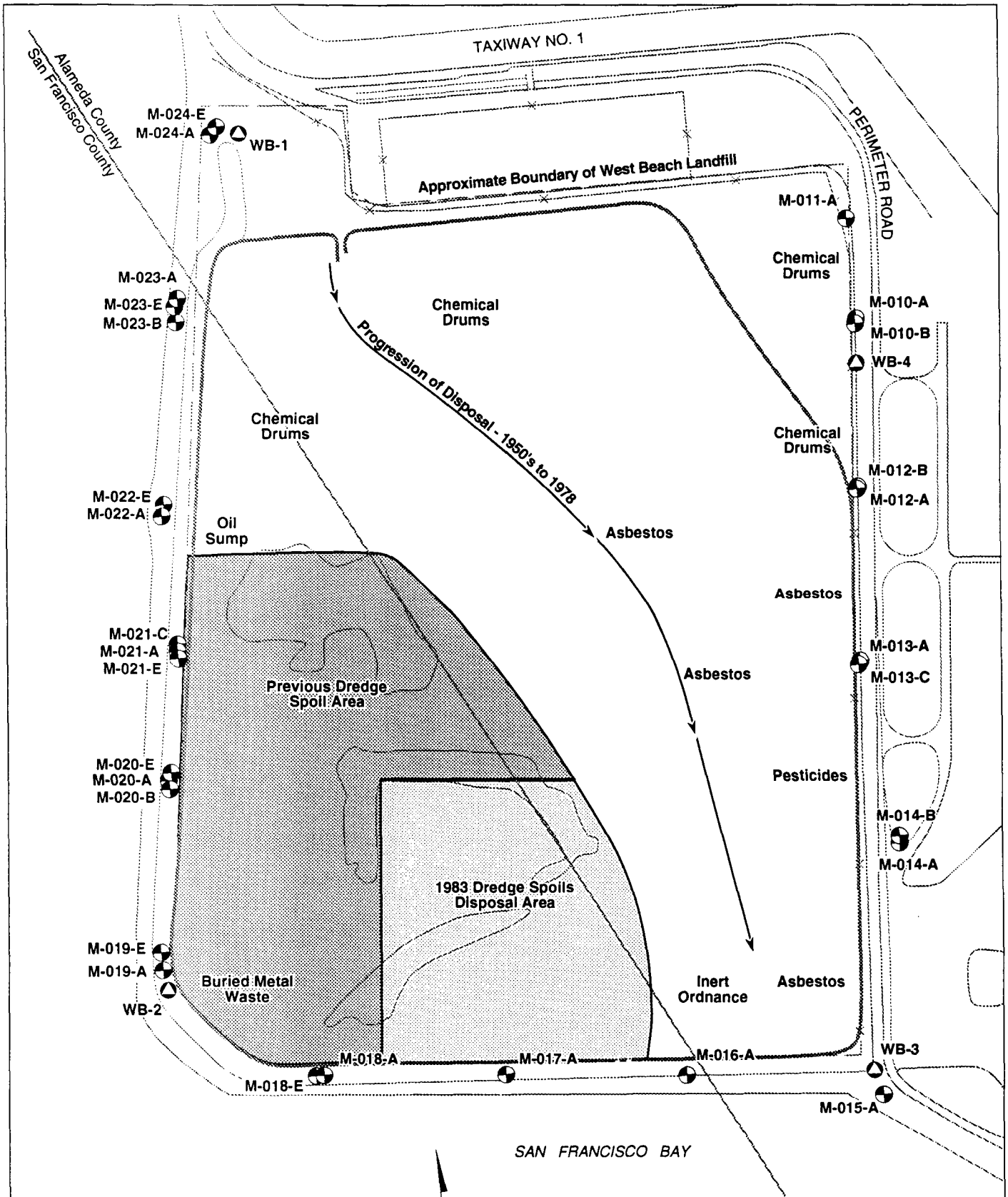
LEGEND:

- Monitoring Well Location
- Borings Drilled by Canonie 1990
- Berm

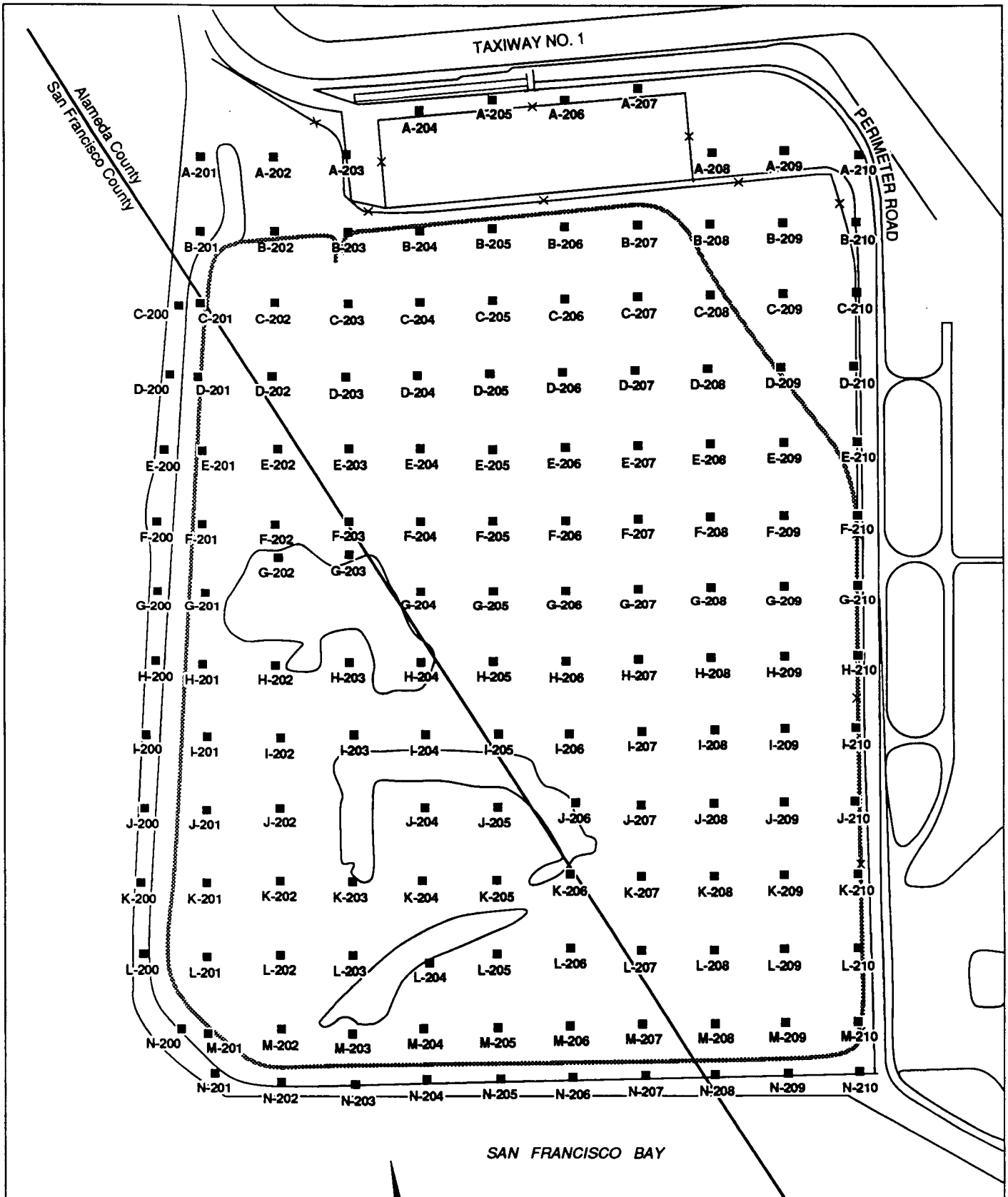
NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA

SITE 2 - WEST BEACH LANDFILL APPROXIMATE LOCATIONS OF SLURRY WALL, BERM, WETLANDS AND MONITORING WELLS

FIGURE 9-6

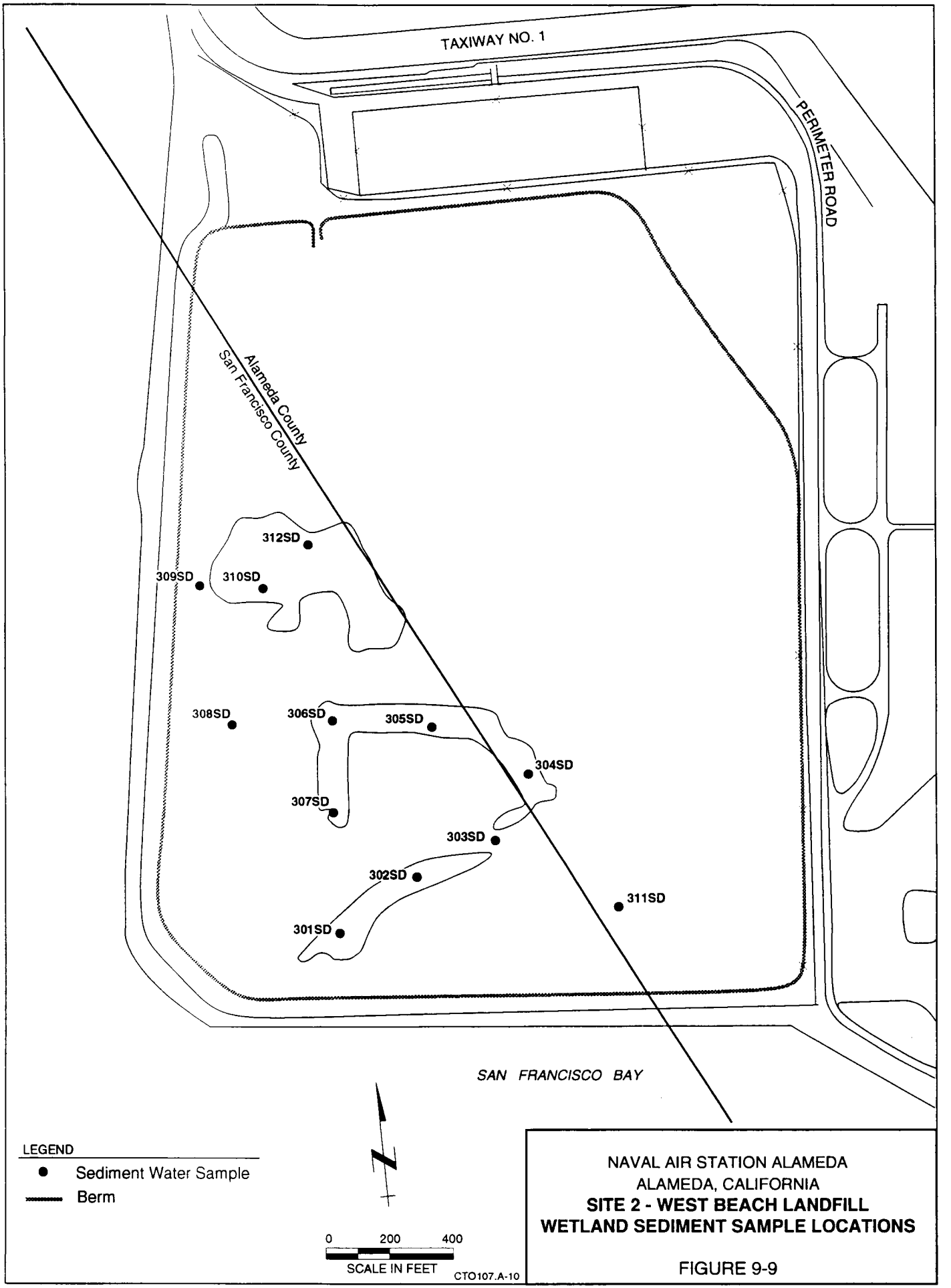


NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA
SITE 2 - WEST BEACH LANDFILL MONITORING WELL LOCATIONS AND AREAS OF SUSPECTED HAZARDOUS WASTE DISPOSAL
FIGURE 9-7



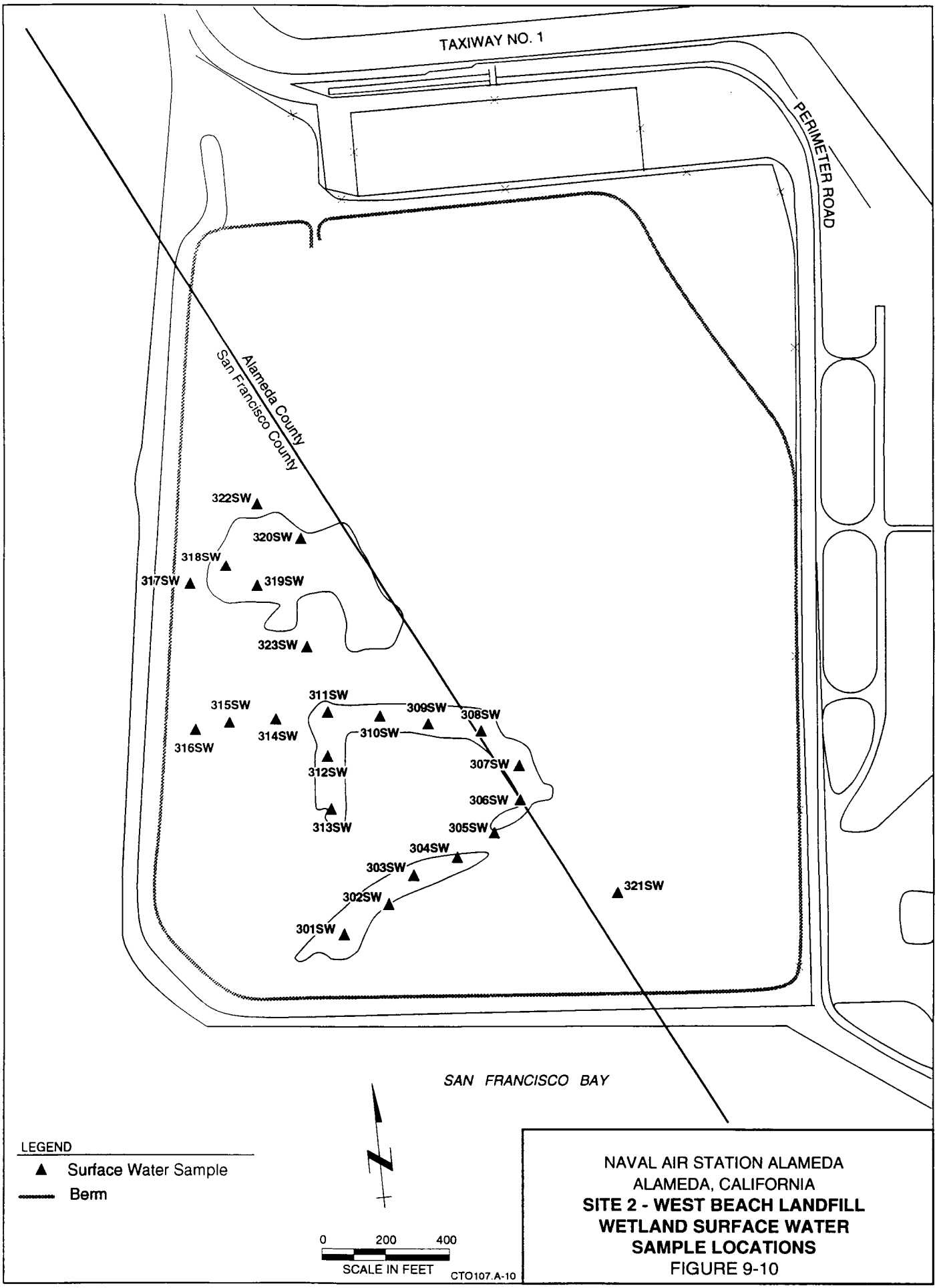
NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA
SITE 2 - WEST BEACH LANDFILL
SURFACE SOIL SAMPLE LOCATIONS

FIGURE 9-8

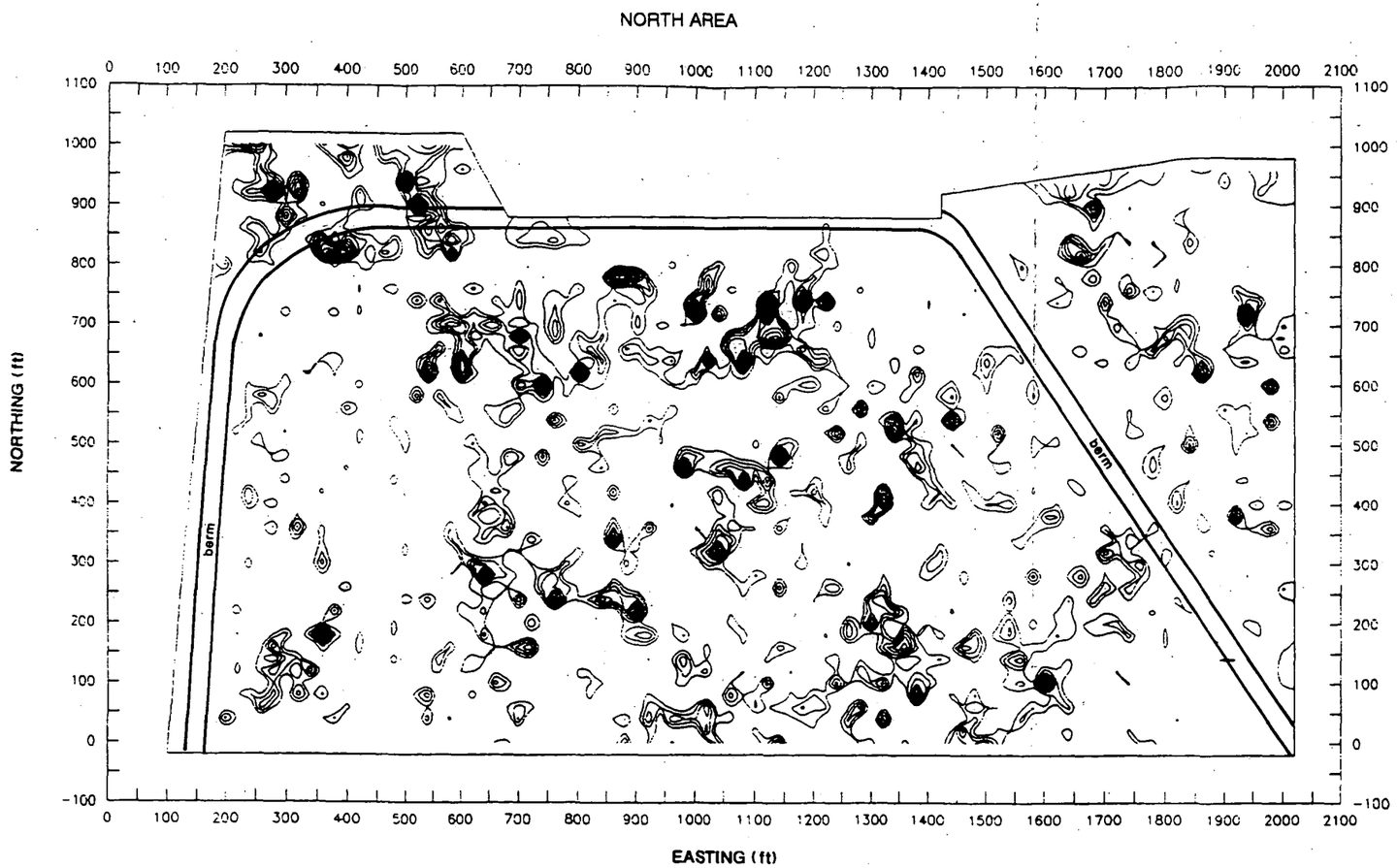


NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA
SITE 2 - WEST BEACH LANDFILL
WETLAND SEDIMENT SAMPLE LOCATIONS

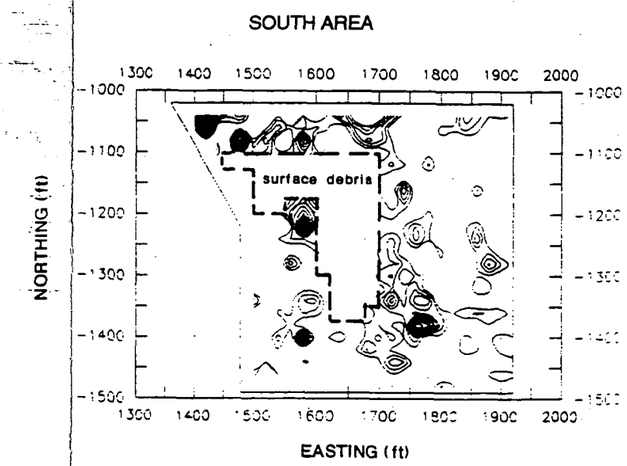
FIGURE 9-9



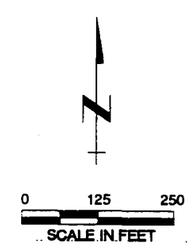
NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA
SITE 2 - WEST BEACH LANDFILL
WETLAND SURFACE WATER
SAMPLE LOCATIONS
FIGURE 9-10



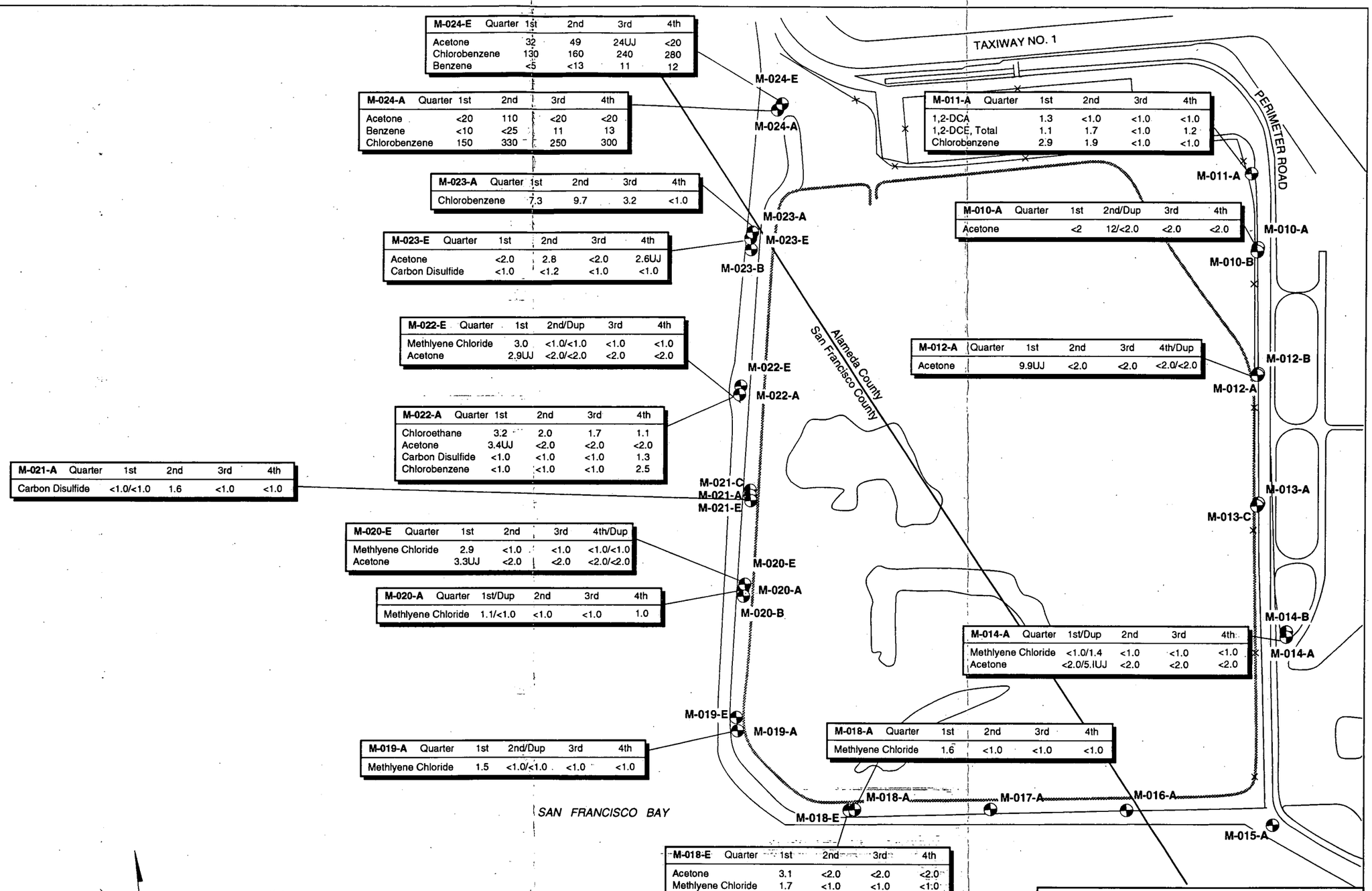
Note: Contour Interval = 50 gammas/meter
Minimum Contour = 100 gammas/meter



Note: 1. Contour Interval = 50 gammas/meter
Minimum Contour = 100 gammas/meter
2. No survey coverage within dashed line due to surface debris



NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA
SITE 2
VERTICAL MAGNETIC GRADIENT ANOMALY MAP
FIGURE 9-11



M-024-E	Quarter	1st	2nd	3rd	4th
Acetone		32	49	24UJ	<20
Chlorobenzene		130	160	240	280
Benzene		<5	<13	11	12

M-024-A	Quarter	1st	2nd	3rd	4th
Acetone		<20	110	<20	<20
Benzene		<10	<25	11	13
Chlorobenzene		150	330	250	300

M-023-A	Quarter	1st	2nd	3rd	4th
Chlorobenzene		7.3	9.7	3.2	<1.0

M-023-E	Quarter	1st	2nd	3rd	4th
Acetone		<2.0	2.8	<2.0	2.6UJ
Carbon Disulfide		<1.0	<1.2	<1.0	<1.0

M-022-E	Quarter	1st	2nd/Dup	3rd	4th
Methlyene Chloride		3.0	<1.0/<1.0	<1.0	<1.0
Acetone		2.9UJ	<2.0/<2.0	<2.0	<2.0

M-022-A	Quarter	1st	2nd	3rd	4th
Chloroethane		3.2	2.0	1.7	1.1
Acetone		3.4UJ	<2.0	<2.0	<2.0
Carbon Disulfide		<1.0	<1.0	<1.0	1.3
Chlorobenzene		<1.0	<1.0	<1.0	2.5

M-021-A	Quarter	1st	2nd	3rd	4th
Carbon Disulfide		<1.0/<1.0	1.6	<1.0	<1.0

M-020-E	Quarter	1st	2nd	3rd	4th/Dup
Methlyene Chloride		2.9	<1.0	<1.0	<1.0/<1.0
Acetone		3.3UJ	<2.0	<2.0	<2.0/<2.0

M-020-A	Quarter	1st/Dup	2nd	3rd	4th
Methlyene Chloride		1.1/<1.0	<1.0	<1.0	1.0

M-019-A	Quarter	1st	2nd/Dup	3rd	4th
Methlyene Chloride		1.5	<1.0/<1.0	<1.0	<1.0

M-018-E	Quarter	1st	2nd	3rd	4th
Acetone		3.1	<2.0	<2.0	<2.0
Methlyene Chloride		1.7	<1.0	<1.0	<1.0

M-011-A	Quarter	1st	2nd	3rd	4th
1,2-DCA		1.3	<1.0	<1.0	<1.0
1,2-DCE, Total		1.1	1.7	<1.0	1.2
Chlorobenzene		2.9	1.9	<1.0	<1.0

M-010-A	Quarter	1st	2nd/Dup	3rd	4th
Acetone		<2	12/<2.0	<2.0	<2.0

M-012-A	Quarter	1st	2nd	3rd	4th/Dup
Acetone		9.9UJ	<2.0	<2.0	<2.0/<2.0

M-014-A	Quarter	1st/Dup	2nd	3rd	4th
Methlyene Chloride		<1.0/1.4	<1.0	<1.0	<1.0
Acetone		<2.0/5.1UJ	<2.0	<2.0	<2.0

M-018-A	Quarter	1st	2nd	3rd	4th
Methlyene Chloride		1.6	<1.0	<1.0	<1.0

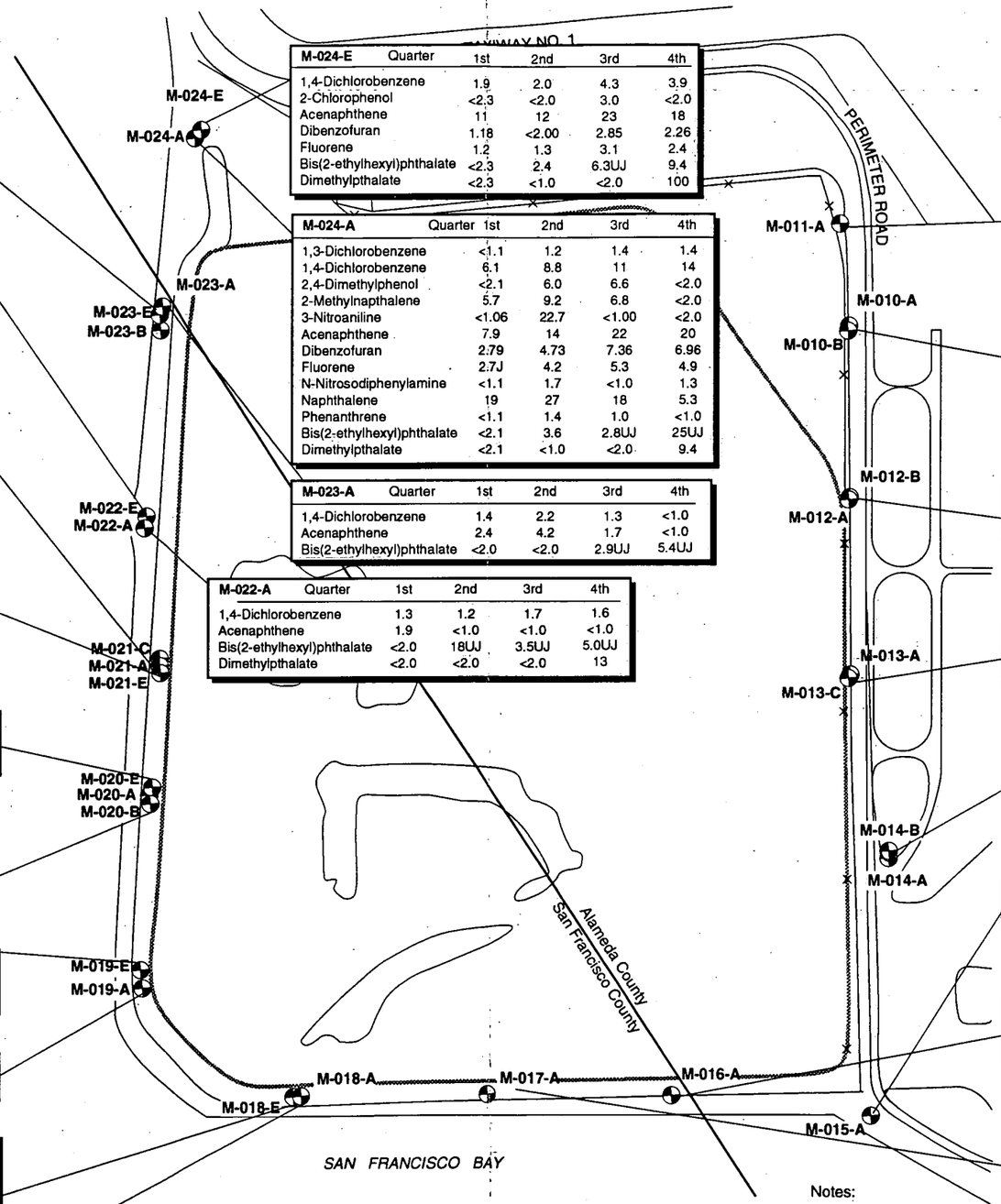
0 200 400
SCALE IN FEET

Notes:
Concentrations of VOC detected above the detection limits are included in this Figure.
All VOC are in concentrations of µg/L.
J = Qualified, estimate
UJ = Qualified, estimated not detected
< = Analyte reported below detection limit

NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA
SITE 2 - WEST BEACH LANDFILL
CONCENTRATION OF VOLATILE ORGANIC COMPOUNDS IN "A" AND "E" WELLS

FIGURE 9-12

CTO107.A-13



M-023-E	Quarter	1st	2nd	3rd	4th
4-Methylphenol		<2.0	<2.0	<2.0	3.2
Bis(2-ethylhexyl)phthalate		<2.0	<2.0	2.3UJ	2.5UJ
Phenol		<2.0	<2.0	<1.0	6.1

M-022-E	Quarter	1st	2nd/Dup	3rd	4th
Bis(2-ethylhexyl)phthalate		<2.0	<2.0/2.6UJ	3.8UJ	4.8UJ
Dimethylphthalate		<2.0	<2.0/<2.0	<2.0	470
Phenol		<2.0	<2.0/<2.0	<1.0	8.9

M-021-E	Quarter	1st	2nd	3rd/Dup	4th
Bis(2-ethylhexyl)phthalate		<2.0	22UJ	<2.0/14	3.9
Dimethylphthalate		<2.0	<2.0	<2.0/<2.0	64

M-021-A	Quarter	1st/Dup	2nd	3rd	4th
Bis(2-ethylhexyl)phthalate		<2.0/2.2	4.0UJ	<2.0	3.8UJ
Dimethylphthalate		<2.0/<2.2	<2.0	<2.0	3.8

M-020-E	Quarter	1st	2nd	3rd	4th/Dup
Bis(2-ethylhexyl)phthalate		<2.0	380	<2.0	1.7UJ/6.5UJ
Dimethylphthalate		<2.0	<2.0	<2.0	52/89

M-020-A	Quarter	1st/Dup	2nd	3rd	4th
Bis(2-ethylhexyl)phthalate		<2.0/<2.0	<2.0	<2.0	3.0UJ

M-019-E	Quarter	1st	2nd	3rd	4th
Bis(2-ethylhexyl)phthalate		<2.0	190	4.7UJ	16UJ
Dimethylphthalate		<2.0	<2.0	<2.0	41

M-019-A	Quarter	1st	2nd/Dup	3rd	4th
Bis(2-ethylhexyl)phthalate		<2.0	11/420	3.0UJ	5.1UJ

M-018-E	Quarter	1st	2nd	3rd	4th
Bis(2-ethylhexyl)phthalate		<4.0	<2.0	3.5	13UJ
Dimethylphthalate		<4.0	<2.0	<2.0	40

M-018-A	Quarter	1st	2nd	3rd	4th
Bis(2-ethylhexyl)phthalate		<2.0	<2.0	2.2	1.7UJ

M-024-E	Quarter	1st	2nd	3rd	4th
1,4-Dichlorobenzene		1.9	2.0	4.3	3.9
2-Chlorophenol		<2.3	<2.0	3.0	<2.0
Acenaphthene		11	12	23	18
Dibenzofuran		1.18	<2.00	2.85	2.26
Fluorene		1.2	1.3	3.1	2.4
Bis(2-ethylhexyl)phthalate		<2.3	2.4	6.3UJ	9.4
Dimethylpthalate		<2.3	<1.0	<2.0	100

M-024-A	Quarter	1st	2nd	3rd	4th
1,3-Dichlorobenzene		<1.1	1.2	1.4	1.4
1,4-Dichlorobenzene		6.1	8.8	11	14
2,4-Dimethylphenol		<2.1	6.0	6.6	<2.0
2-Methylnapthalene		5.7	9.2	6.8	<2.0
3-Nitroaniline		<1.06	22.7	<1.00	<2.0
Acenaphthene		7.9	14	22	20
Dibenzofuran		2.79	4.73	7.36	6.96
Fluorene		2.7J	4.2	5.3	4.9
N-Nitrosodiphenylamine		<1.1	1.7	<1.0	1.3
Naphthalene		19	27	18	5.3
Phenanthrene		<1.1	1.4	1.0	<1.0
Bis(2-ethylhexyl)phthalate		<2.1	3.6	2.8UJ	25UJ
Dimethylpthalate		<2.1	<1.0	<2.0	9.4

M-023-A	Quarter	1st	2nd	3rd	4th
1,4-Dichlorobenzene		1.4	2.2	1.3	<1.0
Acenaphthene		2.4	4.2	1.7	<1.0
Bis(2-ethylhexyl)phthalate		<2.0	<2.0	2.9UJ	5.4UJ

M-022-A	Quarter	1st	2nd	3rd	4th
1,4-Dichlorobenzene		1.3	1.2	1.7	1.6
Acenaphthene		1.9	<1.0	<1.0	<1.0
Bis(2-ethylhexyl)phthalate		<2.0	18UJ	3.5UJ	5.0UJ
Dimethylpthalate		<2.0	<2.0	<2.0	13

M-011-A	Quarter	1st	2nd	3rd	4th
Bis(2-ethylhexyl)phthalate		<2.0	50UJ	6.3	32
Dimethylphthalate		<2.0	<1.0	<4.0	62

M-010-A	Quarter	1st	2nd/Dup	3rd	4th
Bis(2-ethylhexyl)phthalate		<4.0	20UJ/22UJ	<4.0	23UJ
Dimethylphthalate		<4.0	<1.0/<1.0	<4.0	3

M-012-A	Quarter	1st	2nd	3rd	4th/Dup
Bis(2-ethylhexyl)phthalate		<2.0	15UJ	<4.0	6.3UJ/4.0UJ

M-013-A	Quarter	1st	2nd	3rd	4th
Bis(2-ethylhexyl)phthalate		2.1UJ	5.5UJ	<4.0	2.6UJ
Dimethylphthalate		<2.0	<1.0	<4.0	3.2

M-014-A	Quarter	1st/Dup	2nd	3rd	4th
Bis(2-ethylhexyl)phthalate		<4.0/<4.0	4.7UJ	<2.0	33
Dimethylphthalate		<4.0/<4.0	<1.0	<2.0	3

M-015-A	Quarter	1st/Dup	2nd	3rd	4th
Bis(2-ethylhexyl)phthalate		<2.2/<2.2	1.3UJ	<2.0	5.4UJ

M-016-A	Quarter	1st	2nd	3rd	4th
Bis(2-ethylhexyl)phthalate		<2.0	<2.0	3.0UJ	28UJ
Dimethylphthalate		<2.0	<2.0	<2.0	140

M-017-A	Quarter	1st	2nd	3rd	4th
Bis(2-ethylhexyl)phthalate		<2.0	<2.0	3.8UJ	1.9UJ

Notes:
Concentrations of SVOC detected above the detection limits are included in this Figure.
All SVOC are in concentrations of µg/L.
J = Qualified, estimate
UJ = Qualified, estimated not detected
R = Rejected
< = Analyte reported below detection limit

CTO107.A-13

NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA
SITE 2 - WEST BEACH LANDFILL
CONCENTRATION OF SEMIVOLATILE COMPOUNDS IN "A" AND "E" WELLS

FIGURE 9-13

N00236.000847
ALAMEDA POINT
SSIC NO. 5090.3

FIGURE 9-14
SITE 2-WEST BEACH LANDFILL CONCENTRATION OF TOTAL RECOVERABLE PETROLEUM HYDROCARBONS IN "A" AND "E" WELLS

FINAL
SOLID WASTE WATER QUALITY ASSESSMENT TEST AND DATA SUMMARY REPORT FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY FOR PHASES 5 AND 6

THE ABOVE IDENTIFIED FIGURE IS NOT AVAILABLE.

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

QUESTIONS MAY BE DIRECTED TO:

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ALAMEDA POINT
SSIC NO. 5090.3

TABLES

FINAL
SOLID WASTE WATER QUALITY ASSESSMENT TEST AND DATA SUMMARY REPORT FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY FOR PHASES 5 AND 6

DATED 30 APRIL 1993

TABLE 9-1

SITE 2 - WEST BEACH LANDFILL
GEOTECHNICAL SAMPLE LABORATORY TEST RESULTS

Sample Number	Depth (ft)	Soil Classification Laboratory (USCS)	Soil Classification Field (USCS)	Stratigraphic Unit	Moisture Content (%)	Dry Density (pcf)	Specific Gravity	CEC (meq/100g)	Permeability Effective Stresses (psi)	Permeability Hydraulic Conductivity (cm/s)
M-011A	10.5-11	SP	SP	Fill	19.5	106.0	2.74	6.8	NA	NA
M-013A	11-11.5	SP/SC	SP	Fill	21.0	115.0	2.73	8.6	NA	NA
M-013C	62-63	SC	SM	H/P-A/E	19.5	105.0	2.74	22.7	NA	NA
M-013C	83-83.5	CH	CL	PE	47.0	75.5	NA	NA	43	4.93E-09
M-015A	10.5-11	SP	SP/SM	Fill	22.0	105.0	2.70	5.3	NA	NA
M-016A	10.5-11	SP/SC	SP	Fill	20.0	110.5	2.70	11.6	NA	NA
M-017A	10.5-11	SP	SP	Fill	NA	NA	NA	NA	NA	NA
M-018A	10.5-11	SC	SP	Fill	18.5	91.0	NA	7.5	NA	NA
M-019E	43-43.5	SC	CL/SC	H/P-A/E	19.0	103.5	NA	NA	25	2.87E-07
M-020A	10.5-11	NA	ML	Fill	20.0	104.5	2.81	7.6	NA	NA
M-020B	89.5-90	CH	CL/OL	PE	45.5	75.0	NA	NA	40	3.38E-08
M-020E	30.5-31	SP	SP	Fill	NA	NA	NA	NA	NA	NA
M-020E	37-37.5	CL	CL	HBM	39.0	81.5	NA	NA	19	3.06E-08
M-021A	12-12.5	SC	SM	Fill	NA	NA	NA	NA	NA	NA
M-021C	35.5-36	CL	CL	HBM	38.0	84.5	NA	NA	19	2.20E-08
M-021E	36.5-37	CL	SP/CL	HBM	NA	NA	NA	NA	NA	NA

TABLE 9-1

SITE 2 - WEST BEACH LANDFILL
GEOTECHNICAL SAMPLE LABORATORY TEST RESULTS

Sample Number	Depth (ft)	Soil Classification Laboratory (USCS)	Soil Classification Field (USCS)	Stratigraphic Unit	Moisture Content (%)	Dry Density (pcf)	Specific Gravity	CEC (meq/100g)	Permeability Effective Stresses (psi)	Permeability Hydraulic Conductivity (cm/s)
M-022A	10-10.5	SW/SC	SM	Fill	14.5	104.5	2.71	4.6	6	1.50E-05
M-023A	11-11.5	SP/SC	SP	Fill	26.0	85.5	2.71	5.9	NA	NA
M-023B	120-120.5	CH	CL	PE	51.5	68.0	NA	NA	40	7.31E-09
M-024E	15.5-16	CL	CL	Fill	78.5	53.0	NA	NA	7	4.20E-07

NA - Not Analyzed
Parameters not detectect are reported as less than method detection limit.
HBM - Holocene Bay Mud
H/P-A/E - Holocene/Pleistocene Aluvial/Eolian Deposit
PE - Pleistocene Estuarine Deposits

Laboratory Methods (Units):
Soil Classification - Unified Soil Classification System (USCS) - ASTM D2488-90
USCS described in Appendix E
Moisture Content - ASTM D2216 (percent)
Dry Density - ASTM D2937 (pounds per cubic foot)
Specific Gravity - ASTM D854
Cation Exchange Capacity (CEC) - EPA 9080 (milliequivalents per 100 grams)
Effective Stress - EPA 9100 (pounds per square inch)
Hydraulic Conductivity - EPA 9100 (centimeters per second)

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	A-201	A-202	Resample A-202	A-203	Resample A-203	A-204	A-205	A-206	A-207	A-208
Date Sampled	05/06/91	05/06/91	05/28/91	05/06/91	05/28/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 82	< 81	NA	< 97	NA	< 82	< 88	< 82	< 88	< 85
Benzo(a)anthracene	< 100	< 100	NA	200	NA	< 100	< 110	< 100	< 110	< 110
Benzo(a)pyrene	140	< 140	NA	410	NA	< 140	< 150	< 140	< 150	< 150
Benzo(b)fluoranthene	220	< 100	NA	320	NA	< 100	< 110	< 100	< 110	< 110
Benzo(g,h,i)perylene	< 160	240	NA	410	NA	< 160	< 180	< 160	< 180	< 170
Benzo(k)fluoranthene	160	< 100	NA	260	NA	< 100	< 110	< 100	< 110	< 110
Bis(2-ethylhexyl)phthalate	7600	1200	NA	20000	NA	< 100	25000	2900	350	1700
Butylbenzylphthalate	< 100	< 100	NA	< 120	NA	< 100	< 110	< 100	< 110	< 110
Chrysene	220	< 100	NA	250	NA	< 100	< 110	< 100	< 110	< 110
Di-N-Butyl Phthalate	< 82	< 81	NA	140	NA	< 82	< 88	< 82	< 88	< 85
Di-N-Octyl Phthalate	< 140	< 140	NA	< 170	NA	< 140	< 150	< 140	< 150	< 150
Dibenzo(a,h)anthracene	< 160	< 160	NA	< 190	NA	< 160	< 180	< 160	< 180	< 170
Fluoranthene	280	< 81	NA	290	NA	< 82	< 88	< 82	< 88	< 85
Indeno(1,2,3-cd)pyrene	< 160	< 160	NA	350	NA	< 160	< 180	< 160	< 180	< 170
Phenanthrene	110	< 81	NA	140	NA	< 82	< 88	< 82	< 88	< 85
Pyrene	300	97	NA	620	NA	< 82UJ	< 88UJ	< 82UJ	< 88UJ	< 85UJ
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	10.1	24.5R	< 6.71	28.2R	< 6.75	< 6.82	< 7.32	11.8	< 7.35	< 7.08
4,4'-DDE	< 3.40	< 3.38R	< 3.35	< 4.02R	< 3.37	< 3.41	< 3.66	< 3.44	< 3.68	< 3.54
4,4'-DDT	< 6.80	< 6.75R	< 6.71	< 8.04R	< 6.75	< 6.82	< 7.32	34.5	14.7	< 7.08
Dieldrin	< 3.40	< 3.38R	< 3.35	< 4.02R	< 3.37	< 3.41	< 3.66	< 3.44	< 3.68	< 3.54
Endrin	< 3.40	< 3.38R	< 3.35	< 4.02R	< 3.37	< 3.41	< 3.66	< 3.44	< 3.68	< 3.54
Endrin Ketone	< 6.80	< 6.75R	< 6.71	< 8.04R	< 6.75	< 6.82	< 7.32	< 6.87	< 7.35	< 7.08
Heptachlor	< 3.40	< 3.38R	< 3.35	< 4.02R	< 3.37	< 3.41	< 3.66	< 3.44	< 3.68	< 3.54
Heptachlor Epoxide	< 3.40	< 3.38R	< 3.35	< 4.02R	< 3.37	< 3.41	< 3.66	< 3.44	< 3.68	< 3.54
Alpha-Chlordane	10.3	5.88R	< 3.35	7.23R	< 3.37	< 3.41	< 3.66	< 3.44	< 3.68	< 3.54
Delta-BHC	< 3.40	< 3.38R	< 3.35	< 4.02R	< 3.37	< 3.41	< 3.66	< 3.44	< 3.68	< 3.54
Gamma-Chlordane	15.3	26.8R	< 3.35	30.1R	< 3.37	< 3.41	< 3.66	< 3.44	< 3.68	< 3.54
Aroclor-1248	< 34	< 34R	< 34	< 40R	< 34	< 34	< 37	< 34	< 37	< 35
Aroclor-1260	270J	460R	650	800R	910	58J	150J	120J	50J	93J
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	617	984	NA	565	NA	197	223	457	117	269

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	Duplicate A-208	A-209	A-210	B-201	B-202	B-203	B-204	B-205	B-206	B-207
Date Sampled	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 84	< 91	< 87	< 86	< 91	< 87	< 95	< 87	< 86	< 84
Benzo(a)anthracene	< 110	< 110	< 110	< 110	< 110	< 110	< 120	< 110	< 110	< 110
Benzo(a)pyrene	< 150	< 160	< 150	< 150	< 160	< 150	< 170	< 150	< 150	< 150
Benzo(b)fluoranthene	< 110	< 110	< 110	< 110	< 110	< 110	130	< 110	< 110	< 110
Benzo(g,h,i)perylene	< 170	< 180	< 170	< 170	< 180	< 170	< 190	< 170	< 170	< 170
Benzo(k)fluoranthene	< 110	< 110	< 110	< 110	< 110	< 110	< 120	< 110	< 110	< 110
Bis(2-ethylhexyl)phthalate	410	170	210	380	1200	120	2300	650	860	810
Butylbenzylphthalate	< 110	< 110	< 110	< 110	< 110	< 110	< 120	< 110	< 110	< 110
Chrysene	< 110	< 110	< 110	< 110	< 110	< 110	< 120	< 110	< 110	110
Di-N-Butyl Phthalate	< 84	< 91	< 87	< 86	< 91	< 87	< 95	150	< 86	< 84
Di-N-Octyl Phthalate	< 150	< 160	< 150	< 150	< 160	< 150	< 170	< 150	< 150	< 150
Dibenzo(a,h)anthracene	< 170	< 180	< 170	< 170	< 180	< 170	< 190	< 170	< 170	< 170
Fluoranthene	< 84	< 91	< 87	< 86	< 91	< 87	130	< 87	< 86	110
Indeno(1,2,3-cd)pyrene	< 170	< 180	< 170	< 170	< 180	< 170	< 190	< 170	< 170	< 170
Phenanthrene	< 84	< 91	< 87	< 86	< 91	< 87	< 95	< 87	< 86	< 84
Pyrene	< 84UJ	< 91UJ	< 87	< 86UJ	< 91UJ	88J	190J	94J	100J	340J
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	< 7.00	< 7.59	< 7.25	< 7.17	< 7.57	< 7.22R	18.5J	< 7.23	< 7.19	< 7.03
4,4'-DDE	< 3.50	< 3.80	< 3.62	< 3.59	< 3.79	< 3.61R	< 3.97	< 3.61	< 3.59	< 3.51
4,4'-DDT	< 7.00	< 7.59	< 7.25	< 7.17	< 7.57	< 7.22R	< 7.95	< 7.23	< 7.19	< 7.03
Dieldrin	< 3.50	< 3.80	< 3.62	< 3.59	< 3.79	< 3.61R	< 3.97	< 3.61	< 3.59	< 3.51
Endrin	< 3.50	< 3.80	< 3.62	< 3.59	< 3.79	< 3.61R	< 3.97	< 3.61	< 3.59	< 3.51
Endrin Ketone	< 7.00	< 7.59	< 7.25	< 7.17	< 7.57	< 7.22R	< 7.95	< 7.23	< 7.19	< 7.03
Heptachlor	< 3.50	< 3.80	< 3.62	< 3.59	< 3.79	< 3.61R	< 3.97	< 3.61	< 3.59	< 3.51
Heptachlor Epoxide	< 3.50	< 3.80	< 3.62	< 3.59	< 3.79	< 3.61R	< 3.97	< 3.61	< 3.59	< 3.51
Alpha-Chlordane	< 3.50	< 3.80	< 3.62	< 3.59	< 3.79	< 3.61R	< 3.97	< 3.61	< 3.59	< 3.51
Delta-BHC	< 3.50	< 3.80	< 3.62	< 3.59	< 3.79	< 3.61R	< 3.97	< 3.61	< 3.59	< 3.51
Gamma-Chlordane	< 3.50	< 3.80	< 3.62	< 3.59	< 3.79	< 3.61R	< 3.97	< 3.61	< 3.59	< 3.51
Aroclor-1248	< 35	< 38	< 36	< 36	< 38	< 36R	< 40	< 36	< 36	< 35
Aroclor-1260	64J	< 38	< 36	85J	130J	< 36R	190J	98J	100J	71J
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	236	96.3	69.4	169	72	92.8	134	33J	504	79.3

