Appendix A

Analytical Results Summary Tables

Table A-1. Influent Results

INFLUENT

	ANALYTE	ANALYTICAL METHOD	WI030994 03/09/94 mg/L	WI032394 03/23/94 mg/L	WI040694 04/06/94 mg/L	WI042094 04/20/94 mg/L	WI050594 05/05/94 mg/L	WI051994 05/19/94 mg/L
AQUEOUS	ALUMINUM	6010	ND	ND	ND	ND	ND	0.045
	ARSENIC	6020	ND	0.0041	0.0068	0.020	0.060	0.052
	CADMIUM	6020	0.10	0.099	0.10	0.10	0.098	0.081
	CALCIUM	6010	84.8	88.0	91.7	96.9	89.9	83.2
	IRON	6010	0.31	0.33	0.33	0.34	0.32	0.21
	LEAD	6020	0.014	0.015	0.014	0.016	0.016	0.014
	MAGNESIUM	6010	41.8	43.1	44.2	46.5	47.1	49.1
	MANGANESE	6010	2.3	2.4	2.5	2.6	2.3	1.8
	NICKEL	6010	0.045	0.039	0.042	0.047	0.043	0.035
	POTASSIUM	6010	2.6	2.9	3.0	3.1	3.6	3.2
	SILVER	6020	0.0011	0.00012	0.000066	0.000070	0.000098	0.00019
	SODIUM	6010	10.3	9.3	10.9	9.1	14.0	10.5
	ZINC	6010	55.0	56.1	60.1	64.0	56.1	44.8
	ANIONS:							
	SULFATE	300.0	386	374	387	384	317	314
	SULFIDE TOTAL	376.2	NA	NA	NA	NA	NA	NA
	FLUORIDE	340.2	1.0	1.2	1.1	1.1	0.98	1.0
	CHLORIDE	300.0	19.9	21.8	22.3	21.9	19.0	15.0
	PHOSPHORUS, TOTAL	365.3	ND	ND	ND	ND	ND	ND
	ORTHOPHOSPHATE	365.3	ND	0.30	ND	ND	ND	0.40
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	0.060	0.11	ND	ND
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	ND	ND	0.060	0.11	ND	ND
	AMMONIA	350.1	ND	ND	ND	ND	ND	ND
	TOTAL SOLIDS:							
	TSS	160.2	16.8	8.8	20.4	15.2	7.4	8.4
	TDS	160.1	732	655	640	663	641	622
	TOC	9060	1.1	NA	NA	ND	NA	NA
	ALKALINITY, TOTAL:							
	AS CaCO3	310.1	100	107	105	107	104	107
	ALKALINITY, BICARB							
	AS CAC03	310.1	100	107	105	107	104	107
	DISSOLVED OXYGEN (mg/L)	--	8.1	8.3	6.8*		NA	NA
	pH	--	7.4	7.5	7.5		7.4	7.5
	CONDUCTIVITY (µS)	--	730	745	745		699	698
	TEMPERATURE (degrees C)	--	6.9	7.3	7.3		8.9	9.4

-- = Not applicable
µS = MicroSiemens
mg/L = Milligrams per liter
NA = Not analyzed
ND = Not detected