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	B-208	B-209	Duplicate B-209	B-210	C-200	C-201	C-202	C-203	Duplicate C-203	C-204
Date Sampled	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 86	< 87	< 89	< 80	< 89	< 81	< 85	< 83	< 82	< 88
Benzo(a)anthracene	< 110	< 110	< 110	< 100	< 110	< 100	< 110	< 100	< 100	< 110
Benzo(a)pyrene	< 150	< 150	< 160	< 140	< 160	< 140	< 150	< 140	< 140	< 150
Benzo(b)fluoranthene	< 110	< 110	< 110	< 100	< 110	< 100	< 110	< 100	110	< 110
Benzo(g,h,i)perylene	< 170	< 170	< 180	< 160	< 180	< 160	< 170	< 170	190	< 180
Benzo(k)fluoranthene	< 110	< 110	< 110	< 100	< 110	< 100	< 110	< 100	110	< 110
Bis(2-ethylhexyl)phthalate	16000	< 110	230	680	740	< 100	470	170	170	< 110
Butylbenzylphthalate	< 110	< 110	< 110	< 100	< 110	< 100	< 110	< 100	< 100	< 110
Chrysene	< 110	< 110	< 110	< 100	< 110	< 100	< 110	< 100	< 100	< 110
Di-N-Butyl Phthalate	< 86	< 87	< 89	300	< 89	< 81	< 85	< 83	< 82	< 88
Di-N-Octyl Phthalate	< 150	< 150	< 160	210	< 160	< 140	< 150	< 140	< 140	< 150
Dibenzo(a,h)anthracene	< 170	< 170	< 180	< 160	< 180	< 160	< 170	< 170	< 160	< 180
Fluoranthene	< 86	< 87	< 89	< 80	< 89	< 81	< 85	< 83	< 82	< 88
Indeno(1,2,3-cd)pyrene	< 170	< 170	< 180	< 160	< 180	< 160	< 170	< 170	< 160	< 180
Phenanthrene	< 86	< 87	< 89	< 80	< 89	< 81	< 85	< 83	< 82	< 88
Pyrene	< 86UJ	< 87UJ	< 89UJ	< 80UJ	120	< 81	< 85	< 83	100	110
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	35.3J	17.1J	< 7.44	22.1J	16.2J	< 6.79	11.1J	31.2J	15.7J	9.69J
4,4'-DDE	42.9J	< 3.61	< 3.72	< 3.36	< 3.70	< 3.39	< 3.52	< 3.44	< 3.42	< 3.66
4,4'-DDT	< 71.5	< 7.21	< 7.44	18.3J	< 7.41	< 6.79	< 7.05	< 6.88	< 6.84	< 7.31
Dieldrin	< 3.57	< 3.61	< 3.72	< 3.36	< 3.70	< 3.39	< 3.52	< 3.44	< 3.42	< 3.66
Endrin	< 3.57	< 3.61	< 3.72	< 3.36	< 3.70	< 3.39	< 3.52	< 3.44	< 3.42	< 3.66
Endrin Ketone	< 7.15	< 7.21	< 7.44	< 6.71	< 7.41	< 6.79	< 7.05	< 6.88	< 6.84	< 7.31
Heptachlor	< 3.57	< 3.61	< 3.72	< 3.36	< 3.70	< 3.39	< 3.52	< 3.44	< 3.42	< 3.66
Heptachlor Epoxide	< 3.57	< 3.61	< 3.72	< 3.36	< 3.70	< 3.39	< 3.52	< 3.44	< 3.42	< 3.66
Alpha-Chlordane	< 3.57	< 3.61	< 3.72	< 3.36	< 3.70	< 3.39	< 3.52	7.11J	5.9J	< 3.66
Delta-BHC	< 3.57	< 3.61	< 3.72	< 3.36	< 3.70	< 3.39	< 3.52	< 3.44	< 3.42	< 3.66
Gamma-Chlordane	5.03	< 3.61	4.57	< 3.36	< 3.70	< 3.39	< 3.52	< 3.44	< 3.42	< 3.66
Aroclor-1248	< 36	< 36	< 37	< 34	< 37	< 34	< 35	< 34	< 34	< 37
Aroclor-1260	2100J	190J	160	130J	170J	< 34	150J	250J	260J	110J
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	282	195	121	688	271	43.8	317	1510	1400	144

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	C-205	C-206	C-207	C-208	C-209	C-210	D-200	D-201	D-202	D-203
Date Sampled	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/08/91	05/08/91	05/08/91	05/08/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 86	< 82	< 88	< 87	< 83	< 81	< 82	< 84	< 810	< 84
Benzo(a)anthracene	< 110	< 100	140	< 110	< 100	< 100	< 100	< 110	< 1000	210
Benzo(a)pyrene	< 150	< 140	180	< 150	190	< 140	< 140	< 150	< 1400	360
Benzo(b)fluoranthene	< 110	130	180	< 110	180	< 100	< 100	< 110	< 1000	230
Benzo(g,h,i)perylene	< 170	180	200	< 170	< 170	< 160	< 160	< 170	< 1600	580
Benzo(k)fluoranthene	< 110	< 100	140	< 110	170	< 100	< 100	< 110	< 1000	200
Bis(2-ethylhexyl)phthalate	120	1800	470	1200	180	350	120	< 110	11000	1600
Butylbenzylphthalate	< 110	100	< 110	< 110	< 100	< 100	< 100	< 110	< 1000	< 110
Chrysene	< 110	110	170	< 110	310	< 100	< 100	< 110	< 1000	210
Di-N-Butyl Phthalate	< 86	< 82	< 88	< 87	120	< 81	< 82	< 84	< 810	< 84
Di-N-Octyl Phthalate	< 150	< 140	< 150	< 150	< 150	< 140	< 140	< 150	< 1400	< 150
Dibenzo(a,h)anthracene	< 170	< 160	< 180	< 170	< 170	< 160	< 160	< 170	< 1600	< 170
Fluoranthene	< 86	< 82	150	< 87	< 83	< 81	< 82	< 84	< 810	310
Indeno(1,2,3-cd)pyrene	< 170	< 160	< 180	< 170	< 170	< 160	< 160	< 170	< 1600	350
Phenanthrene	< 86	< 82	120	< 87	< 83	< 81	< 82	< 84	< 810	150
Pyrene	110	140	370J	120J	< 83	< 81	110	< 84	< 810	450
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	< 7.15	97.5J	14.2	< 7.29	< 6.94	< 6.78	22.4	< 7.04	15.2	< 7.02
4,4'-DDE	< 3.57	27.1J	< 3.65	< 3.64	< 3.47	< 3.39	< 3.43	< 3.52	< 3.36	< 3.51
4,4'-DDT	< 7.15	26.4J	51.1	< 7.29	< 6.94	< 6.78	< 6.87	< 7.04	< 6.73	< 7.02
Dieldrin	< 3.57	< 3.42	< 3.65	< 3.64	< 3.47	< 3.39	< 3.43	< 3.52	< 3.36	< 3.51
Endrin	< 3.57	< 3.42	< 3.65	< 3.64	< 3.47	< 3.39	< 3.43	< 3.52	< 3.36	< 3.51
Endrin Ketone	< 7.15	< 6.85	< 7.31	< 7.29	< 6.94	< 6.78	< 6.87	< 7.04	< 6.73	< 7.02
Heptachlor	< 3.57	< 3.42	< 3.65	< 3.64	< 3.47	< 3.39	< 3.43	< 3.52	< 3.36	< 3.51
Heptachlor Epoxide	< 3.57	< 3.42	< 3.65	< 3.64	< 3.47	< 3.39	< 3.43	< 3.52	< 3.36	< 3.51
Alpha-Chlordane	< 3.57	30.9J	< 3.65	< 3.64	< 3.47	< 3.39	65	< 3.52	< 3.36	17.8
Delta-BHC	< 3.57	< 3.42	< 3.65	< 3.64	< 3.47	< 3.39	5.91	< 3.52	< 3.36	< 3.51
Gamma-Chlordane	< 3.57	12.5J	8.88	4.53	5.84	27.9	63.7	< 3.52	26.9	31.3
Aroclor-1248	< 36	< 34	< 37	< 36	< 35	< 34	< 34	< 35	< 34	< 35
Aroclor-1260	76J	4000J	220	110	140	510	210	58	530	270
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	1040	986	454	171	195	265	780	124	2620	213

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	D-204	D-205	Duplicate D-205	D-206	D-207	D-208	D-209	D-210	E-200	E-201
Date Sampled	05/08/91	05/08/91	05/08/91	05/08/91	05/08/91	05/08/91	05/08/91	05/08/91	05/09/91	05/09/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 86	< 83	< 83	< 84	< 86	< 84	< 87	< 81	< 86	< 85
Benzo(a)anthracene	< 110	< 100	< 100	< 100	230	140	< 110	< 100	< 110	< 110
Benzo(a)pyrene	< 150	< 140	< 150	< 150	290	330	< 150	< 140	< 150	< 150
Benzo(b)fluoranthene	< 110	< 100	< 100	< 100	260	390	120	< 100	< 110	< 110
Benzo(g,h,i)perylene	< 170	180	< 170	< 170	260	< 170	< 170	< 160	< 170	< 170
Benzo(k)fluoranthene	< 110	< 100	< 100	< 100	140	250	< 110	< 100	< 110	< 110
Bis(2-ethylhexyl)phthalate	1200	870	330	1600	300	2400	600	22000	120	180
Butylbenzylphthalate	< 110	1400	< 100	< 100	< 110	< 110	< 110	< 100	< 110	< 110
Chrysene	< 110	< 100	< 100	< 100	260	390	< 110	< 100	< 110	< 110
Di-N-Butyl Phthalate	< 86	< 83	< 83	< 84	< 86	< 84	< 87	< 81	< 86	< 85
Di-N-Octyl Phthalate	< 150	< 140	< 150	< 150	< 150	< 150	< 150	< 140	< 150	< 150
Dibenzo(a,h)anthracene	< 170	< 170	< 170	< 170	< 170	< 170	< 170	< 160	< 170	< 170
Fluoranthene	< 86	< 83	< 83	< 84	350	< 84	100	< 81	< 86	< 85
Indeno(1,2,3-cd)pyrene	< 170	< 170	< 170	< 170	< 170	< 170	< 170	< 160	< 170	< 170
Phenanthrene	< 86	< 83	< 83	< 84	260	< 84	< 87	< 81	< 86	< 85
Pyrene	< 86	< 83	130	87	660	160	220	< 81	< 86	86
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	84.1	149	153	< 6.99	16.9	28	< 7.27	< 6.78	< 7.18UJ	< 7.11R
4,4'-DDE	9.67	< 3.44	< 3.46	< 3.49	< 3.58	< 3.52	< 3.64	< 3.39	< 3.59UJ	< 3.55R
4,4'-DDT	278	306	< 6.92	< 6.99	< 7.17	< 7.04	< 7.27	< 6.78	< 7.18UJ	< 7.11R
Dieldrin	< 3.59	91.3	< 3.46	< 3.49	< 3.58	36.7	< 3.64	< 3.39	< 3.59UJ	< 3.55R
Endrin	< 3.59	< 3.44	< 3.46	< 3.49	< 3.58	< 3.52	< 3.64	< 3.39	< 3.59UJ	< 3.55R
Endrin Ketone	< 7.18	< 6.88	< 6.92	< 6.99	< 7.17	10.9	< 7.27	< 6.78	< 7.18UJ	< 7.11R
Heptachlor	< 3.59	10.7	12.6	< 3.49	< 3.58	< 3.52	< 3.64	< 3.39	< 3.59UJ	< 3.55R
Heptachlor Epoxide	< 3.59	6.95	< 3.46	< 3.49	< 3.58	< 3.52	< 3.64	< 3.39	< 3.59UJ	< 3.55R
Alpha-Chlordane	< 3.59	24	20.6	< 3.49	< 3.58	3.79	< 3.64	< 3.39	< 3.59UJ	< 3.55R
Delta-BHC	< 3.59	< 3.44	< 3.46	< 3.49	< 3.58	< 3.52	< 3.64	< 3.39	< 3.59UJ	< 3.55R
Gamma-Chlordane	< 3.59	86.8	121	6.24	10.8	9.98	< 3.64	7.34	< 3.59UJ	< 3.55R
Aroclor-1248	< 36	< 34	< 35	< 35	< 36	< 35	< 36	< 34	< 36UJ	< 36R
Aroclor-1260	72	1200	2200	150	200	99	80	230	95J	55R
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	440	322	401	294	144	203	156	176	155	47.8

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

	Resample					Duplicate				
Sample Number	**E-201**	**E-202**	**E-203**	**E-204**	**E-205**	**E-205**	**E-206**	**E-207**	**E-208**	**E-209**
Date Sampled	**05/28/91**	**05/09/91**	**05/09/91**	**05/09/91**	**05/09/91**	**05/09/91**	**05/09/91**	**05/09/91**	**05/09/91**	**05/09/91**
Depth of Sample	**0.0 ft**	**0.0 ft**	**0.0 ft**	**0.0 ft**	**0.0 ft**	**0.0 ft**	**0.0 ft**	**0.0 ft**	**0.0 ft**	**0.0 ft**
Semivolatile Organics (µg/kg-Dry)										
Anthracene	NA	< 83	< 86	< 91	< 88UJ	< 90	< 85	< 89	< 83	< 87
Benzo(a)anthracene	NA	< 100	< 110	< 110	< 110UJ	< 110	< 110	< 110	< 100	< 110
Benzo(a)pyrene	NA	< 140	< 150	< 160	< 150UJ	< 160	< 150	< 160	< 150	< 150
Benzo(b)fluoranthene	NA	< 100	120	< 110	120J	< 110	170	< 110	< 100	< 110
Benzo(g,h,i)perylene	NA	< 170	< 170	< 180	< 180UJ	< 180	270	< 180	< 170	< 170
Benzo(k)fluoranthene	NA	< 100	< 110	< 110	< 110UJ	< 110	110	< 110	< 100	< 110
Bis(2-ethylhexyl)phthalate	NA	780	1500	350	< 110UJ	140	670	1200	740	11000
Butylbenzylphthalate	NA	< 100	< 110	< 110	< 110UJ	< 110	< 110	< 110	< 100	< 110
Chrysene	NA	< 100	< 110	< 110	< 110UJ	< 110	180	< 110	< 100	< 110
Di-N-Butyl Phthalate	NA	< 83	< 86	< 91	< 88UJ	< 90	< 85	< 89	< 83	< 87
Di-N-Octyl Phthalate	NA	< 140	< 150	< 160	< 150UJ	< 160	< 150	< 160	< 150	< 150
Dibenzo(a,h)anthracene	NA	< 170	< 170	< 180	< 180UJ	< 180	< 170	< 180	< 170	< 170
Fluoranthene	NA	< 83	110	< 91	110J	< 90	250	< 89	< 83	< 87
Indeno(1,2,3-cd)pyrene	NA	< 170	< 170	< 180	< 180UJ	< 180	190	< 180	< 170	< 170
Phenanthrene	NA	< 83	< 86	< 91	< 88UJ	< 90	140	< 89	< 83	< 87
Pyrene	NA	< 83	120	< 91	110J	< 90UJ	210	99	< 83	110
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	< 7.22UJ	< 6.89UJ	< 7.19UJ	< 7.62UJ	< 7.31UJ	< 7.51UJ	< 7.08UJ	< 7.40UJ	< 6.92UJ	< 7.24UJ
4,4'-DDE	< 3.61UJ	< 3.45UJ	< 3.60UJ	< 3.81UJ	< 3.65UJ	< 3.75UJ	< 3.54UJ	< 3.70UJ	< 3.46UJ	< 3.62UJ
4,4'-DDT	< 7.22UJ	< 6.89UJ	< 7.19UJ	< 7.62UJ	< 7.31UJ	< 7.51UJ	< 7.08UJ	< 7.40UJ	< 6.92UJ	< 7.24UJ
Dieldrin	< 3.61UJ	< 3.45UJ	< 3.60UJ	< 3.81UJ	< 3.65UJ	< 3.75UJ	< 3.54UJ	< 3.70UJ	< 3.46UJ	< 3.62UJ
Endrin	< 3.61UJ	< 3.45UJ	< 3.60UJ	< 3.81UJ	< 3.65UJ	< 3.75UJ	< 3.54UJ	< 3.70UJ	< 3.46UJ	< 3.62UJ
Endrin Ketone	< 7.22UJ	< 6.89UJ	< 7.19UJ	< 7.62UJ	< 7.31UJ	< 7.51UJ	< 7.08UJ	< 7.40UJ	< 6.92UJ	< 7.24UJ
Heptachlor	< 3.61UJ	< 3.45UJ	< 3.60UJ	< 3.81UJ	< 3.65UJ	< 3.75UJ	< 3.54UJ	< 3.70UJ	< 3.46UJ	< 3.62UJ
Heptachlor Epoxide	< 3.61UJ	< 3.45UJ	< 3.60UJ	< 3.81UJ	< 3.65UJ	< 3.75UJ	< 3.54UJ	< 3.70UJ	< 3.46UJ	< 3.62UJ
Alpha-Chlordane	< 3.61UJ	< 3.45UJ	< 3.60UJ	< 3.81UJ	< 3.65UJ	< 3.75UJ	< 3.54UJ	< 3.70UJ	< 3.46UJ	< 3.62UJ
Delta-BHC	< 3.61UJ	< 3.45UJ	< 3.60UJ	< 3.81UJ	< 3.65UJ	< 3.75UJ	< 3.54UJ	< 3.70UJ	< 3.46UJ	< 3.62UJ
Gamma-Chlordane	< 3.61UJ	< 3.45UJ	< 3.60UJ	< 3.81UJ	< 3.65UJ	< 3.75UJ	< 3.54UJ	< 3.70UJ	< 3.46UJ	< 3.62UJ
Aroclor-1248	< 36UJ	< 34UJ	< 36UJ	< 38UJ	< 37UJ	< 38UJ	1000J	69J	460J	350J
Aroclor-1260	83J	100J	430J	210J	< 37UJ	81J	800J	100J	320J	260J
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	NA	65.9	451	378	349	346	366	101	538	166

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	E-210	F-200	F-201	F-202	Duplicate F-202	F-203	F-204	F-205	F-206	F-207
Date Sampled	05/08/91	05/09/91	05/09/91	05/09/91	05/09/91	05/09/91	05/09/91	05/09/91	05/09/91	05/09/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 82	220	< 110	< 97	< 97	< 84	< 94	< 90	< 83	< 87
Benzo(a)anthracene	< 100	1400	< 130	< 120	< 120	< 110	< 120	< 110	< 100	< 110
Benzo(a)pyrene	< 140	1400	< 190	< 170	< 170	< 150	< 160	< 160	< 150	< 150
Benzo(b)fluoranthene	< 100	1200	< 130	< 120	< 120	< 110	160	< 110	< 100	< 110
Benzo(g,h,i)perylene	< 160	1000	< 210	< 190	< 190	< 170	< 190	< 180	< 170	< 170
Benzo(k)fluoranthene	< 100	1100	< 130	< 120	< 120	< 110	< 120	< 110	< 100	< 110
Bis(2-ethylhexyl)phthalate	420	680	1700	< 120	< 120	430	< 120	210	3000	< 110
Butylbenzylphthalate	< 100	< 110	< 130	< 120	< 120	< 110	< 120	< 110	< 100	< 110
Chrysene	< 100	2000	< 130	< 120	< 120	< 110	< 120	< 110	< 100	< 110
Di-N-Butyl Phthalate	< 82	< 89	< 110	< 97	< 97	< 84	< 94	< 90	< 83	< 87
Di-N-Octyl Phthalate	< 140	< 160	< 190	< 170	< 170	< 150	< 160	< 160	< 150	< 150
Dibenzo(a,h)anthracene	< 160	190	< 210	< 190	< 190	< 170	< 190	< 180	< 170	< 170
Fluoranthene	< 82	3500	< 110	< 97	< 97	< 84	130	90	< 83	< 87
Indeno(1,2,3-cd)pyrene	< 160	970	< 210	< 190	< 190	< 170	< 190	< 180	< 170	< 170
Phenanthrene	< 82	2000	< 110	< 97	< 97	< 84	< 94	< 90	< 83	< 87
Pyrene	< 82UJ	2400	110	< 97	< 97	< 84	200	130	< 83	< 87
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	< 6.82	25.4J	15.2	< 8.09	< 8.05UJ	< 7.02	17.3	16.6	9.81	< 7.22
4,4'-DDE	< 3.41	< 3.73	< 4.47	< 4.05	< 4.03UJ	< 3.51	< 3.92	< 3.74	< 3.45	< 3.61
4,4'-DDT	< 6.82	74.5J	< 8.95	< 8.09	< 8.05UJ	< 7.02	< 7.83	< 7.48	< 6.91	< 7.22
Dieldrin	< 3.41	14.7J	< 4.47	< 4.05	< 4.03UJ	< 3.51	< 3.92	< 3.74	< 3.45	< 3.61
Endrin	< 3.41	< 3.73	< 4.47	< 4.05	< 4.03UJ	< 3.51	< 3.92	< 3.74	< 3.45	< 3.61
Endrin Ketone	< 6.82	< 7.46	< 8.95	< 8.09	< 8.05UJ	< 7.02	< 7.83	< 7.48	< 6.91	< 7.22
Heptachlor	< 3.41	< 3.73	< 4.47	< 4.05	< 4.03UJ	< 3.51	< 3.92	< 3.74	< 3.45	< 3.61
Heptachlor Epoxide	< 3.41	< 3.73	< 4.47	< 4.05	< 4.03UJ	< 3.51	< 3.92	< 3.74	< 3.45	< 3.61
Alpha-Chlordane	< 3.41	5.42J	< 4.47	< 4.05	< 4.03UJ	< 3.51	< 3.92	< 3.74	< 3.45	< 3.61
Delta-BHC	< 3.41	< 3.73	< 4.47	< 4.05	< 4.03UJ	< 3.51	< 3.92	< 3.74	< 3.45	< 3.61
Gamma-Chlordane	< 3.41	15.6J	6.08	< 4.05	< 4.03UJ	< 3.51	< 3.92	< 3.74	< 3.45	< 3.61
Aroclor-1248	< 34	< 37	< 45	< 40	< 40UJ	< 35	< 39	< 37	< 35	< 36
Aroclor-1260	40	380J	130	< 40	< 40UJ	130J	220	250	88	83
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	123	1350	69.5	41	35.6	117	95.4	64	136	56.7

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	F-208	F-209	F-210	G-200	G-201	G-202	G-203	G-204	G-205	G-206
Date Sampled	05/09/91	05/09/91	05/09/91	05/10/91	05/10/91	05/10/91	05/10/91	05/10/91	05/10/91	05/10/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 89	< 820	< 85	< 82	< 97	< 120	< 120	< 86	< 90	< 95
Benzo(a)anthracene	< 110	< 1000	< 110	< 100	< 120	< 150	< 160	< 110	< 110	< 120
Benzo(a)pyrene	< 160	< 1400	< 150	< 140	< 170	< 210	< 220	< 150	< 160	< 170
Benzo(b)fluoranthene	< 110	< 1000	110	< 100	150	< 150	< 160	< 110	< 110	< 120
Benzo(g,h,i)perylene	< 180	< 1600	< 170	< 160	< 190	< 240	< 250	< 170	< 180	< 190
Benzo(k)fluoranthene	< 110	< 1000	< 110	< 100	< 120	< 150	< 160	130	< 110	< 120
Bis(2-ethylhexyl)phthalate	3500	< 1000	730	< 100	320	250	470	510	150	5900
Butylbenzylphthalate	390	< 1000	< 110	< 100	< 120	< 150	< 160	< 110	< 110	< 120
Chrysene	< 110	< 1000	110	< 100	< 120	< 150	< 160	< 110	< 110	< 120
Di-N-Butyl Phthalate	< 89	< 820	< 85	< 82	< 97	< 120	< 120	< 86	< 90	< 95
Di-N-Octyl Phthalate	< 160	< 1400	< 150	< 140	< 170	< 210	< 220	< 150	< 160	< 170
Dibenzo(a,h)anthracene	< 180	< 1600	< 170	< 160	< 190	< 240	< 250	< 170	< 180	< 190
Fluoranthene	< 89	< 820	120	< 82	< 97	< 120	< 120	< 86	< 90	< 95
Indeno(1,2,3-cd)pyrene	< 180	< 1600	< 170	< 160	< 190	< 240	< 250	< 170	< 180	< 190
Phenanthrene	< 89	< 820	< 85	< 82	< 97	< 120	< 120	< 86	< 90	< 95
Pyrene	< 89	< 820	120	< 82	150	130	190	< 86	92	130
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	< 148	28.5	18.8J	< 6.80	< 8.12R	19	12.4	22.9J	9.53	17
4,4'-DDE	< 74.2	< 3.42	< 3.53	< 3.40	8.97J	13.6	8.45	< 3.59	< 3.75	< 3.94
4,4'-DDT	< 148	40.9	< 7.05	< 6.80	< 8.12R	< 9.89	< 10.3	< 7.18	< 7.49	< 7.89
Dieldrin	< 74.2	< 3.42	< 3.53	4.52	< 4.06R	< 4.95	< 5.17	< 3.59	< 3.75	< 3.94
Endrin	< 74.2	< 3.42	< 3.53	< 3.40	< 4.06R	< 4.95	< 5.17	< 3.59	< 3.75	< 3.94
Endrin Ketone	< 7.42	< 6.84	< 7.05	< 6.80	< 8.12R	< 9.89	< 10.3	< 7.18	< 7.49	< 7.89
Heptachlor	< 74.2	< 3.42	< 3.53	< 3.40	< 4.06R	< 4.95	< 5.17	< 3.59	< 3.75	< 3.94
Heptachlor Epoxide	< 74.2	< 3.42	< 3.53	< 3.40	< 4.06R	< 4.95	< 5.17	< 3.59	< 3.75	< 3.94
Alpha-Chlordane	< 74.2	< 3.42	< 3.53	< 3.40	< 4.06R	< 4.95	< 5.17	10.7J	< 3.75	< 3.94
Delta-BHC	< 74.2	< 3.42	< 3.53	< 3.40	< 4.06R	< 4.95	< 5.17	< 3.59	< 3.75	< 3.94
Gamma-Chlordane	< 74.2	8.51	4.17J	< 3.40	5.31J	9.38	< 5.17	< 3.59	< 3.75	< 3.94
Aroclor-1248	11000	< 34	< 35	< 34	< 41R	< 49	< 52	540J	< 37	< 39
Aroclor-1260	< 37	120	160J	100	200J	300	190	570J	200	270
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	257	411	75.6	34.4	172	< 42.3	< 44.2	211	< 32.0	84.4

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	G-207	G-208	Duplicate G-208	G-209	G-210	H-200	H-201	H-202	H-203	H-204
Date Sampled	05/10/91	05/09/91	05/09/91	05/09/91	05/09/91	05/10/91	05/10/91	05/10/91	05/10/91	05/10/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 81	< 81	< 81	< 81	< 83	< 82	< 110	< 120	< 110	< 130
Benzo(a)anthracene	110	< 100	< 100	< 100	< 100	< 100	< 140	< 150	< 130	< 160
Benzo(a)pyrene	220	< 140	< 140	< 140	< 150	< 140	< 200	< 210	< 180	< 230
Benzo(b)fluoranthene	210	< 100	< 100	< 100	< 100	< 100	< 140	< 150	< 130	< 160
Benzo(g,h,i)perylene	250	< 160	< 160	< 160	< 170	< 160	< 230	< 240	< 210	< 260
Benzo(k)fluoranthene	< 100	< 100	< 100	< 100	< 100	< 100	< 140	< 150	< 130	< 160
Bis(2-ethylhexyl)phthalate	900	100	< 100	< 100	< 100	< 100	460	270	170	180
Butylbenzylphthalate	< 100	130	< 100	< 100	< 100	< 100	< 140	< 150	< 130	< 160
Chrysene	150	< 100	< 100	< 100	< 100	< 100	< 140	< 150	< 130	< 160
Di-N-Butyl Phthalate	< 81	< 81	< 81	< 81	< 83	< 82	< 110	< 120	< 110	< 130
Di-N-Octyl Phthalate	< 140	< 140	< 140	< 140	< 150	< 140	< 200	< 210	< 180	< 230
Dibenzo(a,h)anthracene	< 160	< 160	< 160	< 160	< 170	< 160	< 230	< 240	< 210	< 260
Fluoranthene	110	< 81	< 81	< 81	< 83	< 82	120	160	< 110	< 130
Indeno(1,2,3-cd)pyrene	< 160	< 160	< 160	< 160	< 170	< 160	< 230	< 240	< 210	< 260
Phenanthrene	< 81	< 81	< 81	< 81	< 83	< 82	< 110	< 120	< 110	< 130
Pyrene	100	< 81	< 81	< 81	< 83	< 82	160	410	110	210
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	21.2	75.6	< 6.79UJ	< 6.75	< 6.94	< 6.80	20.2	20.3	17.7	19.7J
4,4'-DDE	38.5	56.4	< 3.39UJ	< 3.38	< 3.47	< 3.40	14.2	14.1	8.2	14.3J
4,4'-DDT	25.1	113	< 6.79UJ	< 6.75	< 6.94	< 6.80	< 9.52	< 10.1	< 8.81	< 10.9
Dieldrin	< 3.39	< 3.39	< 3.39UJ	< 3.38	< 3.47	< 3.40	< 4.76	< 5.07	12.7	< 5.44
Endrin	< 3.39	< 3.39	< 3.39UJ	< 3.38	< 3.47	< 3.40	< 4.76	< 5.07	< 4.40	< 5.44
Endrin Ketone	< 6.79	< 6.78	< 6.79UJ	< 6.75	< 6.94	< 6.80	< 9.52	< 10.1	< 8.81	< 10.9
Heptachlor	< 3.39	< 3.39	< 3.39UJ	< 3.38	< 3.47	< 3.40	< 4.76	< 5.07	< 4.40	< 5.44
Heptachlor Epoxide	< 3.39	< 3.39	< 3.39UJ	< 3.38	< 3.47	< 3.40	< 4.76	< 5.07	< 4.40	< 5.44
Alpha-Chlordane	20.3	7.51	< 3.39UJ	< 3.38	< 3.47	< 3.40	< 4.76	< 5.07	< 4.40	< 5.44
Delta-BHC	< 3.39	< 3.39	< 3.39UJ	< 3.38	< 3.47	< 3.40	< 4.76	< 5.07	< 4.40	< 5.44
Gamma-Chlordane	4.82	7.11	< 3.39UJ	4.89	< 3.47	4.66	8.41	8.16	8.35	9.18J
Aroclor-1248	< 34	< 34	71J	< 34	< 35	< 34	< 48	< 51	< 44	< 54
Aroclor-1260	210	45	41J	130J	94J	120J	280J	270J	270J	370J
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	802	351	79.7	335	81.5	310	116	106	56.8	55.1

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	H-205	H-206	H-207	H-208	H-209	H-210	Duplicate H-210	I-200	I-201	I-202
Date Sampled	05/10/91	05/10/91	05/10/91	05/10/91	05/10/91	05/10/91	05/10/91	05/13/91	05/13/91	05/13/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 96	< 83	< 87	< 89	< 83	< 84	< 84	< 87	< 110	< 97
Benzo(a)anthracene	< 120	< 100	< 110	130	< 100	< 100	< 100	< 110	< 140	< 120
Benzo(a)pyrene	< 170	< 150	< 150	160	< 140	< 150	< 150	< 150	< 200	< 170
Benzo(b)fluoranthene	190	< 100	< 110	140	< 100	< 100	< 100	< 110	200	< 120
Benzo(g,h,i)perylene	< 190	< 170	< 170	220	< 170	< 170	< 170	< 170	250	< 190
Benzo(k)fluoranthene	< 120	< 100	< 110	140	< 100	< 100	< 100	< 110	< 140	< 120
Bis(2-ethylhexyl)phthalate	< 120	< 100	< 110	< 110	< 100	350	< 100	110	400	330UJ
Butylbenzylphthalate	< 120	< 100	< 110	< 110	< 100	130	< 100	< 110	< 140	< 120
Chrysene	150	< 100	< 110	140	< 100	< 100	< 100	< 110	160	< 120
Di-N-Butyl Phthalate	< 96	< 83	< 87	< 89	< 83	< 84	< 84	< 87	< 110	< 97
Di-N-Octyl Phthalate	< 170	< 150	< 150	< 160	< 140	< 150	< 150	< 150	< 200	< 170
Dibenzo(a,h)anthracene	< 190	< 170	< 170	< 180	< 170	< 170	< 170	< 170	< 220	< 190
Fluoranthene	100	< 83	160	210	< 83	< 84	< 84	< 87	130	100
Indeno(1,2,3-cd)pyrene	< 190	< 170	< 170	< 180	< 170	< 170	< 170	< 170	< 220	< 190
Phenanthrene	< 96	< 83	140	140	< 83	< 84	< 84	< 87	< 110	< 97
Pyrene	170	< 83	230	320	90	< 84UJ	< 84UJ	< 87UJ	130J	110J
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	15.8	< 6.92	< 7.24	19.7J	13.9	< 6.96	< 6.98UJ	< 7.22	< 9.30	16.2
4,4'-DDE	< 3.99	< 3.46	< 3.62	8.79J	< 3.45	< 3.48	< 3.49UJ	< 3.61	5.37	6.75
4,4'-DDT	< 7.97	< 6.92	< 7.24	< 7.40	< 6.89	< 6.96	< 6.98UJ	< 7.22	13.7	< 8.06
Dieldrin	< 3.99	< 3.46	< 3.62	< 3.70	< 3.45	< 3.48	< 3.49UJ	< 3.61	< 4.65	< 4.03
Endrin	< 3.99	< 3.46	< 3.62	< 3.70	< 3.45	< 3.48	< 3.49UJ	< 3.61	< 4.65	4.37
Endrin Ketone	< 7.97	< 6.92	< 7.24	< 7.40	< 6.89	< 6.96	< 6.98UJ	< 7.22	< 9.30	< 8.06
Heptachlor	< 3.99	< 3.46	< 3.62	< 3.70	< 3.45	< 3.48	< 3.49UJ	< 3.61	< 4.65	< 4.03
Heptachlor Epoxide	< 3.99	< 3.46	< 3.62	< 3.70	< 3.45	< 3.48	< 3.49UJ	< 3.61	< 4.65	< 4.03
Alpha-Chlordane	< 3.99	< 3.46	< 3.62	< 3.70	< 3.45	< 3.48	< 3.49UJ	< 3.61	< 4.65	< 4.03
Delta-BHC	< 3.99	< 3.46	< 3.62	< 3.70	< 3.45	< 3.48	< 3.49UJ	< 3.61	< 4.65	< 4.03
Gamma-Chlordane	8.82	< 3.46	< 3.62	< 3.70	8.19	< 3.48	< 3.49UJ	14	5.22	< 4.03
Aroclor-1248	< 40	< 35	< 36	< 37	< 34	< 35	< 35UJ	< 36	< 46	100
Aroclor-1260	290J	45J	140J	310J	260J	130J	63J	160	84	180J
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	120	44.7	65.9	188	281	123	64.8	479	218	64.9

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	I-203	I-204	I-205	I-206	I-207	I-208	Duplicate I-208	I-209	I-210	J-200
Date Sampled	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 100	< 96	< 98	< 91R	< 84	< 84	< 83	< 84	< 84	< 86
Benzo(a)anthracene	< 130	< 120	< 120	< 110R	< 100	< 100	< 100	< 110	< 100	< 110
Benzo(a)pyrene	< 180	< 170	< 170	< 160R	< 150	< 150	< 140	< 150	< 150	< 150
Benzo(b)fluoranthene	140	170	< 120	< 110R	< 100	< 100	< 100	140	< 100	< 110
Benzo(g,h,i)perylene	< 200	230	< 200	< 180R	< 170	< 170	< 170	< 170	< 170	< 170
Benzo(k)fluoranthene	< 130	< 120	< 120	< 110R	< 100	< 100	< 100	< 110	< 100	< 110
Bis(2-ethylhexyl)phthalate	280	250	170	< 110R	< 100	< 100UJ	< 100UJ	< 110	< 100	180
Butylbenzylphthalate	< 130	< 120	< 120	< 110R	< 100	< 100	< 100	< 110	< 100	< 110
Chrysene	< 130	120	< 120	< 110R	< 100	< 100	< 100	< 110	< 100	< 110
Di-N-Butyl Phthalate	< 100	< 96	< 98	< 91R	< 84	< 84	< 83	< 84	< 84	< 86
Di-N-Octyl Phthalate	< 180	< 170	< 170	< 160R	< 150	< 150	< 140	< 150	< 150	< 150
Dibenzo(a,h)anthracene	< 200	< 190	< 200	< 180R	< 170	< 170	< 170	< 170	< 170	< 170
Fluoranthene	< 100	97	100	< 91R	< 84	< 84	< 83	120	< 84	< 86
Indeno(1,2,3-cd)pyrene	< 200	210	< 200	< 180R	< 170	< 170	< 170	< 170	< 170	< 170
Phenanthrene	< 100	< 96	< 98	< 91R	< 84	< 84	< 83	< 84	< 84	< 86
Pyrene	< 100UJ	130J	120J	< 91R	< 84UJ	< 84	< 83	120UJ	< 84J	< 86UJ
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	32.2J	18.2	17J	8.68	< 6.97	< 6.97	< 6.89	< 7.04	< 6.99	< 7.17
4,4'-DDE	6.6J	10.3	8.47J	4.09	< 3.49	< 3.48	< 3.45	< 3.52	< 3.49	< 3.58
4,4'-DDT	< 8.34	< 7.96	< 8.20	< 7.62	< 6.97	< 6.97	< 6.89	< 7.04	< 6.99	< 7.17
Dieldrin	< 4.17	< 3.98	< 4.10	< 3.81	< 3.49	< 3.48	< 3.45	< 3.52	< 3.49	< 3.58
Endrin	< 4.17	< 3.98	< 4.10	< 3.81	< 3.49	5.33	< 3.45	< 3.52	< 3.49	< 3.58
Endrin Ketone	< 8.34	< 7.96	< 8.20	< 7.62	< 6.97	< 6.97	< 6.89	< 7.04	< 6.99	< 7.17
Heptachlor	< 4.17	< 3.98	< 4.10	< 3.81	< 3.49	< 3.48	< 3.45	< 3.52	< 3.49	< 3.58
Heptachlor Epoxide	< 4.17	< 3.98	< 4.10	< 3.81	< 3.49	< 3.48	< 3.45	< 3.52	< 3.49	< 3.58
Alpha-Chlordane	6.27J	< 3.98	< 4.10	< 3.81	< 3.49	5.74	< 3.45	< 3.52	< 3.49	< 3.58
Delta-BHC	< 4.17	< 3.98	< 4.10	< 3.81	< 3.49	< 3.48	< 3.45	< 3.52	< 3.49	< 3.58
Gamma-Chlordane	12.8J	9.36	7.41J	7.56	< 3.49	< 3.48	9.33	< 3.52	< 3.49	4.59
Aroclor-1248	< 42	< 40	< 41	< 38	< 35	140	360	< 35	< 35	< 36
Aroclor-1260	410J	350J	300J	260J	36J	< 35	120J	140	< 35	120
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	85.3	139	72.5	293	53.9	148	116	161	45.1	370

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	J-201	Duplicate J-201	J-202	J-204	J-205	J-206	J-207	J-208	J-209	J-210
Date Sampled	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 110	< 110UJ	< 110	< 100	< 110	< 100	< 92	< 85	< 87	100
Benzo(a)anthracene	< 130	< 130UJ	< 130	< 130	< 140	< 120	120	< 110	< 110	< 120
Benzo(a)pyrene	< 190	< 190UJ	< 190	< 180	< 200	< 170	< 160	< 150	< 150	< 160
Benzo(b)fluoranthene	170	180J	150	210	180	130	190	< 110	130	150
Benzo(g,h,i)perylene	< 210	< 220UJ	< 220	240	< 230	< 200	< 180	< 170	< 170	< 190
Benzo(k)fluoranthene	< 130	< 130UJ	< 130	< 130	< 140	< 120	< 110	< 110	< 110	< 120
Bis(2-ethylhexyl)phthalate	< 130	< 130UJ	< 130	190	980UJ	260	250	180	390	220
Butylbenzylphthalate	< 130	< 130UJ	< 130	< 130	< 140	< 120	< 110	< 110	< 110	< 120
Chrysene	< 130	< 130UJ	< 130	< 130	< 140	< 120	140	< 110	< 110	< 120
Di-N-Butyl Phthalate	< 110	< 110UJ	< 110	< 100	< 110	< 100	< 92	< 85	< 87	< 93
Di-N-Octyl Phthalate	< 190	< 190UJ	< 190	< 180	< 200	< 170	< 160	< 150	< 150	< 160
Dibenzo(a,h)anthracene	< 210	< 220UJ	< 220	< 210	< 230	< 200	< 180	< 170	< 170	< 190
Fluoranthene	130	120J	140	150	< 110	< 100	98	< 85	120	110
Indeno(1,2,3-cd)pyrene	< 210	< 220UJ	< 220	< 210	< 230	< 200	< 180	< 170	< 170	< 190
Phenanthrene	< 110	< 110UJ	< 110	< 100	< 110	< 100	< 92	< 85	< 87	< 93
Pyrene	170J	180J	200UJ	230J	160	110J	120J	< 85UJ	150J	140J
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	< 8.82	< 8.97UJ	11	16	< 9.38	< 8.32	10.5	< 7.05	< 7.25	25.6
4,4'-DDE	< 4.41	< 4.49UJ	9.26	9.13	8.22	< 4.16	< 3.82	< 3.52	< 3.62	< 3.87
4,4'-DDT	< 8.82	< 8.97UJ	< 8.98	< 8.61	< 9.38	< 8.32	< 7.65	< 7.05	< 7.25	< 7.73
Dieldrin	< 4.41	< 4.49UJ	< 4.49	< 4.31	< 4.69	< 4.16	< 3.82	< 3.52	< 3.62	< 3.87
Endrin	< 4.41	< 4.49UJ	< 4.49	< 4.31	8.99	< 4.16	< 3.82	< 3.52	< 3.62	< 3.87
Endrin Ketone	< 8.82	< 8.97UJ	< 8.98	< 8.61	< 9.38	< 8.32	< 7.65	< 7.05	< 7.25	< 7.73
Heptachlor	< 4.41	< 4.49UJ	< 4.49	< 4.31	< 4.69	< 4.16	< 3.82	< 3.52	< 3.62	< 3.87
Heptachlor Epoxide	< 4.41	< 4.49UJ	< 4.49	< 4.31	< 4.69	< 4.16	< 3.82	< 3.52	< 3.62	< 3.87
Alpha-Chlordane	< 4.41	< 4.49UJ	< 4.49	< 4.31	< 4.69	< 4.16	< 3.82	< 3.52	4.66	< 3.87
Delta-BHC	< 4.41	< 4.49UJ	< 4.49	< 4.31	< 4.69	< 4.16	< 3.82	< 3.52	< 3.62	< 3.87
Gamma-Chlordane	< 4.41	< 4.49UJ	< 4.49	< 4.31	< 4.69	< 4.16	< 3.82	< 3.52	< 3.62	< 3.87
Aroclor-1248	< 44	< 45UJ	< 45	< 43	76	< 42	< 38	< 35	< 36	270
Aroclor-1260	120	110J	130	190	120J	190	150	120	63	96
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	42.4	117	67.3	125	443	96.8	122	123	332	158

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	K-200	K-201	K-202	K-203	K-204	K-205	K-206	K-207	K-208	K-209
Date Sampled	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 92	< 83	< 83	< 84	< 83	< 96	< 96	< 90	< 83	< 84
Benzo(a)anthracene	< 110	< 100	< 100	< 110	< 100	< 120	< 120	< 110	< 100	< 100
Benzo(a)pyrene	< 160	< 150	< 140	< 150	< 140	< 170	< 170	< 160	< 140	< 150
Benzo(b)fluoranthene	< 110	< 100	< 100	< 110	< 100	170	< 120	230	< 100	110
Benzo(g,h,i)perylene	< 180	< 170	< 170	< 170	< 170	< 190	< 190	< 180	< 170	< 170
Benzo(k)fluoranthene	< 110	< 100	< 100	< 110	< 100	< 120	< 120	< 110	< 100	< 100
Bis(2-ethylhexyl)phthalate	1500	1400	400UJ	< 110	< 100	140	< 120	240	150UJ	330
Butylbenzylphthalate	< 110	< 100	< 100	< 110	< 100	< 120	< 120	< 110	< 100	< 100
Chrysene	< 110	< 100	< 100	< 110	< 100	< 120	< 120	130	< 100	< 100
Di-N-Butyl Phthalate	< 92	< 83	< 83	< 84	< 83	< 96	< 96	< 90	< 83	< 84
Di-N-Octyl Phthalate	< 160	< 150	< 140	< 150	< 140	< 170	< 170	< 160	< 140	< 150
Dibenzo(a,h)anthracene	< 180	< 170	< 170	< 170	< 170	< 190	< 190	< 180	< 170	< 170
Fluoranthene	< 92	< 83	< 83	< 84	< 83	150	< 96	< 90	140	< 84
Indeno(1,2,3-cd)pyrene	< 180	< 170	< 170	< 170	< 170	< 190	< 190	< 180	< 170	< 170
Phenanthrene	< 92	< 83	< 83	< 84	< 83	< 96	< 96	< 90	96	< 84
Pyrene	< 92UJ	< 83UJ	< 83	< 84UJ	< 83UJ	180J	< 96UJ	< 90UJ	180	87J
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	10.3	< 6.92	< 6.90	< 7.01	< 6.88	18	< 7.96	< 7.51	9.2	7.93
4,4'-DDE	< 3.82	< 3.46	< 3.45	< 3.51	< 3.44	13.4	< 3.98	< 3.75	< 3.45	< 3.48
4,4'-DDT	< 7.65	< 6.92	< 6.90	< 7.01	< 6.88	< 7.97	< 7.96	< 7.51	< 6.90	12.6
Dieldrin	< 3.82	< 3.46	< 3.45	< 3.51	< 3.44	< 3.99	< 3.98	11.2	< 3.45	< 3.48
Endrin	< 3.82	< 3.46	< 3.45	< 3.51	< 3.44	< 3.99	< 3.98	< 3.75	< 3.45	< 3.48
Endrin Ketone	< 7.65	< 6.92	< 6.90	< 7.01	< 6.88	< 7.97	< 7.96	< 7.51	< 6.90	< 6.96
Heptachlor	< 3.82	< 3.46	< 3.45	< 3.51	< 3.44	< 3.99	< 3.98	< 3.75	< 3.45	< 3.48
Heptachlor Epoxide	< 3.82	< 3.46	< 3.45	< 3.51	< 3.44	< 3.99	< 3.98	< 3.75	< 3.45	< 3.48
Alpha-Chlordane	< 3.82	< 3.46	< 3.45	< 3.51	< 3.44	< 3.99	< 3.98	< 3.75	< 3.45	< 3.48
Delta-BHC	< 3.82	< 3.46	< 3.45	< 3.51	< 3.44	< 3.99	< 3.98	< 3.75	< 3.45	< 3.48
Gamma-Chlordane	< 3.82	< 3.46	< 3.45	< 3.51	< 3.44	9.02	< 3.98	6.16	3.72	6
Aroclor-1248	79	< 35	< 34	< 35	< 34	< 40	< 40	< 38	57	< 35
Aroclor-1260	190	< 35	58J	< 35	< 34	190	< 40	150	120J	98
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	457	80.4	105	< 30.0	< 29.4	175	38.3	97.9	158	196

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	Duplicate K-209	K-210	L-200	L-201	L-202	L-203	L-204	Duplicate L-204	L-205	L-206
Date Sampled	05/14/91	05/15/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 96	< 84	< 85	< 100	< 83	< 82	< 75	< 84	< 76	< 78
Benzo(a)anthracene	< 120	< 110	< 110	< 130	< 100	< 100	< 110	< 110	< 110	< 110
Benzo(a)pyrene	< 170	< 150	< 150	< 180	< 150	< 140	< 150	< 150	< 150	< 160
Benzo(b)fluoranthene	< 120	< 110	120	220	< 100	< 100	< 110	< 110	< 110	< 110
Benzo(g,h,i)perylene	< 190	< 170	< 170	< 210	< 170	< 160	< 170	< 170	< 170	< 180
Benzo(k)fluoranthene	< 120	< 110	< 110	< 130	< 100	< 100	< 110	< 110	< 110	< 110
Bis(2-ethylhexyl)phthalate	< 120	330	280	< 130	600	250	< 110	< 110	< 110	1500
Butylbenzylphthalate	< 120	< 110	< 110	< 130	< 100	< 100	< 110	< 110	< 110	< 110
Chrysene	< 120	< 110	< 110	< 130	< 100	< 100	< 110	< 110	< 110	< 110
Di-N-Butyl Phthalate	< 96	< 84	< 85	< 100	< 83	< 82	< 75	< 84	< 76	< 78
Di-N-Octyl Phthalate	< 170	< 150	< 150	< 180	< 150	< 140	< 150	< 150	< 150	< 160
Dibenzo(a,h)anthracene	< 190	< 170	< 170	< 210	< 170	< 160	< 170	< 170	< 170	< 180
Fluoranthene	< 96	< 84	< 85	170	< 83	< 82	< 75	< 84	< 76	86
Indeno(1,2,3-cd)pyrene	< 190	< 170	< 170	< 210	< 170	< 160	< 170	< 170	< 170	< 180
Phenanthrene	< 96	< 84	< 85	< 100	< 83	< 82	< 75	< 84	< 76	< 78
Pyrene	< 96UJ	< 84UJ	89J	290J	< 83UJ	< 82UJ	< 75	< 84UJ	< 76	180
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	< 8.02	< 7.02	< 7.05	< 8.55	< 6.94	< 6.87	< 7.18	< 7.04	< 7.25	< 7.46
4,4'-DDE	< 4.01	< 3.51	< 3.52	< 4.27	< 3.47	< 3.44	< 3.59	< 3.52	< 3.63	< 3.73
4,4'-DDT	< 8.02	< 7.02	< 7.05	< 8.55	< 6.94	< 6.87	< 7.18	< 7.04	< 7.25	< 7.46
Dieldrin	< 4.01	< 3.51	< 3.52	< 4.27	< 3.47	< 3.44	< 3.59	< 3.52	< 3.63	< 3.73
Endrin	< 4.01	< 3.51	< 3.52	< 4.27	< 3.47	< 3.44	< 3.59	< 3.52	< 3.63	< 3.73
Endrin Ketone	< 8.02	< 7.02	< 7.05	< 8.55	< 6.94	< 6.87	< 7.18	< 7.04	< 7.25	< 7.46
Heptachlor	< 4.01	< 3.51	< 3.52	< 4.27	< 3.47	< 3.44	< 3.59	< 3.52	< 3.63	< 3.73
Heptachlor Epoxide	< 4.01	< 3.51	< 3.52	< 4.27	< 3.47	< 3.44	< 3.59	< 3.52	< 3.63	< 3.73
Alpha-Chlordane	< 4.01	< 3.51	< 3.52	< 4.27	< 3.47	< 3.44	< 3.59	< 3.52	< 3.63	< 3.73
Delta-BHC	< 4.01	< 3.51	< 3.52	< 4.27	< 3.47	< 3.44	< 3.59	< 3.52	< 3.63	< 3.73
Gamma-Chlordane	5.1	< 3.51	12.4	< 4.27	< 3.47	< 3.44	< 3.59	< 3.52	< 3.63	< 3.73
Aroclor-1248	< 40	< 35	< 35	< 43	< 35	< 34	< 36	< 35	< 36	< 37
Aroclor-1260	230J	< 35	120	63	< 35	< 34	< 36	< 35	< 36	48
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	398	116	377	87.4	33.4	< 29.4	44.1	< 30.1	< 31.0	65.9

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	L-207	L-208	L-209	L-210	M-201	M-202	M-203	M-204	M-205	M-206
Date Sampled	05/14/91	05/14/91	05/14/91	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 130	< 83	< 90	< 86	< 89	< 84	< 87	< 96	< 91	< 95
Benzo(a)anthracene	< 160	< 100	< 110	< 110	< 110	< 100	< 110	< 120	< 110	< 120
Benzo(a)pyrene	240	< 140	< 160	< 150	< 160	< 150	< 150	< 170	< 160	< 170
Benzo(b)fluoranthene	180	220	< 110	< 110	< 110	< 100	< 110	< 120	< 110	< 120
Benzo(g,h,i)perylene	< 260	< 170	< 180	< 170	< 180	< 170	< 170	< 190	< 180	< 190
Benzo(k)fluoranthene	< 160	< 100	< 110	< 110	< 110	< 100	< 110	< 120	< 110	< 120
Bis(2-ethylhexyl)phthalate	190UJ	< 100	< 110	760	170	< 100	< 110	< 120UJ	< 110	< 120
Butylbenzylphthalate	< 160	< 100	< 110	< 110	< 110	< 100	< 110	< 120	< 110	< 120
Chrysene	< 160	< 100	< 110	< 110	< 110	< 100	< 110	< 120	< 110	< 120
Di-N-Butyl Phthalate	< 130	< 83	< 90	< 86	< 89	< 84	< 87	< 96	< 91	< 95
Di-N-Octyl Phthalate	< 230	< 140	< 160	< 150	< 160	< 150	< 150	< 170	< 160	< 170
Dibenzo(a,h)anthracene	< 260	< 170	< 180	< 170	< 180	< 170	< 170	< 190	< 180	< 190
Fluoranthene	310	220	< 90	< 86	< 89	< 84	< 87	< 96	< 91	< 95
Indeno(1,2,3-cd)pyrene	< 260	< 170	< 180	< 170	< 180	< 170	< 170	< 190	< 180	< 190
Phenanthrene	< 130	90	< 90	< 86	< 89	< 84	< 87	< 96	< 91	< 95
Pyrene	410	110J	< 90UJ	< 86UJ	90J	< 84UJ	< 87UJ	< 96	< 91UJ	< 95UJ
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	< 11.0	< 6.88	9.97	< 7.14	9.52J	< 6.98	8.02J	< 7.96	< 7.60	< 7.88
4,4'-DDE	11.8	< 3.44	< 3.76	< 3.57	< 3.71	< 3.49	< 3.62	< 3.98	< 3.80	< 3.94
4,4'-DDT	< 11.0	24.8	< 7.52	< 7.14	< 7.42	< 6.98	< 7.24	< 7.96	< 7.60	< 7.88
Dieldrin	< 5.48	< 3.44	< 3.76	< 3.57	< 3.71	13.8J	< 3.62	< 3.98	< 3.80	< 3.94
Endrin	< 5.48	< 3.44	< 3.76	< 3.57	< 3.71	< 3.49	< 3.62	< 3.98	< 3.80	< 3.94
Endrin Ketone	< 11.0	< 6.88	< 7.52	< 7.14	< 7.42	< 6.98	< 7.24	< 7.96	< 7.60	< 7.88
Heptachlor	< 5.48	< 3.44	< 3.76	< 3.57	< 3.71	< 3.49	< 3.62	< 3.98	< 3.80	< 3.94
Heptachlor Epoxide	< 5.48	< 3.44	< 3.76	< 3.57	< 3.71	< 3.49	< 3.62	< 3.98	< 3.80	< 3.94
Alpha-Chlordane	< 5.48	4.78	< 3.76	< 3.57	< 3.71	< 3.49	< 3.62	< 3.98	< 3.80	< 3.94
Delta-BHC	< 5.48	< 3.44	< 3.76	< 3.57	< 3.71	< 3.49	< 3.62	< 3.98	< 3.80	< 3.94
Gamma-Chlordane	< 5.48	12.2	< 3.76	< 3.57	< 3.71	< 3.49	< 3.62	< 3.98	< 3.80	< 3.94
Aroclor-1248	< 55	< 34	< 38	< 36	< 37	< 35	< 36	< 40	< 38	< 39
Aroclor-1260	< 55	84	78	68	110J	71J	100J	< 40	< 38	< 39
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	88.4	611	120	74.7	66.7	115	75.8	42.4	36.1	37.4

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	M-207	Duplicate M-207	M-208	M-209	M-210	N-200	N-201	Duplicate N-201	N-202	N-203
Date Sampled	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)										
Anthracene	< 130	< 93	< 85	< 97	< 91	< 83	< 82	< 82	< 88	< 82
Benzo(a)anthracene	< 170	< 120	< 110	< 120	< 110	< 100	< 100	< 100	310	< 100
Benzo(a)pyrene	< 230	< 160	< 150	< 170	< 160	< 150	< 140	< 140	570	< 140
Benzo(b)fluoranthene	< 170	< 120	< 110	< 120	110	150	< 100	220	1200	< 100
Benzo(g,h,i)perylene	< 260	< 190	< 170	< 190	< 180	< 170	< 160	< 160	760	< 160
Benzo(k)fluoranthene	< 170	< 120	< 110	< 120	< 110	< 100	< 100	< 100	270	< 100
Bis(2-ethylhexyl)phthalate	< 170	< 120	200	< 120UJ	170	110	1200	1900	1400	110
Butylbenzylphthalate	< 170	< 120	< 110	< 120	< 110	< 100	< 100	< 100	< 110	< 100
Chrysene	< 170	< 120	< 110	< 120	< 110	< 100	< 100	120	400	< 100
Di-N-Butyl Phthalate	< 130	< 93	< 85	< 97	< 91	< 83	< 82	< 82	< 88	< 82
Di-N-Octyl Phthalate	< 230	< 160	< 150	< 170	< 160	< 150	< 140	< 140	< 150	< 140
Dibenzo(a,h)anthracene	< 260	< 190	< 170	< 190	< 180	< 170	< 160	< 160	< 180	< 160
Fluoranthene	150	< 93	< 85	< 97	< 91	< 83	< 82	100	730	100
Indeno(1,2,3-cd)pyrene	< 260	< 190	< 170	< 190	< 180	< 170	< 160	< 160	580	< 160
Phenanthrene	< 130	< 93	< 85	< 97	< 91	< 83	< 82	< 82	310	< 82
Pyrene	170J	< 93UJ	< 85UJ	< 97UJ	< 91UJ	< 83UJ	< 82UJ	< 82UJ	480J	100
Pesticides/PCBs (µg/kg-Dry)										
4,4'-DDD	12.6J	< 7.72	9.96J	13.6	11.5J	12.4J	11.8J	< 6.80	10.7J	< 6.84
4,4'-DDE	9.07J	< 3.86	< 3.52	7.95	< 3.81	3.71J	4.02J	< 3.40	< 3.68	< 3.42
4,4'-DDT	< 11.0	< 7.72	22.3J	< 8.08	9.79J	25.2J	37.7J	< 6.80	59.5J	74.9
Dieldrin	< 5.50	< 3.86	< 3.52	< 4.04	< 3.81	< 3.47	< 3.40	< 3.40	< 3.68	< 3.42
Endrin	< 5.50	< 3.86	< 3.52	< 4.04	< 3.81	< 3.47	< 3.40	< 3.40	< 3.68	< 3.42
Endrin Ketone	< 11.0	< 7.72	< 7.05	< 8.08	< 7.62	< 6.94	< 6.80	< 6.80	< 7.35	< 6.84
Heptachlor	< 5.50	< 3.86	< 3.52	< 4.04	< 3.81	< 3.47	< 3.40	< 3.40	< 3.68	< 3.42
Heptachlor Epoxide	< 5.50	< 3.86	< 3.52	< 4.04	< 3.81	< 3.47	< 3.40	< 3.40	< 3.68	< 3.42
Alpha-Chlordane	< 5.50	< 3.86	< 3.52	< 4.04	< 3.81	< 3.47	< 3.40	< 3.40	< 3.68	9.45
Delta-BHC	< 5.50	< 3.86	< 3.52	< 4.04	< 3.81	< 3.47	< 3.40	< 3.40	< 3.68	< 3.42
Gamma-Chlordane	< 5.50	< 3.86	< 3.52	< 4.04	< 3.81	< 3.47	< 3.40	10.4	< 3.68	7.55
Aroclor-1248	< 55	< 39	< 35	< 40	< 38	< 35	< 34	< 34	< 37	< 34
Aroclor-1260	240J	< 39	98J	< 40	180J	140J	180J	88	150J	< 34
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)										
Hydrocarbons, Petroleum	52.2	< 33.0	63.4	99.4	68.5	664	2700	506	843	3000

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-2 - Site 2 Surface Soil Samples Analytical Results for Organic Compounds

Sample Number	N-204	N-205	N-206	N-207	Duplicate N-207	N-208	N-209	N-210
Date Sampled	05/15/91	05/16/91	05/16/91	05/16/91	05/16/91	05/16/91	05/16/91	05/16/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Semivolatile Organics (µg/kg-Dry)								
Anthracene	< 83	< 83	< 83	< 81	< 71	< 81	< 82	< 81
Benzo(a)anthracene	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Benzo(a)pyrene	< 150	< 150	< 150	< 140	< 140	< 140	< 140	< 140
Benzo(b)fluoranthene	< 100	< 100	< 100	140	< 100	< 100	120	< 100
Benzo(g,h,i)perylene	< 170	< 170	< 170	< 160	< 160	< 160	< 160	< 160
Benzo(k)fluoranthene	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Bis(2-ethylhexyl)phthalate	240	910	210	140	< 100	140	110	380
Butylbenzylphthalate	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Chrysene	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Di-N-Butyl Phthalate	< 83	< 83	< 83	< 81	< 71	< 81	< 82	< 81
Di-N-Octyl Phthalate	< 150	< 150	< 150	< 140	< 140	< 140	< 140	< 140
Dibenzo(a,h)anthracene	< 170	< 170	< 170	< 160	< 160	< 160	< 160	< 160
Fluoranthene	< 83	< 83	< 83	< 81	< 71	< 81	< 82	< 81
Indeno(1,2,3-cd)pyrene	< 170	< 170	< 170	< 160	< 160	< 160	< 160	< 160
Phenanthrene	< 83	< 83	< 83	< 81	< 71	< 81	< 82	< 81
Pyrene	< 83UJ	< 83	< 83	< 81	< 71	< 81	< 82	< 81
Pesticides/PCBs (µg/kg-Dry)								
4,4'-DDD	< 6.93	< 6.91	< 6.94	< 6.79	< 6.77	< 6.75	< 6.81	< 6.72
4,4'-DDE	< 3.47	< 3.45	< 3.47	< 3.39	< 3.38	< 3.38	< 3.40	< 3.36
4,4'-DDT	< 6.93	< 6.91	< 6.94	< 6.79	7.46	< 6.75	< 6.81	< 6.72
Dieldrin	< 3.47	< 3.45	< 3.47	< 3.39	< 3.38	< 3.38	< 3.40	< 3.36
Endrin	< 3.47	< 3.45	< 3.47	< 3.39	< 3.38	< 3.38	< 3.40	< 3.36
Endrin Ketone	< 6.93	< 6.91	< 6.94	< 6.79	< 6.77	< 6.75	< 6.81	< 6.72
Heptachlor	< 3.47	< 3.45	< 3.47	< 3.39	< 3.38	< 3.38	< 3.40	< 3.36
Heptachlor Epoxide	< 3.47	< 3.45	< 3.47	< 3.39	< 3.38	< 3.38	< 3.40	< 3.36
Alpha-Chlordane	< 3.47	< 3.45	< 3.47	< 3.39	< 3.38	< 3.38	< 3.40	< 3.36
Delta-BHC	< 3.47	< 3.45	< 3.47	< 3.39	< 3.38	< 3.38	< 3.40	< 3.36
Gamma-Chlordane	< 3.47	< 3.45	< 3.47	< 3.39	< 3.38	4.12	< 3.40	< 3.36
Aroclor-1248	< 35	< 35	< 35	< 34	< 34	< 34	< 34	< 34
Aroclor-1260	< 35	< 35	< 35	< 34	< 34	360J	< 34	< 34
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)								
Hydrocarbons, Petroleum	332	397	151	1370	1760	984	1190	533

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-3 - Site 2 Summary of Organic Analytical Results for Surface Soil Samples

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Semivolatile Organics (µg/kg-Dry)									
Anthracene	160	2	2	100	220	0	-	-	1
Benzo(a)anthracene	152	2	10	110	1400	0	-	-	1
Benzo(a)pyrene	150	2	12	140	1400	0	-	-	1
Benzo(b)fluoranthene	117	0	45	110	1200	2	120	180	1
Benzo(g,h,i)perylene	146	2	16	180	1000	0	-	-	1
Benzo(k)fluoranthene	149	2	13	110	1100	0	-	-	1
Bis(2-ethylhexyl)phthalate	43	11	110	100	25000	0	-	-	1
Butylbenzylphthalate	157	2	5	100	1400	0	-	-	1
Chrysene	141	2	21	110	2000	0	-	-	1
Di-N-Butyl Phthalate	158	2	4	120	300	0	-	-	1
Di-N-Octyl Phthalate	161	2	1	210	210	0	-	-	1
Dibenzo(a,h)anthracene	161	2	1	190	190	0	-	-	1
Fluoranthene	121	0	41	86	3500	2	110	120	1
Indeno(1,2,3-cd)pyrene	156	2	6	190	970	0	-	-	1
Phenanthrene	150	2	12	90	2000	0	-	-	1
Pyrene	43	49	44	86	2400	27	87	480	1
Pesticides/PCBS (µg/kg-Dry)									
4,4'-DDD	84	15	39	7.93	153	25	8.02	97.5	5
4,4'-DDE	121	15	18	4.09	56.4	10	3.71	42.9	4
4,4'-DDT	127	15	13	7.46	306	8	9.79	74.5	5
Dieldrin	141	15	5	4.52	91.3	2	13.8	14.7	5
Endrin	145	15	3	4.37	8.99	0	-	-	5
Endrin Ketone	147	15	1	10.9	10.9	0	-	-	5
Heptachlor	146	15	2	10.7	12.6	0	-	-	5
Heptachlor Epoxide	147	15	1	6.95	6.95	0	-	-	5
Alpha-Chlordane	130	15	12	3.79	65	6	5.42	30.9	5
Delta-BHC	147	15	1	5.91	5.91	0	-	-	5
Gamma-Chlordane	98	15	44	3.72	121	7	4.17	15.6	4
Aroclor-1248	139	10	8	57	11000	6	69	1000	5
Aroclor-1260	31	2	56	40	2200	75	36	4000	4
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)	9	0	156	33.4	3000	0	-	-	0

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	A-201	A-202	A-203	A-204	A-205	A-206	A-207	A-208	Duplicate A-208
Date Sampled	05/06/91	05/06/91	05/06/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	6130J	6250J	7680J	3480J	3680J	6560J	4340J	4020J	4730J
Antimony	< 2.5	< 2.5	< 2.9	< 2.5	< 2.6	< 2.5	< 2.6	< 2.6	3.4
Arsenic	2.83	2.74	4.19	1.47	1.44	1.43	1.37	1.81	2.39
Barium	48.9	98	86.8	22.9	22.6	35.8	21.4	27.4	33
Beryllium	0.203	0.666	0.837	0.225	< 0.136	< 0.130	0.606	< 0.134	0.191J
Cadmium	2.79J	111J	14.4J	1.04J	1.04J	1.69J	0.611J	2.67J	2.46
Calcium	4680J	5200J	4490J	1920J	1930J	5710J	2400J	2800J	3110J
Chromium	37J	43.1J	52.8J	23.3J	28.2J	23.9J	25J	26.5J	31.1J
Cobalt	6.06	7.29	9.1	4.1	3.91	5.13	4.06	4.81	5.24
Copper	23J	37.1J	102J	7.22J	6.69J	22.2J	12.8J	9.41J	11.2
Iron	11400J	11200J	15500J	6210J	6610J	7650J	6840J	6870J	9280J
Lead	63.6J	80.6J	172J	18.6J	26.4J	51.1J	24.5J	48.2J	65.1J
Magnesium	3160	3330	4410	1650	1840	2370	2110	2210	2600J
Manganese	195J	240J	221J	86.5J	65.8J	119J	95J	152J	161J
Mercury	0.118	0.791	0.561	< 0.089	< 0.109	< 0.089	< 0.110	< 0.103	< 0.104
Nickel	28.9	29.3	48.5	23.6	24.2	23.1	22.8	22.8	25.1
Potassium	828	1100	1480	370	422	592	566	465	652
Selenium	< 0.211UJ	< 0.197UJ	< 0.245UJ	< 0.209UJ	< 0.226UJ	< 0.214UJ	< 0.216UJ	< 0.203	< 0.218UJ
Silver	< 0.497	< 0.496	1.23	< 0.495	< 0.512	< 0.492	< 0.510	< 0.505	2.15J
Sodium	366	454	861	192	223	713	559	400	335
Thallium	< 0.272	< 0.253	< 0.315	< 0.269	< 0.290	< 0.275	< 0.277	< 0.261	< 0.280
Vanadium	25.3	23.3	28.5	16.5	18.1	20	18.5	19	25.4
Zinc	113J	106J	302J	73.9J	67J	249J	47.2J	47.2J	49.1

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	A-209	A-210	B-201	B-202	B-203	B-204	B-205	B-206	B-207
Date Sampled	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	3470J	3230J	7930J	9480J	10400J	19100J	9370J	11400J	9890J
Antimony	< 2.4	< 2.5	< 2.7	< 2.6	< 2.6	6.3	3	3.5	3.6
Arsenic	1.16	1.69	3	11.5	4.71	18	15.1	26	23.1
Barium	20.8	24	49.1	32.4	36.1	61.1	88.9	102	89.5
Beryllium	< 0.127	< 0.131	1.26J	1.12J	1.31J	1.37J	1.28J	1.2J	1.19J
Cadmium	0.702J	0.537J	1.27	0.487	0.775	1.27	0.614	10.8	1.36
Calcium	2280J	5740J	3490J	2460J	2650J	3910J	4760J	4130J	4550J
Chromium	22.8J	21J	31.2J	49.4J	54.2J	88.1J	39.4J	40.8J	43.1J
Cobalt	4.09	3.93	6.79	8.63	9.79	15.4	8.93	11.5	9.89
Copper	6.21J	5.56J	14.5	20.8	24.1	48.3	50.7	35.5	30.7
Iron	6870J	6170J	14200J	17000J	18300J	31700J	17900J	21700J	19400J
Lead	20J	16.2J	12.3J	21.7J	25.3J	52J	55.6J	65.5J	43.4J
Magnesium	2220	1900	3660J	5380J	5890J	9920J	5520J	5880J	5370J
Manganese	111J	115J	240J	238J	232J	442J	326J	413J	322J
Mercury	< 0.107	< 0.102	0.141	0.216	0.146	0.688	0.157	0.196	0.2
Nickel	22.7	22.1	29	45.5	48.9	80.1	40.4	48.9	47.4
Potassium	499	492	964	1430	1470	2990	1300	2000	1620
Selenium	< 0.220	< 0.218UJ	< 0.222UJ	< 0.234UJ	< 0.221UJ	< 0.245UJ	< 0.225UJ	< 0.224UJ	< 0.219UJ
Silver	< 0.477	< 0.494	0.595J	0.683J	0.806J	1.31J	0.793J	0.709J	0.551J
Sodium	365	312	858	443	572	1360	566	713	350
Thallium	< 0.282	< 0.280	< 0.286UJ	< 0.301	< 0.284UJ	< 0.315UJ	< 0.290UJ	< 0.288UJ	< 0.282
Vanadium	15.4	15.3	26.6	33.7	36.7	60.7	32.3	38.4	35
Zinc	43.2J	39.8J	49.1	62.7	71	135	97.5	98.8	75.7

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	B-208	B-209	Duplicate B-209	B-210	C-200	C-201	C-202	C-203	Duplicate C-203
Date Sampled	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	7690J	8870J	12900J	4340J	12600J	4530J	6870J	7850J	10100J
Antimony	6.7	3.3	4.4	< 2.4	3.1	< 2.5	3.7	< 2.6	3.4J
Arsenic	3.36	3.31	14	2.29	13.7	1.52	18.3	3.94	4.54
Barium	75.9	39.2	46.3	31.4	42.7	29.1	116	56.2	69.7
Beryllium	0.798J	0.989J	0.834J	0.687J	1.28J	0.457J	1.52J	0.971J	0.752
Cadmium	4.8	0.538	0.685	1.02	0.79	< 0.298	0.902	9.02	8.52J
Calcium	3640J	4650J	3540J	2640J	3440J	2020J	3140J	3650J	4870J
Chromium	59.4J	47.7J	59.6J	29.7J	64.3J	29.1J	32.3J	58.9J	61.3J
Cobalt	7.85	8.01	9.81	5.5	11.8	5.19	6.47	8.17	9.27
Copper	39.4	19.7	24.6	11.6	35.1	6.37	37.5	31.8	32.5
Iron	16300J	15500J	19700J	10300J	23100J	8580J	24100J	16200J	17700J
Lead	78.9J	21.7J	27.3	37.3J	38.5J	4.32J	35.7J	58.5J	53.3J
Magnesium	4260J	4670J	5800	2300J	7370J	2430J	3640J	5100J	5740
Manganese	234J	194J	236J	150J	320J	108J	208J	277J	558
Mercury	0.821	0.333	0.243J	< 0.095	0.336	< 0.098	0.784	0.304	0.257
Nickel	42.9	42.7	50.1	23.8	60.7	26.1	30	42.8	45.1
Potassium	1200	1380	1840	814	2050	722	1230	1160	1380
Selenium	< 0.221UJ	< 0.224UJ	< 0.232UJ	< 0.205UJ	< 0.230UJ	< 0.212UJ	0.303UJ	< 0.212UJ	< 0.211UJ
Silver	1.27J	0.758J	1.12J	0.622J	1.23J	< 0.487UJ	0.865J	0.831J	0.699
Sodium	391	302	352	219	1900	190	274	485	432
Thallium	< 0.285	< 0.288	< 0.298	< 0.264	< 0.296	< 0.272	< 0.282	< 0.272	< 0.271UJ
Vanadium	29.6	31.5	41.6	21.5	45.2	19.7	28.7	28.8	34.8
Zinc	189	58.5	71.9	77.5	99.8	18.8	56.7	88.7	87J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	C-204	C-205	C-206	C-207	C-208	C-209	C-210	D-200	D-201
Date Sampled	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/07/91	05/08/91	05/08/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	11200J	6690J	7150J	21400J	11600J	5450J	5290J	11600J	9130J
Antimony	2.8	3.1	5.7	6.3	3.9	2.6	4	3.6	4.2
Arsenic	13.6	5.77	11.1	21.2	16.2	1.91	2.02	12.2	11.1
Barium	57.1	46.5	57.8	68.8	45.6	30.9	44.2	63.7	43
Beryllium	1.09J	0.908J	1.21J	2.16J	1.56J	0.81J	0.531J	1.29J	1.09J
Cadmium	0.548	< 0.306	9.69	12.4	0.832	0.577	5.28	6.83	0.522
Calcium	3850J	2560J	3890J	4990J	3550J	2140J	4140J	6960J	2780J
Chromium	52.5J	36.2J	69.4J	92.2J	52.3J	32.8J	38.6J	52.2J	47.4J
Cobalt	10.8	7.28	7.49	15.5	9.36	5.19	5.62	9.18	7.94
Copper	25.5	11.6	63.3	47.1	24.7	10.6	16.9	34.6	23.5
Iron	20200J	12700J	15800J	31200J	18800J	9980J	14200J	19800J	14800J
Lead	27.3J	14J	153J	55.8J	32.8J	17.8J	31.1J	122J	22J
Magnesium	6250J	4130J	3390J	9870J	5660J	2780J	2300J	5520J	4400J
Manganese	308J	187J	218J	481J	244J	136J	151J	241J	180J
Mercury	0.177	0.399	1.42	0.757	0.254	0.1	0.28	0.117	0.198
Nickel	51.5	37.6	46.4	76.6	49	27.9	27.6	43.2	41.7
Potassium	1500	961	907	2640	1700	912	781	1710	1320
Selenium	< 0.226UJ	< 0.218UJ	< 0.209UJ	< 0.224UJ	< 0.225UJ	< 0.213UJ	< 0.209UJ	< 0.215UJ	< 0.217UJ
Silver	0.951J	0.705J	1.57J	1.41J	0.955J	0.827J	1.04J	1.21J	0.922J
Sodium	682	329	241	505	686	194	236	2090	624
Thallium	< 0.291	< 0.280	< 0.269	< 0.288	< 0.289	< 0.274	< 0.269	< 0.276	< 0.280
Vanadium	39.9	26.5	31.2	62.4	39.2	23.4	25.3	40.4	32.7
Zinc	74.5	38.8	260	136	72.5	42.1	104	176	59.5

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	D-202	D-203	D-204	D-205	Duplicate D-205	D-206	D-207	D-208	D-209
Date Sampled	05/08/91	05/08/91	05/08/91	05/08/91	05/08/91	05/08/91	05/08/91	05/08/91	05/08/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	10600J	10500J	13600J	7370J	5150J	11200J	6450J	7530J	12100J
Antimony	5.2	2.9	4.3	6.1	< 2.5UJ	3.4	4.7	3.8	3.6
Arsenic	14	18.2	26.2	2.43	2.15	23	3.49	2.69	4.05
Barium	72.3	64.5	112	46.2	26.3	74.1	69.9	47.6	39.2
Beryllium	1.5J	1.14J	1.59J	1.03J	0.696	1.49J	0.975J	0.875J	1.09J
Cadmium	2.08	5.11	0.848	4.86	1.73J	0.427	2.19	6.74	0.559
Calcium	4900J	4490J	4080J	3330J	2450J	4800J	7560J	2620J	2990J
Chromium	39.5J	51.3J	50.3J	53.1J	36J	47.9J	37.1J	41.4J	56.7J
Cobalt	8.81	9.7	11	7.7	5.64	9.71	6.49	6.51	10.4
Copper	33.2	32.7	33.9	49.3	19.8	30.7	39.9	176	25.4
Iron	21500J	19100J	23400J	14400J	9930J	20400J	13200J	13400J	20300J
Lead	70.5J	67.7J	50.4J	85.7J	32.4J	113J	75.1J	45.7J	26.7J
Magnesium	5900J	4890J	6600J	3420J	2810	5220J	4160J	3250J	6320J
Manganese	510J	303J	327J	179J	123	313J	195J	170J	268J
Mercury	0.188	0.268	0.345	0.797	0.739	0.108	0.275	0.812	0.178
Nickel	37.5	47.2	54.4	41.8	31.9	48	38.5	36.3	51.9
Potassium	1030	1500	2110	984	731	1460	881	1120	1800
Selenium	< 0.206UJ	< 0.216UJ	< 0.220UJ	< 0.211UJ	< 0.211UJ	< 0.218UJ	< 0.223UJ	< 0.214UJ	< 0.226UJ
Silver	1.11J	0.672J	0.72J	1.27J	< 0.497UJ	0.654J	0.697J	0.931J	1.08J
Sodium	294	310	591	237	106	497	321	238	494
Thallium	< 0.265	< 0.278	< 0.283	< 0.271	< 0.271	< 0.280UJ	< 0.286	< 0.276	< 0.291
Vanadium	34.9	36.4	43.2	32.5	22.7	39.8	27.5	24.7	41.4
Zinc	128	92.4	85.3	216	92.4J	92.7	88.9	165	74.1

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	D-210	E-200	E-201	E-202	E-203	E-204	E-205	Duplicate E-205	E-206
Date Sampled	05/08/91	05/09/91	05/09/91	05/09/91	05/09/91	05/09/91	05/09/91	05/09/91	05/09/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	4930J	8640J	8880J	5690J	12000J	16800J	19400J	16400J	11100J
Antimony	3.5	3.7J	2.7J	< 2.6UJ	3.5J	3.6J	4.9J	5.1J	6.4J
Arsenic	2.14	13.1	4.76J	3.86J	13.2	17	22.3	19.2	7.37J
Barium	28.8	46.7	31.8	28.2	101	96.8	112	85.6	72.2
Beryllium	0.592J	2.73	1.87	1.46	1.31	1.94	1.97	1.51	2.03
Cadmium	3.1	2.74J	0.451J	1.35J	2.57J	2.06J	0.97J	1.76	9.59J
Calcium	3150J	4180J	2500J	3330J	4840J	5220J	4290J	3830J	4080J
Chromium	35.7J	48J	45.2J	36.6J	54.9J	71J	71.8J	76.2J	79.3J
Cobalt	6.04	8.35	7.83	6.55	11	12.6	13.3	15	12.9
Copper	21.8	49.7	17.6	17.5	40.7	45.8	43.5	51.1	97.5
Iron	10200J	25600J	14800J	10700J	21300J	27900J	29400J	30100J	33300J
Lead	36.7J	68.7J	15.3J	22.3J	71.5J	55.2J	53.5J	59.7	125J
Magnesium	2530J	3940	4800	3110	5920	8070	8210	9240	5030
Manganese	148J	271	213	164	335	402	395	477	409
Mercury	0.118	< 0.100	< 0.102	0.248	0.251	0.263	0.392	0.577J	1.47
Nickel	28.8	37.8	41.4	30.7	54	65.6	65.7	73.8J	66.8
Potassium	709	1150	1320	747	1940	2640	2850	2910	1570
Selenium	< 0.211UJ	< 0.222UJ	< 0.219UJ	< 0.214UJ	< 0.219UJ	< 0.236UJ	0.245UJ	< 0.228UJ	< 0.221UJ
Silver	0.918J	< 0.521	< 0.516	< 0.504	< 0.514	0.65	0.771	1.69	0.979
Sodium	211	693	771	161	327	806	701	1170J	297
Thallium	< 0.271	< 0.285	< 0.282	< 0.275	< 0.281	< 0.304	< 0.287	< 0.293	< 0.284UJ
Vanadium	22.2	34.3	32.6	31.3	40.4	52	56.7	53.1	42.5
Zinc	111	151J	51J	41.8J	101J	109J	108J	134J	332J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	E-207	E-208	E-209	E-210	F-200	F-201	F-202	Duplicate F-202	F-203
Date Sampled	05/09/91	05/09/91	05/09/91	05/08/91	05/09/91	05/09/91	05/09/91	05/09/91	05/09/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	11700J	11800J	12700J	4440J	6740J	7760J	3740J	3340J	6640J
Antimony	3.4J	2.6J	< 2.7UJ	< 2.6UJ	< 2.8UJ	< 3.3UJ	< 3.0UJ	< 3.0UJ	< 2.6UJ
Arsenic	6.31J	9.09J	11.7	2.52J	2.42	4.34J	2.18J	1.92	3.84J
Barium	44.7	110	57.4	42.7	44.5	28.3	15.1	14.3	24.7
Beryllium	1.23	1.41	1.48	0.508	1.12	1.27	0.341	0.587	1.04
Cadmium	0.744J	1.99J	1.07J	< 0.305UJ	9.23J	1.72J	< 0.353UJ	< 0.353	< 0.311UJ
Calcium	3470J	5590J	3950J	1850J	4570J	3410J	1690J	1380J	2670J
Chromium	52.1J	52.2J	57.8J	28.8J	50.8J	47.5J	26.4J	22.1J	37J
Cobalt	9.03	10.1	10.3	4.52	6.99	7.46	3.84	4.23	6.16
Copper	20.1	51.1	28.6	8.07	24.6	23.9	4.06	5.16J	12.4
Iron	16900J	21000J	20700J	8580J	12300J	14100J	7540J	6990J	11600J
Lead	22.2J	49.2J	43.5J	6.56J	72.8J	23.5J	4.51J	3.75	12.9J
Magnesium	5460	5000	5460	2540	4460	4720	2460	2500	3550
Manganese	300	456	275	108	184	193	92.5	85.4	142
Mercury	0.122	0.261	0.157	< 0.100	0.159	0.141	< 0.112	< 0.114UJ	< 0.104
Nickel	49.5	46.1	51.2	25	37.5	45.3	22.2	23J	33.4
Potassium	1670	1660	1800	840	1010	1180	632	758	901
Selenium	< 0.226UJ	< 0.216UJ	< 0.227UJ	< 0.214UJ	< 0.232UJ	< 0.275UJ	< 0.254UJ	< 0.251UJ	< 0.216UJ
Silver	0.584	0.527	0.581	< 0.498	< 0.540	< 0.648	< 0.576	0.693	< 0.508
Sodium	384	287	479	111	666	1080	1060	1000J	248
Thallium	< 0.291	< 0.278	< 0.292	< 0.275	< 0.299	< 0.353	< 0.326	< 0.322	< 0.278
Vanadium	38.7	45	40.5	19.4	27.6	33.9	16.2	14.3	26.6
Zinc	64.5J	107J	102J	28.8J	97.4J	65.6J	18.3J	19.1J	39J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	F-204	F-205	F-206	F-207	F-208	F-209	F-210	G-200	G-201
Date Sampled	05/09/91	05/09/91	05/09/91	05/09/91	05/09/91	05/09/91	05/09/91	05/10/91	05/10/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	14500J	11000J	5880J	9290J	14800J	8250J	8910J	11500J	25600J
Antimony	4.1J	2.8J	< 2.6UJ	2.9J	5.6J	< 2.6UJ	< 2.6UJ	< 2.5UJ	7.4J
Arsenic	7.95J	8.49J	2.95J	3.92	12.7	3.97	4.66J	5.04	19.9
Barium	44.4	90.7	27.7	53.7	67	43.4	34	39.5	66.8
Beryllium	1.81	1.16	0.791	1.04	1.59	1.22	1.03	1.22	3.27
Cadmium	0.95J	1.34J	0.422J	0.453J	1.63J	0.665J	0.419J	0.671J	1.87J
Calcium	3810J	4910J	2210J	2480J	3730J	3410J	2670J	3300J	3560J
Chromium	66.3J	60J	37J	46.3J	146J	42.8J	48.3J	54.9J	116J
Cobalt	11.3	9.99	5.8	8.29	11.8	8.1	8.14	8.77	18.4
Copper	38.8	42.9	10.5	16.8	59.3	18.1	16.7	29.4	66.5
Iron	23300J	19700J	10400J	14800J	25600J	13600J	15100J	18300J	40200J
Lead	40.3J	48.9J	12.4J	15.6J	491J	24.6J	18.9J	23.2J	60.7J
Magnesium	7550	6180	3440	4670	6730	4150	4610	5820	13100
Manganese	349	275	145	181	325	202	199	239	492
Mercury	0.282	0.261	< 0.103	< 0.103	0.611	0.162	0.149	0.245	0.514
Nickel	62.3	57.2	32.8	43	63	36.3	39.7	45.6	99.7
Potassium	2090	1660	952	1330	2160	1240	1400	1680	4320
Selenium	< 0.241UJ	< 0.235UJ	< 0.212UJ	< 0.223UJ	< 0.232UJ	< 0.211UJ	< 0.220UJ	< 0.213UJ	< 0.251UJ
Silver	0.64	0.665	< 0.502	< 0.525	1.06	< 0.499	< 0.509	< 0.495	1.21
Sodium	590	456	163	199	420	237	342	529	2390
Thallium	< 0.310	< 0.302	< 0.273	< 0.287	< 0.299	< 0.272	< 0.283	< 0.274	< 0.323
Vanadium	47.8	38.8	23.1	32.2	45.6	29.4	31.9	38.8	76.7
Zinc	103J	103J	37.1J	48.8J	209J	56.6J	55.5J	69.5J	168J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	G-202	G-203	G-204	G-205	G-206	G-207	G-208	Duplicate G-208	G-209
Date Sampled	05/10/91	05/10/91	05/10/91	05/10/91	05/10/91	05/10/91	05/09/91	05/09/91	05/09/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	27900J	28200J	10100J	12700J	24600J	8220J	4940J	4860J	8230J
Antimony	9.2J	8J	6.2J	3J	7.3J	3.1J	3J	< 2.5UJ	< 2.5UJ
Arsenic	19.5	17.6	7.3J	11	15.6	4.26	3.75	3.83	3.51
Barium	67.4	74.3	94.3	41	65.3	67.9	17.4	19	43.3
Beryllium	2.72	3.49	1.65	1.39	2.85	0.941	0.824	0.741	1.31
Cadmium	< 0.429UJ	0.526J	4.01J	0.693J	1.17J	1.07J	0.539J	0.463	0.527J
Calcium	4240J	5110J	3490J	3650J	3980J	7390J	5540J	2750J	3880J
Chromium	114J	112J	54.3J	57.1J	102J	36.6J	30.1J	31.4J	42.8J
Cobalt	17.6	17.4	8.58	11.3	15.8	6.81	7.33	8.24	7.35
Copper	64.8	63	63.5	25.2	56.2	30.2	8.83	9.44	17.1
Iron	39900J	39200J	17700J	20000J	34900J	14000J	9830J	10400J	13300J
Lead	64.9J	59.5J	1090J	34.8J	58.8J	50.1J	22.9J	17.6	21.6J
Magnesium	14100	15300	4800	5860	11100	3700	2590	2610	4200
Manganese	419	478	299	413	400	235	251	250J	195
Mercury	0.598	0.446	0.193	0.239	0.574	0.412	0.096	0.087	0.122
Nickel	92.4	93.5	42.4	50	85.8	33.7	26	25.7	35.5
Potassium	4540	5170	1580	1900	3680	1100	796	822	1200
Selenium	< 0.301UJ	< 0.319UJ	< 0.223UJ	< 0.228UJ	< 0.243UJ	< 0.213UJ	< 0.208UJ	< 0.210UJ	< 0.211UJ
Silver	1.01	1.28	0.775	0.634	1.09	< 0.491	< 0.490	< 0.486	0.53
Sodium	17300	14800	304	434	982	235	131	257	533
Thallium	< 0.387UJ	< 0.424UJ	< 0.287	< 0.293	< 0.313UJ	< 0.274	< 0.268UJ	< 0.270	< 0.272UJ
Vanadium	78.3	78.4	34.4	41.5	70.4	28.8	20.3	20.4	29.4
Zinc	153J	163J	390J	80.5J	154J	126J	49.1J	49.2J	52.9J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	G-210	H-200	H-201	H-202	H-203	H-204	H-205	H-206	H-207
Date Sampled	05/09/91	05/10/91	05/10/91	05/10/91	05/10/91	05/10/91	05/10/91	05/10/91	05/10/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	7170J	4890J	30400J	25700J	21600J	26600J	22800J	5370J	6250J
Antimony	< 2.5UJ	< 2.5UJ	8.4J	7J	4.6J	< 4.0UJ	4.2J	< 2.5UJ	< 2.7UJ
Arsenic	3.15	2.44	15.1	13.4J	14.6	19.6	13	2.93	4.4
Barium	29.5	23.2	71.7	68.3	87.2	75.4	63.9	28.5	29.4
Beryllium	1.09	0.356	2.21	2.06	1.86	2.31	2.41	0.374	0.85
Cadmium	0.356J	0.926J	0.674J	0.665J	1.48	0.94	1.36	0.383	0.429
Calcium	2600J	7140J	4700J	3690J	3140J	6940J	3880J	2290J	2390J
Chromium	39.6J	31J	121J	105J	116J	116J	105J	32.7J	35.8J
Cobalt	6.27	4.64	21.7	15.8	21.2	19.6	20	5.86	7.82
Copper	11.1	11.5	65.9	58.3	64.1J	70.5J	68.5J	11.1J	16.6J
Iron	11600J	8420J	42000J	33500J	39300J	45800J	38300J	9970J	12300J
Lead	9.96J	11.9J	65.5J	50.8J	67	66.1	66.6	8.09	16.2
Magnesium	3470	2970	13300	11600	12800	15900	12900	3600	4250
Manganese	149	137	609	329	588	716	602	149	191
Mercury	< 0.102	< 0.101	0.582	0.741	0.726J	1.28J	0.99J	< 0.097UJ	0.215J
Nickel	32	23.1	98.1	83.6	106J	105J	92.5J	31.4J	38.4J
Potassium	1120	691	4120	3610	4050	5000	4050	981	1260
Selenium	< 0.212UJ	< 0.210UJ	< 0.292UJ	< 0.314UJ	< 0.540UJ	< 0.335UJ	< 0.248UJ	< 0.216UJ	< 0.223
Silver	< 0.492	< 0.488	1.29	1.23	1.51	1.72	1.48	< 0.497	0.595
Sodium	261	2150	3830	5200	2500J	6870J	1950J	271J	313J
Thallium	< 0.273UJ	< 0.270UJ	< 0.375UJ	< 0.403UJ	< 0.347	< 0.430	< 0.319	< 0.278	< 0.287
Vanadium	27.7	20.7	83.1	72.6	73.3	83.2	71.4	20.6	24.5
Zinc	37.4J	27.2J	162J	129J	180J	184J	181J	35.3J	51.2J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	H-208	H-209	H-210	Duplicate H-210	I-200	I-201	I-202	I-203	I-204
Date Sampled	05/10/91	05/10/91	05/10/91	05/10/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	18100J	7270J	7910J	7390J	9630J	24500J	23700J	32700J	25500J
Antimony	3.9J	< 2.6UJ	< 2.6UJ	< 2.6UJ	2.8J	5.8J	5.7	7.7J	5.9J
Arsenic	14.5	5.5	4.65	4.45	3.74	16.9	21.9	14.2	11.3
Barium	58.9	80	38.1	40.6	40.8	68.7	62J	74.3	72.5
Beryllium	1.71	0.608	0.695	0.461	1.03	1.89	3.1	2.65	2.19
Cadmium	0.93	1.16	0.923	0.776	4.42	1.79	1.34	1.76	1.33
Calcium	4650J	2850J	2870J	2870R	3490J	5450J	4320J	3850J	4760J
Chromium	84.7J	36.8J	47.2J	43.5R	52.1J	113J	102J	128J	107J
Cobalt	15.9	7.37	8.69	8.32	9.6	19.5	15.6	17.9	16.9
Copper	54.7J	22.6J	21.4J	20.8	33.8J	72.4J	58.4J	71.8	57.4
Iron	32200J	14400J	15100J	14800J	16900J	41700J	36900J	43900J	38000J
Lead	50.1	30	22.8	24.3	32.9	70.2	57.4	59.9	57.4
Magnesium	11900	4530	4780	4760	5740	13800	12400	14800	12800
Manganese	425	236	205	204J	267	541	386J	388J	382J
Mercury	1.03J	0.368J	0.198J	0.372J	0.224J	0.867J	0.553	0.517	0.369
Nickel	79.5J	35.5J	81.6J	41.2	44.4J	102J	87.3	103	90.8
Potassium	3130	1420	1590	1510	1490	4020	3490	4400	3650
Selenium	< 0.225UJ	< 0.214UJ	< 0.215UJ	< 0.214UJ	< 0.224UJ	< 0.576UJ	< 0.251UJ	< 0.253UJ	< 0.244UJ
Silver	1.64	0.583	0.821	< 0.503	0.925	2.09	1.52	1.76	1.56
Sodium	831J	442J	359J	394	989J	2720J	1810	5040	4180
Thallium	< 0.290	< 0.276	< 0.276	< 0.275	< 0.288	< 0.370	< 0.323	< 0.326	< 0.314
Vanadium	62.3	26.8	30	29.1	34.2	77.9	71.4	89.3	74.4
Zinc	142J	254J	66.9J	68.4	67.7J	187J	156	177	152

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	I-205	I-206	I-207	I-208	Duplicate I-208	I-209	I-210	J-200	J-201
Date Sampled	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	25500J	10800J	7250J	5440J	7840J	10800J	7880J	7260J	29100J
Antimony	4.9J	4.9J	< 2.6UJ	< 2.5	< 2.6	2.9J	3J	3.4J	7.7J
Arsenic	11.6	4.94	2.26	3.58	4.43	4.7	3.34	2.93	7.91
Barium	84.4	59.3	41	22.8J	33.1J	56.5	35.6	42.4	70.7
Beryllium	2.08	2.87	0.889	1.06	1.33	0.934	0.761	0.663	2.44
Cadmium	1.68	3.63	< 0.309	0.458	0.63	0.94	0.444	41.1	1.14
Calcium	5290J	4500J	2740J	3420J	2860J	4050J	2870J	6070J	5220J
Chromium	104J	67.1J	39.8J	32.1J	42.5J	47.4J	42.4J	61J	111J
Cobalt	17	17.5	6.76	7.96	8.42	8.48	7.39	7.4	20.3
Copper	53.8	233	10.1	8.94J	14.6J	20.2	14	45.7	61.8
Iron	37500J	67800J	11700J	10700J	13800J	17000J	13300J	14200J	39200J
Lead	69.4	52.6	10.9	16	20.7	38.8	16.8	125	61.7
Magnesium	11700	5220	3780	2770	3800	4650	3930	4060	12900
Manganese	611J	696J	151J	499J	297J	219J	168J	226J	446J
Mercury	0.454	0.239	< 0.051	0.15	0.196	0.772	0.139	< 0.054	0.579
Nickel	88.7	123	34.6	26.7	36.3	39.2	35.8	31.5	93.8
Potassium	3790	1540	1210	995	1380	1340	1270	1050	3870
Selenium	< 0.249UJ	< 0.233UJ	< 0.217UJ	< 0.212UJ	< 0.209UJ	< 0.218UJ	< 0.213UJ	< 0.221UJ	< 0.268UJ
Silver	1.34	0.706	< 0.505	0.494	0.61	0.864	0.72	0.857	1.85
Sodium	1930	592	308	233	282	706	353	2620	4180
Thallium	< 0.321	< 0.299	< 0.278	< 0.272	< 0.269	< 0.280	< 0.273	< 0.284	< 0.344
Vanadium	73.4	38.5	28	22.9	28.7	37.3	30.1	30.5	81.6
Zinc	168	128	37.7	50.3	64.2	72.5	49.5	91.1	161

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	Duplicate J-201	J-202	J-204	J-205	J-206	J-207	J-208	J-209	J-210
Date Sampled	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91	05/13/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	27000J	23300J	31300J	38200J	25400J	18900J	11600J	9400J	13100J
Antimony	5.4	5.5J	6.3J	5.6J	6.2J	6.5J	3.6J	3.2J	4.2J
Arsenic	20.5	9.21	13.4	24.3	10.5	8.52	4.19	4.56	6.26
Barium	82	66.4	82.5	96J	67	56	46.5	35.8	45.2
Beryllium	2.09	1.53	2.73	4.68	2.66	1.65	1	1.02	0.982
Cadmium	1.25	1.09	1.09	2.03	1.58	1.27	0.991	0.339	1.21
Calcium	6150J	4660J	7630J	6330J	5640J	5850J	3230J	2860J	3660J
Chromium	109J	95J	117J	181J	109J	81.9J	55.7J	48.1J	64.6J
Cobalt	17.7	15.2	18.6	25.3	17.8	14.1	10	7.54	10.7
Copper	60	50.3	63	84.2J	64.8	43.7	22.2	18.1	31.3
Iron	38600J	34300J	41400J	56000J	39800J	29300J	18500J	15600J	20800J
Lead	58	53.5	60.1	93.6	67.8	49.5	25.7	19.1	37.9
Magnesium	12700	10900	13300	15800	13500	9240	5670	4610	6370
Manganese	417J	383J	485J	423J	505J	385J	231J	167J	265J
Mercury	0.626	0.564	0.461	0.592	0.485	0.455	0.207	0.234	0.226
Nickel	96.4	79.6	98.2	136	98	71.2	50.5	39.5	51.8
Potassium	3930	3290	4140	5840	4730	2660	1800	1410	2140
Selenium	< 0.281UJ	< 0.275UJ	< 0.269UJ	< 0.284UJ	< 0.262UJ	< 0.236UJ	< 0.217UJ	< 0.224UJ	< 0.241UJ
Silver	1.5	1.75	1.83	1.89	1.44	1.36	0.917	0.792	1.06
Sodium	4140	3880	4170	7510	8090	2440	644	582	637
Thallium	< 0.361	< 0.354	< 0.345	< 0.365	< 0.336	< 0.304	< 0.279	< 0.289	< 0.310
Vanadium	75.8	68.8	84.2	109	78.7	58.6	39.4	33.3	43.3
Zinc	163	132	170	169	198	129	69.6	54	99

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	K-200	K-201	K-202	K-203	K-204	K-205	K-206	K-207	K-208
Date Sampled	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	11600J	6520J	6640J	5250J	3820J	17200J	3550J	8790J	8080J
Antimony	3.1J	< 2.6UJ	< 2.5UJ	2.7J	< 2.5UJ	4.5UJ	< 3.0UJ	< 2.8UJ	5.4
Arsenic	4.41	3.19	2.75	1.97	1.74	9.72	2.66	4.59	4.35
Barium	51.1	26.8	23.8J	26.5	20.7	58.8	16.1	34.6	33.6J
Beryllium	1.15	0.956	1.01	0.509	0.343	1.57	0.517	0.838	1.25
Cadmium	5.79	0.534	0.389	< 0.312	< 0.300	0.678	< 0.355	0.42	0.816
Calcium	4080J	2920J	2680J	2220J	1840J	5330J	1430J	2610J	3370J
Chromium	60.6J	36.1J	36.9J	31.3J	28.6J	84.8J	23J	48.2J	42.3J
Cobalt	9.93	6.86	5.88	6.47	4.74	15	4.59	9	7.86
Copper	37.4	9.56	9.74J	6.15	4.24	49.4	5.98	21.2	20.5J
Iron	19800J	11300J	11300J	9180J	7330J	31300J	7150J	16800J	14400J
Lead	33.7	12.1	11.4	4.29	2.9	51.4	10.3	23.3	23.9
Magnesium	6510	3280	3750	2940	2130	10900	2690	5320	4570
Manganese	292J	160J	150J	198J	112J	368J	83.4J	209J	244J
Mercury	0.146	< 0.051	0.101	< 0.050	< 0.046	0.455	< 0.058	0.326	0.14
Nickel	52.8	30.6	31.4	27	23.1	77	23.7	42.8	37.8
Potassium	1810	879	983	754	553	2800	780	1450	1180
Selenium	< 0.233	< 0.212UJ	< 0.209UJ	< 0.213UJ	< 0.210UJ	< 0.242UJ	< 0.246UJ	< 0.229UJ	< 0.208UJ
Silver	0.706	0.572	< 0.496	0.544	< 0.489	1.43	< 0.579	< 0.545	0.651
Sodium	2010	395	326	479	297	6210	2940	700	337
Thallium	< 0.300	< 0.273	< 0.269	< 0.274	< 0.269	< 0.312	< 0.316	< 0.294	< 0.268
Vanadium	40.2	29.5	27.4	22.9	18.3	59.3	16.2	32.9	29.3
Zinc	72.4	33	33.7	24.6	15.1	132	22.5	71	62.5

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	K-209	Duplicate K-209	K-210	L-200	L-201	L-202	L-203	L-204	Duplicate L-204
Date Sampled	05/14/91	05/14/91	05/15/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	8150J	11300J	7750J	7750J	19900J	3960J	4270J	3680J	4000J
Antimony	< 2.6UJ	2.9	< 2.6UJ	2.9UJ	3.9UJ	< 2.5UJ	< 2.5UJ	< 2.7UJ	< 2.4
Arsenic	4.91	13.2	2.9	3.99	13.5	2.12	1.84	1.46J	1.41
Barium	43.3	55.5	30.8	32.4	85.3	14.4	25.5	20.2	24.2
Beryllium	0.683	1.16	0.742	0.793	2.32	0.253	0.288	0.468	0.184
Cadmium	2.47	2.72	0.681	2.15	1.68	< 0.303	< 0.300	< 0.318	< 0.283
Calcium	2930J	3960J	2290J	2850J	3060J	1520J	1570J	1560J	1890J
Chromium	52J	62.5	41.4J	42.4J	92.6J	24.1J	26.9J	24.1J	27.9
Cobalt	8.46	10.6	8.03	7.9	21.7	5.4	5.42	4.73	4.65
Copper	23.2	27	15.3	19.9	60.2	7.74	7.29	4.11	4.14
Iron	17500J	21200J	14300J	14500J	42100J	7940J	8410J	7200J	7310J
Lead	40.4	46.9	17.3	26	57.9	6.3	4.92	2.49	3.25J
Magnesium	4600	5600	4190	5080	12200	2560	2920	2410	2590
Manganese	221J	257J	171J	207J	869J	99.4J	122J	97.3J	108J
Mercury	0.209	0.287	0.135	0.126	0.685	0.241	< 0.048	< 0.048	0.056
Nickel	44	52.7	38.7	39.9	91.1	25.4	27.3	24.5	25.8
Potassium	1250	1660	1260	1450	3410	640	541	518	513
Selenium	< 0.217UJ	< 0.221UJ	< 0.215UJ	< 0.217UJ	< 0.260UJ	< 0.215UJ	< 0.209UJ	< 0.219UJ	< 0.203
Silver	0.655	0.75	0.68	0.506	1.29	< 0.495	< 0.490	< 0.519	< 0.462
Sodium	802	983	396	3600	4500	330	273	555	445
Thallium	< 0.279	< 0.284	< 0.276	< 0.279	< 0.334	< 0.277	< 0.268	< 0.281	< 0.260
Vanadium	30	38.9	29.7	29	65.6	17.3	18.7	16.6	18.1
Zinc	76.7	85.2J	53.2	56.2	173	26	22	16.8	17J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	L-205	L-206	L-207	L-208	L-209	L-210	M-201	M-202	M-203
Date Sampled	05/14/91	05/14/91	05/14/91	05/14/91	05/14/91	05/15/91	05/15/91	05/15/91	05/15/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	3350J	3670J	23100J	6060J	10500J	6710J	12000J	4900J	6780J
Antimony	< 2.6	< 2.8	4	< 2.6	< 2.8	< 2.6	3	< 2.6	< 2.5
Arsenic	1.84	61	21.8	3.45	18.7	12.3	19.9	3.14	11.6
Barium	15.9	26.9	61.8J	179	49.9	46.3	49.2	26.9	33.3
Beryllium	0.698	0.735	3.08	1.71	1.63	1.67	2.34	0.884	1.64
Cadmium	< 0.310	< 0.333	0.921	0.808	0.834	0.66	0.869	0.757	0.505
Calcium	1390J	1620J	6670J	3820J	2970J	2200J	2700J	1850J	1890J
Chromium	23.3	24.8	92.2J	53.6	52.8	41.1	59.2	29	40.3
Cobalt	4.47	5.27	15.3	6.87	9.89	8.22	10.1	5.54	7.82
Copper	4.74	6.15	52J	34.2	27.1	20.2	29.9	9.31	18.7
Iron	7020J	7630J	35300J	14500J	18800J	13800J	21200J	21200J	13100J
Lead	2.28	17.1	52.9	67.7	28	20.9	28.9	12.5	18
Magnesium	2360	2680	15100	4030	6290	4600	7130	3160	4570
Manganese	83.5J	93.8J	484J	242J	289J	228J	233J	119J	211J
Mercury	< 0.052	0.169	0.436	0.094	0.273	0.19	0.249	0.068	0.212
Nickel	23.8	24.9	86.3	39.5	52.2	39.7	56.2	29.1	42.3
Potassium	642	684	3980	1080	1920	1420	2430	783	1370
Selenium	< 0.219	< 0.214UJ	< 0.327UJ	< 0.208	< 0.221UJ	< 0.218UJ	< 0.234UJ	< 0.211	< 0.224UJ
Silver	< 0.506	< 0.544	1.41	< 0.502	0.619	0.613	0.733	< 0.509	< 0.495
Sodium	605	832	16200	331	541	501	1570	368	559
Thallium	< 0.281	< 0.276	< 0.421	< 0.268	< 0.284	< 0.281	< 0.300	< 0.271	< 0.288
Vanadium	15.4	17.1	65.3	23.1	36.8	27	40.9	20.7	26.4
Zinc	23.1J	34J	149	134J	89.9J	63.3J	89.4J	34.6J	54.9J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	M-204	M-205	M-206	M-207	Duplicate M-207	M-208	M-209	M-210	N-200
Date Sampled	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	5360J	4100J	3850J	18200J	4170J	7800J	18400J	12400J	8740J
Antimony	< 2.9	< 2.7	< 2.7	4.7	< 2.3	< 2.6	6.2	< 2.9	< 2.5
Arsenic	2.95	2.38	1.79	33.6	1.45	10.6	16.8	21.7	3.48
Barium	21.5J	31.8	25.7	61.6	26	33.8	50.7J	56.5	57.7
Beryllium	0.653	0.605	0.911	3.78	0.191	1.86	2.39	2.45	0.872
Cadmium	< 0.347	< 0.326	< 0.326	0.698	< 0.279	0.427	1.51	0.836	36.4
Calcium	2720J	2270J	2010J	4720J	1920J	9560J	4020J	3280J	3570J
Chromium	35.2J	25.2	24.2	83.9	24.8	38.6	85.3J	61.7	49
Cobalt	6.18	5.7	4.93	13.8	4.4	7.6	11.8	11.7	9.16
Copper	5.99J	5.33	5.03	51.4	4.31	15.9	42.3J	32.6	28.9
Iron	10100J	8030J	7310J	33600J	7170J	13300J	28000J	22500J	15300J
Lead	4.33	3.67	2.01	50	2.1	21.3	63.6	31.7	50.6
Magnesium	2910	2910	3300	12000	2560	4140	9180	7470	5280
Manganese	110J	100J	101J	499J	90.3J	251J	300J	331J	264J
Mercury	< 0.050	< 0.056	< 0.052	0.68	< 0.054	0.187	0.566	0.293	0.242
Nickel	28.9	26.9	29.4	77.2	23.7	34.3	68.1	61.2	49.7
Potassium	913	708	727	3800	654	1210	2490	1960	1340
Selenium	< 0.242UJ	< 0.206	< 0.244	< 0.338UJ	< 0.231	< 0.222	< 0.243UJ	< 0.235UJ	< 0.218
Silver	0.631	< 0.532	< 0.533	1.25	< 0.456	< 0.508	1.34	0.691	0.588
Sodium	604	910	609	10500	657	576	2000	540	659
Thallium	< 0.311	< 0.264	< 0.314	< 0.435	< 0.297	< 0.285	< 0.313	< 0.302	< 0.280
Vanadium	24.7	17.2	16.1	60.5	17.6	27.6	56	43.3	28.4
Zinc	23.4	25.3J	21.3J	136J	16.6J	60.3J	121	92.6J	79.6J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	N-201	Duplicate N-201	N-202	N-203	N-204	N-205	N-206	N-207	Duplicate N-207
Date Sampled	05/15/91	05/15/91	05/15/91	05/15/91	05/15/91	05/16/91	05/16/91	05/16/91	05/16/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)									
Aluminum	8980J	8240J	12200J	12600J	7840J	8260J	5370J	8020J	7480J
Antimony	< 2.5	2.4	3	3.5	< 2.3	< 2.6	< 2.5	< 2.4	< 2.5
Arsenic	5.21	4.3J	6.56	12.8	3.05	3.58	2.56	2.89	1.89
Barium	50.4	48.3	77.3	64J	57.5	41.2	25.7	34.7	30.2
Beryllium	1.02	0.633	1.3	1.77	0.639	0.595	0.39	0.643	1.03
Cadmium	9.5	9.95	1.16	3.27	1.38	1.49	0.316	0.863	0.908
Calcium	5120J	5090J	2370J	3740J	4630J	2930J	2240J	2550J	2260J
Chromium	44.1	40.2	38.5	55.7J	35	40.9	30.4	38.5	39.2
Cobalt	9.68	8.93	9.62	10.3	6.89	7.69	5.3	7.51	7.3
Copper	24	25.1	24.7	28.1J	13	15.7	12.2	16.2	16.2
Iron	16100J	16100J	23300J	20100J	12900J	14200J	9660J	13800J	13200J
Lead	43.6	42.2	33.4	41.3	12.1	20.6	10.5	14.5	15.8
Magnesium	5290	4910	5750	7280	4360	4910	3380	4940	4840
Manganese	300J	300J	442J	341J	191J	206J	138J	221J	205J
Mercury	0.363	0.343	0.197	0.172	0.153	0.148	0.07	0.09	0.095
Nickel	40.1	35.6	40.3	53.6	34.7	39	29.2	36.9	36.3
Potassium	1320	1230	1650	1870	1110	1250	992	1450	1380
Selenium	< 0.206UJ	< 0.184UJ	< 0.214UJ	< 0.211UJ	< 0.213	< 0.216UJ	< 0.207	< 0.214	< 0.205UJ
Silver	0.587	0.59	< 0.501	0.681	< 0.450	< 0.502	< 0.489	< 0.477	0.53
Sodium	988	984	2100	1430	1010	1290	667	1020	1050
Thallium	< 0.265	< 0.236	< 0.275	< 0.272	< 0.274	< 0.278	< 0.267	< 0.275	< 0.263
Vanadium	36	37.1	39.1	38.7	28.3	29	21.2	28.5	27.5
Zinc	87J	83.5J	91.2J	71.8J	39.1J	49.9J	35.3J	46.7J	43.7J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-4 - Site 2 Surface Soil Samples Analytical Results for Metals