Table A-1 (continued). Influent Results

INFLUENT

	ANALYTE	ANALYTICAL METHOD	WI060194 06/01/94 mg/L	WI062994 06/29/94 mg/L	WI071394 07/13/94 mg/L	WI072894 07/28/94 mg/L	WI081594 08/15/94 mg/L	WI082494 08/24/94 mg/L
AQUEOUS	ALUMINUM	6010	ND	0.068	ND	ND	ND	ND
	ARSENIC	6020	ND	ND	ND	ND	ND	ND
	CADMIUM	6020	0.092	0.089	0.086	0.098	0.10	0.0952
	CALCIUM	6010	89.6	86.1	94.5	91.2	92.5	94.6
	IRON	6010	0.25	0.23	0.23	0.30	0.24	0.25
	LEAD	6020	0.020	0.017	0.013	0.017	0.016	0.014
	MAGNESIUM	6010	50.6	45.4	48.3	46.4	47.7	48.1
	MANGANESE	6010	1.9	2.1	2.2	2.2	2.3	2.4
	NICKEL	6010	0.033	0.045	0.044	0.043	0.042	0.046
	POTASSIUM	6010	3.6	3.0	3.1	2.9	2.9	3.2
	SILVER	6020	0.00019	ND	0.00013	0.00015	0.00017	ND
	SODIUM	6010	13.2	12.8	13.00	12.0	14.4	15.3
	ZINC	6010	49.1	54.2	56.8	59.1	54.7	57.5
	ANIONS:							
	SULFATE	300.0	357	378	377	397	374	403
	SULFIDE TOTAL	376.2	NA	NA	NA	NA	NA	NA
	FLUORIDE	340.2	1.0	1.0	0.90	1.1	1.1	1.1
	CHLORIDE	300.0	16.9	17.9	17.5	18.7	18.6	19.6
	PHOSPHORUS, TOTAL	365.3	ND	ND	ND	ND	ND	ND
	ORTHOPHOSPHATE	365.3	ND	0.44	ND	0.077	ND	ND
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	2.0	1.7	1.9
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	ND	ND	ND	2.0	1.7	1.9
	AMMONIA	350.1	ND	ND	ND	ND	ND	ND
	TOTAL SOLIDS:							
	TSS	160.2	4.4	11.2	9.2	9.6	2.4	18.4
	TDS	160.1	657	680	685	707	759	703
	TOC	9060	NA	NA	NA	NA	NA	NA
	ALKALINITY, TOTAL: AS CaCO3	310.1	109	107	109	103	105	102
	ALKALINITY, BICARB AS CAC03	310.1	109	107	109	103	105	102
	DISSOLVED OXYGEN (mg/L)	--	8.7	NA	8.2	NA	NA	7.6
	pH	--	7.6	7.57	7.5	NA	7.5	7.4
	CONDUCTIVITY (µS)	--	775	980	950	927	948	920
	TEMPERATURE (degrees C)	--	9.4	9.5	9.4	9.5	9.4	9.4