Sample Number	N-208	N-209	N-210
Date Sampled	05/16/91	05/16/91	05/16/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)			
Aluminum	6880J	6060J	5370J
Antimony	< 2.4	< 2.1	< 2.5
Arsenic	2.25	1.91	2.15
Barium	125	29.2	41.4
Beryllium	0.626	0.558	0.622
Cadmium	1.66	0.392	< 0.296
Calcium	3250J	8890J	2700J
Chromium	32.1	60.5	26
Cobalt	6.74	6.4	5.33
Copper	24.3	14.7	9.78
Iron	11400J	11400J	9810J
Lead	81.6	136	8.29
Magnesium	4260	4220	2830
Manganese	223J	222J	184J
Mercury	0.079	0.05	0.154
Nickel	34.1	28.2	24.8
Potassium	993	1140	1070
Selenium	< 0.210UJ	< 0.190	< 0.194
Silver	0.479	< 0.416	< 0.483
Sodium	745	677	464
Thallium	< 0.270	< 0.244	< 0.249
Vanadium	26.7	24.8	21.1
Zinc	77.9J	44.1J	32.9J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-5 - Site 2 Summary of Metals Results for Surface Soil Samples

	Upper Limit 95%/95% Statistical Tolerance Interval (mg/kg)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (mg/kg)	Maximum Value (mg/kg)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (mg/kg)	Maximum Value (mg/kg)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	9458.42	0	0	-	-	-	165	3230	38200	70	0
Antimony	2.31	79	39	2.4	6.7	39	47	2.6	9.2	47	0
Arsenic	15.13	0	148	1.16	61	28	17	1.46	13.4	0	0
Barium	101.88	0	155	14.3	179	7	10	21.5	96	0	0
Beryllium	1.51	5	126	0.184	4.68	44	34	0.191	2.16	4	0
Cadmium	1.97	22	99	0.316	41.1	26	44	0.356	111	12	0
Chromium	65.45	0	28	23.3	83.9	1	136	21	181	36	1
Cobalt	37.45	0	165	3.84	25.3	0	0	-	-	-	0
Copper	19.74	0	134	4.06	233	85	31	5.16	102	18	0
Lead	31.80	0	83	2.01	136	38	82	3.25	1090	49	0
Mercury	0.09	34	119	0.05	1.47	114	12	0.198	1.28	12	0
Nickel	65.46	0	153	22.1	136	28	12	23	106	7	0
Selenium	1.26	165	0	-	-	-	0	-	-	-	0
Silver	1.24	57	75	0.479	2.09	24	33	0.551	2.15	6	0
Thallium	0.21	165	0	-	-	-	0	-	-	-	0
Vanadium	30.84	0	165	14.3	109	85	0	-	-	-	0
Zinc	41.76	0	75	15.1	260	63	90	16.6	390	71	0

Table 9-6 - Site 2 Wetland Sediment Sam[illegible]s Analytic Results for Organic Compounds

Sample Number	301SD	302SD	303SD	304SD	305SD	306SD	307SD	308SD
Date Sampled	05/31/91	05/31/91	05/31/91	05/31/91	05/31/91	05/30/91	05/30/91	05/30/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
PARAMETER REPORTED								
Volatile Organics (µg/kg-Dry)								
Acetone	110	120	160	380	250	71UJ	150	170
Semivolatile Organics (µg/kg-Dry)								
Benzo(b)fluoranthene	< 120	< 170	< 150	220	< 190	< 140	230	< 130
Bis(2-ethylhexyl)phthalate	< 120	< 170	< 150	< 190	< 190	< 140	240	< 130
Fluoranthene	< 86	130	140	190	< 130	< 110	170	< 110
Phenol	< 170	240	< 220	< 270	< 260	< 190	< 260	< 180
Pyrene	< 86	180	220	290	310	< 110	280	< 110
Pesticides/PCBs (µg/kg-Dry)								
4,4'-DDD	< 8.21	< 11.2	< 10.3	290	< 12.5	< 9.14	< 12.6	< 8.78
4,4'-DDE	< 4.11	< 5.62	6.42	41.8	< 6.25	7.09	6.5	< 4.39
4,4'-DDT	< 8.21	< 11.2	< 10.3	566	< 12.5	< 9.14	< 12.6	< 8.78
Aroclor-1260	< 41	110J	140J	150J	< 63	95J	180J	< 44
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)								
Hydrocarbons, Petroleum	52.8	72.4	52.2	< 54.1	63.7	< 39.1	< 53.9	< 37.5

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-6 - Site 2 Wetland Sediment Samples Analytic Results for Organic Compounds

Sample Number	309SD	310SD	Duplicate 310SD	311SD	312SD
Date Sampled	05/30/91	05/30/91	05/30/91	05/30/91	05/30/91
Depth of Sample	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
PARAMETER REPORTED					
Volatile Organics (µg/kg-Dry)					
Acetone	< 20	< 18	350	< 13	97
Semivolatile Organics (µg/kg-Dry)					
Benzo(b)fluoranthene	< 200	< 180	< 200R	< 130	< 190
Bis(2-ethylhexyl)phthalate	270	220	220J	< 130	< 190
Fluoranthene	< 160	< 140	< 160R	< 91	< 130
Phenol	< 280	< 250	< 280R	< 180	< 270
Pyrene	< 160	< 140	190J	< 91	< 130
Pesticides/PCBs (µg/kg-Dry)					
4,4'-DDD	< 13.3	< 12.1	15.7	< 8.64	< 12.7
4,4'-DDE	9.91	< 6.03	11.1	< 4.32	< 6.37
4,4'-DDT	< 13.3	< 12.1	< 13.2	< 8.64	< 12.7
Aroclor-1260	240J	130J	260	< 43	< 64
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)					
Hydrocarbons, Petroleum	85.8	< 51.5	< 56.5	55.6	82

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-7 - Site 2 Summary of Organic Analytical Results for Wetland Sediment Samples

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/kg-Dry)									
Acetone	3	1	9	97	380	0	-	-	0
	0	0				0	-	-	0
Semivolatile Organics (µg/kg-Dry)	0	0				0	-	-	0
Benzo(b)fluoranthene	11	0	2	220	230	0	-	-	0
Bis(2-ethylhexyl)phthalate	9	0	3	220	270	1	220	220	0
Fluoranthene	9	0	4	130	190	0	-	-	0
Phenol	12	0	1	240	240	0	-	-	0
Pyrene	7	0	5	180	310	1	190	190	0
	0	0				0	-	-	0
Pesticides/PCBs (µg/kg-Dry)	0	0				0	-	-	0
4,4'-DDD	11	0	2	15.7	290	0	-	-	0
4,4'-DDE	7	0	6	6.42	41.8	0	-	-	0
4,4'-DDT	12	0	1	566	566	0	-	-	0
Aroclor-1260	5	0	1	260	260	7	95	240	0
						0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)	6	0	7	52.2	85.8	0	-	-	0

Table 9-8 - Site 2 Wetland Sediment Samples Analytical Results for Metals

Sample Number	301SD	302SD	303SD	304SD	305SD	306SD	307SD	308SD
Date Sampled	05/31/91	05/31/91	05/31/91	05/31/91	05/31/91	05/30/91	05/30/91	05/30/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)								
Aluminum	5740J	14900J	18100J	21800J	17400J	10200J	20000J	6950J
Antimony	< 2.5UJ	4.1J	< 3.3UJ	< 4.0UJ	< 4.3UJ	< 2.9UJ	< 4.3UJ	< 3.1UJ
Arsenic	0.518	2.62	4.33	4.8	9.03	4.58	7.88	1.92
Barium	22J	53.3J	54.7J	49.1J	52.9J	43.9J	60.1J	35.9J
Beryllium	1.03J	2.46J	1.62J	1.55J	2J	0.771J	0.79J	0.249J
Cadmium	< 0.305	< 0.473	< 0.391	1.12	0.765	< 0.352	< 0.520	0.399
Calcium	2360J	5650J	3310J	6700J	6280J	2700J	8810J	12300J
Chromium	32.6J	72.7J	82.7J	90.1J	75.1J	51.7J	86J	34.3J
Cobalt	5.37	11.1	14.4	15.3	14.2	9.26	13.3	5.7
Copper	10.3	42.2	47.9	56.5	45.3	14.4	53.7	13.5
Iron	10400J	24400J	30800J	33500J	31200J	17500J	33900J	11200J
Lead	2.91	32.7	46.9	54.2	37	32.6	47.6	7.59
Magnesium	4140	12500	11000	16400	12800	5930	14400	8810
Manganese	126J	478J	267J	536J	471J	178J	500J	633J
Mercury	< 0.048	0.316	0.448	0.521	0.641	0.109	0.499	< 0.064
Nickel	30.8	58.9	71.7	83.4	76.1	53.9	74.4	31
Potassium	1200	3510	3780	4150	4230	1650	4090	1520
Selenium	< 0.222	< 0.307UJ	< 0.285UJ	< 0.371UJ	< 0.328UJ	< 0.223UJ	< 0.303UJ	< 0.248UJ
Silver	< 0.498	1.52	1.16	1.4	0.841	0.653	1.1	< 0.600
Sodium	4650	12000	10700	17200	22600	4640	18400	9470
Thallium	< 0.286UJ	< 0.395UJ	< 0.366UJ	< 0.477UJ	< 0.421UJ	< 0.287UJ	< 0.389UJ	< 0.319UJ
Vanadium	22.7	53	58.8	69.9	61.6	33.2	64.6	23.8
Zinc	28	90.6	119	140	111	42.6	126	37.4

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-8 - Site 2 Wetland Sediment Samples Analytical Results for Metals

Sample Number	309SD	310SD	Duplicate 310SD	311SD	312SD
Date Sampled	05/30/91	05/30/91	05/30/91	05/30/91	05/30/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (mg/kg-Dry)					
Aluminum	23900J	20600J	27600J	3980J	3850J
Antimony	< 4.7UJ	4.4J	< 4.6UJ	< 2.7UJ	< 4.0UJ
Arsenic	7.37	5.84	11.7	0.858	4.28
Barium	54.1J	80.3J	95.2J	14.9J	18J
Beryllium	1.64J	1.35J	1.77J	0.416J	0.743J
Cadmium	2.08	0.952	0.984	< 0.328	< 0.484
Calcium	4170J	12300J	7400J	2000J	2420J
Chromium	101J	91.4J	119J	25.6J	26.4J
Cobalt	16.7	14.9	20.3	5.03	8.32
Copper	63.1	58.7	73.2	4.44	6.1
Iron	35600J	36000J	44300J	7450J	10400J
Lead	52.2	53.8	68.2	4.02	15.3
Magnesium	13400	17300	17200	2610	3840
Manganese	308J	675J	703J	86.2J	153J
Mercury	0.345	0.48	0.598	< 0.055	0.238
Nickel	89.6	80.5	102	25.1	31.3
Potassium	4530	4970	5580	713	1090
Selenium	< 0.331UJ	< 0.324UJ	< 0.375UJ	< 0.205UJ	< 0.381UJ
Silver	1.65	1.37	2.05	< 0.535	< 0.790
Sodium	14500	15800	16100	1360	6420
Thallium	< 0.425UJ	< 0.417UJ	< 0.482UJ	< 0.263	< 0.489UJ
Vanadium	72.6	64.2	83.4	18.7	16.5
Zinc	180	191	218	15.7	27.5

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-9 - Site 2 Summary of Metals Results for Wetland Sediment Samples

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value (mg/kg)	Maximum Value (mg/kg)	Sample Count	Minimum Value (mg/kg)	Maximum Value (mg/kg)	Sample Count
Aluminum	0	0	0	-	-	13	3850	27600	0
Antimony	0	11	0	-	-	2	4.1	4.4	0
Arsenic	0	0	13	0.518	11.7	0	-	-	0
Barium	0	0	0	-	-	13	14.9	95.2	0
Beryllium	0	0	0	-	-	13	0.249	2.46	0
Cadmium	7	0	6	0.399	2.08	0	-	-	0
Calcium	0	0	0	-	-	13	2000	12300	0
Chromium	0	0	0	-	-	13	25.6	119	0
Cobalt	0	0	13	5.03	20.3	0	-	-	0
Copper	0	0	13	4.44	73.2	0	-	-	0
Iron	0	0	0	-	-	13	7450	44300	0
Lead	0	0	13	2.91	68.2	0	-	-	0
Magnesium	0	0	13	2610	17300	0	-	-	0
Manganese	0	0	0	-	-	13	86.2	703	0
Mercury	3	0	10	0.109	0.641	0	-	-	0
Nickel	0	0	13	25.1	102	0	-	-	0
Potassium	0	0	13	713	5580	0	-	-	0
Selenium	1	12	0	-	-	0	-	-	0
Silver	4	0	9	0.653	2.05	0	-	-	0
Sodium	0	0	13	1360	22600	0	-	-	0
Thallium	1	12	0	-	-	0	-	-	0
Vanadium	0	0	13	16.5	83.4	0	-	-	0
Zinc	0	0	13	15.7	218	0	-	-	0

Table 9-10 - Site 2 Wetland Surface Water Samples Analytical Results for Organic Compounds

Sample Number	301SW	302SW	303SW	Duplicate 303SW	304SW	305SW	306SW	307SW
Date Sampled	05/22/91	05/22/91	05/23/91	05/23/91	05/23/91	05/23/91	05/23/91	05/23/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Volatile Organics (µg/L)								
Acetone	5.1	< 2.0	< 2.0UJ	4UJ	< 2.0	3.8UJ	4.4J	3.8
Chloromethane	< 1.0	< 1.0	< 1.0UJ	< 1.0	< 1.0	< 1.0	< 1.0UJ	< 1.0
Methylene Chloride	1.9	2	< 1.0UJ	< 1.0	< 1.0	< 1.0	1.4J	1.3
Semivolatile Organics (µg/L)								
Bis(2-Ethylhexyl) Phthalate	< 2.0	< 2.0	12	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Di-N-Butylphthalate	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND
Total Recoverable Petroleum Hydrocarbons (mg/L)								
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None Detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
< = Analyte reported below detection limit
Shaded areas Highlight detections above the detection limit.

Table 9-10 - Site 2 Wetland Surface Water Samples Analytical Results for Organic Compounds

Sample Number	308SW	309SW	310SW	311SW	Duplicate 311SW	312SW	313SW	314SW
Date Sampled	05/23/91	05/24/91	05/24/91	05/24/91	05/24/91	05/24/91	05/24/91	05/28/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Volatile Organics (µg/L)								
Acetone	< 2.0UJ	< 2.0	< 2.0	< 2.0	5.2	5.2	< 2.0	3.2
Chloromethane	< 1.0UJ	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	2J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)								
Bis(2-Ethylhexyl) Phthalate	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.9	< 2.0
Di-N-Butylphthalate	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND
Total Recoverable Petroleum Hydrocarbons (mg/L)								
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None Detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
< = Analyte reported below detection limit
Shaded areas Highlight detections above the detection limit.

Table 9-10 - Site 2 Wetland Surface Water Samples Analytical Results for Organic Compounds

Sample Number	315SW	316SW	317SW	318SW	319SW	320SW	321SW	322SW
Date Sampled	05/28/91	05/28/91	05/28/91	05/28/91	05/29/91	05/29/91	05/29/91	05/29/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Volatile Organics (µg/L)								
Acetone	3.8	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chloromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.4J	< 1.0
Methylene Chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)								
Bis(2-Ethylhexyl) Phthalate	< 2.0	< 2.0	< 2.0	2.6	< 2.0	< 2.0	< 2.0	< 2.0
Di-N-Butylphthalate	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND
Total Recoverable Petroleum Hydrocarbons (mg/L)								
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None Detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
< = Analyte reported below detection limit
Shaded areas Highlight detections above the detection limit.

Table 9-10 - Site 2 Wetland Surface Water Samples Analytical Results for Organic Compounds

Sample Number	323SW
Date Sampled	05/31/91
Parameter Reported	0.0 ft
Volatile Organics (µg/L)	
Acetone	< 2.0
Chloromethane	< 1.0
Methylene Chloride	< 1.0
Semivolatile Organics (µg/L)	
Bis(2-Ethylhexyl) Phthalate	< 2.0
Di-N-Butylphthalate	1.4
Pesticides/PCBs (µg/L)	ND
Total Recoverable Petroleum Hydrocarbons (mg/L)	
Hydrocarbons, Petroleum	0.3

Notes: ND = None Detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
< = Analyte reported below detection limit
Shaded areas Highlight detections above the detection limit.

Table 9-11 - Site 2 Summary of Organic Analytical Results for Surface Water Samples

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
Acetone	13	4	7	3.2	5.2	1	4.4	4.4	0
Chloromethane	21	3	0	-	-	1	2.4	2.4	0
Methylene Chloride	19	1	3	1.3	2	2	1.4	2	0
Semivolatile Organics (µg/L)									
Bis(2-Ethylhexyl) Phthalate	22	0	3	2.6	12	0	-	-	0
Di-N-Butylphthalate	24	0	1	1.4	1.4	0	-	-	0
Pesticides/PCBs (µg/L)	25	0	0	-	-	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	24	0	1	0.3	0.3	0	-	-	0

Table 9-12 - Site 2 Wetland Surface Water Samples Analytical Results for Metals

Sample Number	301SW	302SW	303SW	Duplicate 303SW	304SW	305SW	306SW	307SW	308SW
Date Sampled	05/22/91	05/22/91	05/23/91	05/23/91	05/23/91	05/23/91	05/23/91	05/23/91	05/23/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (µg/L)									
Aluminum	< 31.0UJ	< 31.0UJ	< 31.0UJ	< 31.0UJ	< 31.0UJ	< 31.0UJ	< 31.0UJ	< 31.0UJ	< 31.0UJ
Antimony	127J	161J	191J	173J	< 126UJ	173J	204J	150J	190J
Arsenic	< 13.0	6J	3.3J	5.9J	7.3J	7.2J	5.6J	5.6J	5.9J
Barium	57.8J	61.2J	63J	64J	62.9J	62.3J	59.7J	60.5J	65.7J
Beryllium	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Cadmium	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Calcium	550000J	572000J	566000J	569000J	570000J	564000J	577000J	566000J	593000J
Chromium,Total	< 5.7UJ	< 5.7UJ	< 5.7UJ	< 5.7UJ	< 5.7UJ	< 5.7UJ	< 5.7UJ	< 5.7UJ	< 5.7UJ
Cobalt	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ
Copper	4.2J	2.6J	< 2.1UJ	< 2.1UJ	2.5J	2.4J	4.1J	2.2J	5.1J
Iron	< 6.2	< 6.2	< 6.2	< 6.2	< 6.2	< 6.2	< 6.2	< 6.2	< 6.2
Lead	< 10.0	< 10.0	< 20.0	< 10.0	< 10.0	< 10.0	< 10.0	11.5	18.5
Magnesium	1540000J	1540000J	1500000J	1540000J	1560000J	1520000J	1470000J	1500000J	1580000J
Manganese	81	< 4.5	110	161	165	206	< 4.5	< 4.5	< 4.5
Mercury	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ
Nickel	16.9J	17.3J	18.4J	19.5J	16.9J	< 13.2UJ	16.2J	18.4J	15.1J
Potassium	438000	475000	475000	472000	477000	469000	480000	470000	506000
Selenium	< 10.5UJ	< 10.5UJ	< 21.0	< 21.0UJ	< 10.5UJ	< 10.5UJ	< 10.5UJ	< 10.5UJ	30.5J
Silver	7J	8.7J	7.3J	7.6J	7.9J	8.7J	8.8J	7.7J	5.5J
Sodium	12700000	12100000	12700000	12300000	12800000	11900000	12900000	12900000	13200000
Thallium	< 13.5UJ	< 13.5UJ	< 13.5UJ	< 13.5UJ	< 13.5UJ	< 13.5UJ	< 13.5UJ	< 13.5UJ	< 13.5UJ
Vanadium	35.5J	62.5J	61J	67.5J	41.5J	63J	72J	56J	51J
Zinc	< 11.5	< 11.5	< 11.5	< 11.5	< 11.5	< 11.5	< 11.5	< 11.5	< 11.5

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
< = Analyte reported below detection limit

Table 9-12 - Site 2 Wetland Surface Water Samples Analytical Results for Metals

Sample Number	309SW	310SW	311SW	Duplicate 311SW	312SW	313SW	314SW	315SW	316SW
Date Sampled	05/24/91	05/24/91	05/24/91	05/24/91	05/24/91	05/24/91	05/28/91	05/28/91	05/28/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (µg/L)									
Aluminum	< 31.0UJ	< 31.0UJ	< 31.0UJ	35.1J	< 31.0UJ	< 31.0UJ	49.3J	< 31.0UJ	149J
Antimony	142J	< 126UJ	158J	208J	218J	192J	177J	210J	138J
Arsenic	5.7J	6.1J	5.8J	7.1	5.4J	4.9J	5.7J	5.4	14.5
Barium	62.5J	57.5J	56.9J	60.3J	57.6J	58.2J	78.1J	84.7J	93.9J
Beryllium	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Cadmium	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Calcium	570000J	556000J	551000J	580000J	555000J	581000J	630000J	678000J	716000J
Chromium,Total	< 5.7UJ	< 5.7UJ	< 5.7UJ	< 5.7UJ	< 5.7UJ	< 5.7UJ	< 5.7UJ	< 5.7UJ	< 5.7UJ
Cobalt	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ
Copper	7.4J	5.4J	4.8J	5.5J	6.9J	5.8J	4.1J	7.5J	4.8J
Iron	< 6.2	< 6.2	< 6.2	< 6.2	< 6.2	< 6.2	< 6.2	< 6.2	93.1
Lead	< 10.0	< 10.0	17.5	< 10.0	16.5	< 10.0	< 10.0	< 10.0	< 10.0
Magnesium	1540000J	1430000J	1500000J	1490000J	1430000J	1440000J	1660000J	1770000J	1920000J
Manganese	< 4.5	22.5	8	36	< 4.5	< 4.5	167	44	103
Mercury	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ
Nickel	18J	17.6J	18J	21.3J	< 13.2UJ	17.6J	13.6J	16.2J	22.1J
Potassium	480000	456000	441000	470000	444000	465000	521000	578000	629000
Selenium	10.5J	< 10.5UJ	18.5J	< 21.0UJ	< 10.5UJ	< 21.0	< 21.0	< 21.0UJ	< 21.0
Silver	6.2J	8J	9.4J	7.5J	9.1J	10.2J	10.1J	8.9J	8.4J
Sodium	12500000	11500000	11700000	12300000	11500000	12100000	13800000	14700000	17700000
Thallium	< 13.5UJ	< 13.5UJ	< 13.5UJ	< 13.5UJ	< 13.5UJ	< 13.5UJ	< 13.5UJ	< 13.5UJ	< 13.5UJ
Vanadium	50J	47J	71.5J	63J	64J	73J	50.5J	63J	36.5J
Zinc	< 11.5	< 11.5	< 11.5	< 11.5	< 11.5	< 11.5	< 11.5	< 11.5	< 11.5

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
< = Analyte reported below detection limit

Table 9-12 - Site 2 Wetland Surface Water Samples Analytical Results for Metals

Sample Number	317SW	318SW	319SW	320SW	321SW	322SW	323SW
Date Sampled	05/28/91	05/28/91	05/29/91	05/29/91	05/29/91	05/29/91	05/31/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Metals (µg/L)							
Aluminum	62.9J	230J	384J	129J	266J	259J	262
Antimony	< 126UJ	169J	181J	193J	148J	47.7J	< 25.1
Arsenic	3.3	6	4.7	4.1	14.8	12.9	7.5
Barium	47J	55.8J	91.6J	58.4J	141J	35.8J	54.2
Beryllium	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Cadmium	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Calcium	275000J	319000J	370000J	336000J	47700J	35800J	580000
Chromium,Total	< 5.7UJ	< 5.7UJ	< 5.7UJ	< 5.7UJ	< 5.7UJ	7.8J	< 5.7
Cobalt	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ	< 6.1UJ	17.8
Copper	< 2.1UJ	< 2.1UJ	4.3J	4.1J	17.2J	9.1J	3.2
Iron	60.3	238	380	134	451	889	732
Lead	11	12.5	< 10.0	< 10.0	< 20.0	11.4	< 20.0
Magnesium	957000J	1070000J	1390000J	1220000J	2410000J	368000J	908000
Manganese	147	196	251	264	151	69.5	13300
Mercury	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ	< 0.2UJ
Nickel	< 13.2UJ	< 13.2UJ	< 13.2UJ	< 13.2UJ	89J	26.8J	50.4
Potassium	320000	369000	427000	402000	894000	174000	362000
Selenium	< 10.5	< 10.5	< 21.0	< 21.0	< 42.0UJ	< 10.5	< 10.5
Silver	9.1J	9.6J	7.1J	7.8J	9.1J	5.9J	9
Sodium	8350000	9690000	11000000	9870000	26500000	2900000	10100000J
Thallium	< 13.5UJ	< 13.5UJ	< 13.5UJ	< 13.5UJ	< 27.0UJ	< 13.5UJ	< 13.5UJ
Vanadium	61J	68J	76J	70J	23J	15.6J	< 4.2
Zinc	< 11.5	< 11.5	< 11.5	< 11.5	< 11.5	< 2.3	< 2.3

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
< = Analyte reported below detection limit

Table 9-13 - Site 2 Summary of Metals Results for Wetland Surface Water Samples

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count
Aluminum	0	15	1	262	262	9	35.1	384	0
Antimony	1	3	0	-	-	21	47.7	218	0
Arsenic	1	0	10	3.3	14.8	14	3.3	7.3	0
Barium	0	0	1	54.2	54.2	24	35.8	141	0
Beryllium	25	0	0	-	-	0	-	-	0
Cadmium	25	0	0	-	-	0	-	-	0
Calcium	0	0	1	580000	580000	24	35800	716000	0
Chromium,Total	1	23	0	-	-	1	7.8	7.8	0
Cobalt	0	24	1	17.8	17.8	0	-	-	0
Copper	0	4	1	3.2	3.2	20	2.2	17.2	0
Iron	17	0	8	60.3	889	0	-	-	0
Lead	18	0	7	11	18.5	0	-	-	0
Magnesium	0	0	1	908000	908000	24	368000	2410000	0
Manganese	7	0	18	8	13300	0	-	-	0
Mercury	0	25	0	-	-	0	-	-	0
Nickel	0	6	1	50.4	50.4	18	13.6	89	0
Potassium	0	0	25	174000	894000	0	-	-	0
Selenium	10	12	0	-	-	3	10.5	30.5	0
Silver	0	0	1	9	9	24	5.5	10.2	0
Sodium	0	0	24	2900000	26500000	1	10100000	10100000	0
Thallium	0	25	0	-	-	0	-	-	0
Vanadium	1	0	0	-	-	24	15.6	76	0
Zinc	25	0	0	-	-	0	-	-	0

Table 9-14 Wetland Surface Water Samples Analytical Results for General Chemicals

Sample Number	301SW	302SW	303SW	Duplicate 303SW	304SW	305SW	306SW	307SW	308SW
Date Sampled	05/22/91	05/22/91	05/23/91	05/23/91	05/23/91	05/23/91	05/23/91	05/23/91	05/23/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Physical Parameters-Lab									
Acidity,Total (mg/L-CaCO3)	< 1.0	< 1.0	< 1.0	< 1.0UJ	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Alkalinity,T. (mg/L-CaCO3)	116	115	111	110	111	82	136	149	137
Hardness (mg/L-CaCO3)	9900	10000	10000	10100	9900	10000	12400	10000	11000
Total Dissolved Solids (mg/L)	46800J	46600J	46600J	47600J	46400J	47500J	47200J	44800J	47200J
Specific Cond.,Lab (µmhos/cm)	60400	60100	61700	61700	60600	61600	61800	61300	62300
Physical Parameters-Field									
Ph,Field (Std Units)	9	10	8	9	8	8	9	8	9
Sp.Cond., Field@25C (µmhos/cm)	70000	70000	70000	70000	70000	70000	70000	70000	70000
Water Temp (C)	NA	NA	20	20	20	20	20	20	20
Total Organic Carbon (mg/L)									
Carbon,TOC	100	104	93.4	80.5	98.9	91.3	104	96.1	87.9
Anions									
Chloride (mg/L)	24970	25110	25340	25330	26330	25630	25890	25700	25620
Fluoride (mg/L)	0.15UJ	< 20.0	0.14UJ	0.15UJ	< 20.0	0.14UJ	< 20.0	0.15UJ	< 20.0
Sulfate (mg/L)	5806	5795	5836	5880	5951	5967	6018	6018	6073

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-14 Wetland Surface Water Sam[illegible] Analytical Results for General Chemicals

Sample Number	309SW	310SW	311SW	Duplicate 311SW	312SW	313SW	314SW	315SW	316SW
Date Sampled	05/24/91	05/24/91	05/24/91	05/24/91	05/24/91	05/24/91	05/28/91	05/28/91	05/28/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Physical Parameters-Lab									
Acidity,Total (mg/L-CaCO3)	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Alkalinity,T. (mg/L-CaCO3)	146	144	142	140	144	145	136	125	148
Hardness (mg/L-CaCO3)	11000	10000	11600	10000	10000	10800	11200	12200	13300
Total Dissolved Solids (mg/L)	48600J	48100J	47500J	49000J	48300J	49200J	52400J	53400J	58600J
Specific Cond.,Lab (µmhos/cm)	61700	62200	61700	62300	62500	62900	72400	72900	83800
Physical Parameters-Field									
Ph,Field (Std Units)	8	8	8	8	8	8	8	8	8
Sp.Cond., Field@25C (µmhos/cm)	75000	70000	75000	75000	70000	70000	65000	72000	80000
Water Temp (C)	23	19	23	23	22	24	NA	NA	NA
Total Organic Carbon (mg/L)									
Carbon,TOC	81.5	89.8	98.3	94.1	115	111	103	119	132
Anions									
Chloride (mg/L)	26150	25640	25930	25760	26570	25060	28660	30400	32020
Fluoride (mg/L)	0.15UJ	0.15UJ	0.14UJ	< 20.0	0.14UJ	< 20.0	< 20.0	< 20.0	0.13UJ
Sulfate (mg/L)	6051	6066	6080	6092	6085	6095	6766	7118	7597

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-14 Wetland Surface Water Sam[illegible] Analytical Results for General Chemicals

Sample Number	317SW	318SW	319SW	320SW	321SW	322SW	323SW
Date Sampled	05/28/91	05/28/91	05/29/91	05/29/91	05/29/91	05/29/91	05/31/91
Parameter Reported	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Physical Parameters-Lab							
Acidity,Total (mg/L-CaCO3)	3.2	< 1.0	< 1.0	12.5	< 1.0	< 1.0	76.8
Alkalinity,T. (mg/L-CaCO3)	312	187	238	211	3390	1820	390
Hardness (mg/L-CaCO3)	6200	7000	8000	7400	13700	2600	7400
Total Dissolved Solids (mg/L)	28300J	35900J	39400J	37200J	91500J	10900J	34900J
Specific Cond.,Lab (µmhos/cm)	48400	55800	61800	58600	105000	19600	53200
Physical Parameters-Field							
Ph,Field (Std Units)	8	6	7	6	9	9	6.5
Sp.Cond., Field@25C (µmhos/cm)	40000	60000	65000	60000	140000	20000	60000
Water Temp (C)	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (mg/L)							
Carbon,TOC	21.9	< 20.0	< 20.0	< 20.0	424	274	41.4
Anions							
Chloride (mg/L)	16140	20930	22610	21740	56950	5342	18570
Fluoride (mg/L)	0.67UJ	0.69UJ	< 20.0	< 20.0	< 20.0	< 10.00	0.3UJ
Sulfate (mg/L)	2073	2781	3093	2903	7625	< 25.00	4334

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-15 - Site 2 Summary of General Chemical Results for Wetland Surface Water Samples

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity,Total (mg/L-CaCO3)	21	1	3	3.2	76.8	0	-	-	0
Alkalinity,T. (mg/L-CaCO3)	0	0	25	82	3390	0	-	-	0
Hardness (mg/L-CaCO3)	0	0	25	2600	13700	0	-	-	0
Total Dissolved Solids (mg/L)	0	0	0	-	-	25	10900	91500	0
Specific Cond.,Lab (µmhos/cm)	0	0	25	19600	105000	0	-	-	0
Physical Parameters-Field									
Ph,Field (Std Units)	0	0	25	6	10	0	-	-	0
Sp.Cond., Field@25C (µmhos/cm)	0	0	25	20000	140000	0	-	-	0
Water Temp (C)	0	0	13	19	24	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon,TOC	3	0	22	21.9	424	0	-	-	0
Anions									
Chloride (mg/L)	0	0	25	5342	56950	0	-	-	0
Fluoride (mg/L)	12	13	0	-	-	0	-	-	0
Sulfate (mg/L)	1	0	24	2073	7625	0	-	-	0

Table 9-16 - Site 2 Soil Samples in [illegible] lytical Results for Organic Compounds

Sample Number	M-010B-000	M-011A-000	M-011A-004	M-012B-000	M-013A-003	M-013C-000	M-014B-000	M-015A-000	M-015A-005	M-016A-000	M-016A-004
Date Sampled	11/28/90	05/16/91	05/28/91	12/1/90	05/28/91	05/16/91	12/1/90	05/16/91	05/28/91	05/16/91	05/22/91
Depth of Sample	0.5 ft	0.0 ft	2.0 ft	0.5 ft	1.5 ft	0.0 ft	0.5 ft	0.0 ft	2.0 ft	0.0 ft	4.0 ft
PARAMETER REPORTED											
Volatile Organics (µg/kg-Dry)											
Acetone	NA	NA	140UJ	NA	26UJ	NA	NA	NA	< 11	NA	< 10.0
Chlorobenzene	NA	NA	< 5.6	NA	< 5.5	NA	NA	NA	< 5.3	NA	< 5.2
Ethylbenzene	NA	NA	< 5.6	NA	< 5.5	NA	NA	NA	< 5.3	NA	< 5.2
Xylene	NA	NA	< 5.6	NA	< 5.5	NA	NA	NA	< 5.3	NA	< 5.2
Semivolatile Organics (µg/kg-Dry)											
1,4-Dichlorobenzene	< 0.17	< 71	< 89	< 0.17	< 88	< 71	< 0.17	< 72	< 85	< 75	NA
2,4-Dinitrotoluene	< 0.17	< 140	< 160	< 0.17	< 150	< 140	< 0.17	< 140	< 150	< 150	NA
2-Methylnaphthalene	< 0.17	< 100	< 110	< 0.17	< 110	< 100	< 0.17	< 100	< 110	< 110	NA
Acenaphthene	< 0.17	< 71	< 89	< 0.17	< 88	< 71	< 0.17	< 72	< 85	< 75	NA
Anthracene	< 0.17	< 71	< 89	< 0.17	< 88	< 71	< 0.17	< 72	< 85	< 75	NA
Benzo(a)anthracene	< 0.17	< 100	< 110	< 0.17	< 110	< 100	< 0.17	930	< 110	< 110	NA
Benzo(a)pyrene	< 0.17	< 140	< 160	< 0.17	< 150	< 140	< 0.17	< 140	< 150	< 150	NA
Benzo(b)fluoranthene	< 0.17	200	< 110	< 0.17	< 110	< 100	< 0.17	2800	< 110	< 110	NA
Benzo(g,h,i)perylene	< 0.17	< 160	< 180	< 0.17	< 180	< 160	< 0.17	< 170	< 170	< 170	NA
Benzo(k)fluoranthene	< 0.17	< 100	< 110	< 0.17	< 110	< 100	< 0.17	< 100	< 110	< 110	NA
Bis(2-ethylhexyl)phthalate	< 0.17	300	200	< 0.17	520	< 100	< 0.17	< 100	< 110	< 110	NA
Butylbenzylphthalate	< 0.17	< 100	< 110	< 0.17	< 110	< 100	< 0.17	< 100	< 110	< 110	NA
Chrysene	< 0.17	410	< 110	< 0.17	< 110	< 100	< 0.17	1300	< 110	< 110	NA
Di-N-Butylphthalate	< 0.17	170	< 89	< 0.17	< 88	< 71	< 0.17	< 72	< 85	< 75	NA
Dibenzo(a,h)anthracene	< 0.17	< 160	< 180	< 0.17	< 180	< 160	< 0.17	< 170	< 170	< 170	NA
Dibenzofuran	< 0.17	< 120	< 130	< 0.17	< 130	< 120	< 0.17	< 120	< 130	< 130	NA
Fluoranthene	< 0.17	< 71	< 89	< 0.17	< 88	< 71	< 0.17	1900	< 85	< 75	NA
Fluorene	< 0.17	< 71	< 89	< 0.17	< 88	< 71	< 0.17	< 72	< 85	< 75	NA
Indeno(1,2,3-cd)pyrene	< 0.17	< 160	< 180	< 0.17	< 180	< 160	< 0.17	< 170	< 170	< 170	NA
Naphthalene	< 0.17	< 71	< 89	< 0.17	< 88	< 71	< 0.17	< 72	< 85	< 75	NA
Phenanthrene	< 0.17	73	< 89	< 0.17	< 88	< 71	< 0.17	440	< 85	< 75	NA
Pyrene	< 0.17	120	< 89	< 0.17	< 88	< 71	< 0.17	1600	< 85	< 75	NA
Pesticides/PCBs (µg/kg-Dry)											
4,4'-DDD	< 0.010	20.21	< 7.43	< 0.010	< 7.34	< 6.78	< 0.010	< 6.89	9.54	12.11	< 6.92
4,4'-DDE	< 0.010	3.46J	< 3.72	< 0.010	< 3.67	< 3.39	< 0.010	< 3.44	< 3.55	< 3.55	< 3.46
4,4'-DDT	< 0.010	37.21	< 7.43	< 0.010	< 7.34	< 6.78	< 0.010	< 6.89	< 7.09	< 7.11	< 6.92
Dieldrin	< 0.010	< 3.39	< 3.72	< 0.010	< 3.67	< 3.39	< 0.010	< 3.44	< 3.55	< 3.55	< 3.46
Heptachlor	< 0.0050	< 3.39	< 3.72	< 0.0050	< 3.67	< 3.39	< 0.0050	< 3.44	< 3.55	< 3.55	< 3.46
Alpha-Chlordane	< 0.0050	< 3.39	< 3.72	< 0.0050	< 3.67	< 3.39	< 0.0050	< 3.44	< 3.55	< 3.55	< 3.46
Gamma-Chlordane	< 0.0050	< 3.39	< 3.72	< 0.0050	< 3.67	< 3.39	< 0.0050	< 3.44	< 3.55	< 3.55	< 3.46
Aroclor-1248	< 0.050	< 34	< 37	< 0.050	< 37	< 34	< 0.050	< 34	< 35	< 36	< 35
Aroclor-1260	< 0.050	280J	< 37	< 0.050	< 37	< 34	< 0.050	< 34	< 35	140J	< 35
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)											
Hydrocarbons, Petroleum	NA	2100	NA	NA	NA	48.9	NA	98	NA	132	NA
Oil And Grease (mg/kg-Dry)											
Oil&Gr, IR	NA	4790	NA	NA	NA	250	NA	278	NA	399	NA

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-16 - Site 2 Soil Samples in P[illegible] [illegible]alytical Results for Organic Compounds

Sample Number	M-016A-004	M-017A-000	M-017A-005	M-018A-000	M-018A-006	M-018E-046	Duplicate M-018E-046	M-019A-000	M-019E-004	M-019E-034	M-020A-004
Date Sampled	08/09/91	05/16/91	05/22/91	05/03/91	05/22/91	05/21/91	05/21/91	05/03/91	05/20/91	05/20/91	05/16/91
Depth of Sample	4.0 ft	0.0 ft	5.0 ft	0.0 ft	3.0 ft	45.0 ft	45.0 ft	0.0 ft	4.0 ft	34.0 ft	3.0 ft
PARAMETER REPORTED											
Volatile Organics (µg/kg-Dry)											
Acetone	NA	NA	< 10.0	NA	< 10.0	< 12	47UJ	NA	33UJ	65UJ	160
Chlorobenzene	NA	NA	< 5.2	NA	< 5.2	< 6.1	< 5.8	NA	< 5.3	< 6.0	< 5.2
Ethylbenzene	NA	NA	< 5.2	NA	< 5.2	< 6.1	< 5.8	NA	< 5.3	< 6.0	< 5.2
Xylene	NA	NA	< 5.2	NA	< 5.2	< 6.1	< 5.8	NA	< 5.3	< 6.0	< 5.2
Semivolatile Organics (µg/kg-Dry)											
1,4-Dichlorobenzene	< 73	< 74	< 84R	< 83	< 83	< 97	< 93	< 83	< 84	< 96	< 73
2,4-Dinitrotoluene	< 150	< 150	< 150R	< 140	< 150	< 170	< 160	< 140	< 150	< 170	< 150
2-Methylnaphthalene	< 100	< 110	< 100R	< 100	< 100	< 120	< 120	< 100	< 110	< 120	< 100
Acenaphthene	< 73	< 74	< 84R	< 83	< 83	< 97	< 93	< 83	< 84	< 96	< 73
Anthracene	< 73	< 74	< 84R	< 83	< 83	< 97	< 93	< 83	< 84	< 96	< 73
Benzo(a)anthracene	< 100	< 110	< 100R	< 100	< 100	< 120	< 120	< 100	< 110	< 120	< 100
Benzo(a)pyrene	< 150	< 150	< 150R	< 140	< 150	< 170	< 160	< 140	< 150	< 170	< 150
Benzo(b)fluoranthene	< 100	< 110	< 100R	100	< 100	< 120	< 120	< 100	< 110	< 120	< 100
Benzo(g,h,i)perylene	< 170	< 170	< 170R	< 170	< 170	< 190	< 190	< 170	< 170	< 190	< 170
Benzo(k)fluoranthene	< 100	< 110	< 100R	< 100	< 100	< 120	< 120	< 100	< 110	< 120	< 100
Bis(2-ethylhexyl)phthalate	< 100	630	< 100R	< 100	< 100	< 120	< 120	< 100	1700	750	110
Butylbenzylphthalate	< 100	< 110	< 100R	< 100	< 100	< 120	< 120	< 100	< 110	< 120	< 100
Chrysene	< 100	< 110	< 100R	< 100	< 100	< 120	< 120	< 100	< 110	< 120	< 100
Di-N-Butylphthalate	< 73	< 74	< 84R	< 83	< 83	< 97	< 93	< 83	< 84	< 96	< 73
Dibenzo(a,h)anthracene	< 170	< 170	< 170R	< 170	< 170	< 190	< 190	< 170	< 170	< 190	< 170
Dibenzofuran	< 120	< 130	< 130R	< 120	< 120	< 150	< 140	< 120	< 130	< 140	< 130
Fluoranthene	< 73	< 74	< 84R	< 83	< 83	< 97	< 93	< 83	< 84	< 96	< 73
Fluorene	< 73	< 74	< 84R	< 83	< 83	< 97	< 93	< 83	< 84	< 96	< 73
Indeno(1,2,3-cd)pyrene	< 170	< 170	< 170R	< 170	< 170	< 190	< 190	< 170	< 170	< 190	< 170
Naphthalene	< 73	< 74	< 84R	< 83	< 83	< 97	< 93	< 83	< 84	< 96	< 73
Phenanthrene	< 73	< 74	< 84R	< 83	< 83	< 97	< 93	< 83	< 84	< 96	< 73
Pyrene	< 73	< 74	< 84R	150	< 83UJ	< 97UJ	< 93UJ	100	< 84UJ	< 96UJ	< 73
Pesticides/PCBs (µg/kg-Dry)											
4,4'-DDD	NA	< 7.09	< 6.97	9.18	< 6.91	< 8.11	< 7.77	0.004	< 7.01	< 7.97	< 6.97
4,4'-DDE	NA	< 3.55	< 3.48	< 3.45	< 3.45	< 4.06	< 3.89	< 3.44	< 3.51	< 3.99	< 3.49
4,4'-DDT	NA	< 7.09	< 6.97	< 6.90	< 6.91	< 8.11	< 7.77	< 6.89	8.3	< 7.97	< 6.97
Dieldrin	NA	< 3.55	< 3.48	18.6	< 3.45	< 4.06	< 3.89	< 3.44	< 3.51	< 3.99	< 3.49
Heptachlor	NA	< 3.55	< 3.48	< 3.45	< 3.45	< 4.06	< 3.89	< 3.44	< 3.51	< 3.99	< 3.49
Alpha-Chlordane	NA	< 3.55	< 3.48	< 3.45	< 3.45	< 4.06	< 3.89	< 3.44	< 3.51	< 3.99	< 3.49
Gamma-Chlordane	NA	< 3.55	< 3.48	6.33	< 3.45	< 4.06	< 3.89	5.05	< 3.51	< 3.99	< 3.49
Aroclor-1248	NA	< 35	< 35	< 34	< 35	< 41	< 39	< 34	< 35	< 40	< 35
Aroclor-1260	NA	691	< 35	150J	< 35	< 41	< 39	120J	< 35	< 40	< 35
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)											
Hydrocarbons, Petroleum	NA	519	NA	231	NA	NA	NA	78.7	NA	NA	NA
Oil And Grease (mg/kg-Dry)											
Oil&Gr, IR	NA	720	NA	674	NA	NA	NA	229	NA	NA	NA

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-16 - Site 2 Soil Samples in [illegible]lytical Results for Organic Compounds

Sample Number	M-020B-000	M-020E-033	M-021A-005	M-021C-000	M-021E-034	M-022A-005	Duplicate M-022A-005	M-022B-000	M-022E-035	M-023A-000	M-023A-004
Date Sampled	05/03/91	05/16/91	05/15/91	05/03/91	05/14/91	05/10/91	05/10/91	05/03/91	05/09/91	05/03/91	05/07/91
Depth of Sample	0.0 ft	32.0 ft	3.0 ft	0.0 ft	34.0 ft	2.0 ft	2.0 ft	0.0 ft	32.0 ft	0.0 ft	3.5 ft
PARAMETER REPORTED											
Volatile Organics (µg/kg-Dry)											
Acetone	NA	250	40UJ	NA	63UJ	190	1300	NA	51UJ	NA	180
Chlorobenzene	NA	< 6.1	< 5.5	NA	< 6.2	< 6.0	< 29	NA	< 5.7	NA	< 5.5
Ethylbenzene	NA	< 6.1	< 5.5	NA	< 6.2	< 6.0	< 29	NA	< 5.7	NA	< 5.5
Xylene	NA	< 6.1	< 5.5	NA	< 6.2	< 6.0	< 29	NA	< 5.7	NA	< 5.5
Semivolatile Organics (µg/kg-Dry)											
1,4-Dichlorobenzene	< 82	< 98	< 88	< 84	< 99	< 96	< 94	< 89	< 92	< 84	< 440
2,4-Dinitrotoluene	< 140	< 170	< 150	< 150	< 170	< 170	< 160	< 160	< 160	< 150	< 780
2-Methylnaphthalene	< 100	< 120	< 110	< 110	< 120	< 120	< 120	< 110	< 110	< 110	< 550
Acenaphthene	< 82	< 98	< 88	< 84	< 99	< 96	< 94	< 89	< 92	< 84	< 440
Anthracene	< 82	< 98	< 88	< 84	< 99	< 96	< 94	< 89	< 92	< 84	< 440
Benzo(a)anthracene	< 100	< 120	< 110	< 110	< 120	120	170	< 110	< 110	< 110	< 550
Benzo(a)pyrene	< 140	< 170	< 150	< 150	< 170	230	290	< 160	< 160	< 150	< 780
Benzo(b)fluoranthene	< 100	< 120	< 110	< 110	< 120	190	300	< 110	< 110	120	< 550
Benzo(g,h,i)perylene	< 160	< 200	< 180	< 170	< 200	240	480	< 180	< 180	< 170	< 890
Benzo(k)fluoranthene	< 100	< 120	< 110	< 110	< 120	150	< 120	< 110	< 110	< 110	< 550
Bis(2-ethylhexyl)phthalate	< 100	1100	4100J	< 110	200UJ	130	< 120	< 110	220	220	1100
Butylbenzylphthalate	< 100	< 120	< 110	< 110	< 120	< 120	< 120	< 110	< 110	< 110	< 550
Chrysene	< 100	< 120	< 110	< 110	< 120	180	210	< 110	< 110	110	< 550
Di-N-Butylphthalate	< 82	< 98	< 88	< 84	< 99	< 96	< 94	< 89	< 92	< 84	< 440
Dibenzo(a,h)anthracene	< 160	< 200	< 180	< 170	< 200	< 190	< 190	< 180	< 180	< 170	< 890
Dibenzofuran	< 120	< 150	< 130	< 130	< 150	< 140	< 140	< 130	< 140	< 130	< 660
Fluoranthene	< 82	< 98	< 88	< 84	< 99	240	280	130	< 92	95	< 440
Fluorene	< 82	< 98	< 88	< 84	< 99	< 96	< 94	< 89	< 92	< 84	< 440
Indeno(1,2,3-cd)pyrene	< 160	< 200	< 180	< 170	< 200	< 190	350	< 180	< 180	< 170	< 890
Naphthalene	< 82	< 98	< 88	< 84	< 99	< 96	< 94	< 89	< 92	< 84	< 440
Phenanthrene	< 82	< 98	< 88	< 84	< 99	< 96	< 94	< 89	< 92	< 84	< 440
Pyrene	88	< 98	< 88	< 84	< 99	760	510	180	< 92UJ	200	580J
Pesticides/PCBs (µg/kg-Dry)											
4,4'-DDD	< 6.86	< 8.16	< 7.34	7.08J	< 8.24	73.6	< 78.3UJ	10.1	< 7.65	13J	70.3
4,4'-DDE	< 3.43	< 4.08	< 3.67	< 3.52	< 4.12	22.8	< 39.2UJ	< 3.71	< 3.83	4.41J	7.25
4,4'-DDT	< 6.86	< 8.16	< 7.34	< 7.04	< 8.24	< 7.96	< 78.3UJ	< 7.41	< 7.65	< 7.01	< 7.38
Dieldrin	< 3.43	< 4.08	< 3.67	5.47J	< 4.12	< 3.98	< 39.2UJ	4.12	< 3.83	< 3.51	< 3.69
Heptachlor	< 3.43	< 4.08	< 3.67	< 3.52	< 4.12	< 1.59	< 39.2UJ	< 3.71	< 3.83	< 3.51	< 3.69
Alpha-Chlordane	< 3.43	< 4.08	< 3.67	< 3.52	< 4.12	< 3.98	< 39.2UJ	< 3.71	< 3.83	< 3.51	< 3.69
Gamma-Chlordane	5.73J	< 4.08	< 3.67	5.64J	< 4.12	11.9	< 39.2UJ	3.86	< 3.83	8.83J	< 3.69
Aroclor-1248	< 34	< 41	< 37	< 35	< 41	330	< 390UJ	< 37	< 38	< 35	< 37
Aroclor-1260	160J	< 41	< 37	240J	< 41	310J	< 390UJ	140J	< 38	250J	190J
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)											
Hydrocarbons, Petroleum	84.9	NA	NA	70.3	NA	NA	NA	174	NA	140	NA
Oil And Grease (mg/kg-Dry)											
Oil&Gr, IR	180	NA	NA	198	NA	NA	NA	405	NA	445	NA

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-16 - Site 2 Soil Samples in Fi[illegible] [illegible]ytical Results for Organic Compounds

Sample Number	M-023E-025	M-024A-000	M-024A-003	M-024E-010	M-024E-019
Date Sampled	05/08/91	05/03/91	05/03/91	05/06/91	05/06/91
Depth of Sample	20.0 ft	0.0 ft	1.0 ft	10.0 ft	17.2 ft
PARAMETER REPORTED					
Volatile Organics (µg/kg-Dry)					
Acetone	120	NA	92UJ	3100	46UJ
Chlorobenzene	< 6.1	NA	40	370	< 6.1
Ethylbenzene	< 6.1	NA	7.1	< 31	< 6.1
Xylene	< 6.1	NA	14	< 31	< 6.1
Semivolatile Organics (µg/kg-Dry)					
1,4-Dichlorobenzene	< 98	< 83	< 2200	400	< 97
2,4-Dinitrotoluene	< 170	< 150	< 3800	180	< 170
2-Methylnaphthalene	< 120	< 100	< 2700	2100	< 120
Acenaphthene	< 98	< 83	< 2200	860	< 97
Anthracene	< 98	< 83	< 2200	100	< 97
Benzo(a)anthracene	< 120	640	< 2700	< 120	< 120
Benzo(a)pyrene	< 170	830	< 3800	< 170	< 170
Benzo(b)fluoranthene	< 120	670	< 2700	< 120	< 120
Benzo(g,h,i)perylene	< 200	810	< 4300	< 200	< 190
Benzo(k)fluoranthene	< 120	660	< 2700	< 120	< 120
Bis(2-ethylhexyl)phthalate	190	1200	6500	1500	200
Butylbenzylphthalate	< 120	280	< 2700	< 120	< 120
Chrysene	< 120	850	< 2700	150	< 120
Di-N-Butylphthalate	< 98	< 83	< 2200	< 99	< 97
Dibenzo(a,h)anthracene	< 200	170	< 4300	< 200	< 190
Dibenzofuran	< 150	< 120	< 3300	470	< 150
Fluoranthene	< 98	780	2300	250	< 97
Fluorene	< 98	< 83	< 2200	580	< 97
Indeno(1,2,3-cd)pyrene	< 200	640	< 4300	< 200	< 190
Naphthalene	< 98	< 83	2400	920	< 97
Phenanthrene	< 98	420	3600	820	< 97
Pyrene	< 98UJ	1200	3200	280J	130
Pesticides/PCBs (µg/kg-Dry)					
4,4'-DDD	< 8.14	47.4J	98.5	NA	< 8.11
4,4'-DDE	< 4.07	< 3.47	6.12	NA	< 4.06
4,4'-DDT	< 8.14	120J	< 7.22	NA	< 8.11
Dieldrin	< 4.07	< 3.47	< 3.61	NA	< 4.06
Heptachlor	< 4.07	12.4J	< 3.61	NA	< 4.06
Alpha-Chlordane	< 4.07	161J	< 3.61	NA	< 4.06
Gamma-Chlordane	< 4.07	203J	29.5	NA	< 4.06
Aroclor-1248	< 41	< 35	< 36	NA	< 41
Aroclor-1260	160J	1200J	1800J	NA	< 41
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)					
Hydrocarbons, Petroleum	NA	534	NA	NA	NA
Oil And Grease (mg/kg-Dry)					
Oil&Gr, IR	NA	1590	NA	NA	NA

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-17 - Site 2 Summary of Organic Analytical Results for Soil in Fill

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
PARAMETER REPORTED	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/kg-Dry)									
Acetone	5	10	7	120	3100	0	-	-	0
Chlorobenzene	20	0	2	40	370	0	-	-	0
Ethylbenzene	21	0	1	7.1	7.1	0	-	-	0
Xylene	21	0	1	14	14	0	-	-	0
Semivolatile Organics (µg/kg-Dry)									
1,4-Dichlorobenzene	35	0	1	400	400	0	-	-	1
2,4-Dinitrotoluene	35	0	1	180	180	0	-	-	1
2-Methylnaphthalene	35	0	1	2100	2100	0	-	-	1
Acenaphthene	35	0	1	860	860	0	-	-	1
Anthracene	35	0	1	100	100	0	-	-	1
Benzo(a)anthracene	32	0	4	120	930	0	-	-	1
Benzo(a)pyrene	33	0	3	230	830	0	-	-	1
Benzo(b)fluoranthene	29	0	7	100	2800	0	-	-	1
Benzo(g,h,i)perylene	33	0	3	240	810	0	-	-	1
Benzo(k)fluoranthene	34	0	2	150	660	0	-	-	1
Bis(2-ethylhexyl)phthalate	17	1	17	110	6500	1	4100	2400	1
Butylbenzylphthalate	35	0	1	280	280	0	-	-	1
Chrysene	29	0	7	110	1500	0	-	-	1
Di-N-Butylphthalate	35	0	1	170	170	0	-	-	1
Dibenzo(a,h)anthracene	35	0	1	170	170	0	-	-	1
Dibenzofuran	35	0	1	470	470	0	-	-	1
Fluoranthene	28	0	8	95	2300	0	-	-	1
Fluorene	35	0	1	580	580	0	-	-	1
Indeno(1,2,3-cd)pyrene	34	0	2	360	640	0	-	-	1
Naphthalene	34	0	2	920	2400	0	-	-	1
Phenanthrene	31	0	5	73	3600	0	-	-	1
Pyrene	15	7	12	88	3200	2	280	29.5	1
Pesticides/PCBs (µg/kg-Dry)									
4,4'-DDD	23	1	7	0.004	73.6	5	7.08	0	0
4,4'-DDE	30	1	3	6.12	22.8	2	3.46	0	0
4,4'-DDT	32	1	1	8.3	8.3	2	37.2	534	0
Dieldrin	32	1	2	4.12	18.6	1	5.47	0	0
Heptachlor	34	1	0	-	-	1	12.4	1580	0
Alpha-Chlordane	34	1	0	-	-	1	161	0	0
Gamma-Chlordane	26	1	5	3.86	29.5	4	5.64	0	0
Aroclor-1248	34	1	1	330	330	0	-	-	0
Aroclor-1260	21	1	0	-	-	14	69	0	0
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)	0	0	12	48.9	2100	0	-	-	0
Oil And Grease by IR(mg/kg-Dry)	0	0	12	180	4790	0	-	-	0

Table 9-18 - Site 2 Soil Samples in Fill Analytical Results for Metals

Sample Number	M-010B-000	M-011A-000	M-011A-004	M-012B-000	M-013A-003	M-013C-000	M-014B-000
Date Sampled	11/28/90	05/16/91	05/28/91	12/1/90	05/28/91	05/16/91	12/1/90
Depth of Sample	0.5 ft	0.0 ft	2.0 ft	0.5 ft	1.5 ft	0.0 ft	0.5 ft
Parameters Reported							
Metals (mg/kg-Dry)							
Aluminum	4380	7190J	4470J	3770	4000J	5260J	3590
Antimony	< 1.9	2.5J	< 2.2UJ	< 1.9	< 2.4UJ	< 2.5UJ	< 1.8
Arsenic	4.5	3.44	1.32	4.5	1.23	2.64	4.9
Barium	34.2	61.4	32.2J	26.3	44.7J	26.7	25.8
Beryllium	< 0.16	0.734	0.353J	< 0.17	0.666J	0.48	< 0.15
Cadmium	< 0.37	2.82	< 0.266	< 0.37	< 0.289	0.457	0.72
Calcium	1830	6950J	6500J	2120	1900J	3070J	2020
Chromium	32.1	43.2J	26.4J	27.0	27.7J	33J	27.3
Cobalt	5.5	7.55	4.23	4.5	4.39	6.43	4.4
Copper	5.7	18.2J	4.63	6.4	4.67	8.16J	7.9
Iron	8530	12300J	7920J	7610	7880J	9860J	6730
Lead	5.9	186	4.19	24.8	2.79	11.6	48.2
Magnesium	2620	3380	2550	2370	2230	2900	2070
Manganese	111	208	110J	111	89.9J	162	100
Mercury	< 0.07	0.257J	< 0.053	< 0.071	< 0.053	0.166J	< 0.067
Nickel	28.6	31.1J	24.1	22.3	23.1	26.7J	21.8
Potassium	723	1150	522	535	561	861	489
Selenium	< 1.1	< 0.209UJ	< 0.211	< 1.0	< 0.208UJ	< 0.209UJ	< 1.1
Silver	0.90	0.878	0.556J	< 0.75	< 0.472	0.644	< 0.70
Sodium	381	320J	278	314	226	266J	295
Thallium	< 0.12	< 0.269	< 0.272UJ	< 0.12	< 0.267	< 0.268	< 0.12
Vanadium	18.3	27.9	20.2	17.3	20.6	22.7	17.2
Zinc	24.3	101J	16.5	66.4	14.7	104J	42.1

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-18 - Site 2 Soil Samples ... Fill Analytical Results for Metals

Sample Number	M-015A-000	M-015A-005	M-016A-000	M-016A-004	M-017A-000	M-017A-005	M-018A-000
Date Sampled	05/16/91	05/28/91	05/16/91	05/22/91	05/16/91	05/22/91	05/03/91
Depth of Sample	0.0 ft	2.0 ft	0.0 ft	4.0 ft	0.0 ft	5.0 ft	0.0 ft
Parameters Reported							
Metals (mg/kg-Dry)							
Aluminum	4920J	5030J	12100J	4610J	10800J	5980J	6550J
Antimony	< 2.6UJ	< 2.5UJ	< 2.6UJ	< 2.4	3.6J	< 2.5	< 2.6
Arsenic	2.75	0.936	5.45	2.25	4.37	2.5	4.09
Barium	41	36J	46.5	18.7J	45	27J	34.5
Beryllium	0.42	0.517J	0.969	0.464	0.695	0.894	0.873
Cadmium	< 0.306	< 0.302	0.675	< 0.286	0.924	< 0.299	3.06J
Calcium	2280J	2070J	4320J	2500J	4290J	2820J	2020J
Chromium	25.8J	28.9J	57.5J	29J	49.8J	31.6J	40.9J
Cobalt	6.52	5.14	9.56	6.08	9.54	7.02	8.82
Copper	9.47J	5.21	26J	4.66J	22.2J	5.33J	21.5J
Iron	9760J	8400J	19300J	8800J	18200J	10900J	12800J
Lead	19.8	2.2	24.5	4.02	22.7	3.16	28.2J
Magnesium	2600	2640	6320	2740	6160	3390	4570
Manganese	173	96.9J	229	117J	239	146J	200J
Mercury	< 0.092UJ	< 0.051	0.374UJ	< 0.052	0.328J	< 0.052	0.21
Nickel	23.5J	26.4	49.6J	25.8	46.6J	31.6	40.1
Potassium	1060J	854	1810J	675	1720	713	1400
Selenium	< 0.214UJ	< 0.198UJ	< 0.218UJ	< 0.215UJ	< 0.219UJ	< 0.215UJ	< 0.214UJ
Silver	< 0.499	< 0.493	0.952	< 0.468	0.998	< 0.488	< 0.503
Sodium	376J	624	2040J	394	773J	548	829J
Thallium	< 0.275	< 0.255	< 0.281	< 0.276	< 0.282	< 0.277	< 0.275
Vanadium	20.2	20	38.9	20.5	36.6	27.3	28
Zinc	49.3J	17.5	71.1J	21.9	61.9J	24.7	62.4J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-18 - Site 2 Soil Sample... Fill Analytical Results for Metals

Sample Number	M-018A-006	M-018E-046	Duplicate M-018E-046	M-019A-000	M-019E-004	M-019E-034	M-020A-004
Date Sampled	05/22/91	05/21/91	05/21/91	05/03/91	05/20/91	05/20/91	05/16/91
Depth of Sample	3.0 ft	45.0 ft	45.0 ft	0.0 ft	4.0 ft	34.0 ft	3.0 ft
Parameters Reported							
Metals (mg/kg-Dry)							
Aluminum	4750J	9090J	8880J	8200J	5160J	4640J	5570
Antimony	< 2.6	< 2.9	< 2.8	< 2.5	< 2.4	< 2.9	< 2.6
Arsenic	1.68	2.39	2.48	3.52	2.03	1.91	1.54
Barium	15.6J	20.6J	76.5J	38.1J	25.4J	17.8J	26
Beryllium	0.46	0.846	1.22	0.792	0.737	0.516	0.486
Cadmium	< 0.309	< 0.345	< 0.335	2.93J	4.46	< 0.345	0.58
Calcium	2780J	2360J	1740J	2370J	6770J	2320	2500
Chromium	30.7J	46.3J	40.7J	46.1J	29.9J	29.5J	35.4
Cobalt	4.99	11.7	8.02	9.73	5.16	4.42	5.79
Copper	4.63J	9.11J	8.87J	22.9J	7.46J	14J	6.32
Iron	8900J	11700J	14500J	15500J	9510J	8090J	9390
Lead	2.41	2.96	3.71	26.6J	6.86	2.13	3.26
Magnesium	2510	3780	3590	5350	2790	2360J	3310
Manganese	108J	130J	195J	232J	132J	87J	115
Mercury	< 0.048	< 0.059	< 0.058	0.143	< 0.052	< 0.045	< 0.102UJ
Nickel	24.9	41.5	44.6	45.4	26.8	23.5	30.3
Potassium	516	1330	1070	1500	678	792	810
Selenium	< 0.216UJ	< 0.246	< 0.235UJ	< 0.212UJ	< 0.219UJ	< 0.247UJ	< 0.214UJ
Silver	< 0.505	< 0.563	< 0.547	0.569	0.493	< 0.563	0.639
Sodium	373	2390	2350	934J	498	1090	485
Thallium	< 0.278	< 0.316	< 0.302	< 0.273	< 0.282	< 0.318	< 0.276
Vanadium	24.3	35.5	29J	32.9	21.7	20.8	23.3
Zinc	19.3	29J	26.3J	68.4J	25.3	22.5	20.6

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-18 - Site 2 Soil Samples in Fill Analytical Results for Metals

Sample Number	M-020B-000	M-020E-033	M-021A-005	M-021C-000	M-021E-034	M-022A-005	Duplicate M-022A-005
Date Sampled	05/03/91	05/16/91	05/15/91	05/03/91	05/14/91	05/10/91	05/10/91
Depth of Sample	0.0 ft	32.0 ft	3.0 ft	0.0 ft	34.0 ft	2.0 ft	2.0 ft
Parameters Reported							
Metals (mg/kg-Dry)							
Aluminum	10600J	5220J	5960J	7570	3630J	8490J	9590J
Antimony	< 2.5	< 3.0UJ	< 2.6	< 2.6	< 2.9	4.3	< 2.9
Arsenic	3.73	1.85	2.46	3.92	3.07	3.89	3.44
Barium	42.2J	17.9	25.4J	30.1J	18.4J	63	85.6
Beryllium	0.326	0.36	0.789	0.87	0.581	1.3J	0.897J
Cadmium	1.78J	< 0.363	0.41	0.817	< 0.346	1.31	8.55
Calcium	2960J	2280J	2610J	2710J	2990J	4210J	16600J
Chromium	53.6J	32.7J	34.1J	41.2	19.9J	40.4J	52.3J
Cobalt	9.41	6.05	5.71	8.24	6.23	9.3	13.9
Copper	26.1J	5.23J	9.06J	19.6	4.32J	20.9	40.9
Iron	17600J	9500J	10700J	13300J	7770J	14500J	15400J
Lead	26.4J	2.29	6.56	20.1	4.88	51.2J	248J
Magnesium	6030	3220	3230	4650	1920	4660J	5030J
Manganese	231J	109	125J	194	139J	175J	241J
Mercury	0.147	< 0.117UJ	< 0.049	0.199	0.102	2.55	0.203
Nickel	50.7	31.6J	28.8	40.6	16.6	41.4	51.3
Potassium	1690	794	909	1310	904	1210	1100
Selenium	< 0.190UJ	< 0.253UJ	< 0.225UJ	< 0.211UJ	< 0.252UJ	< 0.245UJ	< 0.239UJ
Silver	< 0.482	0.619	0.576	< 0.517	< 0.565	0.649J	1.13J
Sodium	549J	709J	524	490J	585	1820	1520
Thallium	< 0.245	< 0.326	< 0.289	< 0.271	< 0.323	< 0.315UJ	< 0.307UJ
Vanadium	36.8	21.7	25.3	28.4	15.4	29.9	33.5
Zinc	72.6J	24.3J	31.5	71.2J	22.4	61.2	212

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-18 - Site 2 Soil Samples in Fill Analytical Results for Metals

Sample Number	M-022B-000	M-022E-035	M-023A-000	M-023A-004	M-023E-025	M-024A-000	M-024A-003
Date Sampled	05/03/91	05/09/91	05/03/91	05/07/91	05/08/91	05/03/91	05/03/91
Depth of Sample	0.0 ft	32.0 ft	0.0 ft	3.5 ft	20.0 ft	0.0 ft	1.0 ft
Parameters Reported							
Metals (mg/kg-Dry)							
Aluminum	10900J	2420J	11700J	8130J	4580J	6880J	3890J
Antimony	< 2.8	< 2.5	< 2.6	< 2.8	< 2.9	< 2.6	< 2.6
Arsenic	4.06	2.38	5.52	6.79	2.17	3.26	3.09
Barium	42.5J	70	48.8J	65.6J	26.8J	102J	30.9J
Beryllium	0.484	1.09J	0.458	2.6	1.04	0.174	0.203
Cadmium	1.24J	< 0.300	1.63J	1.69J	< 0.352	7.93J	< 0.314
Calcium	2750J	2290J	3470J	7210J	1940J	17200J	2460J
Chromium	61.3J	5.44J	61.7J	31.2J	26.7J	38.9J	23J
Cobalt	10.2	3.76	11.5	8.41	5.28	6.17	4.57
Copper	31.9J	7.11	35.4J	39.9J	12.2J	57.4J	4.37J
Iron	19000J	11200J	20600J	30000J	8570J	10500J	6610J
Lead	33.4J	6.32J	47.1J	55.9J	6.17J	136J	147J
Magnesium	6600	1260J	7070	4370	2910	3150	2250
Manganese	230J	125J	323J	356J	119J	231J	80.7J
Mercury	0.532	2.61	0.351	0.194	< 0.116	0.425	1.71
Nickel	54.1	11.3	57.4	31.4	24.5	33	23.1
Potassium	1780	1780	2070	836	800	770	544
Selenium	< 0.215UJ	< 0.233UJ	< 0.219UJ	< 0.222UJ	< 0.223UJ	< 0.192UJ	< 0.217UJ
Silver	0.573	0.566J	0.733	< 0.538	< 0.574	< 0.507	< 0.513
Sodium	883J	1760	1090J	1230J	1960J	1070J	548J
Thallium	< 0.276	< 0.300UJ	< 0.282	< 0.285	< 0.287	< 0.247	< 0.279
Vanadium	41.5	10.5	42	28.7	19.2	20.9	15.5
Zinc	82.4J	29.5	100J	82J	27J	158J	15.7J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-18 - Site 2 Soil Samples in Fill Analytical Results for Metals

Sample Number	M-024E-010	M-024E-019
Date Sampled	05/06/91	05/06/91
Depth of Sample	10.0 ft	17.2 ft
Parameters Reported		
Metals (mg/kg-Dry)		
Aluminum	3550J	8490J
Antimony	< 3.0	< 3.1
Arsenic	2	1.53
Barium	34.4J	49.7J
Beryllium	< 0.155	0.747
Cadmium	2.93	0.415J
Calcium	2740J	2860J
Chromium	37.5J	26.1J
Cobalt	4.64	7.07
Copper	22.1J	16.7J
Iron	8060J	13800J
Lead	77.2J	3.76J
Magnesium	2060	3490
Manganese	96.1J	245J
Mercury	0.169	< 0.113
Nickel	43.7	29.2
Potassium	597	1080
Selenium	< 0.249UJ	< 0.234UJ
Silver	< 0.585	< 0.596
Sodium	883J	1570J
Thallium	< 0.320	< 0.300
Vanadium	15.6	25.2
Zinc	64J	41.1J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-19 - Site 2 Summary of Metals Results for Soil Samples in Fill

	Upper Limit 95%/95% Statistical Tolerance Interval (mg/kg)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (mg/kg)	Maximum Value (mg/kg)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (mg/kg)	Maximum Value (mg/kg)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	9458.42	0	5	3590	7570	0	33	2420	12100	6	0
Antimony	2.31	34	1	4.3	4.3	1	3	2.5	3.6	3	0
Arsenic	15.13	0	38	0.936	6.79	0	0	-	-	-	0
Barium	101.88	0	15	17.9	85.6	0	23	15.6	102	1	0
Beryllium	1.51	4	28	0.174	2.6	1	6	0.353	1.3	0	0
Cadmium	1.97	17	13	0.41	8.55	5	8	0.415	7.93	3	0
Chromium	65.45	0	5	27	41.2	0	33	5.44	61.7	0	0
Cobalt	37.45	0	38	3.76	13.9	0	0	-	-	-	0
Copper	19.74	0	11	4.63	40.9	2	27	4.32	57.4	10	0
Lead	31.80	0	24	2.13	186	3	14	3.76	248	8	0
Mercury	0.09	20	14	0.102	2.61	14	4	0.166	0.328	4	0
Nickel	65.46	0	31	11.3	57.4	0	7	23.5	49.6	0	0
Selenium	1.26	38	0	-	-	-	0	-	-	-	0
Silver	1.24	21	13	0.493	0.998	0	4	0.556	1.13	0	0
Thallium	0.21	38	0	-	-	-	0	-	-	-	0
Vanadium	30.84	0	36	10.5	42	8	2	27.9	29	0	0
Zinc	41.76	0	17	14.7	212	4	21	15.7	158	15	0

Table - Site 2 Soil Samples Late Pleistocene and Holocene Alluvial/Eolian Deposits/Holocene Bay Mud Unit Analytical Results for Organic CompoundsAnalytical Results for Organic Compounds

Sample Number	M-013C-070	M-020B-058	M-021C-092
Date Sampled	05/24/91	05/20/91	05/16/91
Depth of Sample	70.0 ft	57.0 ft	92.0 ft
PARAMETER REPORTED			
Volatile Organics (µg/kg-Dry)			
Acetone	42UJ	23UJ	170
Chlorobenzene	< 6.1	< 6.0	< 38
Ethylbenzene	< 6.1	< 6.0	< 38
Xylene	< 6.1	< 6.0	< 38
Semivolatile Organics (µg/kg-Dry)			
Benzo(a)pyrene	< 170	< 170	340
Bis(2-ethylhexyl)phthalate	400	320	170
Pesticides/PCBs (µg/kg-Dry)	ND	ND	ND
Total Recoverable Petroleum Hydrocarbons (mg/kg-Dry)			
Hydrocarbons,Petroleum	NA	NA	NA
Oil And Grease (mg/kg-Dry)			
Oil&Gr,IR	NA	NA	NA

Notes: NA = Not analyzed
ND = None detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-21- Site 2 Summary of Organic Analytical Results in Late Pleistocene and Holocene Alluvial/Eolian Deposits

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/kg-Dry)									
Acetone	0	2	1	170	170	0	-	-	0
Chlorobenzene	3	0	0	-	-	0	-	-	0
Ethylbenzene	3	0	0	-	-	0	-	-	0
Xylene	3	0	0	-	-	0	-	-	0
Semivolatile Organics (µg/kg-Dry)									
Benzo(a)pyrene	2	0	1	340	340	0	-	-	0
Bis(2-ethylhexyl)phthalate	0	0	3	170	400	0	-	-	0
Pesticides/PCBs (µg/kg-Dry)	3	0	0	-	-	0	-	-	0

Table 9-22 - Site 2 Soil Samples Late Pleistocene and Holocene Allu.../Eolian Deposits/Holocene Bay Mud Unit Analytical Results for Metals

Sample Number	M-013C-070	M-020B-058	M-021C-092
Date Sampled	05/24/91	05/20/91	05/16/91
Depth of Sample	70.0 ft	57.0 ft	92.0 ft
Parameters Reported			
Metals (mg/kg-Dry)			
Aluminum	8040J	4910J	26100J
Antimony	2.3J	< 2.9	7J
Arsenic	0.93	2.07	18.1
Barium	145J	10.3J	50.7
Beryllium	1.28J	0.408	2.78
Cadmium	< 0.267	< 0.350	< 0.450
Calcium	2550J	2280J	3980J
Chromium	46.3J	27.7J	91.7J
Cobalt	9.15	5.56	21.6
Copper	5.18	4.4J	53.7J
Iron	15000J	8850J	45000J
Lead	2.45	2.53	11.3J
Magnesium	4660	2550	14900
Manganese	246J	87.1J	350
Mercury	< 0.059	< 0.053	0.193J
Nickel	50.4	21.5	107J
Potassium	852	865	3560
Selenium	< 0.233	< 0.250UJ	< 0.310UJ
Silver	0.496	< 0.571	1.11
Sodium	2670	1110	2080J
Thallium	< 0.299	< 0.322	< 0.399
Vanadium	30.9	20J	86.1
Zinc	23.8	21.6	89.8J

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-23 Site 2 Summary of Metals Results for Soil Samples in Late Pleistocene and Holocene Alluvial/Eolian Deposits

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value (mg/kg)	Maximum Value (mg/kg)	Sample Count	Minimum Value (mg/kg)	Maximum Value (mg/kg)	Sample Count
Aluminum	0	0	0	-	-	3	4910	26100	0
Antimony	1	0	0	-	-	2	2.3	7	0
Arsenic	0	0	3	0.93	18.1	0	-	-	0
Barium	0	0	1	50.7	50.7	2	10.3	145	0
Beryllium	0	0	2	0.408	2.78	1	1.28	1.28	0
Cadmium	3	0	0	-	-	0	-	-	0
Calcium	0	0	0	-	-	3	2280	3980	0
Chromium	0	0	0	-	-	3	27.7	91.7	0
Cobalt	0	0	3	5.56	21.6	0	-	-	0
Copper	0	0	1	5.18	5.18	2	4.4	53.7	0
Iron	0	0	0	-	-	3	8850	45000	0
Lead	0	0	2	2.45	2.53	1	11.3	11.3	0
Magnesium	0	0	3	2550	14900	0	-	-	0
Manganese	0	0	1	350	350	2	87.1	246	0
Mercury	2	0	0	-	-	1	0.193	0.193	0
Nickel	0	0	2	21.5	50.4	1	107	107	0
Potassium	0	0	3	852	3560	0	-	-	0
Selenium	1	2	0	-	-	0	-	-	0
Silver	1	0	2	0.496	1.11	0	-	-	0
Sodium	0	0	2	1110	2670	1	2080	2080	0
Thallium	3	0	0	-	-	0	-	-	0
Vanadium	0	0	2	30.9	86.1	1	20	20	0
Zinc	0	0	2	21.6	23.8	1	89.8	89.8	0

Table 9-24 - Site 2 Groundwater "A" and "B" Wells Analytical Results for Organic Compounds

Sample Number	1st Qtr M-010A	2nd Qtr M-010A	2nd Qtr M-010A Duplicate	3rd Qtr M-010A	3rd Qtr M-010A	4th Qtr M-010A	1st Qtr M-011A	2nd Qtr M-011A	3rd Qtr M-011A	4th Qtr M-011A
Date Sampled	06/19/91	09/25/91	09/25/91	01/16/92	01/20/92	04/08/92	06/28/91	09/24/91	01/16/92	04/08/92
PARAMETER REPORTED										
Volatile Organics (µg/L)										
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	1.3	< 1.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	1.1	1.7	< 1.0	1.2
Acetone	< 2.0	12	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon Disulfide	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	2.9	1.9	< 1.0	< 1.0
Chloroethane	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)										
1,3-Dichlorobenzene	< 2.0	< 1.0	< 1.0	< 2.0	NA	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
1,4-Dichlorobenzene	< 2.0	< 1.0	< 1.0	< 2.0	NA	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
2,4-Dimethylphenol	< 4.0R	< 2.0	< 2.0	< 4.0	NA	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0
2-Chlorophenol	< 4.0R	< 2.0	< 2.0	< 4.0	NA	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0
4-Methylphenol	< 4.0	< 2.0	< 2.0	< 4.0	NA	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0
2-Methylnaphthalene	< 2.0	< 2.0	< 2.0	< 2.0	NA	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0
3-Nitroaniline	< 2.00	< 2.00	< 2.00	< 2.00	NA	< 2.0	< 1.00	< 2.00	< 2.00	< 2.0
Acenaphthene	< 2.0	< 1.0	< 1.0	< 2.0	NA	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Bis(2-ethylhexyl)phthalate	< 4.0	20UJ	2.2UJ	< 4.0	NA	23UJ	< 2.0	50UJ	6.3	32
Dibenzofuran	< 2.00	< 2.00	< 2.00	< 2.00	NA	< 1.00	< 1.00	< 2.00	< 2.00	< 1.00
Dimethylphthalate	< 4.0	< 1.0	< 1.0	< 2.0	NA	3	< 1.0	< 1.0	< 2.0	62
Fluorene	< 2.0	< 1.0	< 1.0	< 2.0	NA	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
N-Nitrosodiphenylamine	< 2.0	< 1.0	< 1.0	< 2.0	NA	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Naphthalene	< 2.0	< 1.0	< 1.0	< 2.0	NA	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Phenanthrene	< 2.0	< 1.0	< 1.0	< 2.0	NA	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Phenol	< 4.0	< 2.0	< 2.0	< 2.0	NA	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0
Pesticides/PCBs (µg/L)										
Aldrin	< 0.050	< 0.050	< 0.050	< 0.050	NA	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Dieldrin	< 0.050	< 0.050	< 0.050	< 0.050	NA	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Total Recoverable Petroleum Hydrocarbons (mg/L)										
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 9-24 - Site 2 Groundwater "A" and "E[illegible] ells Analytical Results for Organic Compounds

Sample Number	1st Qtr M-012A	2nd Qtr M-012A	3rd Qtr M-012A	4th Qtr M-012A	4th Qtr M-012A Duplicate	1st Qtr M-013A	2nd Qtr M-013A	3rd Qtr M-013A	4th Qtr M-013A
Date Sampled	06/25/91	09/24/91	01/17/92	04/08/92	04/08/92	07/11/91	09/24/91	01/17/92	04/07/92
PARAMETER REPORTED									
Volatile Organics (µg/L)									
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acetone	9.9UJ	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon Disulfide	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)									
1,3-Dichlorobenzene	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
1,4-Dichlorobenzene	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
2,4-Dimethylphenol	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0
2-Chlorophenol	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0
4-Methylphenol	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0
2-Methylnaphthalene	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0
3-Nitroaniline	< 1.00	< 2.00	< 2.00	< 2.0	< 2.0	< 1.00	< 2.00	< 2.00	< 2.0
Acenaphthene	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Bis(2-ethylhexyl)phthalate	< 2.0	15UJ	< 4.0	6.3UJ	4.0UJ	2.1UJ	5.5UJ	< 4.0	2.6UJ
Dibenzofuran	< 1.00	< 2.00	< 2.00	< 1.00	< 1.00	< 1.00	< 2.00	< 2.00	< 1.00
Dimethylphthalate	< 2.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 2.0	3.2
Fluorene	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
N-Nitrosodiphenylamine	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Naphthalene	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Phenanthrene	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0
Phenol	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0
Pesticides/PCBs (µg/L)									
Aldrin	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Dieldrin	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.057	< 0.050	< 0.050
Total Recoverable Petroleum Hydrocarbons (mg/L)									
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 9-24 - Site 2 Groundwater "A" and "B" Wells Analytical Results for Organic Compounds

Sample Number	1st Qtr M-014A	1st Qtr M-014A Duplicate	2nd Qtr M-014A	3rd Qtr M-014A	4th Qtr M-014A	1st Qtr M-015A	1st Qtr M-015A Duplicate	2nd Qtr M-015A	3rd Qtr M-015A	4th Qtr M-015A
Date Sampled	06/20/91	06/20/91	09/25/91	01/16/92	04/07/92	07/18/91	07/18/91	09/25/91	01/17/92	04/07/92
PARAMETER REPORTED										
Volatile Organics (µg/L)										
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acetone	< 2.0	5.1UJ	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon Disulfide	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	< 1.0	1.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)										
1,3-Dichlorobenzene	< 2.0	< 2.0	< 1.0	< 2.0	< 1.0	< 1.1	< 1.1	< 1.0	< 2.0	< 1.0
1,4-Dichlorobenzene	< 2.0	< 2.0	< 1.0	< 2.0	< 1.0	< 1.1	< 1.1	< 1.0	< 2.0	< 1.0
2,4-Dimethylphenol	< 4.0	< 4.0	< 2.0	< 4.0	< 2.0	< 2.2	< 2.2R	< 2.0	< 4.0	< 2.0
2-Chlorophenol	< 4.0	< 4.0	< 2.0	< 4.0	< 2.0	< 2.2	< 2.2R	< 2.0	< 4.0	< 2.0
4-Methylphenol	< 4.0	< 4.0	< 2.0	< 4.0	< 2.0	< 2.2	< 2.2	< 2.0	< 2.0	< 2.0
2-Methylnaphthalene	< 2.0	< 2.0	< 2.0	< 4.0	< 1.0	< 1.1	< 1.1	< 2.0	< 4.0	< 1.0
3-Nitroaniline	< 2.00	< 2.00	< 2.00	< 4.00	< 2.0	< 1.12	< 1.09	< 2.00	< 4.00	< 2.0
Acenaphthene	< 2.0	< 2.0	< 1.0	< 2.0	< 1.0	< 1.1	< 1.1	< 1.0	< 2.0	< 1.0
Bis(2-ethylhexyl)phthalate	< 4.0	< 4.0	4.7UJ	< 2.0	33	< 2.2	< 2.2	1.3UJ	< 2.0	5.4UJ
Dibenzofuran	< 2.00	< 2.00	< 2.00	< 4.00	< 1.00	< 1.12	< 1.09	< 2.00	< 4.00	< 1.00
Dimethylphthalate	< 4.0	< 4.0	< 1.0	< 2.0	3	< 2.2	< 2.2	< 1.0	< 2.0	< 2.0
Fluorene	< 2.0	< 2.0	< 1.0	< 2.0	< 1.0	< 1.1	< 1.1	< 1.0	< 2.0	< 1.0
N-Nitrosodiphenylamine	< 2.0	< 2.0	< 1.0	< 2.0	< 1.0	< 1.1	< 1.1	< 1.0	< 2.0	< 1.0
Naphthalene	< 2.0	< 2.0	< 1.0	< 2.0	< 1.0	< 1.1	< 1.1	< 1.0	< 2.0	< 1.0
Phenanthrene	< 2.0	< 2.0	< 1.0	< 2.0	< 1.0	< 1.1	< 1.1	< 1.0	< 2.0	< 1.0
Phenol	< 4.0	< 4.0	< 2.0	< 4.0	< 2.0	< 2.2	< 2.2	< 2.0	< 4.0	< 2.0
Pesticides/PCBs (µg/L)										
Aldrin	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Dieldrin	< 0.050	< 0.050	< 0.050UJ	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050UJ	< 0.050	< 0.050
Total Recoverable Petroleum Hydrocarbons (mg/L)										
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 9-24 - Site 2 Groundwater "A" and Wells Analytical Results for Organic Compounds

Sample Number	1st Qtr M-016A	2nd Qtr M-016A	3rd Qtr M-016A	4th Qtr M-016A	1st Qtr M-017A	2nd Qtr M-017A	3rd Qtr M-017A	4th Qtr M-017A	1st Qtr M-018A	2nd Qtr M-018A	3rd Qtr M-018A	4th Qtr M-018A
Date Sampled	**07/11/91**	**09/26/91**	**01/20/92**	**04/06/92**	**07/08/91**	**09/26/91**	**01/20/92**	**04/03/92**	**07/11/91**	**09/26/91**	**01/20/92**	**04/03/92**
PARAMETER REPORTED												
Volatile Organics (µg/L)												
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acetone	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon Disulfide	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.6	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)												
1,3-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	< 2.0	< 2.0UJ	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Chlorophenol	< 2.0	< 2.0UJ	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
4-Methylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Methylnaphthalene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0
3-Nitroaniline	< 1.00	< 1.00	< 1.00	< 2.0	< 1.00	< 1.00	< 1.00	< 2.0	< 1.00	< 1.00	< 1.00	< 2.0
Acenaphthene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-ethylhexyl)phthalate	< 2.0	< 2.0	3.0UJ	28UJ	< 2.0	< 2.0	3.8UJ	1.9UJ	< 2.0	< 2.0	2.2	1.7UJ
Dibenzofuran	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.00	< 1.00	< 1.00	< 1.00	< 2.00
Dimethylphthalate	< 2.0	< 2.0	< 2.0	140	< 2.0	< 2.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0
Fluorene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodiphenylamine	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenanthrene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Pesticides/PCBs (µg/L)												
Aldrin	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Dieldrin	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	1.17	0.558	< 0.050	0.89
Total Recoverable Petroleum Hydrocarbons (mg/L)												
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 9-24 - Site 2 Groundwater "A" and "E" Wells Analytical Results for Organic Compounds

Sample Number	1st Qtr M-018E	2nd Qtr M-018E	3rd Qtr M-018E	4th Qtr M-018E
Date Sampled	**07/11/91**	**09/26/91**	**01/20/92**	**04/06/92**
PARAMETER REPORTED				
Volatile Organics (µg/L)				
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	< 1.0	< 1.0	< 1.0	< 1.0
Acetone	3.1	< 2.0	< 2.0	< 2.0
Benzene	< 1.0	< 1.0	< 1.0	< 1.0
Carbon Disulfide	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	1.7	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)				
1,3-Dichlorobenzene	< 2.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	< 2.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	< 4.0	< 2.0	< 2.0	< 2.0
2-Chlorophenol	< 4.0	< 2.0	< 2.0	< 2.0
4-Methylphenol	< 4.0	< 2.0	< 2.0	< 2.0R
2-Methylnaphthalene	< 2.0	< 1.0	< 1.0	< 1.0
3-Nitroaniline	< 2.00	< 1.00	< 1.00	< 2.0
Acenaphthene	< 2.0	< 1.0	< 1.0	< 1.0
Bis(2-ethylhexyl)phthalate	< 4.0	< 2.0	3.5	13UJ
Dibenzofuran	< 2.00	< 1.00	< 1.00	< 1.00
Dimethylphthalate	< 4.0	< 2.0	< 2.0	40
Fluorene	< 2.0	< 1.0	< 1.0	< 1.0
N-Nitrosodiphenylamine	< 2.0	< 1.0	< 1.0	< 1.0
Naphthalene	< 2.0	< 1.0	< 1.0	< 1.0
Phenanthrene	< 2.0	< 1.0	< 1.0	< 1.0
Phenol	< 4.0	< 2.0	< 2.0	< 2.0R
Pesticides/PCBs (µg/L)				
Aldrin	< 0.050	< 0.050	< 0.050	< 0.050
Dieldrin	< 0.050	< 0.050	< 0.050	< 0.050
Total Recoverable Petroleum Hydrocarbons (mg/L)				
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 9-24 - Site 2 Groundwater "A" and "B" Wells Analytical Results for Organic Compounds

Sample Number	1st Qtr M-019A	2nd Qtr M-019A	2nd Qtr M-019A Duplicate	3rd Qtr M-019A	4th Qtr M-019A	1st Qtr M-019E	2nd Qtr M-019E	3rd Qtr M-019E	4th Qtr M-019E
Date Sampled	07/11/91	09/27/91	09/27/91	01/20/92	04/03/92	07/17/91	09/27/91	01/20/92	04/03/92
PARAMETER REPORTED									
Volatile Organics (µg/L)									
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acetone	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon Disulfide	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	1.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)									
1,3-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Chlorophenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
4-Methylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0R
2-Methylnaphthalene	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0
3-Nitroaniline	< 1.00	< 1.00	< 1.00	< 1.00	< 2.0	< 1.00	< 1.00	< 1.00	< 2.0
Acenaphthene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-ethylhexyl)phthalate	< 2.0	11	420	3.0UJ	5.1UJ	< 2.0	190	4.7UJ	16UJ
Dibenzofuran	< 1.00	< 1.00	< 1.00	< 1.00	< 2.00	< 1.00	< 1.00	< 1.00	< 2.00
Dimethylphthalate	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.0	41
Fluorene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodiphenylamine	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenanthrene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0R
Pesticides/PCBs (µg/L)									
Aldrin	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Dieldrin	< 0.050	< 0.052	< 0.050	< 0.050	< 0.050	< 0.050	< 0.053	< 0.050	< 0.050
Total Recoverable Petroleum Hydrocarbons (mg/L)									
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 9-24 - Site 2 Groundwater "A" and "E" Wells Analytical Results for Organic Compounds

Sample Number	1st Qtr M-020A	1st Qtr M-020A Duplicate	2nd Qtr M-020A	3rd Qtr M-020A	4th Qtr M-020A	1st Qtr M-020E	2nd Qtr M-020E	3rd Qtr M-020E	4th Qtr M-020E	4th Qtr M-020E Duplicate
Date Sampled	**07/10/91**	**07/10/91**	**09/27/91**	**01/21/92**	**04/02/92**	**07/10/91**	**09/27/91**	**01/21/92**	**04/02/92**	**04/02/92**
PARAMETER REPORTED										
Volatile Organics (µg/L)										
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acetone	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	3.3UJ	< 2.0	< 2.0	< 2.0	< 2.0
Benzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon Disulfide	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	1.1	< 1.0	< 1.0	< 1.0	< 1.0	2.9	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)										
1,3-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Chlorophenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
4-Methylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Methylnaphthalene	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0
3-Nitroaniline	< 1.00	< 1.00	< 1.00	< 1.00	< 2.0	< 1.00	< 1.00	< 1.00	< 2.0	< 2.0
Acenaphthene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-ethylhexyl)phthalate	< 2.0	< 2.0	< 2.0	< 2.0	3.0UJ	< 2.0	380	< 2.0	1.7UJ	6.5UJ
Dibenzofuran	< 1.00	< 1.00	< 1.00	< 1.00	< 2.00	< 1.00	< 1.00	< 1.00	< 2.00	< 2.00
Dimethylphthalate	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.0	52	89
Fluorene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodiphenylamine	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenanthrene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Pesticides/PCBs (µg/L)										
Aldrin	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Dieldrin	< 0.050	< 0.050	< 0.056	< 0.050	< 0.050	< 0.050	< 0.063	< 0.050	< 0.050	< 0.050
Total Recoverable Petroleum Hydrocarbons (mg/L)										
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 9-24 - Site 2 Groundwater "A" and "B" Wells Analytical Results for Organic Compounds

Sample Number	1st Qtr M-021A	1st Qtr M-021A Duplicate	2nd Qtr M-021A	3rd Qtr M-021A	4th Qtr M-021A	1st Qtr M-021E	2nd Qtr M-021E	3rd Qtr M-021E	3rd Qtr M-021E Duplicate	4th Qtr M-021E
Date Sampled	07/02/91	07/02/91	09/30/91	01/21/92	04/02/92	07/02/91	09/30/91	01/21/92	01/21/92	04/03/92
PARAMETER REPORTED										
Volatile Organics (µg/L)										
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acetone	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon Disulfide	< 1.0	< 1.0	1.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)										
1,3-Dichlorobenzene	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	< 2.0	< 2.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Chlorophenol	< 2.0	< 2.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
4-Methylphenol	< 2.0	< 2.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Methylnaphthalene	< 1.0	< 1.1	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
3-Nitroaniline	< 1.00	< 1.08	< 1.00	< 1.00	< 2.0	< 1.00	< 1.00	< 1.00	< 1.00	< 2.0
Acenaphthene	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-ethylhexyl)phthalate	< 2.0	< 2.2	4.0UJ	< 2.0	3.8UJ	< 2.0	22UJ	< 2.0	14	3.9
Dibenzofuran	< 1.00	< 1.08	< 1.00	< 1.00	< 2.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.00
Dimethylphthalate	< 2.0	< 2.2	< 2.0	< 2.0	3.8	< 2.0	< 2.0	< 2.0	< 2.0	64
Fluorene	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodiphenylamine	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenanthrene	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenol	< 2.0	< 2.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Pesticides/PCBs (µg/L)										
Aldrin	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Dieldrin	< 0.050	< 0.050	< 0.053	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Total Recoverable Petroleum Hydrocarbons (mg/L)										
Hydrocarbons, Petroleum	0.8	0.6	< 0.2	0.3	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 9-24 - Site 2 Groundwater "A" and Wells Analytical Results for Organic Compounds

Sample Number	1st Qtr M-022A	2nd Qtr M-022A	3rd Qtr M-022A	4th Qtr M-022A	1st Qtr M-022E	2nd Qtr M-022E	2nd Qtr M-022E Duplicate	3rd Qtr M-022E	4th Qtr M-022E
Date Sampled	07/02/91	10/01/91	01/22/92	04/01/92	07/08/91	10/01/91	10/01/91	01/21/92	04/01/92
PARAMETER REPORTED									
Volatile Organics (µg/L)									
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acetone	3.4UJ	< 2.0	< 2.0	< 2.0	2.9UJ	< 2.0	< 2.0	< 2.0	< 2.0
Benzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon Disulfide	< 1.0	< 1.0	< 1.0	1.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	3.2	2.0	1.7	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	< 1.0	< 1.0	< 1.0	< 1.0	3.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)									
1,3-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.3	1.2	1.7	1.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Chlorophenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
4-Methylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Methylnaphthalene	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
3-Nitroaniline	< 1.00	< 1.00	< 1.00	< 2.0	< 1.00	< 1.00	< 1.00	< 1.00	< 2.0
Acenaphthene	1.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-ethylhexyl)phthalate	< 2.0	18UJ	3.5UJ	5.0UJ	< 2.0	< 2.0	2.6UJ	3.8UJ	4.8UJ
Dibenzofuran	< 1.00	< 1.00	< 1.00	< 2.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.00
Dimethylphthalate	< 2.0	< 2.0	< 2.0	13	< 2.0	< 2.0	< 2.0	< 2.0	470
Fluorene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodiphenylamine	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenanthrene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	8.9
Pesticides/PCBs (µg/L)									
Aldrin	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Dieldrin	< 0.050	< 0.050UJ	< 0.050	< 0.050	< 0.050	< 0.050UJ	< 0.050UJ	< 0.050	< 0.050
Total Recoverable Petroleum Hydrocarbons (mg/L)									
Hydrocarbons, Petroleum	3.2	0.4	1.1	0.3	0.2	< 0.2	0.2	< 0.2	< 0.2

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 9-24 - Site 2 Groundwater "A" and "E[illegible]ils Analytical Results for Organic Compounds

Sample Number	1st Qtr M-023A	2nd Qtr M-023A	3rd Qtr M-023A	4th Qtr M-023A	1st Qtr M-023E	2nd Qtr M-023E	2nd Qtr M-023E	3rd Qtr M-023E	4th Qtr M-023E
Date Sampled	07/01/91	10/01/91	01/22/92	04/01/92	07/01/91	10/01/91	10/14/91	01/22/92	04/01/92
PARAMETER REPORTED									
Volatile Organics (µg/L)									
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0
1,2-Dichloroethene, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0
Acetone	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA	2.8	< 2.0	2.6UJ
Benzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0
Carbon Disulfide	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	1.2	< 1.0	< 1.0
Chlorobenzene	7.3	9.7	3.2	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0
Chloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0
Methylene Chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)									
1,3-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0
1,4-Dichlorobenzene	1.4	2.2	1.3	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0
2,4-Dimethylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA	< 2.0	< 2.0
2-Chlorophenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA	< 2.0	< 2.0
4-Methylphenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA	< 2.0	3.2
2-Methylnaphthalene	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	NA	< 1.0	< 2.0
3-Nitroaniline	< 1.00	< 1.00	< 2.00	< 2.0	< 1.00	< 1.00	NA	< 1.00	< 2.0
Acenaphthene	2.4	4.2	1.7	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0
Bis(2-ethylhexyl)phthalate	< 2.0	< 2.0	2.9UJ	5.4UJ	< 2.0	< 2.0	NA	2.3UJ	2.5UJ
Dibenzofuran	< 1.00	< 1.00	< 2.00	< 2.00	< 1.00	< 1.00	NA	< 1.00	< 2.00
Dimethylphthalate	< 2.0	< 2.0	< 2.0	< 1.0	< 2.0	< 2.0	NA	< 2.0	< 1.0
Fluorene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0
N-Nitrosodiphenylamine	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0
Naphthalene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0
Phenanthrene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 1.0
Phenol	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA	< 2.0	6.1
Pesticides/PCBs (µg/L)									
Aldrin	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	NA	< 0.050	< 0.050
Dieldrin	< 0.050	< 0.050UJ	< 0.050	< 0.050	< 0.050	< 0.050UJ	NA	< 0.050	< 0.050
Total Recoverable Petroleum Hydrocarbons (mg/L)									
Hydrocarbons, Petroleum	2.9	0.2	0.2	0.6	< 0.2	< 0.2	NA	< 0.2	0.6

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 9-24 - Site 2 Groundwater "A" and "E" Wells Analytical Results for Organic Compounds

Sample Number	1st Qtr M-024A	2nd Qtr M-024A	3rd Qtr M-024A	4th Qtr M-024A	1st Qtr M-024E	2nd Qtr M-024E	3rd Qtr M-024E	4th Qtr M-024E
Date Sampled	**07/18/91**	**10/11/91**	**02/03/92**	**03/31/92**	**07/18/91**	**10/11/91**	**02/03/92**	**03/31/92**
PARAMETER REPORTED								
Volatile Organics (µg/L)								
1,2-Dichloroethane	< 10.0	< 25	< 10.0	< 10.0	< 5.0	< 13	< 10.0	< 10.0
1,2-Dichloroethene, Total	< 10.0	< 25	< 10.0	< 10.0	< 5.0	< 13	< 10.0	< 10.0
Acetone	< 20	110	< 20	< 20	32	49	24UJ	< 20
Benzene	< 10.0	< 25	11	13	< 5.0	< 13	11	12
Carbon Disulfide	< 10.0	< 25	< 10.0	< 10.0	< 5.0	< 13	< 10.0	< 10.0
Chlorobenzene	150	330	250	300	130	160	240	280
Chloroethane	< 20	< 25	< 10.0	< 10.0	< 10.0	< 13	< 10.0	< 10.0
Methylene Chloride	< 10.0	< 25	< 10.0	< 10.0	< 5.0	< 13	< 10.0	< 10.0
Semivolatile Organics (µg/L)								
1,3-Dichlorobenzene	< 1.1	1.2	1.4	1.4	< 1.1	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	6.1	8.8	11	14	1.9	2	4.3	3.9
2,4-Dimethylphenol	< 2.1	6	6.6	< 2.0	< 2.3	< 2.0	< 2.0	< 2.0
2-Chlorophenol	< 2.1	< 2.0	< 2.0	< 2.0	< 2.3	< 2.0	3.0	< 2.0
4-Methylphenol	< 2.1	< 2.0	< 2.0	< 2.0	< 2.3	< 2.0	< 2.0	< 2.0
2-Methylnaphthalene	5.7	9.2	6.8	< 2.0	< 1.1	< 2.0	< 1.0	< 2.0
3-Nitroaniline	< 1.06	22.7	< 1.00	< 2.0	< 1.14	< 2.00	< 1.00	< 2.0
Acenaphthene	7.9	14	22	20	11	12	23	18
Bis(2-ethylhexyl)phthalate	< 2.1	3.6	2.8UJ	25UJ	< 2.3	2.4	6.3UJ	9.4
Dibenzofuran	2.79	4.73	7.36	6.96	1.18	< 2.00	2.85	2.26
Dimethylphthalate	< 2.1	< 2.0	< 2.0	9.4	< 2.3	< 2.0	< 2.0	100
Fluorene	2.71	4.2	5.3	4.9	1.2	1.3	3.1	2.4
N-Nitrosodiphenylamine	< 1.1	1.7	< 1.0	1.3	< 1.1	< 1.0	< 1.0	< 1.0
Naphthalene	19	27	18	5.3	< 1.1	< 1.0	< 1.0	< 1.0
Phenanthrene	< 1.1	1.4	1.0	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0
Phenol	< 2.1	< 2.0	< 2.0	< 2.0	< 2.3	< 2.0	< 2.0	< 2.0
Pesticides/PCBs (µg/L)								
Aldrin	< 0.050	< 0.050	< 0.050	0.051	< 0.050	< 0.050	< 0.050	< 0.050
Dieldrin	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Total Recoverable Petroleum Hydrocarbons (mg/L)								
Hydrocarbons, Petroleum	1.1	1.6	1.4	2.9	< 0.2	< 0.2	< 0.2	0.2

Notes: NA = Not Analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above the detection limit

Table 9-25 - Site 2 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "A" and "E" Wells

First Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
1,2-Dichloroethane	25	0	1	1.3	1.3	0	-	-	0
1,2-Dichloroethene, Total	25	0	1	1.1	1.1	0	-	-	0
Acetone	19	5	2	3.1	32	0	-	-	0
Benzene	26	0	0	-	-	0	-	-	0
Carbon Disulfide	26	0	0	-	-	0	-	-	0
Chlorobenzene	22	0	4	2.9	150	0	-	-	0
Chloroethane	25	0	1	3.2	3.2	0	-	-	0
Methylene Chloride	19	0	7	1.1	3	0	-	-	0
Semivolatile Organics (µg/L)									
1,3-Dichlorobenzene	26	0	0	-	-	0	-	-	0
1,4-Dichlorobenzene	22	0	4	1.3	6.1	0	-	-	0
2,4-Dimethylphenol	24	0	0	-	-	0	-	-	2
2-Chlorophenol	24	0	0	-	-	0	-	-	2
2-Methlynaphthalene	25	0	1	5.7	5.7	0	-	-	0
3-Nitroaniline	26	0	0	-	-	0	-	-	0
Acenaphthene	22	0	4	1.9	11	0	-	-	0
Bis(2-ethylhexyl)phthalate	25	1	0	-	-	0	-	-	0
Dibenzofuran	24	0	2	1.18	2.79	0	-	-	0
Fluorene	24	0	1	1.2	1.2	1	0	2.7	0
N-Nitrosodiphenylamine	26	0	0	-	-	0	-	-	0
Naphthalene	25	0	1	19	19	0	-	-	0
Phenanthrene	26	0	0	-	-	0	-	-	0
Pesticides/PCBs (µg/L)									
Dieldrin	25	0	1	1.17	1.17	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	20	0	6	0.2	3.2	0	-	-	0

Table 9-25 - Site 2 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "A" and "E" Wells

Second Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
1,2-Dichloroethane	25	0	0	-	-	0	-	-	0
1,2-Dichloroethene, Total	24	0	1	1.7	1.7	0	-	-	0
Acetone	21	0	4	2.8	110	0	-	-	0
Benzene	25	0	0	-	-	0	-	-	0
Carbon Disulfide	23	0	2	1.2	1.6	0	-	-	0
Chlorobenzene	21	0	4	1.9	330	0	-	-	0
Chloroethane	24	0	1	2	2	0	-	-	0
Methylene Chloride	25	0	0	-	-	0	-	-	0
Semivolatile Organics (µg/L)									
1,3-Dichlorobenzene	24	0	1	1.2	1.2	0	-	-	0
1,4-Dichlorobenzene	21	0	4	1.2	8.8	0	-	-	0
2,4-Dimethylphenol	23	1	1	6	6	0	-	-	0
2-Chlorophenol	24	1	0	-	-	0	-	-	0
2-Methlynaphthalene	24	0	1	9.2	9.2	0	-	-	0
3-Nitroaniline	24	0	1	22.7	22.7	0	-	-	0
Acenaphthene	22	0	3	4.2	14	0	-	-	0
Bis(2-ethylhexyl)phthalate	8	11	6	2.4	420	0	-	-	0
Dibenzofuran	24	0	1	4.73	4.73	0	-	-	0
Fluorene	23	0	2	1.3	4.2	0	-	-	0
N-Nitrosodiphenylamine	24	0	1	1.7	1.7	0	-	-	0
Naphthalene	24	0	1	27	27	0	-	-	0
Phenanthrene	24	0	1	1.4	1.4	0	-	-	0
Pesticides/PCBs (µg/L)									
Dieldrin	17	7	1	0.558	0.558	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	21	0	4	0.2	1.6	0	-	-	0

Table 9-25 - Site 2 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "A" and "E" Wells

Third Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
1,2-Dichloroethane	23	0	0	-	-	0	-	-	0
1,2-Dichloroethene, Total	23	0	0	-	-	0	-	-	0
Acetone	22	1	0	-	-	0	-	-	0
Benzene	21	0	2	11	11	0	-	-	0
Carbon Disulfide	23	0	0	-	-	0	-	-	0
Chlorobenzene	20	0	3	3.2	250	0	-	-	0
Chloroethane	22	0	1	1.7	1.7	0	-	-	0
Methylene Chloride	23	0	0	-	-	0	-	-	0
Semivolatile Organics (µg/L)									
1,3-Dichlorobenzene	22	0	1	1.4	1.4	0	-	-	0
1,4-Dichlorobenzene	19	0	4	1.3	11	0	-	-	0
2,4-Dimethylphenol	22	0	1	6.6	6.6	0	-	-	0
2-Chlorophenol	22	0	1	3	3	0	-	-	0
2-Methlynaphthalene	22	0	1	6.8	6.8	0	-	-	0
3-Nitroaniline	23	0	0	-	-	0	-	-	0
Acenaphthene	20	0	3	1.7	23	0	-	-	0
Bis(2-ethylhexyl)phthalate	9	10	4	2.2	14	0	-	-	0
Dibenzofuran	21	0	2	2.85	7.36	0	-	-	0
Fluorene	21	0	2	3.1	5.3	0	-	-	0
N-Nitrosodiphenylamine	23	0	0	-	-	0	-	-	0
Naphthalene	22	0	1	18	18	0	-	-	0
Phenanthrene	22	0	1	1	1	0	-	-	0
Pesticides/PCBs (µg/L)									
Dieldrin	23	0	0	-	-	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	19	0	4	0.2	1.4	0	-	-	0

Table 9-25 - Site 2 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "A" and "E" Wells

Fourth Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
1,2-Dichloroethene, Total	23	0	1	1.2	1.2	0	-	-	0
Acetone	23	1	0	-	-	0	-	-	0
Benzene	22	0	2	12	13	0	-	-	0
Carbon Disulfide	23	0	1	1.3	1.3	0	-	-	0
Chlorobenzene	21	0	3	2.5	300	0	-	-	0
Chloroethane	23	0	1	1.1	1.1	0	-	-	0
Semivolatile Organics (µg/L)									
1,3-Dichlorobenzene	23	0	1	1.4	1.4	0	-	-	0
1,4-Dichlorobenzene	21	0	3	1.6	14	0	-	-	0
4-Methylphenol	23	0	1	3.2	3.2	0	-	-	0
Acenaphthene	22	0	2	18	20	0	-	-	0
Bis(2-ethylhexyl)phthalate	0	20	4	3.9	33	0	-	-	0
Dibenzofuran	22	0	2	2.26	6.96	0	-	-	0
Dimethylpthalate	9	0	15	3	470	0	-	-	0
Fluorene	22	0	2	2.4	4.9	0	-	-	0
N-Nitrosodiphenylamine	23	0	1	1.3	1.3	0	-	-	0
Naphthalene	23	0	1	5.3	5.3	0	-	-	0
Phenol	22	0	2	6.1	8.9	0	-	-	0
Pesticides/PCBs (µg/L)									
Aldrin	23	0	1	0.051	0.051	0	-	-	0
Dieldrin	23	0	1	0.89	0.89	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	19	0	5	0.2	2.9	0	-	-	0

Table 9-26 - Site 2 Groundwater "A" and "E" Wells Analytical Results for Metals

Sample Number	1st Qtr M-010A	2nd Qtr M-010A	2nd Qtr M-010A Duplicate	3rd Qtr M-010A	4th Qtr M-010A	1st Qtr M-011A	2nd Qtr M-011A	3rd Qtr M-011A	4th Qtr M-011A
Date Sampled	06/19/91	09/25/91	09/25/91	01/16/92	04/08/92	06/28/91	09/24/91	01/16/92	04/08/92
PARAMETER REPORTED									
Metals (µg/L)									
Aluminum	< 31.0	128	35.1	< 40.7	214	< 31.0	< 31.0	45.0	145
Antimony	26.0	< 25.1	< 25.1	< 37.5	< 37.5	< 25.1	< 25.1	< 37.5	50.8
Arsenic	< 2.6	< 2.6	< 2.6	< 1.9	2.2	10.7	12.7	7.3	7.0
Barium	388	542	482	249	85.0	416	598	500	393
Beryllium	1.5	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	58200	83000	76900	46500	16400	232000J	299000	370000	299000
Chromium	< 5.7	< 5.7	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 6.1	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2
Copper	< 2.1	< 2.1	< 2.1	11.1	< 3.8	< 2.1	< 2.1	10.8	< 3.8
Iron	< 6.2	114	124	< 7.7	393	13000	18400	10400	9180
Lead	< 10.0	< 2.0UJ	< 2.0UJ	< 1.3	< 2.0UJ	< 2.0	< 2.0UJ	< 1.3UJ	< 2.0UJ
Magnesium	128000	192000	177000	95000	26800	227000J	291000	233000	218000
Manganese	1590	2410	2220	1200	569	4520	5990	3900	4280
Mercury	< 0.2UJ	< 0.2	0.5	< 0.2	< 0.2	< 0.2	< 0.2\	< 0.2	< 0.2
Nickel	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2\	< 13.2	< 13.2
Potassium	43400	59200	56700	38700	15400	78000J	91900	75600	66200
Selenium	< 2.1	< 2.1UJ	< 10.5UJ	< 2.0UJ	< 2.0	< 2.1	< 2.1UJ	< 2.0UJ	< 2.0
Silver	< 4.9	< 4.9	< 4.9	< 4.8	< 4.8	< 4.9	< 4.9	< 4.8	< 4.8
Sodium	1910000UJ	2640000	2590000	1780000	717000	2150000J	2350000	1770000	1780000
Thallium	< 2.7	< 2.7	< 2.7	< 8.5UJ	< 1.7UJ	< 2.7	< 2.7	< 8.5UJ	< 1.7UJ
Vanadium	13.7	15.0	17.7	14.7	< 6.0	14.3	19.9	21.4	28.8
Zinc	17.0UJ	< 2.3	< 2.3	21.2	4.6	47.5	7.9	10.1	15.8

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-26 - Site 2 Groundwater "A" and "E" Wells Analytical Results for Metals

Sample Number	1st Qtr M-012A	2nd Qtr M-012A	3rd Qtr M-012A	4th Qtr M-012A	4th Qtr M-012A Duplicate	1st Qtr M-013A	2nd Qtr M-013A	3rd Qtr M-013A	4th Qtr M-013A
Date Sampled	06/25/91	09/24/91	01/17/92	04/08/92	04/08/92	07/11/91	09/24/91	01/17/92	04/07/92
PARAMETER REPORTED									
Metals (µg/L)									
Aluminum	90.2	119	55.3	137	149	32.6	121	< 40.7	3290
Antimony	< 25.1	< 25.1	< 37.5	< 37.5	< 37.5	< 25.1	< 25.1	< 37.5	< 37.5
Arsenic	3.4	3.5	2.7	2.1	< 1.9	36.0	40.7	31.5	22.3
Barium	8.7	5.9	10.6	8.1	8.8	7.7	3.7	3.2	31.0
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	634J	1090	1070	934	667	911	1370	620	2610
Chromium	< 5.7	< 5.7	< 6.3	6.4	< 6.3	< 5.7	< 5.7	< 6.3	15.6
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2
Copper	3.5	3.4	14.8	24.8	15.0	14.1	3.4	11.1	5.4
Iron	181	195	69.2	209	278	61.8	215	30.4UJ	4640
Lead	< 2.0	< 2.0	< 1.3	< 2.0UJ	< 2.0	< 2.0	2.5	< 1.3	< 2.0UJ
Magnesium	661J	1440	1460	739	557	849	1380	648	3010
Manganese	2.9	14.2	3.4	12.3UJ	6.6UJ	4.6	8.2	1.1	38.0
Mercury	< 0.2UJ	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	13.4
Potassium	1830J	3030	3000	3590	1800	3520	2600	3320	3810
Selenium	< 2.1	< 2.1	< 2.0	< 2.0	< 2.0	< 2.1	< 2.1	< 2.0	< 2.0
Silver	< 4.9	< 4.9	< 4.8	< 4.8	< 4.8	< 4.9	< 4.9	< 4.8	< 4.8
Sodium	62500	69200	73200	62200	59700	92000	94900	81400	51000
Thallium	< 2.7	< 2.7	< 1.7UJ	< 1.7	< 1.7	< 2.7	< 2.7	< 1.7UJ	< 1.7UJ
Vanadium	4.3	8.7	6.3	< 6.0	< 6.0	34.7	46.4	47.6	35.7
Zinc	6.4	4.9	< 4.6	< 4.6	< 4.6	4.7	4.3	< 4.6	8.3

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-26 - Site 2 Groundwater "A" and "E" Wells Analytical Results for Metals

Sample Number	1st Qtr M-014A	1st Qtr M-014A Duplicate	2nd Qtr M-014A	3rd Qtr M-014A	4th Qtr M-014A	1st Qtr M-015A	1st Qtr M-015A Duplicate	2nd Qtr M-015A	3rd Qtr M-015A	4th Qtr M-015A
Date Sampled	**06/20/91**	**06/20/91**	**09/25/91**	**01/16/92**	**04/07/92**	**07/18/91**	**07/18/91**	**09/25/91**	**01/17/92**	**04/07/92**
PARAMETER REPORTED										
Metals (µg/L)										
Aluminum	43.0	51.0	53400	447	42.7	< 31.0	< 31.0	171	46.2	1790
Antimony	< 25.1	< 25.1	< 25.1	< 37.5	< 37.5	< 25.1	< 25.1	< 25.1	< 37.5	< 37.5
Arsenic	< 2.6	< 2.6	4.6J	< 1.9	2.2	< 2.6UJ	< 2.6	< 2.6	< 1.9	< 1.9
Barium	7.2	5.5	364	9.2	3.6	10.8UJ	9.8UJ	3.9	10.7	33.7
Beryllium	< 1.3	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	2760UJ	1940UJ	14600	2170	889	6300	6100	2050	4340	5780
Chromium	< 5.7	< 5.7	238	< 6.3	< 6.3	< 5.7	< 5.7	< 5.7	< 6.3	8.9
Cobalt	6.7	< 6.1	70.8	< 17.2	< 17.2	< 6.1	< 6.1	< 6.1	< 17.2	< 17.2
Copper	< 2.1	< 2.1	55.1	23.9	24.1	20.3	6.1	2.1	7.7	< 3.8
Iron	53.6	75.8	86400	678	111J	8.9UJ	12.6UJ	1650	42.7UJ	2660
Lead	< 2.0	< 2.0	39.8	2.5UJ	< 2.0	< 2.0	< 2.0	2.1	< 1.3	2.0J
Magnesium	1840	1350	26800	1570	549	5610	5970	1940	4320	4730
Manganese	2.2	1.8	1780	13.2	2.4UJ	5.4	3.3	14.1	1.2	40.3
Mercury	< 0.2UJ	< 0.2UJ	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	< 13.2	< 13.2	283	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2
Potassium	3480UJ	2890UJ	15100	7280	1350	8860	6270	3340	6270	3250
Selenium	< 2.1	< 2.1	< 2.1UJ	< 2.1UJ	< 2.0	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0
Silver	< 4.9	< 4.9	< 4.9	< 4.8	< 4.8	< 4.9	< 4.9	< 4.9	< 4.8	< 4.8
Sodium	32100J	28700J	37100	23700	14000	92600	95400	51100	78300	97300
Thallium	< 2.7	< 2.7	< 2.7	< 1.7	< 1.7	< 2.7	< 2.7	< 2.7	< 1.7UJ	< 1.7UJ
Vanadium	< 4.2	5.7	148	11.0	< 6.0	< 4.2	< 4.2	< 4.2	6.4	< 6.0
Zinc	3.9UJ	4.0UJ	188	4.7	7.1	3.9UJ	2.9UJ	5.7	< 4.6	7.8

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-26 - Site 2 Groundwater "A" and "E" Wells Analytical Results for Metals

Sample Number	1st Qtr M-016A	2nd Qtr M-016A	3rd Qtr M-016A	4th Qtr M-016A	1st Qtr M-017A	2nd Qtr M-017A	3rd Qtr M-017A	4th Qtr M-017A
Date Sampled	**07/11/91**	**09/26/91**	**01/20/92**	**04/06/92**	**07/08/91**	**09/26/91**	**01/20/92**	**04/03/92**
PARAMETER REPORTED								
Metals (µg/L)								
Aluminum	36	49.8J	< 40.7	< 40.7	64	44	< 40.7	43.2J
Antimony	< 25.1	< 251UJ	< 37.5	43.3	< 25.1	< 251	< 37.5	< 37.5
Arsenic	10.8	5.0	10.0	10.7	2.6	< 2.6	< 9.5	2.1J
Barium	64	108J	107	73.1	45.9	68	59.6	57.6
Beryllium	< 1.3	< 1.3UJ	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0J	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	247000	389000J	416000	326000	278000	298000	314000	341000
Chromium	< 5.7	< 5.7UJ	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1UJ	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2
Copper	9	< 2.1UJ	< 3.8	< 3.8	35.7	4	4.7	21.5
Iron	9890	16600J	20300	25100	26.2UJ	250	< 7.7	< 7.7
Lead	< 2.0UJ	< 10.0UJ	4.2	< 2.0UJ	118	< 10.0UJ	< 6.5	6.5
Magnesium	467000	752000J	788000	526000	687000	748000	763000	803000
Manganese	2650	2060J	2030	2590	70.8	102	15.6	7.0
Mercury	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	< 13.2	< 13.2UJ	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2
Potassium	168000	255000J	267000	202000	265000	290000	289000	299000J
Selenium	< 10.5	< 10.5UJ	< 10.0UJ	< 2.0UJ	< 10.5	< 10.5UJ	< 10.0UJ	< 10.0UJ
Silver	< 4.9	7	< 4.8	< 4.8	< 4.9	6	< 4.8	< 4.8
Sodium	4450000	7030000J	8260000	5450000	5500000	7340000	8680000	8450000
Thallium	< 13.5	< 2.7UJ	< 8.5UJ	< 3.4	< 27.0	< 2.7UJ	< 8.5UJ	< 8.5
Vanadium	< 4.2	< 4.2UJ	< 6.0	11.5	< 4.2	< 4.2	< 6.0	< 6.0
Zinc	< 2.3	< 2.3	6.3	< 4.6	< 2.3	< 23.0	< 4.6	< 4.6

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-26 - Site 2 Groundwater "A" and "E" Wells Analytical Results for Metals

Sample Number	1st Qtr M-018A	2nd Qtr M-018A	3rd Qtr M-018A	4th Qtr M-018A	1st Qtr M-018E	2nd Qtr M-018E	3rd Qtr M-018E	4th Qtr M-018E
Date Sampled	07/11/91	09/26/91	01/20/92	04/03/92	07/11/91	09/26/91	01/20/92	04/06/92
PARAMETER REPORTED								
Metals (µg/L)								
Aluminum	249	2740	< 40.7	725J	85.9	42.3	< 40.7	< 40.7
Antimony	< 25.1	< 251	< 37.5	42.7	< 251	< 251	< 37.5	< 37.5
Arsenic	< 2.6	< 2.6	< 9.5	2.0	9.1	8.6	12.0	12.9
Barium	70.8	84	82.0	75.0	79.3	79.4	96.7	123
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	367000	378000	409000	417000	298000	321000	349000	368000
Chromium	< 5.7	12	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2
Copper	42.1	6	5.1	< 3.8	24.0	< 2.1	14.7	< 3.8
Iron	282	5120	< 7.7	693	509	4300	3710	5760
Lead	< 10.0UJ	< 10.0UJ	< 6.5	5.8	< 10.0UJ	< 10.0UJ	< 6.5	< 4.0UJ
Magnesium	661000	669000	722000	724000	753000	795000	834000	836000
Manganese	343	104	113	971	6910	7090	7760	8900
Mercury	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.3	< 0.2	< 0.2
Nickel	< 13.2	23	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2
Potassium	220000	226000	225000	221000J	216000	238000	245000	252000
Selenium	< 10.5	< 10.5UJ	< 10.0UJ	< 2.0UJ	< 10.5	< 10.5UJ	< 10.0UJ	< 2.0UJ
Silver	< 4.9	< 4.9	< 4.8	< 4.8	< 4.9	7.2	< 4.8	< 4.8
Sodium	4130000	5620000	6200000	6060000	6230000	7200000	8470000	8270000
Thallium	< 13.5	< 2.7UJ	< 8.5UJ	< 3.4UJ	< 13.5	< 2.7UJ	< 8.5UJ	< 6.8UJ
Vanadium	< 4.2	< 4.2	< 6.0	6.0	< 4.2	< 4.2	< 6.0	< 6.0
Zinc	< 2.3	< 2.3	< 4.6	< 4.6	< 2.3	< 2.3	24.4	< 4.6

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-26 - Site 2 Groundwater "A" and "E" Wells Analytical Results for Metals

Sample Number	1st Qtr M-019A	2nd Qtr M-019A	2nd Qtr M-019A Duplicate	3rd Qtr M-019A	4th Qtr M-019A	1st Qtr M-019E	2nd Qtr M-019E	3rd Qtr M-019E	4th Qtr M-019E
Date Sampled	07/11/91	09/27/91	09/27/91	01/20/92	04/03/92	07/17/91	09/27/91	01/20/92	04/03/92
PARAMETER REPORTED									
Metals (µg/L)									
Aluminum	< 31.0	2680	220	< 40.7	< 40.7UJ	61.9	40.7	< 40.7	43.1J
Antimony	< 25.1	< 251	< 251	< 37.5	< 37.5	< 25.1	< 251	< 37.5	< 37.5
Arsenic	< 2.6	< 10.4	< 10.4	< 9.5	< 1.9UJ	3.2	10.4	< 9.5	5.7
Barium	37.5	58.6	43.3	42.2	37.8	97	70.4	78.9	71.5
Beryllium	< 1.3	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	216000	271000	277000	285000	209000	264000	289000	308000	309000
Chromium	< 5.7	11.3	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 6.1	< 17.2	< 17.2	< 6.1	6.5	< 17.2	< 17.2
Copper	16.9	3.3	2.3	5.5	< 3.8	30.8	< 2.1	22.6	< 3.8
Iron	< 6.2	4020	214	< 7.7	< 7.7	671	4470	2990	3430
Lead	< 10.0UJ	< 40.0UJ	< 20.0UJ	< 6.5	< 2.6	< 10.0	< 40.0UJ	< 6.5	7.4
Magnesium	597000	769000	790000	793000	583000	741000	808000	831000	835000
Manganese	< 0.9	8.9	< 9.0	< 1.0	< 1.0	6170	6910	7280	6620
Mercury	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	< 13.2	17.4	< 13.2	20.7	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2
Potassium	244000	306000	320000	297000	238000J	208000	240000	241000	251000J
Selenium	< 10.5	< 8.4UJ	< 8.4UJ	< 10.0UJ	< 2.0UJ	< 10.5	< 8.4UJ	< 10.0UJ	< 2.0UJ
Silver	< 4.9	6.5	< 4.9	< 4.8	< 4.8	< 4.9	6.7	< 4.8	< 4.8
Sodium	5720000	7710000	6670000	8730000	6720000	5050000	6760000	8370000	8040000
Thallium	< 13.5	< 10.8UJ	< 10.8UJ	< 8.5UJ	< 3.4UJ	< 13.5	< 10.8UJ	< 8.5UJ	< 8.5UJ
Vanadium	< 4.2	< 4.2	< 4.2	< 6.0	11.1	< 4.2	< 4.2	< 6.0	< 6.0
Zinc	< 23.0	< 2.3	< 23.0	< 4.6	5.1	< 2.3	< 2.3	169	< 4.6

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-26 - Site 2 Groundwater "A" and "E" Wells Analytical Results for Metals

Sample Number	1st Qtr M-020A	1st Qtr M-020A Duplicate	2nd Qtr M-020A	3rd Qtr M-020A	4th Qtr M-020A	1st Qtr M-020E	2nd Qtr M-020E	3rd Qtr M-020E	4th Qtr M-020E	4th Qtr M-020E Duplicate
Date Sampled	07/10/91	07/10/91	09/27/91	01/21/92	04/02/92	07/10/91	09/27/91	01/21/92	04/02/92	04/02/92
PARAMETER REPORTED										
Metals (µg/L)										
Aluminum	121	348	< 31.0	< 40.7	< 40.7UJ	93.5	< 31.0	56.2	140J	53.1J
Antimony	< 25.1	< 25.1	< 251	< 37.5	< 37.5	< 251	< 251	< 37.5	< 37.5	< 37.5
Arsenic	< 2.6	< 13.0	< 10.4	< 1.9	3.0	< 2.6UJ	15.6	10.1	10.8	11.6UJ
Barium	85.6	109	90.5	109	106	64.9	72.7	908	105	105
Beryllium	< 1.3	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	1.4	< 2.5	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9	< 3.9
Calcium	241000	278000	276000	302000	253000	235000	218000	233000	235000	236000
Chromium	< 5.7	< 5.7	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3	< 6.3UJ
Cobalt	< 6.1	< 6.1	< 6.1	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2	< 17.2UJ
Copper	15.1	22.0	< 2.1	< 3.8	< 3.8	28.9	< 2.1	6.1	< 3.8	< 3.8
Iron	153	408	890	471	< 7.7	1600	9300	16800	21100	20900J
Lead	< 10.0UJ	< 10.0UJ	< 40.0UJ	< 6.5	< 2.6	< 10.0UJ	< 40.0	< 6.5	6.2	< 6.5
Magnesium	661000	754000	774000	817000	508000	819000	768000	809000	790000	795000
Manganese	257	330	259	268	274	6010	5460	5810	6030	6060J
Mercury	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2UJ
Nickel	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2UJ
Potassium	239000	272000	314000	302000	169000J	243000	233000	240000	232000J	235000J
Selenium	< 10.5	< 10.5UJ	< 8.4UJ	< 10.0UJ	< 2.0UJ	< 10.5	< 8.4UJ	< 10.0UJ	< 10.0UJ	< 4.0UJ
Silver	< 4.9	< 4.9	< 4.9	< 4.8	< 4.8	< 4.9	6.5	< 4.8	5.6	< 4.8
Sodium	5450000	6360000	7820000	9070000	4880000	4550000	6600000	7780000	7550000	7320000
Thallium	< 13.5	< 13.5	< 10.8UJ	< 8.5UJ	< 3.4	< 13.5	< 10.8UJ	< 8.5UJ	< 3.4UJ	< 3.4UJ
Vanadium	< 4.2	< 4.2	< 4.2	< 6.0	14.6	< 4.2	< 4.2	< 6.0	< 6.0	< 6.0
Zinc	< 23.0	< 23.0	< 2.3	< 4.6	< 4.6	< 2.3	26.8	80.8J	< 4.6	< 4.6

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-26 - Site 2 Groundwater "A" and "E" Wells Analytical Results for Metals

Sample Number	1st Qtr M-021A	1st Qtr M-021A Duplicate	2nd Qtr M-021A	3rd Qtr M-021A	4th Qtr M-021A	1st Qtr M-021E	2nd Qtr M-021E	3rd Qtr M-021E	3rd Qtr M-021E Duplicate	4th Qtr M-021E
Date Sampled	07/02/91	07/02/91	09/30/91	01/21/92	04/02/92	07/02/91	09/30/91	01/21/92	01/21/92	04/03/92
PARAMETER REPORTED										
Metals (µg/L)										
Aluminum	< 31.0	< 31.0	298	< 40.7	< 40.7UJ	< 31.0	109	49.0	< 40.7	44.3J
Antimony	< 25.1	< 502	< 251	< 37.5	< 37.5	< 25.1	< 25.1	< 37.5	< 37.5	< 37.5
Arsenic	< 2.6	2.7	< 10.4	< 1.9	4.1	15.5	19.6	19.4	18.5	19.7
Barium	185	175	504	131	136	126	115	112	103	167
Beryllium	< 1.3	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.0	< 3.9	90.3	< 3.0	< 3.0	< 3.9	< 3.9	< 3.9
Calcium	287000J	287000	271000	273000	200000	216000J	224000	220000	212000J	222000
Chromium	< 5.7	< 5.7	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3UJ	< 6.3
Cobalt	< 6.1	< 6.1	< 6.1	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2UJ	< 17.2
Copper	< 2.1	< 2.1	9.2	< 3.8	< 3.8	< 2.1	17.3	11.3	9.8	< 3.8
Iron	45.4UJ	81.9	559	< 7.7	< 7.7	9650	13600	15700	12500	27100
Lead	19.5J	< 10.0UJ	< 40.0UJ	< 6.5	< 6.5	10.5	< 40.0	< 6.5	< 6.5	< 6.5
Magnesium	775000J	778000	725000	776000	617000	736000J	721000	765000	746000J	767000
Manganese	165	161	168	124	197	5700	5410	5530	5060	5370
Mercury	< 0.2	< 0.2	< 0.2UJ	< 0.2	< 0.2	< 0.2	< 0.2UJ	< 0.2	< 0.2UJ	< 0.2
Nickel	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2UJ	< 13.2
Potassium	310000J	303000	301000	301000	230000J	202000J	197000	207000	202000J	211000J
Selenium	< 10.5	< 21.0UJ	< 8.4UJ	< 10.0UJ	< 2.0UJ	< 10.5	< 8.4UJ	< 10.0UJ	< 10.0UJ	< 10.0
Silver	< 4.9	5.1	5.4	< 4.8	< 4.8	5.8	15.3	< 4.8	< 4.8	< 4.8
Sodium	8640000	8920000	7570000	8130000	6330000	6450000	6560000	7710000	7390000J	7100000
Thallium	< 27.0	< 27.0	< 10.8UJ	< 8.5UJ	< 3.4UJ	< 27.0	< 10.8UJ	< 8.5UJ	< 8.5UJ	< 3.4UJ
Vanadium	< 4.2	< 4.2	< 4.2	< 6.0	8.0	< 4.2	< 4.2	< 6.0	< 6.0	< 6.0
Zinc	< 2.3	< 46.0	237	< 4.6	< 4.6	13.8	91.3	< 4.6	19.5UJ	< 4.6

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-26 - Site 2 Groundwater "A" and "E" Wells Analytical Results for Metals

Sample Number	1st Qtr M-022A	2nd Qtr M-022A	3rd Qtr M-022A	4th Qtr M-022A	1st Qtr M-022E	2nd Qtr M-022E	2nd Qtr M-022E Duplicate	3rd Qtr M-022E	4th Qtr M-022E
Date Sampled	07/02/91	10/01/91	01/22/92	04/01/92	07/08/91	10/01/91	10/01/91	01/21/92	04/01/92
PARAMETER REPORTED									
Metals (µg/L)									
Aluminum	< 31.0	1550	60.1	69.7J	260	50.0	< 31.0	< 40.7	42.2J
Antimony	< 25.1	< 25.1	< 37.5	40.0	< 25.1	< 25.1	< 251	< 37.5	< 37.5
Arsenic	3.0	< 10.4	2.6	2.2	4.3	12.4	5.8	5.4	2.9
Barium	443	470	434	274	375	291	295	267	331
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	277000J	319000	315000	233000	234000	263000	246000	264000	295000
Chromium	< 5.7	8.5	< 6.3	< 6.3	< 5.7	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	16.7	27.7	22.4	26.7	< 17.2
Copper	< 2.1	4.6	18.6	< 3.8	16.4	19.3	< 2.1	< 3.8	< 3.8
Iron	473	6970	510	205	5750	15000	13800J	15200	14800
Lead	< 2.0	< 40.0	< 6.5	3.5J	< 10.0	< 40.0	< 10.0UJ	1.6J	< 6.5
Magnesium	485000J	585000	594000	386000	684000	678000	652000	736000	737000
Manganese	244	461	470	183	4270	4320	4070J	4430	4580
Mercury	< 0.2	< 0.2UJ	< 0.2	< 0.2	< 0.2	< 0.2UJ	< 0.2UJ	< 0.2	< 0.2
Nickel	< 13.2	17.7	< 13.2	< 13.2	17.7	29.8	16.3J	21.0	< 13.2
Potassium	177000J	208000	200000	140000J	187000	205000	181000	204000	194000J
Selenium	< 10.5	< 8.4UJ	< 10.0UJ	< 2.0UJ	< 21.0	< 8.4UJ	< 10.5UJ	< 10.0UJ	< 2.0UJ
Silver	< 4.9	9.3	< 4.8	< 4.8	< 4.9	6.1	6.3	< 4.8	< 4.8
Sodium	5270000	5760000	6180000	3990000	5820000	6150000	6070000	6890000	6740000
Thallium	< 27.0	< 10.8UJ	< 8.5UJ	< 3.4	< 27.0	< 10.8UJ	< 13.5UJ	< 8.5UJ	< 3.4UJ
Vanadium	< 4.2	13.5	6.4	24.6	< 4.2	< 4.2	< 4.2	< 6.0	< 6.0
Zinc	< 2.3	6.8UJ	< 4.6	< 4.6	9.2	82.4	53.0	8.5UJ	14.5

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-26 - Site 2 Groundwater "A" and "E" Wells Analytical Results for Metals

Sample Number	1st Qtr M-023A	2nd Qtr M-023A	3rd Qtr M-023A	4th Qtr M-023A	1st Qtr M-023E	2nd Qtr M-023E	3rd Qtr M-023E	4th Qtr M-023E
Date Sampled	**07/01/91**	**10/01/91**	**01/22/92**	**04/01/92**	**07/01/91**	**10/01/91**	**01/22/92**	**04/01/92**
PARAMETER REPORTED								
Metals (µg/L)								
Aluminum	< 31.0	52.9	46.8	62.7J	< 31.0	< 31.0	66.5	49.2J
Antimony	< 25.1	< 25.1	< 37.5	< 37.5	< 25.1	< 25.1	< 37.5	< 37.5
Arsenic	45	< 10.4	< 1.9	2.8	< 2.6	27.2	36.6	24.0
Barium	298	263	149	149	792	817	780	898
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	347000J	351000	334000	278000	156000J	156000	171000	200000
Chromium	< 5.7	6.0	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2
Copper	< 2.1	< 2.1	< 3.8	< 3.8	< 2.1	26.6	< 3.8	< 3.8
Iron	554	2920	235	< 7.7	19700	12500	17400	11200
Lead	< 10.0	< 40.0	< 6.5	2.8	< 10.0UJ	< 40.0	< 6.5	< 3.9
Magnesium	647000J	704000	710000	523000	710000	670000	723000	700000
Manganese	307	195	89.0	103	1690	1350	1730	1710
Mercury	< 0.2	< 0.2UJ	0.2	< 0.2	< 0.2	< 0.2UJ	< 0.2	< 0.2
Nickel	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	13.9
Potassium	220000J	270000	235000	177000J	214000J	207000	195000	196000J
Selenium	< 21.0	< 8.4UJ	< 10.0UJ	< 2.0UJ	< 21.0	< 8.4UJ	< 10.0J	< 10.0UJ
Silver	< 4.9	7.0	< 4.8	< 4.8	< 4.9	4.9	5.9	4.8
Sodium	6360000	7130000	7240000	5450000	6950000	6720000	7730000	7200000
Thallium	< 27.0	< 27.0UJ	< 8.5UJ	< 3.4UJ	< 27.0	< 27.0UJ	< 8.5UJ	< 3.4UJ
Vanadium	< 4.2	< 4.2	< 6.0	14.2	< 4.2	< 4.2	< 6.0	< 6.0
Zinc	< 2.3	< 23.0	< 4.6	< 4.6	< 2.3	31.8	< 4.6	< 4.6

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-26 - Site 2 Groundwater "A" and "E" Wells Analytical Results for Metals

Sample Number	1st Qtr M-024A	2nd Qtr M-024A	3rd Qtr M-024A	4th Qtr M-024A	1st Qtr M-024E	2nd Qtr M-024E	3rd Qtr M-024E	4th Qtr M-024E
Date Sampled	07/18/91	10/11/91	02/03/92	03/31/92	07/18/91	10/11/91	02/03/92	03/31/92
PARAMETER REPORTED								
Metals (µg/L)								
Aluminum	< 31.0	79.8	125UJ	60.8	< 31.0	46.0	55.5UJ	< 40.7
Antimony	< 25.1	40.8	< 37.5	< 37.5	< 25.1	< 25.1	< 37.5	< 37.5
Arsenic	< 2.6UJ	< 10.4	3.9	2.8	9.0	20.8	22.8	20.0
Barium	1220	1210	1050	618	633	677	861	692
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	184000	169000	171000J	154000	168000	146000	170000J	140000
Chromium	6.0	< 5.7	< 6.3	7.1	5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	6.4	< 6.1	< 17.2	< 17.2
Copper	13.5	18.2	6	< 3.8	24.0	3.7	< 3.8	< 3.8
Iron	14000	14100	9460J	10900	18000	30400	36500	26000
Lead	< 2.0UJ	< 20.0UJ	< 1.3	< 1.3	< 2.0	< 20.0	< 1.3	< 1.3
Magnesium	157000	167000	151000J	118000	156000	133000	160000J	125000
Manganese	888	720	794	676	2630	2180	2460	1820
Mercury	< 0.2	< 0.2UJ	< 0.2UJ	< 0.2	< 0.2	< 0.2UJ	< 0.2	< 0.2
Nickel	< 13.2	17.8	19.9UJ	< 13.2	14.3	< 13.2	< 13.2	< 13.2
Potassium	82100	90500	76300J	63000J	79400	74200	75400	71300J
Selenium	< 2.1	< 8.4UJ	< 2.0UJ	< 2.0UJ	< 2.1	< 8.4UJ	< 2.0UJ	< 2.0UJ
Silver	< 4.9	< 4.9	< 4.8	< 4.8	< 4.9	< 4.9	< 4.8	< 4.8
Sodium	1100000	1190000	1260000J	814000	1070000	985000	1320000	1160000
Thallium	< 2.7	< 10.8	< 8.5UJ	< 1.7UJ	< 2.7	< 10.8	< 1.7UJ	< 1.7UJ
Vanadium	16.1	19.5	22.1	19.0	10.4	15.3	16.6	16.1
Zinc	< 2.3	15.5UJ	16.8	25.3	84.3	29.5	7.2	15.9

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-27 - Site 2 Summary of Metals Results for Quarterly Groundwater Samples in "A" and "E" Wells

First Quarter

	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	6687.63	13	13	32.6	348	0	0	-	-	-	0
Antimony	12.55	25	1	26	26	1	0	-	-	-	0
Arsenic	23.54	13	13	2.6	44.9	2	0	-	-	-	0
Barium	163.08	2	24	5.5	1220	10	0	-	-	-	0
Beryllium	0.65	25	1	1.5	1.5	1	0	-	-	-	0
Cadmium	1.50	26	0	-	-	-	0	-	-	-	0
Chromium	23.21	24	2	5.7	6	0	0	-	-	-	0
Cobalt	3.05	23	3	6.4	16.7	3	0	-	-	-	0
Copper	50.37	10	16	3.5	42.1	0	0	-	-	-	0
Lead	12.04	23	2	10.5	118	1	1	19.5	19.5	1	0
Mercury	0.10	26	0	-	-	-	0	-	-	-	0
Nickel	23.97	24	2	14.3	17.7	0	0	-	-	-	0
Selenium	1.05	26	0	-	-	-	0	-	-	-	0
Silver	2.45	24	2	5.1	5.8	2	0	-	-	-	0
Thallium	1.35	26	0	-	-	-	0	-	-	-	0
Vanadium	93.67	19	7	4.3	34.7	0	0	-	-	-	0
Zinc	19.64	20	6	4.7	84.3	2	0	-	-	-	0

Table 9-27 - Site 2 Summary of Metals Results for Quarterly Groundwater Samples in "A" and "E" Wells

Second Quarter

	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	510.39	5	19	35.1	53400	4	1	49.8	49.8	0	0
Antimony	12.55	24	1	40.8	40.8	1	0	-	-	-	0
Arsenic	26.09	12	12	3.5	40.7	2	1	4.6	4.6	0	0
Barium	126.83	0	24	3.7	1210	12	1	108	108	0	0
Beryllium	0.65	24	1	1.4	1.4	1	0	-	-	-	0
Cadmium	1.50	25	0	-	-	-	0	-	-	-	0
Chromium	2.85	20	5	6	238	5	0	-	-	-	0
Cobalt	3.05	21	4	6.5	70.8	4	0	-	-	-	0
Copper	39.68	10	15	2.1	55.1	1	0	-	-	-	0
Lead	4.66	22	3	2.1	39.8	1	0	-	-	-	0
Mercury	0.37	23	2	0.3	0.5	1	0	-	-	-	0
Nickel	6.60	18	6	17.4	283	6	1	16.3	16.3	1	0
Selenium	1.05	25	0	-	-	-	0	-	-	-	0
Silver	2.45	12	13	4.9	15.3	13	0	-	-	-	0
Thallium	1.35	25	0	-	-	-	0	-	-	-	0
Vanadium	56.31	16	9	8.7	148	1	0	-	-	-	0
Zinc	23.45	13	12	4.3	237	8	0	-	-	-	0

Table 9-27 - Site 2 Summary of Metals Results for Quarterly Groundwater Samples in "A" and "E" Wells

Third Quarter

Metals (ug/L)	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	450.77	14	9	45	447	0	0	-	-	-	0
Antimony	43.45	23	0	-	-	-	0	-	-	-	0
Arsenic	15.29	10	13	2.6	36.6	5	0	-	-	-	0
Barium	128.96	0	23	3.2	1050	10	0	-	-	-	0
Beryllium	1.25	23	0	-	-	-	0	-	-	-	0
Cadmium	1.95	23	0	-	-	-	0	-	-	-	0
Chromium	6.65	23	0	-	-	-	0	-	-	-	0
Cobalt	8.60	22	1	26.7	26.7	1	0	-	-	-	0
Copper	19.00	7	16	4.7	23.9	2	0	-	-	-	0
Lead	9.27	21	1	4.2	4.2	0	1	1.6	1.6	0	0
Mercury	0.10	22	1	0.2	0.2	1	0	-	-	-	0
Nickel	6.60	21	2	20.7	21	2	0	-	-	-	0
Selenium	1.00	23	0	-	-	-	0	-	-	-	0
Silver	6.61	22	1	5.9	5.9	0	0	-	-	-	0
Thallium	0.85	23	0	-	-	-	0	-	-	-	0
Vanadium	40.81	14	9	6.3	47.6	1	0	-	-	-	0
Zinc	17.04	14	8	4.7	169	3	1	80.8	80.8	1	0

Table 9-27 - Site 2 Summary of Metals Results for Quarterly Groundwater Samples in "A" and "E" Wells

Fourth Quarter

	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	3169.62	6	8	42.7	3290	1	10	42.2	725	0	0
Antimony	18.75	20	4	40	50.8	4	0	-	-	-	0
Arsenic	30.70	4	19	2	24	0	1	2.1	2.1	0	0
Barium	71.89	0	24	3.6	898	16	0	-	-	-	0
Beryllium	1.25	24	0	-	-	-	0	-	-	-	0
Cadmium	1.95	23	1	90.3	90.3	1	0	-	-	-	0
Chromium	17.50	20	4	6.4	15.6	0	0	-	-	-	0
Cobalt	8.60	24	0	-	-	-	0	-	-	-	0
Copper	28.91	19	5	5.4	24.8	0	0	-	-	-	0
Lead	1.50	17	5	2.8	7.4	5	2	2	3.5	2	0
Mercury	0.10	24	0	-	-	-	0	-	-	-	0
Nickel	54.41	22	2	13.4	13.9	0	0	-	-	-	0
Selenium	6.42	24	0	-	-	-	0	-	-	-	0
Silver	2.40	22	2	4.8	5.6	2	0	-	-	-	0
Thallium	0.85	24	0	-	-	-	0	-	-	-	0
Vanadium	50.77	13	11	6	35.7	0	0	-	-	-	0
Zinc	13.89	15	9	4.6	25.3	4	0	-	-	-	0

Table 9-28 - Site 2 Groundwater "A" and "E" Wells Analytical Results for General Chemicals

Sample Number	1st Qtr M-010A	2nd Qtr M-010A	2nd Qtr M-010A Duplicate	3rd Qtr M-010A	3rd Qtr M-010A	4th Qtr M-010A	1st Qtr M-011A	2nd Qtr M-011A	3rd Qtr M-011A	4th Qtr M-011A
Date Sampled	06/19/91	09/25/91	09/25/91	01/16/92	01/20/92	04/08/92	06/28/91	09/24/91	01/16/92	04/08/92
PARAMETER REPORTED										
Physical Parameters-Lab										
Acidity, total (mg/L-CaCO3)	30.1J	44.6J	36.7J	21.6	NA	17.3	127J	203J	379	172
Alkalinity, total (mg/L-CaCO3)	544	537	504	302	NA	319	980	1140	500	499
COD (mg/L)	170.0J	345.0J	252.0J	63.0	NA	53	359.0J	374.0J	226.0	303
Hardness (mg/L-CaCO3)	2300	1700	1500	564	NA	172	1960	2380	2800	2200
Total Dissolved Solids, TDS (mg/L)	6380	8250	8170	5400	NA	2370	8030	8570	7210	7490
Spec. cond., lab (umhos/cm)	11500	12900	11500	8180	NA	3960	12500	14500	10700	12200
Physical Paramters-Field										
Spec. cond., field @25 C (umhos/cm)	10000	12000	12000	7000	6800	3300	11000	12000	7000	7500
Water Temp (deg C)	17.8	19.0	19.0	14.9	14.7	17.5	17.1	21.0	15.7	17.1
pH, Field (Std units)	7.16	7.00	7.00	7.08	7.27	7.22	6.59	7.00	7.26	6.65
Total Organic Carbon (mg/L)										
Carbon, TOC	8.8	7.3	2.4	8.2	NA	12UJ	52.6	55.4	45.1	70.7
Asbestos										
Asbestos, Mass (ug/L)	0.0317	0.0387	0.000806	0.0280	NA	0.000012	0.0	0.0	0.00880	0.00347
Asbestos, Total Structures (MAS/L)	13.4	467	8.94	293	NA	0.406	0.0	0.0	143	30.6
Anions										
Chloride (mg/L)	3385	4194	4059	2741	NA	1078	3896	4459	3471	3345
Cyanide (ug/L)	< 10.0	< 10.0	< 10.0	< 5.0	NA	< 5.0	< 10.0	< 10.0	< 5.0	7.1
Fluoride (mg/L)	< 0.80	< 2.00	< 5.00	< 20.0	NA	0.58	< 0.80	< 2.00	0.6	< 0.50
Nitrogen, NO2+NO3 (mg/L-as N)	< 0.010	0.200	0.044	< 0.010	NA	0.033	< 0.200	0.095	0.011	0.082
Sulfate (mg/L)	322.1	419.5	420.3	307.6	NA	109.9	313.4	247.2	302.8	345.4
Radiochemicals (pCi/L)										
Alpha, gross	< 0.1	21.0	13.4	30.4	NA	23.5	< 0.1	< 0.3	< 0.1	83.8
Alpha, gross, ct.error (+/- pCi/L)	39.3	29.1	18.5	37.1	NA	23.5	30.6	60.3	42.6	46.6
Beta, gross	51	< 0.5	< 0.5	26.1	NA	47	67	18	81.6	226
Beta, gross, ct.error (+/- pCi/L)	45.9	38.5	19.6	52.7	NA	35.6	43.7	44.0	79.6	71.1
Radium 226	1.5	1.3	1.9	2.2	NA	0.5UJ	2.8	2.4	1.2	1.2UJ
Radium 226, ct.error (+/- pCi/L)	0.6	0.7	1.2	0.5	NA	0.7	0.9	0.8	0.6	0.9
Radium 228	0.4	2.5	3.4	< 0.3UJ	NA	0.5	< 0.3	5.1	1.1J	2.5
Radium 228, ct.error (+/- pCi/L)	0.8	0.7	1.4	0.5	NA	0.4	0.8	0.8	0.6	0.6

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-28 - Site 2 Groundwater "A" and "E" Wells Analytical Results for General Chemicals

Sample Number	1st Qtr M-012A	2nd Qtr M-012A	3rd Qtr M-012A	4th Qtr M-012A	4th Qtr M-012A Duplicate	1st Qtr M-013A	2nd Qtr M-013A	3rd Qtr M-013A	4th Qtr M-013A
Date Sampled	06/25/91	09/24/91	01/17/92	04/08/92	04/08/92	07/11/91	09/24/91	01/17/92	04/07/92
PARAMETER REPORTED									
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	5.2UJ	4.6UJ	4.9	11.3	12	< 1.0UJ	< 1.0UJ	2.3UJ	5.1
Alkalinity, total (mg/L-CaCO3)	116	74.0	74	105	101	120	126	140	126
COD (mg/L)	85.0J	< 50.0UJ	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0UJ	< 50.0	< 50.0
Hardness (mg/L-CaCO3)	24.0	16.0	15.0	12	8	8.0	20.0	13.0	20
Total Dissolved Solids, TDS (mg/L)	629	396	506	424	369	365	432	574	338
Spec. cond., lab (umhos/cm)	436	356	309	339	324	404	429	367	363
Physical Paramters-Field									
Spec. cond., field @25 C (umhos/cm)	240	320	700	210	210	400	400	370	300
Water Temp (deg C)	16.5	21.0	14.0	16	16	16.6	21.0	15.1	18.1
pH, Field (Std units)	6.96	7.00	7.65	6.83	6.83	9.10	7.00	8.72	7.65
Total Organic Carbon (mg/L)									
Carbon, TOC	5.6	4.3	10.5	7.6UJ	9.5UJ	9.3J	4.9	5.1UJ	7.8UJ
Asbestos									
Asbestos, Mass (ug/L)	0.00532	0.0	0.0	0	0.00486	0.0	0.0	0.0	0
Asbestos, Total Structures (MAS/L)	110	0.0	0.0	0	20.2	0.0	0.0	0.0	0
Anions									
Chloride (mg/L)	39.74	59.92	48.33	29.98	31.43	38.9	50.1	50.12	27.35
Cyanide (ug/L)	< 10.0	< 10.0	< 5.0	< 5.0	< 5.0	< 10.0	< 10.0	< 5.0	< 5.0
Fluoride (mg/L)	0.32UJ	0.36UJ	0.31UJ	0.34UJ	0.34UJ	0.53J	0.58UJ	0.66UJ	0.64
Nitrogen, NO2+NO3 (mg/L-as N)	1.43	0.758	3.39	1.62	1.63J	1.33	0.794	1.71	1.29
Sulfate (mg/L)	13.86	16.37	14.89	12.21	12.53	28.09	26.62	26.37	30.12
Radiochemicals (pCi/L)									
Alpha, gross	54.7	36.6	121	16.2	14.1	8.0	5.7	12.5	6.8
Alpha, gross, ct.error (+/- pCi/L)	32.4	12.4	39.8	4.3	4.1	6.4	4.9	8.1	2.2
Beta, gross	62	< 0.5	91.4	26.3	21.8	19	< 0.5	18.5	30
Beta, gross, ct.error (+/- pCi/L)	24.9	7.5	30.6	4.7	4.6	7.1	4.0	8.3	3.2
Radium 226	11	4.4	3.7	3	4J	7.4UJ	3.9	0.9	2UJ
Radium 226, ct.error (+/- pCi/L)	1.7	1.1	1.0	1.3	1.5	1.7	0.9	0.5	1.1
Radium 228	< 0.3	2	2.1J	0.8	< 0.3	< 0.3	3	0.4J	< 0.3
Radium 228, ct.error (+/- pCi/L)	0.8	0.7	0.5	0.5	0.8	0.8	0.8	0.4	0.4

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-28 - Site 2 Groundwater "A" and "E" Wells Analytical Results for General Chemicals

Sample Number	1st Qtr M-014A	1st Qtr M-014A Duplicate	2nd Qtr M-014A	3rd Qtr M-014A	4th Qtr M-014A	1st Qtr M-015A	1st Qtr M-015A Duplicate	2nd Qtr M-015A	3rd Qtr M-015A	4th Qtr M-015A
Date Sampled	06/20/91	06/20/91	09/25/91	01/16/92	04/07/92	07/18/91	07/18/91	09/25/91	01/17/92	04/07/92
PARAMETER REPORTED										
Physical Parameters-Lab										
Acidity, total (mg/L-CaCO3)	1.0UJ	2.4UJ	< 1.0UJ	< 1.0	4UJ	7.3UJ	6.4UJ	< 1.0UJ	1.1UJ	12
Alkalinity, total (mg/L-CaCO3)	36	480	47.0	42	49	128	664	84.0	107	143
COD (mg/L)	< 50.0	< 50.0	63.0J	< 50.0	< 50.0	63	< 50.0	53.0J	< 50.0	< 50.0
Hardness (mg/L-CaCO3)	24.0	40.0	76.0	12.5	24	40.0	60.0	40.0	21.0	42
Total Dissolved Solids, TDS (mg/L)	476	380	202	607	584	362	353	398	476	385
Spec. cond., lab (umhos/cm)	396	237	195	141	129	681	579	352	500	551
Physical Paramters-Field										
Spec. cond., field @25 C (umhos/cm)	120	120	180	110	100	375	375	260	480	400
Water Temp (deg C)	15.7	15.7	20.0	14.3	17.2	17.0	17.0	20.0	15.8	16.8
pH, Field (Std units)	7.65	7.65	7.00	8.12	7.55	7.28	7.28	7.00	7.41	7.12
Total Organic Carbon (mg/L)										
Carbon, TOC	4.2	3.3	3.2	6.3	2.7UJ	11.5J	3.1	6.5	5.4	13.4UJ
Asbestos										
Asbestos, Mass (ug/L)	0.0239	0.00250	0.00565	0.0	0	0.0	0.00494	0.0256	0.0132	0.00002
Asbestos, Total Structures (MAS/L)	30.9	18.8	47.1	0.0	0	0.0	70.4	117	97.8	4.05
Anions										
Chloride (mg/L)	18.54	12.78	24.38	12.43	7.55	81.16	83.5	48.15	96.4	84.36
Cyanide (ug/L)	< 10.0	NA	< 10.0	< 5.0	< 5.0	< 10.0	< 10.0	< 10.0	< 5.0	< 5.0
Fluoride (mg/L)	0.28UJ	0.27UJ	< 0.20	< 0.20	0.34UJ	< 0.20	0.21UJ	< 0.20	< 0.20	0.2UJ
Nitrogen, NO2+NO3 (mg/L-as N)	2.22	2.59	0.793	1.67	1.14	0.939	0.944	0.114	0.93	0.719
Sulfate (mg/L)	9.473	9.357	9.584	7.031	5.372	24.97	25.05	15.34	22.27	26.62
Radiochemicals (pCi/L)										
Alpha, gross	14.7	22.4	21.0	24.6	8.9	75.4	10.6	5.2	11.3	3.4
Alpha, gross, ct.error (+/- pCi/L)	9.7	7.7	9.3	13.2	3.5	121	6.6	4.0	8.2	2.3
Beta, gross	18	16	< 0.5	48.8	22.8	530	< 0.3	< 0.5	30.6	7.4
Beta, gross, ct.error (+/- pCi/L)	8.9	6.4	4.3	15.7	5.2	144	7.3	2.9	8.4	3.1
Radium 226	10.0	1.6	4.7	3.8	4.9	5.9UJ	6.1	5.9	0.7	0.9UJ
Radium 226, ct.error (+/- pCi/L)	1.7	0.8	1.1	1.1	1.7	1.5	2.4	1.3	0.5	0.9
Radium 228	< 0.3	< 0.3	4.3	2.8J	1.6	< 0.3	< 0.3	2.8	< 0.3UJ	0.6
Radium 228, ct.error (+/- pCi/L)	0.9	0.8	0.8	0.6	0.5	0.9	1.0	0.7	0.5	0.5

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-28 - Site 2 Groundwater "A" and "E" Wells Analytical Results for General Chemicals

Sample Number	1st Qtr M-016A	2nd Qtr M-016A	3rd Qtr M-016A	4th Qtr M-016A	1st Qtr M-017A	2nd Qtr M-017A	3rd Qtr M-017A	4th Qtr M-017A	1st Qtr M-018A	2nd Qtr M-018A	3rd Qtr M-018A	4th Qtr M-018A
Date Sampled	**07/11/91**	**09/26/91**	**01/20/92**	**04/06/92**	**07/08/91**	**09/26/91**	**01/20/92**	**04/03/92**	**07/11/91**	**09/26/91**	**01/20/92**	**04/03/92**
PARAMETER REPORTED												
Physical Parameters-Lab												
Acidity, total (mg/L-CaCO3)	78.7J	37.5J	66.8	162	28.7	28.4J	35.9	40.7	31.5J	25.5J	23.7	47.4
Alkalinity, total (mg/L-CaCO3)	370	230	236	500	250	194	244	215	226	162	196	173
COD (mg/L)	2640	612.0	432.0	733	662.0J	564.0J	388.0	718	452	520.0J	290.0	452
Hardness (mg/L-CaCO3)	5500	6500	5900	4100	5400	6000	5000	5700	4700	5800	5400	5200
Total Dissolved Solids, TDS (mg/L)	24500	25400	28900	21200	27800	30000	28600	32000	29400	25500	23600	24500
Spec. cond., lab (umhos/cm)	31300	34900	36400	31200	35200	39500	36400	43500	29500	34400	28500	31800
Physical Paramters-Field												
Spec. cond., field @25 C (umhos/cm)	31000	34000	30000	22000	33000	38000	30500	31500	27000	37000	26500	24000
Water Temp (deg C)	17.8	21.0	16.8	19.1	NA	21.0	16.0	16.9	16.5	21.0	16.4	17.8
pH, Field (Std units)	7.22	7.00	6.78	6.79	7.29	7.00	7.09	7.15	7.70	7.00	6.93	7.1
Total Organic Carbon (mg/L)												
Carbon, TOC	26.7J	3.7	5.6UJ	20.7	10.3	2.4	7.0UJ	21.3	10.8J	5.2	4.6UJ	26.2
Asbestos												
Asbestos, Mass (ug/L)	0.00245	0.0	0.0	0	0.0216	0.0273	0.000816	0	0.00226	0.0	0.000215	0
Asbestos, Total Structures (MAS/L)	23.7	0.0	0.0	0	233	181	2.33	0	14.5	0.0	5.89	0
Anions												
Chloride (mg/L)	13410	14040	12560	10490	15020	16690	12570	16850	12110	14390	10120	12170
Cyanide (ug/L)	< 10.0	< 10.0	< 5.0	< 5.0	< 10.0	< 10.0	< 5.0	< 5.0UJ	< 10.0	< 10.0	< 5.0	< 5.0UJ
Fluoride (mg/L)	< 5.00	< 5.00	< 2.50	< 2.50	< 5.00	< 5.00	< 2.50	< 2.50	< 5.00	< 5.00	< 2.50	< 2.50
Nitrogen, NO2+NO3 (mg/L-as N)	< 0.010	0.045	0.012	< 0.010	0.049UJ	0.128	0.180	0.773	0.02	0.144	0.035	0.172
Sulfate (mg/L)	2121	2101	2271	1806	2294	2447	2358	2446	2338	2254	2075	2349
Radiochemicals (pCi/L)												
Alpha, gross	< 0.1	< 0.3	443	211	46.6	< 0.3	239	138	80.0	< 0.3	180	211
Alpha, gross, ct.error (+/- pCi/L)	76.6	144	219	93.3	183	145	174	110	147	63.0	167	113
Beta, gross	230	38	182	370	250	< 0.5	73.1	460	70	1.7	14.5	488
Beta, gross, ct.error (+/- pCi/L)	162	120	179	138	135	162	192	181	140	129	146	147
Radium 226	1.7UJ	1.8	2.4	0.8	8.5UJ	2.2	1.5	0.9UJ	2.7UJ	2.4	2.1	1.1UJ
Radium 226, ct.error (+/- pCi/L)	0.9	0.7	0.9	0.9	1.7	0.8	0.7	0.9	1.1	0.8	0.8	1
Radium 228	< 0.3	7.5	0.9J	1.8	0.7	7.4	2.1J	1.2	< 0.3	2.3	2.1J	1.8
Radium 228, ct.error (+/- pCi/L)	0.8	1	0.5	0.5	0.9	0.9	0.5	0.5	0.9	0.8	0.5	0.5

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-28 - Site 2 Groundwater "A" and "E" Wells Analytical Results for General Chemicals

Sample Number	1st Qtr M-018E	2nd Qtr M-018E	3rd Qtr M-018E	4th Qtr M-018E	1st Qtr M-019A	2nd Qtr M-019A	2nd Qtr M-019A Duplicate	3rd Qtr M-019A	4th Qtr M-019A	1st Qtr M-019E	2nd Qtr M-019E	3rd Qtr M-019E	4th Qtr M-019E
Date Sampled	07/11/91	09/26/91	01/20/92	04/06/92	07/11/91	09/27/91	09/27/91	01/20/92	04/03/92	07/17/91	09/27/91	01/20/92	04/03/92
PARAMETER REPORTED													
Physical Parameters-Lab													
Acidity, total (mg/L-CaCO3)	71.7J	69.1J	67.4	100	25.0J	33.2J	31.6J	24.2	24.1	137J	133J	122	173
Alkalinity, total (mg/L-CaCO3)	506	440	468	445	208	118	130	168	239	896	936	437	261
COD (mg/L)	690.0	660.0J	804.0	402	634	708.0J	804.0J	894.0	306	958	504.4J	1236	834
Hardness (mg/L-CaCO3)	6200	6300	6000	6200	4600	8400	6700	5700	3900	6600	6200	6100	5900
Total Dissolved Solids, TDS (mg/L)	29200	29400	29700	32600	26100	30900	30900	29700	24400	28600	29700	29700	31800
Spec. cond., lab (umhos/cm)	37900	38500	35600	45900	34400	40200	39000	34400	35600	50900	43400	35200	45000
Physical Paramters-Field													
Spec. cond., field @25 C (umhos/cm)	35000	31000	31000	31000	34000	32000	32000	30000	24000	37000	37000	31000	33000
Water Temp (deg C)	16.1	20.0	15.6	16.8	16.2	21.0	21.0	14.8	15.7	17.1	21.0	14.5	17.4
pH, Field (Std units)	7.58	7.00	7.03	7.15	7.68	7.00	7.00	7.03	7	7.08	7.00	6.84	6.92
Total Organic Carbon (mg/L)													
Carbon, TOC	25.2J	6.2	9.5	8.9UJ	29.9J	2.9	2	6.5UJ	27.4	71.3J	12.4	17.1	30.8
Asbestos													
Asbestos, Mass (ug/L)	0.0224	0.0	0.000808	0	0.0146	0.000217	0.000040	0.00564	0.00248	0.0	0.0	0.0	0
Asbestos, Total Structures (MAS/L)	355	0.0	19.0	0	19.2	2.17	0.504	93.9	15.5	0.0	0.0	0.0	0
Anions													
Chloride (mg/L)	16740	16410	13030	17110	14670	17240	17090	12750	12920	16720	16660	13280	17080
Cyanide (ug/L)	< 10.0	< 10.0	< 5.0	< 5.0	< 10.0	< 10.0	< 10.0	< 5.0	< 5.0UJ	< 10.0	< 10.0	< 5.0	< 5.0UJ
Fluoride (mg/L)	< 5.00	< 5.00	< 2.50	< 2.50	< 5.00	< 5.00	< 5.00	< 2.50	2.62	< 5.00	< 5.00	< 2.50	< 2.50
Nitrogen, NO2+NO3 (mg/L-as N)	< 0.010	0.062	0.105	0.013	< 0.010	1.03	0.736	0.409	1.67	< 0.010	0.028	0.035	< 0.010
Sulfate (mg/L)	2127	2097	2109	2121	2284	2427	2420	2389	1941	1543	1543	1689	1660
Radiochemicals (pCi/L)													
Alpha, gross	532	< 0.3	176	283	19.0	101	< 0.3	334	255	< 0.1	< 0.1	152	505
Alpha, gross, ct.error (+/- pCi/L)	443	149	157	124	170	302	150	179	118	162	59.6	179	156
Beta, gross	83	19	86.5	339	20	< 0.5	170	< 0.3	689	170	110	< 0.3	597
Beta, gross, ct.error (+/- pCi/L)	154	137	152	169	125	147	175	178	199	129	140	159	164
Radium 226	7.6UJ	2.5	3.2	2.9	7.3UJ	2.3	< 0.3	2.9	1.3UJ	3.4UJ	2.4	3.6	2.4UJ
Radium 226, ct.error (+/- pCi/L)	1.6	0.8	1.0	1.3	1.7	0.9	1.0	0.9	0.9	1.1	1.0	1.0	0.9
Radium 228	0.5	3.8	2.8J	3.5	0.4	4.5	8.5	1.6J	2.3	< 0.3	0.4	2.6J	3.7
Radium 228, ct.error (+/- pCi/L)	0.9	0.8	0.6	0.7	0.8	1	1.7	0.6	0.5	0.8	0.9	0.5	0.7

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-28 - Site 2 Groundwater "A" and "E" Wells Analytical Results for General Chemicals

Sample Number	1st Qtr M-020A	1st Qtr M-020A Duplicate	2nd Qtr M-020A	3rd Qtr M-020A	4th Qtr M-020A	1st Qtr M-020E	2nd Qtr M-020E	3rd Qtr M-020E	4th Qtr M-020E	4th Qtr M-020E Duplicate
Date Sampled	07/10/91	07/10/91	09/27/91	01/21/92	04/02/92	07/10/91	09/27/91	01/21/92	04/02/92	04/02/92
PARAMETER REPORTED										
Physical Parameters-Lab										
Acidity, total (mg/L-CaCO3)	30.8J	35.3J	22.5J	27.8J	50.5	162J	166J	168	232	212
Alkalinity, total (mg/L-CaCO3)	176	190	162	197	481	1140	1240	953	1080	1050
COD (mg/L)	958.0J	864.0J	804.0J	718.0	580	804	564.0J	402.0	690	718
Hardness (mg/L-CaCO3)	6000	5600	5900	5700	4600	6000	5500	5300	5200	5200
Total Dissolved Solids, TDS (mg/L)	29600	28900	31200	30900	23800	26400	27000	26200	27700	27100
Spec. cond., lab (umhos/cm)	38000	35300	44300	33400	33100	35300	39000	34400	39100	41700
Physical Paramters-Field										
Spec. cond., field @25 C (umhos/cm)	37000	37000	34000	30500	24000	34000	34500	27500	30000	30000
Water Temp (deg C)	15.4	15.4	21.0	14.7	16.1	14.9	19.0	14.6	17.4	17.4
pH, Field (Std units)	7.22	7.22	6.00	6.90	7.45	6.99	6.00	6.82	7.03	7.03
Total Organic Carbon (mg/L)										
Carbon, TOC	27.1J	5.8	3.6	6.0	46.6	50.3J	16.9	10.1	20.7	40.4
Asbestos										
Asbestos, Mass (ug/L)	0.00589	0.195	0.0	0.0	0.00941	0.0	0.0180	0.00109	0	0
Asbestos, Total Structures (MAS/L)	56.9	461	0.0	0.0	157	0.0	156	0.0	0	0
Anions										
Chloride (mg/L)	16550	16320	17510	13690	12030	15420	15600	11980	14830	14960
Cyanide (ug/L)	< 10.0	< 10.0	< 10.0	< 5.0	< 5.0UJ	< 10.0	< 10.0	< 5.0	< 5.0	< 5.0UJ
Fluoride (mg/L)	< 5.00	< 5.00	< 5.00	< 2.50	< 2.50	< 5.00	< 5.00	< 2.50	< 2.50	< 2.50
Nitrogen, NO2+NO3 (mg/L-as N)	0.012UJ	0.036	0.034	0.016	0.041	< 0.010	0.022	0.015	< 0.010	0.018
Sulfate (mg/L)	2270	2307	2395	2300	2069	1009	1120	1047	949.2	938.8
Radiochemicals (pCi/L)										
Alpha, gross	< 0.1	400	< 0.1	645J	495	231	< 0.1	377J	142	81.4
Alpha, gross, ct.error (+/- pCi/L)	185	250	55.1	316	154	194	81.9	228	98.1	88.3
Beta, gross	380	< 0.3	< 0.3	< 0.3	918	51	< 0.3	< 0.3	217	166
Beta, gross, ct.error (+/- pCi/L)	168	197	162	183	174	154	176	162	187	128
Radium 226	4.3UJ	7.7UJ	2.4J	2.6J	2.2UJ	9.4UJ	2.6J	2.8J	3.1UJ	1.9UJ
Radium 226, ct.error (+/- pCi/L)	1.3UJ	1.8UJ	1.1	0.9	0.8	1.9UJ	1.1	1.0	1	1.2
Radium 228	< 0.3	0.7	4.3	1.7J	1	< 0.3	0.7	2.1	2.5	4.8
Radium 228, ct.error (+/- pCi/L)	0.9	1.9	1.0	0.5	0.6	0.9	0.9	0.8	0.6	1.2

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-28 - Site 2 Groundwater "A" and "E" Wells Analytical Results for General Chemicals

Sample Number	1st Qtr M-021A	1st Qtr M-021A Duplicate	2nd Qtr M-021A	3rd Qtr M-021A	4th Qtr M-021A	1st Qtr M-021E	1st Qtr M-021E	2nd Qtr M-021E	3rd Qtr M-021E	3rd Qtr M-021E Duplicate	4th Qtr M-021E
Date Sampled	07/02/91	07/02/91	09/30/91	01/21/92	04/02/92	07/02/91	08/02/91	09/30/91	01/21/92	01/21/92	04/03/92
PARAMETER REPORTED											
Physical Parameters-Lab											
Acidity, total (mg/L-CaCO3)	21.2	24.9	25.2J	18.5	25.9	190	NA	171J	210	142	316
Alkalinity, total (mg/L-CaCO3)	176	260	32.0	171	440	1660	NA	1360	1000	150	500
COD (mg/L)	1386J	1642J	1056	718.0	354	690.0J	NA	852.0	958.0J	504.0	528
Hardness (mg/L-CaCO3)	6000	6000	5600	5100	3800	5000	NA	5600	5500	5200	4950
Total Dissolved Solids, TDS (mg/L)	30800	28900	31300	28800	21700	24900	NA	25800	25600	25200	24200
Spec. cond., lab (umhos/cm)	39100	38800	43000	32400	31800	33900	NA	38100	34100	32700	39500
Physical Paramters-Field											
Spec. cond., field @25 C (umhos/cm)	37000	37000	40000	28000	27000	34000	30000	33000	27000	27000	28000
Water Temp (deg C)	16.8	16.8	20.0	13.5	19.4	17.2	18.1	18.0	15.5	15.5	16.6
pH, Field (Std units)	8.01	8.01	7.00	7.79	8.01	7.11	7.13	7.00	6.61	6.61	7.01
Total Organic Carbon (mg/L)											
Carbon, TOC	25.2J	15.0J	18.9	30.8	34.5	40.9	NA	17.9	50.8	18.9	42.8
Asbestos											
Asbestos, Mass (ug/L)	0.0538	0.324	0.0157	0.0160	0.038	0.00110	NA	0.0172	0.0	0.0	0
Asbestos, Total Structures (MAS/L)	529	2400	0.0	138	574	18.3	NA	257	0.0	0.0	0
Anions											
Chloride (mg/L)	17420	15910J	17360	12880	10990	14690	NA	14990	11560	11660	8921
Cyanide (ug/L)	< 10.0	< 10.0	< 2.5	< 5.0	< 5.0	< 10.0	NA	< 2.5	< 5.0	< 5.0	< 5.0
Fluoride (mg/L)	< 5.00	< 5.00	< 5.00	< 2.50	< 2.50	< 5.00	NA	< 5.00	< 2.50	< 2.50	2.64
Nitrogen, NO2+NO3 (mg/L-as N)	0.018	0.018	0.018UJ	0.065	0.018	0.099	NA	< 0.010	< 0.010	0.022	0.01
Sulfate (mg/L)	2300	2201	2304	2129	1736	560.2	NA	824.2	580.9	555	491.7
Radiochemicals (pCi/L)											
Alpha, gross	92.1	94.3	< 0.3	397	174	< 0.1	NA	< 0.3	377	210	262
Alpha, gross, ct.error (+/- pCi/L)	286	239	103	257	87.1	140	NA	103	326	219	125
Beta, gross	380	170	400	89.3	478	140	NA	240	129	60.9	719
Beta, gross, ct.error (+/- pCi/L)	183	214	141	174	150	127	NA	151	195	190	172
Radium 226	9.3UJ	9.4UJ	1.3	0.6	2.3UJ	4.2UJ	NA	2.0	1.2	1.2	0.8
Radium 226, ct.error (+/- pCi/L)	1.8	2.6	0.7	0.5	0.9	1.2	NA	0.8	0.5	0.9	0.7
Radium 228	< 0.3	< 0.3	1.9	1.8	1.9	< 0.3	NA	1.9	2.9	2.2	2.1
Radium 228, ct.error (+/- pCi/L)	0.8	1.5	0.6	0.7	0.5	0.8	NA	0.6	0.8	1.4	0.6

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-28 - Site 2 Groundwater "A" and "E" Wells Analytical Results for General Chemicals

Sample Number	1st Qtr M-022A	2nd Qtr M-022A	3rd Qtr M-022A	4th Qtr M-022A	1st Qtr M-022E	2nd Qtr M-022E	2nd Qtr M-022E Duplicate	3rd Qtr M-022E	4th Qtr M-022E	1st Qtr M-023A	2nd Qtr M-023A	3rd Qtr M-023A	4th Qtr M-023A
Date Sampled	07/02/91	10/01/91	01/22/92	04/01/92	07/08/91	10/01/91	10/01/91	01/21/92	04/01/92	07/01/91	10/01/91	01/22/92	04/01/92
PARAMETER REPORTED													
Physical Parameters-Lab													
Acidity, total (mg/L-CaCO3)	216	224J	302	144	255	186J	181J	194	238	108	130J	46	83
Alkalinity, total (mg/L-CaCO3)	1220	2460	500	445	2320	1110	1010	1070	486	520	776	319	497
COD (mg/L)	432.0J	520.0	1642	512	834.0J	1008	752.0	958.0	317	834.0J	904.0	748.0	580
Hardness (mg/L-CaCO3)	4400	5300	5740	3200	5600	4900	5300	5300	4800	5500	5500	5040	3700
Total Dissolved Solids, TDS (mg/L)	17900	20900	20000	16000	24400	23900	24200	24800	25800	21200	26400	25500	22500
Spec. cond., lab (umhos/cm)	25700	28400	51600	25200	32600	32500	34200	32400	39400	29900	34800	80600	29700
Physical Paramters-Field													
Spec. cond., field @25 C (umhos/cm)	25000	29000	22000	16000	31000	32000	32000	28000	27000	30000	39000	27000	22000
Water Temp (deg C)	18.8	20.0	13.4	15.5	15.5	21.0	21.0	14.8	18.6	18.2	21.0	12.4	17.8
pH, Field (Std units)	7.04	7.00	6.89	7.14	6.92	7.00	7.00	6.55	6.8	7.10	7.00	6.80	7.02
Total Organic Carbon (mg/L)													
Carbon, TOC	68.2	57.4	31	50.9	40.4	23.2	19.9	19.5	40.3	39.1	< 1.0	37.4	32.7
Asbestos													
Asbestos, Mass (ug/L)	0.113	0.145	0.00135	0	0.00631	0.399	0.186	0.00113	0	0.0120	0.0	0.00344	0
Asbestos, Total Structures (MAS/L)	1030	389	38.5	0	53.9	2850	1350	19.6	0	155	0.0	28.9	0
Anions													
Chloride (mg/L)	10060	11870	11230	8049	14380	14070	13990	11180	13970	12820	15450	14260	9730
Cyanide (ug/L)	19.9	2.5	18	18.1	< 10.0	< 2.5	< 2.5	< 5.0	< 5.0	65.9	49.0	28.6	30.4
Fluoride (mg/L)	< 5.00	< 5.00	< 2.50	< 2.50	< 5.00	< 5.00	< 5.00	< 2.50	< 2.50	< 5.00	< 5.00	< 2.50	< 2.50
Nitrogen, NO2+NO3 (mg/L-as N)	0.046	0.552	0.397	0.041	< 0.100	< 0.250	0.019	< 0.010	< 0.010	0.01	0.044	0.012	0.015
Sulfate (mg/L)	764.5	879.9	794.4	550.8	719.4	781.4	818.4	871.3	875.5	1503	1497	1982	1409
Radiochemicals (pCi/L)													
Alpha, gross	77.7	50.4	233	232	394	< 0.3	63.1	252	466	< 0.1	193	153	320
Alpha, gross, ct.error (+/- pCi/L)	76.1	119	195	88.1	234	89.6	97.8	190	196	196	195	222	119
Beta, gross	120	320	< 0.3	409	110	210	280	< 0.3	914	520	250	121	785
Beta, gross, ct.error (+/- pCi/L)	154	149	167	99.7	165	157	120	161	205	154	166	189	144
Radium 226	11	2.0	1.2	1.9UJ	18	1.9	3.6	2.2	2.6UJ	3.5UJ	1.8	0.5	1.4UJ
Radium 226, ct.error (+/- pCi/L)	2.1	1.0	0.5	0.9	2.7	0.9	1.7	0.7	0.9	1.1	1.0	0.4	0.9
Radium 228	< 0.3	1.6	2.0	0.9	< 0.3	6.1	5.5	6.7	6.2	< 0.3	3.8	0.5	2UJ
Radium 228, ct.error (+/- pCi/L)	0.8	0.6	0.8	0.5	1.4	0.9	0.8	1.1	0.8	0.8	0.8	0.7	0.7

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-28 - Site 2 Groundwater "A" and "E" Wells Analytical Results for General Chemicals

Sample Number	1st Qtr M-023E	1st Qtr M-023E	2nd Qtr M-023E	2nd Qtr M-023E	3rd Qtr M-023E	4th Qtr M-023E	1st Qtr M-024A	2nd Qtr M-024A	3rd Qtr M-024A	4th Qtr M-024A
Date Sampled	**07/01/91**	**08/02/91**	**10/01/91**	**10/14/91**	**01/22/92**	**04/01/92**	**07/18/91**	**10/11/91**	**02/03/92**	**03/31/92**
PARAMETER REPORTED										
Physical Parameters-Lab										
Acidity, total (mg/L-CaCO3)	196	NA	200J	NA	212	150	285J	357	263	223
Alkalinity, total (mg/L-CaCO3)	1680	NA	1430	NA	726	430	1320	1320	1180	490
COD (mg/L)	1780J	NA	1324	NA	958.0	804	674	1425	637.0	563
Hardness (mg/L-CaCO3)	4900	NA	4700	NA	4120	4250	2200	2100	996	970
Total Dissolved Solids, TDS (mg/L)	25700	NA	24900	NA	24500	24900	2340	4890	4500	3520
Spec. cond., lab (umhos/cm)	36000	NA	34400	NA	52900	39300	9120	7630	7810	5950
Physical Paramters-Field										
Spec. cond., field @25 C (umhos/cm)	35000	34000	35000	NA	31000	31000	6000	7000	6000	4650
Water Temp (deg C)	17.1	17.6	18.0	NA	16.2	18.7	17.4	20.0	17.2	17.9
pH, Field (Std units)	7.10	7.17	7.00	NA	6.82	6.93	6.75	7.00	6.51	6.53
Total Organic Carbon (mg/L)										
Carbon, TOC	33	NA	22	NA	12.4	36.9	114J	26.9	77.5	87.3
Asbestos										
Asbestos, Mass (ug/L)	0.418	NA	0.427	NA	0.00298	0.0488	0.00981	0.00917	0.0207	0.093
Asbestos, Total Structures (MAS/L)	2710	NA	885	NA	46.6	332	164	52.9	200	581
Anions										
Chloride (mg/L)	15170	NA	15090	NA	15130	14120	2118	2165	2034	1354
Cyanide (ug/L)	< 10.0	NA	2.5	NA	< 5.0	< 5.0	< 10.0	14.7	< 5.0	8.7
Fluoride (mg/L)	< 1.00	NA	< 5.00	NA	< 2.50	< 0.40	< 1.00	< 1.00	< 0.50	0.25UJ
Nitrogen, NO2+NO3 (mg/L-as N)	< 1.00	NA	< 4.00	NA	0.017	0.072	< 0.100	< 4.00	< 0.010	0.013
Sulfate (mg/L)	4.699	NA	38.78	NA	32.37	46.33	23.28	22.48	15.31	59.57
Radiochemicals (pCi/L)										
Alpha, gross	458	NA	16.1	NA	311	467	55.9	31.0	47.1	58.7
Alpha, gross, ct.error (+/- pCi/L)	267	NA	105	NA	244	143	36.7	28.8	29.5	28.6
Beta, gross	250	NA	47	NA	9.2	707	35	110	79.7	121
Beta, gross, ct.error (+/- pCi/L)	171	NA	144	NA	182	180	46.0	52.3	49.3	41.3
Radium 226	23UJ	NA	15	NA	2.6	5.3	11	6.1	2.6	5.1
Radium 226, ct.error (+/- pCi/L)	2.9	NA	1.8	NA	0.8	1.3	1.8	1.2	0.9	1.3
Radium 228	< 0.3	NA	9.6	NA	5.4	4.1UJ	0.9	6.0UJ	2.0	2UJ
Radium 228, ct.error (+/- pCi/L)	0.8	NA	1.0	NA	1.0	1	1.7	0.8	0.6	0.9

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-28 - Site 2 Groundwater "A" and "E" Wells Analytical Results for General Chemicals

Sample Number	1st Qtr M-024E	2nd Qtr M-024E	3rd Qtr M-024E	4th Qtr M-024E
Date Sampled	**07/18/91**	**10/11/91**	**02/03/92**	**03/31/92**
PARAMETER REPORTED				
Physical Parameters-Lab				
Acidity, total (mg/L-CaCO3)	194J	238	198	226
Alkalinity, total (mg/L-CaCO3)	1210	1180	872	300
COD (mg/L)	303	374	264.0	188
Hardness (mg/L-CaCO3)	1600	1500	928	1050
Total Dissolved Solids, TDS (mg/L)	4540	4310	4660	4070
Spec. cond., lab (umhos/cm)	9190	6540	7910	6950
Physical Paramters-Field				
Spec. cond., field @25 C (umhos/cm)	6000	6000	6050	6000
Water Temp (deg C)	17.2	19.0	17.9	20.5
pH, Field (Std units)	6.67	7.00	6.70	6.67
Total Organic Carbon (mg/L)				
Carbon, TOC	30.2J	27.7	60.1	58.7
Asbestos				
Asbestos, Mass (ug/L)	0.0	0.0	0.0	0
Asbestos, Total Structures (MAS/L)	0.0	0.0	0.0	0
Anions				
Chloride (mg/L)	2107	1854	2068	1761
Cyanide (ug/L)	< 10.0	< 10.0	< 5.0	5.4
Fluoride (mg/L)	< 1.00	< 0.80	< 0.40	0.36
Nitrogen, NO2+NO3 (mg/L-as N)	< 0.100	0.01	< 0.010	0.02
Sulfate (mg/L)	57.89	35.18	17.87	42.2
Radiochemicals (pCi/L)				
Alpha, gross	66.3	4.6	19.6	53
Alpha, gross, ct.error (+/- pCi/L)	48.7	29.8	29.7	32
Beta, gross	31	41	13.3	130
Beta, gross, ct.error (+/- pCi/L)	49.1	43.5	49.9	47.4
Radium 226	5.0UJ	2.5	1.1	1.4UJ
Radium 226, ct.error (+/- pCi/L)	1.3	0.8	0.6	0.7
Radium 228	0.6	4.4UJ	0.3	2UJ
Radium 228, ct.error (+/- pCi/L)	0.8	0.7	0.6	0.8

Notes: NA = Not analyzed
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-29 - Site 2 Summary of General Chemical Results for Quarterly Groundwater Samples in "A" and "E" Wells

First Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	0	6	8	21.2	255	12	25	285	0
Alkalinity, total (mg/L-CaCO3)	0	0	26	36	2320	0	-	-	0
COD (mg/L)	4	0	9	63	2640	13	85	1780	0
Hardness (mg/L-CaCO3)	0	0	26	8	6600	0	-	-	0
Total Dissolved Solids (mg/L)	0	0	26	353	30800	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	26	237	50900	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	26	120	37000	0	-	-	0
Water Temp (deg C)	0	0	25	14.9	18.8	0	-	-	0
pH, Field (Std units)	0	0	26	6.59	9.1	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	0	0	13	3.1	68.2	13	9.3	114	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	26	0	0.418	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	26	0	2710	0	-	-	0
Anions									
Chloride (mg/L)	0	0	25	12.78	17420	1	15910	15910	0
Cyanide (ug/L)	24	0	2	19.9	65.9	0	-	-	0
Fluoride (mg/L)	21	4	0	-	-	1	0.53	0.53	0
Nitrogen, NO2+NO3 (mg/L-as N)	11	2	13	0.01	2.59	0	-	-	0
Sulfate (mg/L)	0	0	26	4.699	2338	0	-	-	0

Table 9-29 - Site 2 Summary of General Chemical Results for Quarterly Groundwater Samples in "A" and "E" Wells

Second Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	0	4	2	238	357	19	22.5	224	0
Alkalinity, total (mg/L-CaCO3)	0	0	25	32	2460	0	-	-	0
COD (mg/L)	0	2	10	374	1425	13	53	804	0
Hardness (mg/L-CaCO3)	0	0	25	16	8400	0	-	-	0
Total Dissolved Solids (mg/L)	0	0	25	202	31300	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	25	195	44300	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	25	180	40000	0	-	-	0
Water Temp (deg C)	0	0	25	18	21	0	-	-	0
pH, Field (Std units)	0	0	25	6	7	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	1	0	24	2	57.4	0	-	-	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	25	0	0.427	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	25	0	2850	0	-	-	0
Anions									
Chloride (mg/L)	0	0	25	24.38	17510	0	-	-	0
Cyanide (ug/L)	21	0	4	2.5	49	0	-	-	0
Fluoride (mg/L)	23	2	0	-	-	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	4	1	20	0.01	1.03	0	-	-	0
Sulfate (mg/L)	0	0	25	9.584	2447	0	-	-	0

Table 9-29 - Site 2 Summary of General Chemical Results for Quarterly Groundwater Samples in "A" and "E" Wells

Third Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	1	2	19	4.9	379	1	27.8	27.8	0
Alkalinity, total (mg/L-CaCO3)	0	0	23	42	1180	0	-	-	0
COD (mg/L)	4	0	18	63	1642	1	958	958	0
Hardness (mg/L-CaCO3)	0	0	23	12.5	6100	0	-	-	0
Total Dissolved Solids (mg/L)	0	0	23	476	30900	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	23	141	80600	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	23	110	31000	0	-	-	0
Water Temp (deg C)	0	0	23	12.4	17.9	0	-	-	0
pH, Field (Std units)	0	0	23	6.51	8.72	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	0	5	18	5.4	77.5	0	-	-	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	23	0	0.028	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	23	0	293	0	-	-	0
Anions									
Chloride (mg/L)	0	0	23	12.43	15130	0	-	-	0
Cyanide (ug/L)	21	0	2	18	28.6	0	-	-	0
Fluoride (mg/L)	20	2	1	0.6	0.6	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	5	0	18	0.011	3.39	0	-	-	0
Sulfate (mg/L)	0	0	23	7.031	2389	0	-	-	0

Table 9-29 - Site 2 Summary of General Chemical Results for Quarterly Groundwater Samples in "A" and "E" Wells

Fourth Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	0	1	23	5.1	316	0	-	-	0
Alkalinity, total (mg/L-CaCO3)	0	0	24	49	1080	0	-	-	0
COD (mg/L)	5	0	19	53	834	0	-	-	0
Hardness (mg/L-CaCO3)	0	0	24	8	6200	0	-	-	0
Total Dissolved Solids (mg/L)	0	0	24	338	32600	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	24	129	45900	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	24	100	33000	0	-	-	0
Water Temp (deg C)	0	0	24	15.5	20.5	0	-	-	0
pH, Field (Std units)	0	0	24	6.53	8.01	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	0	7	17	20.7	87.3	0	-	-	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	24	0	0.093	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	24	0	581	0	-	-	0
Anions									
Chloride (mg/L)	0	0	24	7.55	17110	0	-	-	0
Cyanide (ug/L)	13	6	5	5.4	30.4	0	-	-	0
Fluoride (mg/L)	14	5	5	0.36	2.64	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	4	0	19	0.01	1.67	1	1.63	1.63	0
Sulfate (mg/L)	0	0	24	5.372	2446	0	-	-	0

Table 9-30 - Site 2 Groundwater "B" and "C" Wells Analytical Results for Organic Compounds

Sample Number	1st Qtr M-010B	2nd Qtr M-010B	3rd Qtr M-010B	4th Qtr M-010B	1st Qtr M-012B	2nd Qtr M-012B	3rd Qtr M-012B	3rd Qtr M-012B Duplicate	4th Qtr M-012B
Date Sampled	**06/27/91**	**09/25/91**	**01/16/92**	**04/10/92**	**06/25/91**	**09/24/91**	**01/17/92**	**01/17/92**	**04/21/92**
PARAMETER REPORTED									
Volatile Organics (µg/L)									
Acetone	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	53	< 2.0	< 2.0	< 2.0
Methylene Chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)									
Bis(2-ethylhexyl)phthalate	< 2.0	< 1.0	14	110UJ	< 2.0	5.6UJ	2.8UJ	19	3.8UJ
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Recoverable Petroleum Hydrocarbons (mg/L)									
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-30 - Site 2 Groundwater "B" and "C" Wells Analytical Results for Organic Compounds

Sample Number	1st Qtr M-013C	1st Qtr M-013C Duplicate	2nd Qtr M-013C	3rd Qtr M-013C	4th Qtr M-013C	1st Qtr M-014B	2nd Qtr M-014B	3rd Qtr M-014B	4th Qtr M-014B
Date Sampled	07/12/91	07/12/91	09/24/91	01/17/92	04/22/92	06/20/91	09/25/91	01/16/92	04/22/92
PARAMETER REPORTED									
Volatile Organics (µg/L)									
Acetone	< 2.0	3.0UJ	6100	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methylene Chloride	< 1.0	< 1.0	< 500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)									
Bis(2-ethylhexyl)phthalate	< 2.0	< 2.1	4.4UJ	19	2.5UJ	< 4.0	5.2UJ	17UJ	3.6UJ
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Recoverable Petroleum Hydrocarbons (mg/L)									
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-30 - Site 2 Groundwater "B" and "C" Wells Analytical Results for Organic Compounds

Sample Number	1st Qtr M-020B	2nd Qtr M-020B	3rd Qtr M-020B	4th Qtr M-020B	1st Qtr M-021C	2nd Qtr M-021C	3rd Qtr M-021C	4th Qtr M-021C
Date Sampled	**07/10/91**	**09/30/91**	**01/21/92**	**04/23/92**	**07/08/91**	**09/30/91**	**01/21/92**	**04/24/92**
PARAMETER REPORTED								
Volatile Organics (µg/L)								
Acetone	67	< 2.0	< 2.0	< 2.0	2.7UJ	< 2.0	< 2.0	< 2.0
Methylene Chloride	< 2.0	< 1.0	< 1.0	< 1.0	1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)								
Bis(2-ethylhexyl)phthalate	< 2.0	< 2.0	2.5	3.4UJ	< 2.0	12UJ	2.8	4.1UJ
Pesticides/PCBs (µg/L)	ND	ND	ND	ND	ND	ND	ND	ND
Total Recoverable Petroleum Hydrocarbons (mg/L)								
Hydrocarbons, Petroleum	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-30 - Site 2 Groundwater "B" and "C" Wells Analytical Results for Organic Compounds

Sample Number	1st Qtr M-023B	2nd Qtr M-023B	3rd Qtr M-023B	4th Qtr M-023B
Date Sampled	**07/01/91**	**10/01/91**	**01/22/92**	**04/24/92**
PARAMETER REPORTED				
Volatile Organics (µg/L)				
Acetone	16UJ	< 2.0	< 2.0	< 2.0
Methylene Chloride	< 1.0	< 1.0	< 1.0	< 1.0
Semivolatile Organics (µg/L)				
Bis(2-ethylhexyl)phthalate	< 2.0	< 2.0	3	< 2.0
Pesticides/PCBs (µg/L)	ND	ND	ND	ND
Total Recoverable Petroleum Hydrocarbons (mg/L)				
Hydrocarbons, Petroleum	< 0.2	< 0.2	< 0.2	< 0.2

Notes: ND = None detected
UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit
Shaded areas highlight detections above detection limit

Table 9-31 - Site 2 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "B" and "C" Wells

First Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
Acetone	4	3	1	67	67	0	-	-	0
Methylene Chloride	7	0	1	1	1	0	-	-	0
Semivolatile Organics (µg/L)									
Bis(2-ethylhexyl)phthalate	8	0	0	-	-	0	-	-	0
Pesticides/PCBs (µg/L)	8	0	0	-	-	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	7	0	1	0.2	0.2	0	-	-	0

Table 9-31 - Site 2 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "B" and "C" Wells

Second Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
Acetone	5	0	2	53	6100	0	-	-	0
Methylene Chloride	7	0	0	-	-	0	-	-	0
Semivolatile Organics (µg/L)									
Bis(2-ethylhexyl)phthalate	3	4	0	-	-	0	-	-	0
Pesticides/PCBs (µg/L)	7	0	0	-	-	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	7	0	0	-	-	0	-	-	0

Table 9-31 - Site 2 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "B" and "C" Wells

Third Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)									
Acetone	8	0	0	-	-	0	-	-	0
Methylene Chloride	8	0	0	-	-	0	-	-	0
Semivolatile Organics (µg/L)									
Bis(2-ethylhexyl)phthalate	0	2	6	2.5	19	0	-	-	0
Pesticides/PCBs (µg/L)	8	0	0	-	-	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	8	0	0	-	-	0	-	-	0

Table 9-31 - Site 2 Summary of Organic Analytical Results for Quarterly Groundwater Samples in "B" and "C" Wells

Fourth Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Volatile Organics (µg/L)	7	0	0	-	-	0	-	-	0
Semivolatile Organics (µg/L)									
Bis(2-ethylhexyl)phthalate	1	6	0	-	-	0	-	-	0
Pesticides/PCBs (µg/L)	7	0	0	-	-	0	-	-	0
Total Recoverable Petroleum Hydrocarbons (mg/L)	7	0	0	-	-	0	-	-	0

Table 9-32 - Site 2 Groundwater "B" and "C" Wells Analytical Results for Metals

Sample Number	1st Qtr M-010B	2nd Qtr M-010B	3rd Qtr M-010B	4th Qtr M-010B	1st Qtr M-012B	2nd Qtr M-012B	3rd Qtr M-012B	3rd Qtr M-012B Duplicate	4th Qtr M-012B
Date Sampled	**06/27/91**	**09/25/91**	**01/16/92**	**04/10/92**	**06/25/91**	**09/24/91**	**01/17/92**	**01/17/92**	**04/21/92**
PARAMETER REPORTED									
Metals (µg/L)									
Aluminum	< 31.0	< 31.0	41.8	< 40.7	37.3	< 31.0	< 40.7	< 40.7	< 40.7
Antimony	26.7	25.6	51.5	45.2	< 25.1	< 251	< 37.5	< 37.5UJ	< 113
Arsenic	< 2.6	< 2.6	2	3.0	2.9	< 2.6	< 7.6	< 9.5	< 9.5
Barium	46.5	35.9	42.5	36.3	30.3	35.2	45.3	48.5	46.8
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9	< 3.9
Calcium	48200J	68300	66500	67100	460000J	483000	495000	479000J	484000
Chromium	< 5.7	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3UJ	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	7.0	< 6.1	< 17.2	< 17.2UJ	< 17.2
Copper	< 2.1	2.2	< 3.8	14.6	2.3	< 2.1	23.2	16.3	< 3.8
Iron	54.5UJ	962	125	33.9	53.5UJ	7.6UJ	< 7.7	< 7.7UJ	< 7.7
Lead	< 2.0	< 2.0UJ	< 1.3	< 2.0UJ	< 20.0	< 20.0UJ	< 6.5	< 6.5	< 10.0
Magnesium	224000J	318000	309000	317000	917000J	968000	986000	949000J	986000
Manganese	62.8	73.0	114	74.7	6640	7100	7100	6870	6660
Mercury	< 0.2	< 0.2	< 0.2	< 0.2	0.6J	< 0.2	< 0.2	< 0.2UJ	< 0.2
Nickel	< 13.2	< 13.2	< 13.2	< 13.2	< 13.2	18.8	19.8	31.4J	< 13.2
Potassium	90200J	123000	125000	125000	136000J	147000	141000	137000	137000
Selenium	< 2.1	< 2.1UJ	< 2.1UJ	< 2.0	< 10.5	< 10.5UJ	< 10.5UJ	< 10.0UJ	< 20.0
Silver	< 4.9	< 4.9	< 4.8	< 4.8	6.5	< 4.9	5.0	< 4.8	< 4.8
Sodium	1880000	2890000	2540000	2620000	6650000	7400000	6650000	6730000J	7290000
Thallium	< 2.7	< 2.7	< 8.5UJ	< 1.7	< 13.5UJ	3.5UJ	< 8.5UJ	< 8.5UJ	< 8.5
Vanadium	10.0	25.4	16.9	29.7	< 4.2	< 4.2	< 6.0	< 6.0UJ	< 6.0UJ
Zinc	< 2.3	< 2.3	< 4.6	18.6	60.6	22.9	89.8	170	113

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-32 - Site 2 Groundwater "B" and "C" Wells Analytical Results for Metals

Sample Number	1st Qtr M-013C	1st Qtr M-013C Duplicate	2nd Qtr M-013C	3rd Qtr M-013C	4th Qtr M-013C	1st Qtr M-014B	2nd Qtr M-014B	3rd Qtr M-014B	4th Qtr M-014B
Date Sampled	07/12/91	07/12/91	09/24/91	01/17/92	04/22/92	06/20/91	09/25/91	01/16/92	04/22/92
PARAMETER REPORTED									
Metals (µg/L)									
Aluminum	45.6	36.2	< 31.0	< 40.7	< 40.7	53.3	57.3	< 40.7	46.3
Antimony	< 25.1	< 251UJ	< 251	< 37.5	< 375	< 25.1	< 25.1	< 37.5	< 37.5
Arsenic	< 2.6	< 2.6	< 2.6	< 1.9	< 5.0	3.6	< 2.6	< 9.5	< 2.5
Barium	25.1	30.3	29.7	41.2	39.3	45.3	54.9	48.0	46.6
Beryllium	< 1.3	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	437000	524000	557000	561000	560000	467000	463000	447000	432000
Chromium	< 5.7	< 5.7UJ	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1UJ	< 6.1UJ	< 6.1	< 17.2	< 17.2	11.1	6.4	< 17.2	< 17.2
Copper	12.3	30.0	< 2.1	17.7	26.2	< 2.1	< 2.1	22.4	4.7
Iron	241	277	439	12.0UJ	49.3J	73.4	842	< 7.7	< 7.7UJ
Lead	< 10.0UJ	< 10.0UJ	< 10.0UJ	< 3.9	< 4.0UJ	< 20.0	< 10.0UJ	< 3.9	< 4.0UJ
Magnesium	744000	897000	933000	921000	940000	795000	818000	776000	766000
Manganese	6030	7210	8040	7720	7850	8360	8890	8220	7680
Mercury	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2UJ	< 0.2	< 0.2	< 0.2
Nickel	< 13.2	< 13.2UJ	14.4	< 13.2	< 13.2	< 13.2	19.1	< 13.2	< 13.2
Potassium	66000	77400	96800	89900	92200	82300	79000	78200	84000
Selenium	< 10.5	< 10.5UJ	< 10.5UJ	< 10.0UJ	< 2.0UJ	< 10.5	< 10.5UJ	< 10.0UJ	< 2.0UJ
Silver	8.1	5.8	4.9	< 4.8	< 4.8	7.1	< 4.9	< 4.8	< 4.8
Sodium	5070000	5680000	7500000	7490000	7190000	7710000J	8120000	7250000	7070000
Thallium	< 13.5	< 13.5	< 16.2	< 8.5UJ	3.6J	< 13.5UJ	< 2.7UJ	< 8.5UJ	< 3.4
Vanadium	< 4.2	< 4.2UJ	< 4.2	< 6.0	< 6.0	< 4.2	< 4.2	< 6.0	< 6.0
Zinc	< 2.3	< 2.3	113	88.4	51.5J	3.1UJ	< 2.3	17.9	292J

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-32 - Site 2 Groundwater "B" and "C" Wells Analytical Results for Metals

Sample Number	1st Qtr M-020B	2nd Qtr M-020B	3rd Qtr M-020B	4th Qtr M-020B	1st Qtr M-021C	2nd Qtr M-021C	3rd Qtr M-021C	4th Qtr M-021C
Date Sampled	**07/10/91**	**09/30/91**	**01/21/92**	**04/23/92**	**07/08/91**	**09/30/91**	**01/21/92**	**04/24/92**
PARAMETER REPORTED								
Metals (µg/L)								
Aluminum	45.0	35.6	< 40.7	44.3	158	73.1	94.1	60.8
Antimony	< 25.1	< 25.1	< 37.5	< 37.5	< 25.1	28.0	< 37.5	< 37.5
Arsenic	< 2.6	< 10.4	4.4	5.3	< 2.6	< 2.6	< 1.9	< 2.5
Barium	233	223	218	239	37.2	50.2	54.6	49.2
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	229000	218000	240000	253000	110000	105000	111000	104000
Chromium	< 5.7	< 5.7	< 6.3	< 6.3	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2	< 6.1	< 6.1	< 17.2	< 17.2
Copper	21.8	4.0	< 3.8	15.8	38.0	21.8	16.5	< 3.8
Iron	70.4	4080	4890	918J	1200	5980	4100	2620J
Lead	< 2.0UJ	< 20.0	< 1.3	< 2.0	14.0	< 20.0	1.6J	< 2.0
Magnesium	422000	404000	441000	466000	255000	236000	260000	237000
Manganese	2250	1910	1790	1820	618	473	498	505
Mercury	< 0.2	< 0.2UJ	< 0.2	< 0.2	< 0.2	< 0.2UJ	< 0.2	< 0.2
Nickel	< 13.2	13.5	< 13.2	< 13.2	< 13.2	14.1	< 13.2	< 13.2
Potassium	72900	71700	76800	76700	92700	88100	93600	81300
Selenium	< 2.1	< 8.4	< 2.0UJ	< 2.0UJ	< 2.1	< 8.4	< 10.0	< 2.0UJ
Silver	< 4.9	< 4.9	< 4.8	< 4.8	< 4.9	< 4.9	< 4.8	< 4.8
Sodium	2130000	2100000	2360000	2630000	1140000	1360000	1550000	1360000
Thallium	< 2.7	< 10.8UJ	< 1.7UJ	< 1.7	< 13.5	< 10.8UJ	< 1.7UJ	< 1.7
Vanadium	6.6	7.1	< 6.0	15.9	12.3	12.4	11.5	17.1
Zinc	< 2.3	19.4J	< 4.6	< 4.6UJ	< 2.3	38.8	70.1	35.2J

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-32 - Site 2 Groundwater "B" and "C" Wells Analytical Results for Metals

Sample Number	1st Qtr M-023B	2nd Qtr M-023B	3rd Qtr M-023B	4th Qtr M-023B
Date Sampled	**07/01/91**	**10/01/91**	**01/22/92**	**04/24/92**
PARAMETER REPORTED				
Metals (µg/L)				
Aluminum	< 31.0	120	47.5	< 40.7
Antimony	< 25.1	86.3	43.0	< 37.5
Arsenic	17.3	16.0	7.9	5.4
Barium	113	138	172	110
Beryllium	< 1.3	< 1.3	< 2.5	< 2.5
Cadmium	< 3.0	< 3.0	< 3.9	< 3.9
Calcium	80700J	94400	95100	93100
Chromium	< 5.7	< 5.7	< 6.3	< 6.3
Cobalt	< 6.1	< 6.1	< 17.2	< 17.2
Copper	< 2.1	< 2.1	4.3	19.2
Iron	322	1660	3240	311J
Lead	< 2.0	< 20.0	< 1.3	< 2.0
Magnesium	217000J	243000	271000	265000
Manganese	813	1100	1280	1270
Mercury	< 0.2	< 0.2UJ	< 0.2	< 0.2
Nickel	< 13.2	14.1	< 13.2	< 13.2
Potassium	97100J	103000	109000	106000
Selenium	< 2.1	< 8.4	< 10.0	< 10.0UJ
Silver	< 4.9	13.0	< 4.8	< 4.8
Sodium	1490000	1590000	1890000	1780000
Thallium	< 13.5	< 10.8UJ	< 1.7UJ	< 1.7
Vanadium	9.7	24.8	14.8	19.8
Zinc	5.5	22.4UJ	< 4.6	11.4J

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-33 - Site 2 Summary of Metals Results for Quarterly Groundwater Samples in "B" and "C" Wells

First Quarter

	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected Sample Count	Not Qualified Sample Count	Not Qualified Minimum Value (µg/L)	Not Qualified Maximum Value (µg/L)	Not Qualified Sample Count Exceeding Tolerance Interval	Qualified as Estimates Sample Count	Qualified as Estimates Minimum Value (µg/L)	Qualified as Estimates Maximum Value (µg/L)	Qualified as Estimates Sample Count Exceeding Tolerance Interval	Rejected Sample Count
Aluminum	6687.63	2	6	36.2	158	1	0	-	-	-	0
Antimony	12.55	7	1	26.7	26.7	0	0	-	-	-	0
Arsenic	23.54	5	3	2.9	17.3	0	0	-	-	-	0
Barium	163.08	0	8	25.1	233	0	0	-	-	-	0
Beryllium	0.65	8	0	-	-	-	0	-	-	-	0
Cadmium	1.50	8	0	-	-	-	0	-	-	-	0
Chromium	23.21	8	0	-	-	-	0	-	-	-	0
Cobalt	3.05	6	2	7	11.1	0	0	-	-	-	0
Copper	50.37	3	5	2.3	38	0	0	-	-	-	0
Lead	12.04	7	1	14	14	0	0	-	-	-	0
Mercury	0.10	7	0	-	-	-	1	0.6	0.6	1	0
Nickel	23.97	8	0	-	-	-	0	-	-	-	0
Selenium	1.05	8	0	-	-	-	0	-	-	-	0
Silver	2.45	4	4	5.8	8.1	0	0	-	-	-	0
Thallium	1.35	8	0	-	-	-	0	-	-	-	0
Vanadium	93.67	4	4	6.6	12.3	0	0	-	-	-	0
Zinc	19.64	6	2	5.5	60.6	0	0	-	-	-	0

Table 9-33 - Site 2 Summary of Metals Results for Quarterly Groundwater Samples in "B" and "C" Wells

Second Quarter

	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	510.39	3	4	35.6	120	0	0	-	-	-	0
Antimony	12.55	4	3	25.6	86.3	0	0	-	-	-	0
Arsenic	26.09	6	1	16	16	0	0	-	-	-	0
Barium	126.83	0	7	29.7	223	0	0	-	-	-	0
Beryllium	0.65	7	0	-	-	-	0	-	-	-	0
Cadmium	1.50	7	0	-	-	-	0	-	-	-	0
Chromium	2.85	7	0	-	-	-	0	-	-	-	0
Cobalt	3.05	6	1	6.4	6.4	0	0	-	-	-	0
Copper	39.68	4	3	2.2	21.8	0	0	-	-	-	0
Lead	4.66	7	0	-	-	-	0	-	-	-	0
Mercury	0.37	7	0	-	-	-	0	-	-	-	0
Nickel	6.60	1	6	13.5	19.1	0	0	-	-	-	0
Selenium	1.05	7	0	-	-	-	0	-	-	-	0
Silver	2.45	5	2	4.9	13	0	0	-	-	-	0
Thallium	1.35	7	0	-	-	-	0	-	-	-	0
Vanadium	56.31	3	4	7.1	25.4	0	0	-	-	-	0
Zinc	23.45	3	3	22.9	113	0	1	19.4	19.4	0	0

Table 9-33 - Site 2 Summary of Metals Results for Quarterly Groundwater Samples in "B" and "C" Wells

Third Quarter

	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	450.77	5	3	41.8	94.1	0	0	-	-	-	0
Antimony	43.45	6	2	43	51.5	2	0	-	-	-	0
Arsenic	15.29	5	3	2.1	7.9	0	0	-	-	-	0
Barium	128.96	0	8	41.2	218	0	0	-	-	-	0
Beryllium	1.25	8	0	-	-	-	0	-	-	-	0
Cadmium	1.95	8	0	-	-	-	0	-	-	-	0
Chromium	6.65	8	0	-	-	-	0	-	-	-	0
Cobalt	8.60	8	0	-	-	-	0	-	-	-	0
Copper	19.00	2	6	4.3	23.2	6	0	-	-	-	0
Lead	9.27	7	0	-	-	-	1	1.6	1.6	0	0
Mercury	0.10	8	0	-	-	-	0	-	-	-	0
Nickel	6.60	6	1	19.8	19.8	0	1	31.4	31.4	0	0
Selenium	1.00	8	0	-	-	-	0	-	-	-	0
Silver	6.61	7	1	5	5	0	0	-	-	-	0
Thallium	0.85	8	0	-	-	-	0	-	-	-	0
Vanadium	40.81	5	3	11.5	16.9	3	0	-	-	-	0
Zinc	17.04	3	5	17.9	170	0	0	-	-	-	0

Table 9-33 - Site 2 Summary of Metals Results for Quarterly Groundwater Samples in "B" and "C" Wells

Fourth Quarter

	Upper Limit 95%/95% Statistical Tolerance Interval (µg/L)	Not Detected	Not Qualified				Qualified as Estimates				Rejected
		Sample Count	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count	Minimum Value (µg/L)	Maximum Value (µg/L)	Sample Count Exceeding Tolerance Interval	Sample Count
Aluminum	162.88	4	3	44.3	60.8	0	0	-	-	-	0
Antimony	525.68	6	1	45.2	45.2	0	0	-	-	-	0
Arsenic	23.59	4	3	3	5.4	0	0	-	-	-	0
Barium	301.84	0	7	36.3	239	0	0	-	-	-	0
Beryllium	1.25	7	0	-	-	-	0	-	-	-	0
Cadmium	1.95	7	0	-	-	-	0	-	-	-	0
Chromium	3.15	7	0	-	-	-	0	-	-	-	0
Cobalt	8.60	7	0	-	-	-	0	-	-	-	0
Copper	79.99	2	5	4.7	26.2	0	0	-	-	-	0
Lead	11.57	7	0	-	-	-	0	-	-	-	0
Mercury	0.10	7	0	-	-	-	0	-	-	-	0
Nickel	42.42	7	0	-	-	-	0	-	-	-	0
Selenium	25.54	7	0	-	-	-	0	-	-	-	0
Silver	14.29	7	0	-	-	-	0	-	-	-	0
Thallium	6.50	6	0	-	-	-	1	3.6	3.6	0	0
Vanadium	35.93	3	4	15.9	29.7	0	0	-	-	-	0
Zinc	306.26	1	2	18.6	113	0	4	11.4	292	0	0

Table 9-34 - Site 2 Groundwater "B" and "C" Wells Analytical Results for General Chemicals

Sample Number	1st Qtr M-010B	2nd Qtr M-010B	3rd Qtr M-010B	4th Qtr M-010B	1st Qtr M-012B	2nd Qtr M-012B	3rd Qtr M-012B	3rd Qtr M-012B Duplicate	4th Qtr M-012B
Date Sampled	06/27/91	09/25/91	01/16/92	04/10/92	06/25/91	09/24/91	01/17/92	01/17/92	04/21/92
PARAMETER REPORTED									
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	44.9	58.8J	31.7	74.7	131J	131J	128	74.0	152
Alkalinity, total (mg/L-CaCO3)	1530	1600	292	160	912	793	500	791	479
COD (mg/L)	359.0J	290.0J	188.0	239	804.0J	564.0J	804.0J	452.0	718
Hardness (mg/L-CaCO3)	2100	1820	2400	1770	7400	7200	7200	7000	7800
Total Dissolved Solids, TDS (mg/L)	8350	8350	8520	8670	27100	27400	26400	27400	28500
Spec. cond., lab (umhos/cm)	13600	14400	13000	14100	31900	35400	32700	300	36900
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	12000	12100	10700	12000	34000	35000	31000	31000	35000
Water Temp (deg C)	17.3	20.0	16.5	19.5	16.2	21.0	15.0	15.0	19
pH, Field (Std units)	7.63	7.00	7.48	7.44	6.92	7.00	7.29	7.29	6.97
Total Organic Carbon (mg/L)									
Carbon, TOC	20.3	28.2	48.5	31.1	7.5	6.1	19.4	8.3	11
Asbestos									
Asbestos, Mass (ug/L)	0.000736	0.340	0.201	0.164	0.00329	0.00321	0.0	0.0	0
Asbestos, Total Structures (MAS/L)	9.65	150	1750	3890	29.8	38.6	0.0	0.0	0
Anions									
Chloride (mg/L)	4427	4294	4271	4368	15350	15440	15250	15170	15320
Cyanide (ug/L)	< 10.0	< 10.0	< 5.0	< 5.0	< 10.0	< 10.0	< 5.0	< 5.0	< 5.0
Fluoride (mg/L)	< 0.80	< 0.20	< 2.00	< 1.00	< 5.00	< 5.00	< 10.00	< 20.0	< 2.50
Nitrogen, NO2+NO3 (mg/L-as N)	< 0.100	0.042	< 0.010	< 0.010	< 0.010	0.072	0.013	0.014	0.025UJ
Sulfate (mg/L)	4.414	2.072	3.547	10.41	1605	1505	1437	1390	1443
Radiochemicals (pCi/L)									
Alpha, gross	29.6	< 0.3	< 0.1	22.1	< 0.1	< 0.3	170	210	109
Alpha, gross, ct.error (+/- pCi/L)	50.6	43.9	55.5	28.4	129	162	170	188	74.8
Beta, gross	100	7.6	< 0.3	163	< 0.3	52	68.7	52.4	288
Beta, gross, ct.error (+/- pCi/L)	41.4	40.9	74.8	53.6	120	119	193	150	140
Radium 226	3.5	3.0	0.8	1.2	1.9	3.9	1.6	2.2	1.9
Radium 226, ct.error (+/- pCi/L)	1.1	1.0	0.5	0.8	0.9	1.0	0.7	1.2	1
Radium 228	< 0.3	1.5	0.6J	1.1UJ	0.5	5.8	0.8J	2.1J	2UJ
Radium 228, ct.error (+/- pCi/L)	0.8	0.6	0.5	0.5	0.8	0.9	0.5	1.1	0.6

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-34 - Site 2 Groundwater "B" and "C" Wells Analytical Results for General Chemicals

Sample Number	1st Qtr M-013C	1st Qtr M-013C Duplicate	2nd Qtr M-013C	3rd Qtr M-013C	4th Qtr M-013C	1st Qtr M-014B	2nd Qtr M-014B	3rd Qtr M-014B	4th Qtr M-014B	1st Qtr M-020B	2nd Qtr M-020B	3rd Qtr M-020B	4th Qtr M-020B
Date Sampled	07/12/91	07/12/91	09/24/91	01/17/92	04/22/92	06/20/91	09/25/91	01/16/92	04/22/92	07/10/91	09/30/91	01/21/92	04/23/92
PARAMETER REPORTED													
Physical Parameters-Lab													
Acidity, total (mg/L-CaCO3)	101J	98.3J	86.0J	82.7	107	66.0J	71.4J	63.8	44.9	93.6J	85.2J	78.3	120
Alkalinity, total (mg/L-CaCO3)	544	632	550	485	387	532	514	375	500	884	948	601	324
COD (mg/L)	634.0	612.0	660.0J	1274	1508	662.0J	904.0J	864.0	1552	345.0	374.0	260.0	331
Hardness (mg/L-CaCO3)	8600	7700	7400	7400	7000	9900	8800	6200	4900	3170	3300	3300	3500
Total Dissolved Solids, TDS (mg/L)	26700	26400	26800	27000	28500	26100	26100	24200	23700	8710	9340	8570	10600
Spec. cond., lab (umhos/cm)	45400	37500	36200	35300	40000	38700	36100	32500	34100	14800	14600	10000	16900
Physical Parameters-Field													
Spec. cond., field @25 C (umhos/cm)	34000	34000	35000	25000	34000	33000	34000	26000	31500	12500	10000	10000	12000
Water Temp (deg C)	18.2	18.2	21.0	15.8	18.9	16.6	19.0	16.7	19	15.4	17.0	14.2	17.8
pH, Field (Std units)	7.37	7.37	7.00	6.96	6.45	6.90	7.00	7.05	6.58	7.02	7.00	7.03	6.13
Total Organic Carbon (mg/L)													
Carbon, TOC	35.3J	5.7	4.2	18.2	15.4UJ	6.8	5.1	4.9UJ	5.9UJ	47.7J	33.1	12.9	17.7UJ
Asbestos													
Asbestos, Mass (ug/L)	0.0	0.0	0.569	0.0	0.00366	0.0	0.0	0.0233	0	0.00751	0.0154	0.00109	0.0513
Asbestos, Total Structures (MAS/L)	0.0	0.0	613	0.0	40.9	0.0	0.0	144	0	18.8	93.0	19.2	963
Anions													
Chloride (mg/L)	15810	15550	15390	15340	15360	14860	14900	13890	12430	4897	4859	4724	5650
Cyanide (ug/L)	< 10.0	< 10.0	< 10.0	< 5.0	< 5.0	< 10.0	< 10.0	< 5.0	< 5.0	< 10.0	< 2.5	< 5.0	< 5.0
Fluoride (mg/L)	< 5.00	< 5.00	< 5.00	< 5.00	< 2.50	< 5.00	< 5.00	< 5.00	< 2.50	< 2.00	< 2.00	< 1.00	< 1.00
Nitrogen, NO2+NO3 (mg/L-as N)	0.012UJ	0.012UJ	0.052	< 0.010	< 0.010	< 0.010	599	0.900	0.04J	0.033	0.027	0.012	< 0.010
Sulfate (mg/L)	1839	1822	1746	1762	1718	1819	1828	1700	1600	168.6	205.9	182.8	307.5
Radiochemicals (pCi/L)													
Alpha, gross	< 0.1	< 0.3	< 0.3	147	118	267	20.1	49.7	103	62.2	< 0.3	175	< 0.1
Alpha, gross, ct.error (+/- pCi/L)	4.9	113	124	154	128	278	118	156	112	73.2	33.1	111	32.9
Beta, gross	4.2	< 0.3	< 0.5	222	120	< 0.3	< 0.5	< 0.3	260	60	90	< 0.3	62
Beta, gross, ct.error (+/- pCi/L)	8.1	207	142	159	145	123	132	157	160	134	40.9	104	85.3
Radium 226	3.0UJ	3.8UJ	3.2	2.1	2.4	6.0	6.3	0.9	5.5	7.0UJ	1.5	2.0	2.7
Radium 226, ct.error (+/- pCi/L)	1.0	1.2	1.0	0.8	0.9	1.4	1.2	0.6	1.3	1.5	0.8	0.8	1
Radium 228	< 0.3	< 0.3	4.6	1.3J	1.9	0.6	3.3	1.2J	3.9	< 0.3	4.0	2.3	2.1
Radium 228, ct.error (+/- pCi/L)	0.8	1.9	0.8	0.5	0.9	0.9	0.8	0.5	0.8	0.8	0.8	0.8	0.8

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-34 - Site 2 Groundwater "B" and "C" Wells Analytical Results for General Chemicals

Sample Number	1st Qtr M-021C	2nd Qtr M-021C	3rd Qtr M-021C	4th Qtr M-021C	1st Qtr M-023B	2nd Qtr M-023B	3rd Qtr M-023B	4th Qtr M-023B
Date Sampled	07/08/91	09/30/91	01/21/92	04/24/92	07/01/91	10/01/91	01/22/92	04/24/92
PARAMETER REPORTED								
Physical Parameters-Lab								
Acidity, total (mg/L-CaCO3)	152	154J	112	226	84.0	151J	144	231
Alkalinity, total (mg/L-CaCO3)	252	1570	688	176	1620	1950	1500	371
COD (mg/L)	277.0J	212.0	130.0	239	252.0J	303.0	153.0	496
Hardness (mg/L-CaCO3)	1600	1900	2100	1350	2400	1600	1640	1550
Total Dissolved Solids, TDS (mg/L)	5510	5490	5520	5510	5790	6170	6330	6600
Spec. cond., lab (umhos/cm)	8190	10700	8260	9080	9550	9850	21400	10600
Physical Parameters-Field								
Spec. cond., field @25 C (umhos/cm)	7100	8000	7000	7800	8050	1000	8000	10000
Water Temp (deg C)	15.3	19.0	15.0	18.5	17.8	20.0	15.5	18.7
pH, Field (Std units)	7.00	7.00	6.88	6.23	7.38	7.00	7.00	6.25
Total Organic Carbon (mg/L)								
Carbon, TOC	45.2	7.3	22.7	37.6	59.7J	40.0	35.2	36.3
Asbestos								
Asbestos, Mass (ug/L)	0.0	0.0610	0.0	0.021	0.0	0.0444	0.00100	0.138
Asbestos, Total Structures (MAS/L)	0.0	807	0.0	418	0.0	161	12.9	2800
Anions								
Chloride (mg/L)	2535	2450	2402	2403	2559	2751	2827	2886
Cyanide (ug/L)	< 10.0	< 2.5	< 5.0	< 5.0	< 10.0	< 2.5	< 5.0	< 5.0
Fluoride (mg/L)	< 0.20	< 0.20	3.31	< 1.00	< 0.40	< 0.20	< 1.00	< 1.00
Nitrogen, NO2+NO3 (mg/L-as N)	< 0.010	0.082	< 0.010	< 0.010	< 0.100	< 0.050	< 0.010	< 0.010
Sulfate (mg/L)	2.022	3.668	< 0.500	0.697UJ	6.379	3.49	< 5.000	0.891UJ
Radiochemicals (pCi/L)								
Alpha, gross	< 0.1	< 0.3	91.6	17.6	28.1	< 0.3	127	< 0.1
Alpha, gross, ct.error (+/- pCi/L)	27.7	32.0	52.4	32.4	29.2	34.5	57.4	20.9
Beta, gross	81	110	19.1	116	21	130	< 0.3	106
Beta, gross, ct.error (+/- pCi/L)	50.3	47.9	50.8	68.9	38.3	47.5	54.6	43.5
Radium 226	10.0	2.4	0.8	1.1	5.4UJ	1.6	1.1	2.9
Radium 226, ct.error (+/- pCi/L)	2.0	1.0	0.5	0.6	1.4	0.8	0.5	1
Radium 228	< 0.3	2.8	0.4	1.4	0.5	1.0	1.8	2.5
Radium 228, ct.error (+/- pCi/L)	0.9	0.7	0.7	0.7	0.8	0.7	0.7	0.7

Notes: UJ = Qualified, estimated not detected
J = Qualified, estimated value
R = Qualified, not usable
< = Analyte reported below detection limit

Table 9-35 - Site 2 Summary of General Chemical Results for Quarterly Groundwater Samples in "B" and "C" Wells

First Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	0	0	3	44.9	152	5	66	131	0
Alkalinity, total (mg/L-CaCO3)	0	0	8	252	1620	0	-	-	0
COD (mg/L)	0	0	3	345	634	5	252	804	0
Hardness (mg/L-CaCO3)	0	0	8	1600	9900	0	-	-	0
Total Dissolved Solids (mg/L)	0	0	8	5510	27100	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	8	8190	45400	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	8	7100	34000	0	-	-	0
Water Temp (deg C)	0	0	8	15.3	18.2	0	-	-	0
pH, Field (Std units)	0	0	8	6.9	7.63	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	0	0	5	5.7	45.2	3	35.3	59.7	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	8	0	0.00751	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	8	0	29.8	0	-	-	0
Anions									
Chloride (mg/L)	0	0	8	2535	15810	0	-	-	0
Cyanide (ug/L)	8	0	0	-	-	0	-	-	0
Fluoride (mg/L)	8	0	0	-	-	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	5	2	1	0.033	0.033	0	-	-	0
Sulfate (mg/L)	0	0	8	2.022	1839	0	-	-	0

Table 9-35 - Site 2 Summary of General Chemical Results for Quarterly Groundwater Samples in "B" and "C" Wells

Second Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	0	0	0	-	-	7	58.8	154	0
Alkalinity, total (mg/L-CaCO3)	0	0	7	514	1950	0	-	-	0
COD (mg/L)	0	0	3	212	374	4	290	904	0
Hardness (mg/L-CaCO3)	0	0	7	1600	8800	0	-	-	0
Total Dissolved Solids (mg/L)	0	0	7	5490	27400	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	7	9850	36200	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	7	1000	35000	0	-	-	0
Water Temp (deg C)	0	0	7	17	21	0	-	-	0
pH, Field (Std units)	0	0	7	7	7	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	0	0	7	4.2	40	0	-	-	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	7	0	0.569	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	7	0	807	0	-	-	0
Anions									
Chloride (mg/L)	0	0	7	2450	15440	0	-	-	0
Cyanide (ug/L)	7	0	0	-	-	0	-	-	0
Fluoride (mg/L)	7	0	0	-	-	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	1	0	6	0.027	599	0	-	-	0
Sulfate (mg/L)	0	0	7	2.072	1828	0	-	-	0

Table 9-35 - Site 2 Summary of General Chemical Results for Quarterly Groundwater Samples in "B" and "C" Wells

Third Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	0	0	8	31.7	144	0	-	-	0
Alkalinity, total (mg/L-CaCO3)	0	0	8	292	1500	0	-	-	0
COD (mg/L)	0	0	7	130	1274	1	804	804	0
Hardness (mg/L-CaCO3)	0	0	8	1640	7400	0	-	-	0
Total Dissolved Solids (mg/L)	0	0	8	5520	27400	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	8	300	35300	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	8	7000	31000	0	-	-	0
Water Temp (deg C)	0	0	8	14.2	16.7	0	-	-	0
pH, Field (Std units)	0	0	8	6.88	7.48	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	0	1	7	8.3	48.5	0	-	-	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	8	0	0.201	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	8	0	1750	0	-	-	0
Anions									
Chloride (mg/L)	0	0	8	2402	15340	0	-	-	0
Cyanide (ug/L)	8	0	0	-	-	0	-	-	0
Fluoride (mg/L)	7	0	1	3.31	3.31	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	4	0	4	0.012	0.9	0	-	-	0
Sulfate (mg/L)	2	0	6	3.547	1762	0	-	-	0

Table 9-35 - Site 2 Summary of General Chemical Results for Quarterly Groundwater Samples in "B" and "C" Wells

Fourth Quarter

	Not Detected		Not Qualified			Qualified as Estimates			Rejected
	Unqualified Sample Count	Qualified Sample Count	Sample Count	Minimum Value	Maximum Value	Sample Count	Minimum Value	Maximum Value	Sample Count
Physical Parameters-Lab									
Acidity, total (mg/L-CaCO3)	0	0	7	44.9	231	0	-	-	0
Alkalinity, total (mg/L-CaCO3)	0	0	7	160	500	0	-	-	0
COD (mg/L)	0	0	7	239	1552	0	-	-	0
Hardness (mg/L-CaCO3)	0	0	7	1350	7800	0	-	-	0
Total Dissolved Solids (mg/L)	0	0	7	5510	28500	0	-	-	0
Spec. cond., lab (umhos/cm)	0	0	7	9080	40000	0	-	-	0
Physical Parameters-Field									
Spec. cond., field @25 C (umhos/cm)	0	0	7	7800	35000	0	-	-	0
Water Temp (deg C)	0	0	7	17.8	19.5	0	-	-	0
pH, Field (Std units)	0	0	7	6.13	7.44	0	-	-	0
Total Organic Carbon (mg/L)									
Carbon, TOC	0	3	4	11	37.6	0	-	-	0
Asbestos									
Asbestos, Mass (ug/L)	0	0	7	0	0.164	0	-	-	0
Asbestos, Total Structures (MAS/L)	0	0	7	0	3890	0	-	-	0
Anions									
Chloride (mg/L)	0	0	7	2403	15360	0	-	-	0
Cyanide (ug/L)	7	0	0	-	-	0	-	-	0
Fluoride (mg/L)	7	0	0	-	-	0	-	-	0
Nitrogen, NO2+NO3 (mg/L-as N)	5	1	0	-	-	1	0.04	0.04	0
Sulfate (mg/L)	0	2	5	10.41	1718	0	-	-	0

10.0 CONCLUSIONS AND RECOMMENDATIONS

This section presents conclusions and recommendations of the SWAT investigation at Site 1 (1943-1956 Disposal Area) and Site 2 (West Beach Landfill). In addition, chemical analyses of soil and groundwater from the Runway Area, which is upgradient of Sites 1 and 2, were analyzed as background samples for the landfills.

The SWAT Guidance Document (SWRCB, 1988b) states several issues that need to be discussed to consider the SWAT report complete. These issues are addressed in Section 10.4. The preliminary recommendations presented in this section are based on an evaluation of data without the benefit of fate and transport analyses, a risk assessment, or a determination of ARARs. A thorough analysis of the data and a re-assessment of the conclusions and preliminary recommendations presented in this report will be conducted during the comprehensive RI/FS process. However, the data obtained during this investigation are adequate for addressing whether chemicals have been migrating to off site groundwater at Sites 1 and 2.

10.1 HYDROGEOLOGY

For the purpose of this report, the units beneath NAS Alameda are subdivided into two aquifers. The first water-bearing zone is found in the hydraulic fill above the Holocene Bay Mud Unit, whereas the second water-bearing zone is encountered in the sand and clayey sand unit located between the Holocene Bay Mud Unit and the late Pleistocene estuarine deposits. The landfills are immediately underlain by the hydraulic fill unit.

Generally, both the Holocene Bay Mud Unit and the late Pleistocene estuarine deposits are good aquitards with low vertical hydraulic conductivities and large areal distribution. However, in the vicinity of well M-007C along the eastern perimeter of Site 1, the Holocene Bay Mud Unit consists of coarser grained (sandy) material and, thus, the unit does not appear to be a complete aquitard. Therefore, the first and second water-bearing zones may be in hydraulic communication along the eastern portion of Site 1. At present, no information is available to locate the eastern boundary of the clayey portion of the Holocene Bay Mud Unit. It is believed to terminate somewhere between the eastern and western boundaries of Site 1. The deeper or second aquifer is in the undivided Pliocene/Pleistocene terrestrial deposits.

The groundwater in the artificial fill is classified as fresh to saline based on TDS criteria (RWQCB's TDS criteria stated in State Water Resource Control Board Resolution Number 88-63), as shown on Figures 2-8 and 2-9. The groundwater is classified as fresh in several of the wells along the eastern boundary of Site 2. The groundwater in the wells on the southern and western sides of Site 2 is considered saline. The upper portion of the first water-bearing zone is generally fresher while the lower portion along the western, northern and southern margins of Sites 1 and 2 tends to be brackish. No wells were completed in the lower portion of the fill unit along the eastern margins of Sites 1 and 2. Groundwater with lower TDS concentrations found in "A" wells, in the upper portion of the first

water-bearing zone, is believed to result from infiltration of surface or rain water through unpaved or grassy areas around the site. Saltwater from the nearby San Francisco Bay would likely replace any perched fresh water if it were to be pumped. Because of probable saltwater intrusion, the shallow portion of the first water-bearing zone is not a practical drinking water source. Groundwater in the second water-bearing zone under Sites 1 and 2, and the Runway Area is brackish to saline.

Groundwater flow in the first water-bearing zone is north, south, and west from the Runway Area toward the Oakland Inner Harbor and San Francisco Bay (see Figure 2-11). Groundwater flow in the second water-bearing zone is also outward from the area around the wells in the Runway Area toward the Oakland Inner Harbor and San Francisco Bay (see Figure 2-12).

10.2 TIDAL INFLUENCE STUDY

The purpose of the tidal influence study was to assess the potential for landfill leakage to the bay. The study evaluated the influence of tidal fluctuations in San Francisco Bay on the first and second water-bearing zones. The groundwater gradients and flow directions were determined through the tidal influence study in the two water-bearing zones.

In general, water levels in the second water-bearing zone wells ("B" and "C" wells) responded more quickly, but with less amplitude, to tidal influences than did the water levels in the first water-bearing zone. The rapid response of the second water-bearing zone to tidal fluctuations is due primarily to the confined nature of the second water-bearing zone.

Water level fluctuations in wells in the first water-bearing zone attenuate quickly with increasing distance from the seawalls. Water level fluctuations in wells installed near the shore/seawall in the first water-bearing zone are most likely caused by bay water infiltrating the shallow fill soils at the margins of the NAS Alameda during the rise of the flood tide and then draining during the drop of water level as the tide ebbs. The water levels in the top portion of first water-bearing zone decline as water drains under gravity from the soils.

The "B" and "C" wells installed in the second water-bearing zone respond to tidal fluctuations in the bay more quickly than the "A" and "E" wells because the confined second water-bearing zone experiences hydraulic pressure changes rather than the slower infiltration/drain process observed in the first water-bearing zone wells. These responses also imply a hydraulic connection between the bay and the second water-bearing zone. This connection may have been enhanced by exposing the sediments of the second water-bearing zone during the periodic dredging in the estuary on the northern side of NAS Alameda and the channel/turning basin on the southern side of the air station.

10.3 LANDFILL LEAKAGE

It is believed that the current groundwater monitoring network is adequate to monitor any potential leakage from Sites 1 and 2.

10.3.1 Site 1

Localized groundwater in the first water-bearing zone downgradient of Site 1 (well clusters M-001 and M-027 through M-029, along the western edge of the landfill) appears to have been impacted by VOC and SVOC; groundwater in the second water-bearing zone downgradient of Site 1 does not appear to contain elevated levels of VOC or SVOC.

With the exception of TRPH, adequate soil data for VOC, SVOC, pesticides/PCBs, metals, and general chemicals are available to proceed with the preliminary risk assessment study. Additional soil sampling may be required at Site 1 to supplement the TRPH data.

10.3.2 Site 2

A comparison of groundwater from upgradient well clusters (M-011 through M-015) and downgradient well clusters (M-016 through M-024) indicate that VOC and SVOC were primarily detected in groundwater samples collected in the northwestern corner of Site 2, on the downgradient side of the landfill. The presence of VOC and SVOC in groundwater beneath the northwestern corner of Site 2 could possibly be due to a source in the vicinity of well cluster M-024 or from the groundwater migrating from the landfill. Existing information suggests that groundwater from the first water-bearing zone is not migrating vertically, downward into the second water-bearing zone in the northwestern corner of Site 2.

With the exception of TRPH, adequate soil data for VOC, SVOC, pesticides/PCBs, metals, and general chemicals are available to proceed with the preliminary risk assessment study. Additional soil sampling may be required at Site 2 to supplement the TRPH data.

10.4 SWAT GUIDANCE DOCUMENT ISSUES

There are seven issues that need to be addressed by the SWAT report to be in compliance with the SWAT Guidelines. These include:

1) Do the monitoring stations provide reliable data on the chemical character of the water?

2) Has adequate data been collected to validate the final location and as-built design for each monitoring point?

3) Were adequate installation quality control and quality assurance measures used to ensure that all monitoring stations work properly?

4) Were the sampling methods appropriate to obtain reliable and representative data?

5) Were appropriate chemical analytical and quality control methods used?

6) Have enough samples been collected to provide an indication of any seasonal variations of water quality?

7) Does the interpretation of the basic data indicate whether hazardous waste is leaking from the solid waste disposal site?

- Determination of leakage
- Finding of hazardous waste leakage

The first five items in the SWAT guidance document list are interrelated:

- The current groundwater monitoring network is adequate to monitor the quality of groundwater leaving Sites 1 and 2 in the first and second water-bearing zones,
- The monitoring stations have provided reliable data on the chemical characteristics of the groundwater,
- The report does provide adequate data to validate the final location and as-built design for each monitoring well,
- The well installation methods and procedures are discussed in this report,
- Appropriate sampling methods were used and the data presented in this report are both reliable and representative, during the fourth quarter groundwater sampling an evaluation of the sampling technique was conducted and found to be reliable, and
- The appropriate analytical and rigorous quality control methods were applied to the chemical analyses and data.

The sixth item in the list concerns seasonal variations in the water quality. Groundwater samples were collected for four quarters to provide data to assess seasonal variations of the groundwater quality. The seventh and last item concerning the interpretation of the data has also been accomplished in this report. Site 1 is leaking as summarized above and Site 2 is possibly leaking as summarized above. It is believed that the current groundwater monitoring network is adequate to monitor the quality of groundwater leaving Sites 1 and 2 in the first and second water-bearing zones.

This SWAT report provides reliable and comprehensive data and discussion to validate and verify the status of the landfills and the quality of the groundwater beneath the sites.

10.5 RECOMMENDATIONS

The following recommendations were developed based on the data, discussions, and conclusions pertaining to the Runway Area and Sites 1 and 2 as discussed in Sections 7.0, 8.0, and 9.0, respectively.

10.5.1 Runway Area

No chemical usage or maintenance operations have been documented in this area. Aerial photographs indicate that this area has been primarily used for runway and aircraft parking areas.

Based on the conclusions discussed in Section 7.0, the following recommendations are proposed:

- Additional file reviews and interviews should be performed to identify the potential sources of chemicals detected in soil and groundwater samples collected from wells M-101A, M-102A, and M-111A. Based upon the file reviews and interviews concerning past activities conducted in the vicinity of these wells, additional field work will be recommended to identify the potential sources and/or extent of VOC and SVOC detected in soil and groundwater samples at these locations.

- Groundwater samples should be collected on a quarterly basis from the "A" wells and analyzed for VOC, SVOC, pesticides/PCBs, metals, radionuclides, and TDS.

- Soil samples should be collected at selected areas where high levels of TRPH were detected in surface soil and at areas which are identified as potential sources of petroleum hydrocarbons based on future information obtained from the Navy. These soil samples should be analyzed by Modified EPA Method 8015 for purgeable and extractable petroleum hydrocarbons (gasoline and diesel).

10.5.2 Site 1

Aerial photographs indicate that disposal activities were conducted primarily at the northwestern corner of Site 1 (Figures 8-2 through 8-4). As discussed in Section 8.0, the purpose of the site investigation conducted in and around Site 1 was to collect adequate information for evaluating potential leakage from the landfill. Based on the conclusions developed in Section 8.5, the following recommendations are proposed:

- Cone penetrometer testing (CPT) should be conducted to evaluate the stratigraphy of the Holocene Bay Mud Unit aquitard in the area between the landfill operations on the west side of Site 1 and well cluster M-007. Results of the CPT should provide sufficient information to understand whether the first and second water-bearing zones are connected beneath the landfill.

- Groundwater samples should be collected from selected "A" and "E" wells on a quarterly basis and from selected "B" and "C" wells on a semi-annual basis during the comprehensive RI/FS work. The groundwater samples should be analyzed for VOC,

SVOC, metals, radionuclides, and TDS. The groundwater sampling program will be reassessed and modified accordingly after the RI/FS process is completed.

- As indicated in Section 8.0, a burn area was identified near well cluster M-001. At present, soil samples collected from borings at well cluster M-001 have not been analyzed for dioxin and furan. Therefore, it is recommended that additional soil samples be collected at the burn area (near well cluster M-001) for dioxin and furan analyses.

- Additional soil samples should be collected to evaluate the extent of petroleum hydrocarbons around the perimeter of Site 1. This sampling should be performed in conjunction with the petroleum hydrocarbon investigation to be performed at the Runway Area. These soil samples should be analyzed by Modified EPA Method 8015 for purgeable and extractable petroleum hydrocarbons (gasoline and diesel).

10.5.3 Site 2

As discussed in Section 9.0, the purpose of the site investigation conducted in and around Site 2 was to collect adequate information for evaluating potential leakage from the landfill. Based on the conclusions developed in Section 9-5, the following recommendations are proposed:

- Groundwater samples should be collected from selected "A" and "E" wells on a quarterly basis and from selected "B" and "C" wells on a semi-annual basis during the comprehensive RI/FS work. The groundwater samples should be analyzed for VOC, SVOC, pesticides/PCBs, metals, radionuclides, and TDS.

- Groundwater samples collected from "A" and "E" wells from well clusters M-022, M-023, and M-024 should be analyzed for SVOC. The groundwater sampling program should be reassessed and modified accordingly after the comprehensive RI/FS process is completed.

- Soil samples should be collected to evaluate the extent of petroleum hydrocarbon around the perimeter of Site 2. This sampling should be performed in conjunction with the petroleum hydrocarbon investigation to be performed at the Runway Area. These soil samples should be analyzed by Modified EPA Method 8015 for purgeable and extractable petroleum hydrocarbons (gasoline and diesel).

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12.0 RESPONSE TO COMMENTS

This section presents the Navy's response to the State of California Environmental Protection Agency Department of Toxic Substances Control's (DTSC) comments on this SWAT report received in a letter dated December 2, 1992. The DTSC comments are presented verbatim in bold typeface. The Navy responses are in normal typeface.

GENERAL COMMENTS

Comment No. 1:

The Water Quality Criteria (WQC) for the protection of marine life or the Maximum Contaminant Levels (MCLs), whichever is more stringent, will be the standards to which the analytical results will be compared to until ARARs are established.

Response to Comment:

The purpose of the SWAT investigation is to evaluate if the landfills are leaking. Determination of the health risks and cleanup goals will be conducted during the risk assessment. Currently no groundwater at the base is being used as a potable water supply. The groundwater flow is toward San Francisco Bay and the Oakland Inner Harbor. TDS data were collected from all wells over the year of quarterly sampling. This information was used to determine whether the groundwater at NAS Alameda meets the criteria of 3,000 mg/L or less to be classified as a potential potable groundwater source (State Water Resources Control Board Resolution No. 88-63). The groundwater in the first water-bearing zone at Sites 1 and 2 ranges from fresh to saline, and in the second water-bearing zone brackish to saline. Use of WQC is appropriate to conduct a preliminary evaluation of current potential impact.

Utilizing either WQC or MCL is important for reaching the appropriate data quality objectives. Discussions to determine ARARs for the two sites will need to be on a site specific and chemical specific basis. The applicability of MCL's as ARARs will be evaluated in this process.

Comment No. 2:

Indicate the rationale for the number and depths of soil samples taken at each boring for Sites 1 and 2.

Response to Comment:

A surface soil sample was collected at each cluster of borings to determine if the surface soils contained chemicals of concern. A second sample was collected from the vadose zone (above the water table) at each well cluster to evaluate whether a source of chemicals of concern are present in the shallow subsurface soils. At selected locations soil samples were also collected for chemical analysis from the zone to be screened.

Comment No. 3:

Propose a detailed plan to discuss continuous monitoring of wells to determine movement of contamination, effect of seasonal changes, confirm analytical results on some wells, to clarify data that were qualified, and to confirm

data that could be a result of laboratory contamination or error, etc.

DTSC has made comments below regarding monitoring of specific wells. Other wells need to be continuously monitored for the reasons stated above possibly at different time intervals. In general, this is in agreement with your preliminary recommendation contained in the executive summary.

Response to Comment:

The objective of the SWAT report is to provide a summary of the results of the Phases 5 and 6 investigation and to identify where additional field investigation is needed. The SWAT report accomplished these objectives. Details about the number and types of samples to be collected in future monitoring will be provided in the work plan to be prepared for the recommended additional investigations. The work plan will be submitted to DTSC for review and comment prior to implementing the additional investigations.

Comment No. 4:

Submit all original field notes and lithologic logs.

Response to Comment:

Original field logs are reviewed by senior personnel after field work is completed. Logs are checked for consistency and descriptions are compared to archived soil samples collected at the time of drilling. In this review process, logs are edited. The edited versions submitted to the DTSC in the SWAT report are accurate and complete and provide information in a format more easily interpreted than the original field logs.

Comment No. 5:

Clarify the statements made in the SWAT Report, Volume 1 in Sections 2, 8, and 9. Indicate clearly ground water flow direction in each water bearing zone at each site. Also, please be more precise as to whether the direction is west, northwest, etc., rather than using the word "outwardly."

Response to Comment:

The statements concerning groundwater flow directions have been clarified in Sections 2, 7, 8, and 9 by adding the directions of movement, north, south, and west.

Comment No. 6:

There are some detected volatiles and semi-volatiles in the deep water bearing zone in both sites (e.g., acetone, bis[2-ethylhexyl]phthalate, etc.). The Navy has indicated that they may be caused by laboratory contaminants, plastic containers, or the rope being used in the sampling. The Navy should submit a plan to confirm whether the contamination are indeed caused by the sources indicated above, or submit preventive measures so that these kinds of contamination will be avoided in the future. The outcome of this plan or preventive measures will assist in the future evaluation of data, and efforts will be focused more on the actual problem at the site.

Response to Comment: More strict quality assurance and quality control measures will be included in the work plans and addenda to the QAPjP for future work at the sites. The work plan and addenda to the QAPjP will be submitted for DTSC review prior to implementation of the additional investigations.

SPECIFIC COMMENTS

Site 1 (Evaluation of Analytical Data)

Comment No. 1: **At boring M-028A, acetone is detected at 610 µg/kg at 2.5 feet deep. Although detected at less than a reporting limit of 5,000 and 2,000 µg/l - the real concentration of acetone is unknown. Vinyl Chloride, 1,2-dichloroethene, and toluene were also detected in high concentration at well M-028A.**

Because of the above concerns, wells M-028A and E should be continued to be monitored on a quarterly basis.

Response to Comment: Wells M-028A and E are planned to be sampled quarterly. Details of the sampling schedule will be presented in the work plan for the additional investigations.

Comment No. 2: **Of all sampling locations, monitoring well M-028A was observed to contain the highest concentration of organic contaminants in ground water. The Navy should investigate the source of this contamination by looking into past records of disposal, and if practicable by doing additional soil borings in this area to define the horizontal and vertical extent of contamination. This additional information will assist in planning any kind of remediation for Site 1.**

Response to Comment: Additional borings are recommended for future work in the vicinity of well cluster M-028 at Site 1. Details of the number and locations of the recommended borings will be presented in the work plan for the additional investigations.

Comment No. 3: **Continue to monitor wells M-001E, M-029A and E for both volatiles and semi-volatiles to see any changes in detected concentrations over time.**

Response to Comment: Wells M-029A, E, and M-001E are planned to be sampled quarterly. Details of the sampling schedule will be presented in the work plan for the additional investigations.

Comment No. 4:

Because of the locations of M-006, M-007, and M-009, it is uncertain whether the TPH, and oil and grease or other contaminations are originating from the landfill, from the vicinity of the wells or east of the wells. Include these areas that need to be investigated to determine the extent of TPH problem.

Response to Comment:

Additional soil sampling for TPH by modified EPA Method 8015 is recommended in the SWAT report. Sampling locations in the vicinity of wells M-006, M-007, and M-009, will be included in the work plan for additional work.

Comment No. 5:

You have been advised of the Department's position on the use of background values as clean-up levels. We find the following of concern in soil: arsenic (98.1 mg/kg) and antimony (600 mg/kg) at 13 feet at M-001A; barium (6990 mg/kg) at the surface of M-002A; lead (261 mg/kg) and zinc (555 mg/kg) at 0.5 at M-027A; copper (1760 mg/kg) at 2.5 feet of M-028A, 6210 mg/kg at 3 feet of M-028E; and 1560 mg/kg at 4 feet of M-029A.

In the ground water, copper is detected in several wells above the Water Quality Criteria of 2.9 μg/l. The only metal detected in ground water above the MCL is antimony in wells M-025A and M-002A. (MCL for antimony is 6 μg/l).

Response to Comment:

The final cleanup goals will be established based on the baseline health risk assessment. Background samples were used for comparative purposes not as proposed cleanup levels.

Comment No. 6:

The B and C Wells should continue to be monitored for Bis(2-ethylhexyl)phthalate and acetone to confirm laboratory contamination or any other source of contamination.

Response to Comment:

The work plan for additional investigations at Site 1 will include groundwater sampling of the B and C wells for volatile organic compounds and semivolatile organic compounds.

Site 2 (Evaluation of Analytical Data)

Comment No. 1:

Similar to previous investigations (i.e., Data Summary Report), phthalates, especially Bis(2-ethylhexyl)phthalate, and polynuclear aromatic hydrocarbons, are found in several wells. Of concern here is Bis(2-ethylhexyl)phthalate at 32 feet below the ground surface.

Response to Comment: Phalates are associated with plastics and may be related to sampling or laboratory artifacts. More strict quality assurance and quality control measures will be included in the work plans and addenda to the QAPjP for future work at the sites. The work plan and addenda to the QAPjP will be submitted for DTSC review prior to implementation of the additional investigations.

Comment No. 2: **Make note that Bis(2-ethylhexyl)phthalate in several wells are above the MCL of 6 µg/l. The wells are: M-011A, 14A, 19A and E, 20E, 21E, 22A and E, 23A and E, and 24A and E.**

Response to Comment: All of the wells mentioned above except well M-014A are in the brackish to saline zone (TDS >3,000 mg/L). Therefore the water in this area is not considered a potable water supply and MCLs may not be appropriate for these wells. The wells mentioned above will be included in the work plans for future sampling at Site 2.

Comment No. 3: **Continue to monitor wells 24A and E to verify concentration and confirm the existence of semi-volatiles in these wells.**

Response to Comment: The SWAT report recommended that wells M-024A and E at Site 2 be included in future quarterly groundwater sampling.

Comment No. 4: **Benzene, chlorobenzene, and acetone were detected in ground water at wells 24A and E. Detected benzene and chlorobenzene were above the MCL levels of 1 and 30 µg/l, respectively. Chlorobenzene and acetone were also detected in soil.**

Response to Comment: Wells M-024A and E are in the brackish zone (TDS >3,000 mg/L). Therefore the water in this area is not considered a potable water supply and MCLs may not be appropriate for these wells. The SWAT report recommended that wells M-024A and E at Site 2 be included in future quarterly groundwater sampling.

Comment No. 5: **Presence of bis(2-ethylhexyl)phthalate and acetone should be continued to be monitored in the B and C wells quarterly to confirm any laboratory or other source of contamination.**

Response to Comment: The work plan for additional investigations at Site 2 will include groundwater sampling of the B and C wells for volatile organic compounds and semivolatile organic compounds.

Comment No. 6: **Metals such as: copper, silver, and nickel are consistently detected above the WQC in most A and E monitoring wells however, only detected in M-014B, M-020B, M-021C, and M-023B in the lower water bearing zone. Zinc was also detected above the WQC in the A and E, and B and C wells. Antimony was also observed to exceed the MCL at A and E wells (M-010A, M-011A) and at B and C wells (M-023B and M-021C).**

Response to Comment: Wells M-023B and M-021C are in the brackish zone (TDS >3,000 mg/L). Therefore the water in this area is not considered a potable water supply and MCLs may not be appropriate for these wells. All wells mentioned above will be included in the work plans for future sampling at Site 2.

Quality Control/Quality Assurance

Comment No. 1: **The new promulgated MCL for antimony is 6 µg/l. The Navy should ensure that the detection limit for antimony is lower than 6 µg/l.**

Response to Comment: This information is noted. The new work plan and QAPjP will require appropriate detection limits for chemical compounds and metals of concern.

Comment No. 2: **Since the analytical results are to be compared to the WQC when it is more stringent than the MCL or vice versa, the Navy should make an effort to inform the laboratory to try to achieve detection levels lower than the WQC or as close as possible to it.**

Response to Comment: In future work the laboratory will be informed of the detection limits for particular compounds and will be requested to achieve detection limits lower than the WQC or MCL when ever possible and which ever is more stringent.

Site Geologic and Hydrogeologic Characterization

Cross Section

Comment No. 1: **Cross Section A-A'**

a. **In boring M-12B, the clay zone shown at the base of the artificial fill actually consists of layers (approximately one-foot thick) of clay and clayey gravel (from 27 to 31 feet bgs). This zone may correlate to the clayey gravel zone from 24 to 30 feet bgs in boring M-13C.**

b. **In boring M-7C, some detail from the boring is missing in the cross section. In the Bay Mud unit, a lens of poorly-graded (well-sorted) sand**

(SP) is not indicated from 35 to 44 feet bgs. In the Alluvial/Eolian Unit, the interval from 51 to 74 feet bgs consists of poorly-graded sand, not silty sand (SM). Both of these SP zones may correlate to the clayey sand (SC) zones observed in boring M-10B between 56 and 74 feet bgs.

Response to Comment: The discrepancies between the boring logs and cross sections have been checked and revised. A revised cross section A-A' is included in the Final SWAT report.

Comment No. 2: **Cross Section B-B'**

a. The clay zone indicated in boring M-105B from 19 to 32 feet bgs is actually a zone of interbedded clay, poorly-graded sand (SP), and clayey sand (SC). The interbeds range from 1 foot to 3 feet thick. This should be indicated on the cross section as CL/SC/SP. This zone correlates to a similar zone seen in boring M-103B (see below).

b. In boring M-103B, the zone from 14 to 19 feet bgs is interbedded silty sand (SM), poorly-graded sand (SP), and clay (CL). The zone from 27 to 66 feet bgs consists of interbedded clay, silty sand, and clayey sand. It should be indicated as CL/SM/SC on the cross section. This correlates to the zone discussed above in boring M-105B and to boring M-104C.

Response to Comment: The discrepancies between the boring logs and cross sections have been checked and revised. A revised cross section B-B' is included in the Final SWAT report.

Comment No. 3: **Cross Section C-C'**

a. In boring M-24E, the upper 3 feet is sandy gravel (GP). From 3 to 10 feet bgs, the lithologic log shows <u>wood</u> with sand.

b. In boring M-21C, the silty gravel (GM) zone present from 8 to 17 feet bgs is not shown on the cross section. It correlates to the GM zone in boring M-22E. From 18 to 22 feet bgs, a silty zone (ML) is missing above the second GM zone. This silt zone may correlate to the thin clay zones shown in borings M-19E, M-20B, and M-22E.

c. From 1 to 9 feet bgs in boring M-26E is a zone of gravely sand (SW). This correlates to a zone of SW that is also not shown in boring M-27C from 8 to 17 feet bgs. The sand (SP) zone shown

beginning at 42 feet is twice as long as indicated on the cross section (extends to 54 feet).

The tendency on these cross sections has been to show zones of interbedded clay and sands in the Bay Mud Unit as just clay. This is misleading and should be corrected on the cross sections. The significance of the well-sorted sand is that these units represent zones of relatively high transmissivity.

Response to Comment:

The discrepancies between the boring logs and cross sections have been checked and revised. A revised cross section C-C' is included in the Final SWAT report. The cross sections have all been revised and units as thin as one to two feet have been included. The well sorted sands are zones of relatively high transmissivity. Many of the well sorted sand zones do not correlate laterally from well to well.

Permeability Values for Aquitards

Comment No. 1:

On page 8-5 is a discussion of the laboratory test results for vertical permeability in the Bay Mud Unit, Alluvial/Eolian Unit, and the Estuarine Unit. All of these values were based on samples collected only from the clay zones in these three units. The SWAT Report does not discuss why laboratory permeability tests were not run on the silty or sandy samples. Slug test results for horizontal permeabilities are available only from the water-bearing zones in the Artificial Fill and the Alluvial/Eolian units.

It is misleading to state that "the vertical hydraulic conductivity of the Holocene Bay Mud Unit ranges from 2.53×10^{-8} cm/sec to 3.16×10^{8} cm/sec." This is based only upon the clay zones, but the Bay Mud Unit also contains sandier zones with higher permeabilities. The same comment applies to the Alluvial/Eolian Unit. These values should be given as <u>maximum vertical permeabilities</u>.

Response to Comment:

Samples collected from the clayey zones of the units were analyzed to determine the minimum vertical permeabilities. The text will be revised to indicate that the samples analyzed are from clayey zones in the units. The slug tests were conducted after the wells were installed, so the horizontal permeability data is from the screened intervals only.

Monitoring Well System

Comment No. 1:

In the zone from the M-27 to the M-1 well clusters (1200 feet) there are no wells in the second water-bearing zone. This is also the area with the highest levels of contaminants. The Bay Mud Unit in this area is predominately clay, but there are some contaminants (acetone, carbon disulfide, chloroform, and

chloromethane) in the deeper zone in wells M-1B and M-27B. This may be an area where another B or C well is needed.

Response to Comment:

One of the additional borings recommended for future work in the vicinity of well cluster M-028 will be to the second water-bearing zone. Details of the boring will be presented in the work plan for the additional investigations.

Comment No. 2:

Additional wells are necessary between Site 1 and Site 2. Additional information on the stratigraphy of the Holocene Bay Mud (since there are no soil borings taken within the landfills themselves) and the extent of downgradient contamination from existing wells is necessary.

Response to Comment:

A cone penetrometer test survey is proposed in future work at Sites 1 and 2. This survey will help in determining the stratigraphy of the Holocene Bay Mud Unit.

The wells on the north, south, and west perimeter of Sites 1 and 2 are downgradient of the landfills. The current groundwater monitoring network is adequate to monitor the quality of the groundwater leaving Sites 1 and 2 in the first and second water-bearing zones.

Field Methods (Appendix C)

Comment No. 1:

The results of the Geiger-Mueller readings are not indicated on the lithologic logs in Appendix E, as stated on page C-1. Please provide this information.

Response to Comment:

The readings on the Geiger-Mueller meters were below detection and not included on the final boring logs. A note will be added to the boring logs to indicate that the readings were below detection limits.

Comment No. 2:

The last paragraph on page C-3 describes the procedure used for collecting soil samples for volatile analysis. The soil was removed from the soil sampler and placed into glass jars with no headspace. The samples should have been collected in sample sleeves, as the geotechnical samples were. Any future soil samples collected for volatile analysis should be collected using sample sleeves with end caps.

Response to Comment:

This procedure is in accordance with and set forth in the Naval Energy and Environmental Support Activity (NEESA) document "Sampling and Chemical analysis Quality Assurance Requirements for the Navy Installation Restoration Program" document (second revision June 1988). A copy of the cover and pages 14 and 16 of the above document are attached. It states that samples will be collected in glass jars with a teflon® liner. The work plans for future work will be sent to DTSC for

review and comment and incorporate DTSC recommended sampling methods.

Comment No. 3:

The last paragraph on page C-8 describes the use of a travel blank canister. This is not the appropriate way to use a trip blank. The blank should contain organic free water from the lab. The blank should remain closed and travel with the samples to the lab. It should not be opened in the field, then closed and sent to the lab. Any contamination detected would be more indicative of ambient air conditions. It would not tell you if volatiles were leaking from one closed container and contaminating another closed container. For all future sampling events, trip blanks must be utilized correctly, according to SW-846, Volume 1A, Chapter 1 (see Attachment A).

Response to Comment:

The trip blank VOA (volatile organic analysis) vials were prepared at the laboratory using organic free water. The trip blank vials were not opened in the field or during transport to the laboratory. The container holding the VOA vials were opened to allow the trip blanks to be exposed to conditions similar to the other samples. The trip blanks were sent in the coolers with the samples to be analyzed for volatile organic compounds. In future field work the trip blank VOA vials will not be put back in the travel blank canister for the trip from the field to the laboratory.

Borehole Logs (Appendix E)

Comment No. 1:

In some cases, there is no geotechnical data listed in tables 7-1, 8-3, and 9-1 for geotechnical samples indicated on the lithologic logs. Some examples are: M-18E at 33 and 43 feet bgs; M-20E at 31 feet bgs; M-22E at 10 feet bgs; M-25E at 20 feet bgs; and M-26E at 17 feet bgs.

Response to Comment:

Many more samples were collected for geotechnical analysis than were analyzed. Only selected samples were sent to the laboratory for analyses.

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ALAMEDA POINT
SSIC NO. 5090.3

FINAL
SOLID WASTE WATER QUALITY ASSESSMENT TEST (SWAT) AND DATA SUMMARY REPORT FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY PHASES 5 AND 6

DATED 30 APRIL 1993

THIS RECORD CONTAINS MULTIPLE VOLUMES WHICH HAVE BEEN ENTERED SEPARATELY

VOLUME II OF II IS FILED AS ADMINISTRATIVE RECORD NO. **N00236.000848**