** = Degrees Farenheit

-- = Not applicable

µS = microSiemens

mg/L= Milligrams per liter

NA = Not analyzed

ND = Not detected

Table A-1 (continued). Influent Results

INFLUENT

	ANALYTE	ANALYTICAL METHOD	WI090794 09/07/94 mg/L	WI091994 09/19/94 mg/L	WI100494 10/04/94 mg/L	WI101994 10/19/1994 mg/L	WI110294 11/02/94 mg/L	WI112094 11/20/94 mg/L
AQUEOUS	ALUMINUM	6010	ND	ND	ND	ND	0.030	ND
	ARSENIC	6020	ND	ND	ND	ND	ND	ND
	CADMIUM	6020	0.098	0.085	0.089	.10	0.10	0.091
	CALCIUM	6010	90.2	89.7	92.6	92.4	89.2	93.5
	IRON	6010	0.29	0.29	0.31	0.25	0.28	0.32
	LEAD	6020	0.017	0.015	0.014	0.014	0.014	0.016
	MAGNESIUM	6010	46.5	46.6	47.3	46.7	46.2	47.3
	MANGANESE	6010	2.3	2.3	2.3	2.4	2.2	2.3
	NICKEL	6010	0.047	0.042	0.052	0.046	0.051	0.050
	POTASSIUM	6010	3.9	3.1	3.0	3.0	2.9	3.1
	SILVER	6020	0.00040*	0.00041	0.00050	ND	ND	0.00030
	SODIUM	6010	12.1	12.5	11.6	13	14.8	14.4
	ZINC	6010	56.4	57.6	59.7	57.6	56.5	58.2
	ANIONS:							
	SULFATE	300.0	416	404	400	409	410	407
	SULFIDE TOTAL	376.2	NA	NA	NA	NA	NA	NA
	FLUORIDE	340.2	1.0	1.0	1.0	ND	1.0	1.1
	CHLORIDE	300.0	20.2	19.6	19.8	19.5	20.1	21.3
	PHOSPHORUS, TOTAL	365.3	ND	ND	ND	ND	ND	ND
	ORTHOPHOSPHATE	365.3	ND	ND	ND	ND	0.13	ND
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	ND	ND	ND
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	ND	ND	ND	ND	ND	ND
	AMMONIA	350.1	ND	ND	ND	ND	ND	ND
	TOTAL SOLIDS:							
	TSS	160.2	17.6	8.4	18.8	18.8	8.0	18.0
	TDS	160.1	711	723	695	695	709	711
	TOC	9060	NA	NA	NA	NA	NA	NA
	ALKALINITY, TOTAL: AS CaCO3	310.1	102	101	112	102	82.4	101
	ALKALINITY, BICARB AS CAC03	310.1	102	101	112	102	82.4	101
	DISSOLVED OXYGEN (mg/L)	--	9.5	7.8	NA	NA	NA	NA
	pH	--	7.41	7.4	7.4	7.1	6.9	6.9
	CONDUCTIVITY (µS)	--	922	930	935	750	900	NA
	TEMPERATURE (degrees C)	--	9.3	9.3	9.1	8.5	8.7	8.1

-- = Not applicable
µS = MicroSiemens
mg/L = Milligrams per liter
NA = Not detected
ND = Not detected

Table A-1 (continued). Influent Results

INFLUENT

	ANALYTE	ANALYTICAL METHOD	WI113094 11/30/94 mg/L	WI121494 12/14/94 mg/L	WI010495 01/04/95 mg/L	WI011895 01/18/95 mg/L	WI020195 02/01/95 mg/L	WI021595 02/15/95 mg/L
AQUEOUS	ALUMINUM	6010	ND	0.036	0.032	0.038	0.047	0.043
	ARSENIC	6020	ND	ND	ND	ND	ND	ND
	CADMIUM	6020	0.086	0.092	0.82	0.076	0.089	0.084
	CALCIUM	6010	95.4	98.1	87.7	90.8	90.1	100.0
	IRON	6010	0.34	0.37	0.31	ND	0.34	0.39
	LEAD	6020	0.014	0.018	0.016	0.015	0.016	0.015
	MAGNESIUM	6010	47.7	48.9	46.5	45.4	44.1	49.4
	MANGANESE	6010	2.5	2.5	2.3	2.4	2.4	2.7
	NICKEL	6010	0.044	0.050	0.048	0.046	0.052	0.048
	POTASSIUM	6010	2.8	3.3	2.9	3.0	2.8	3.5
	SILVER	6020	0.00036	ND	0.00037	0.00021	ND	ND
	SODIUM	6010	14.2	19.5	15.0	15.9	14.1	20.4
	ZINC	6010	62.8	63.0	55.5	57.1	56.6	58.9
	ANIONS:							
	SULFATE	300.0	411	413	395	386	402	390
	SULFIDE TOTAL	376.2	NA	NA	NA	NA	NA	NA
	FLUORIDE	340.2	1.1	1.0	1.1	1.1	1.1	1.1
	CHLORIDE	300.0	21.4	21.2	21.6	21.7	22.5	22.8
	PHOSPHORUS, TOTAL	365.3	ND	ND	ND	ND	ND	ND
	ORTHOPHOSPHATE	365.3	0.13	0.36	ND	ND	ND	0.10
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	ND	1.7	ND
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	ND	ND	ND	ND	1.7	ND
	AMMONIA	350.1	ND	ND	ND	ND	ND	ND
	TOTAL SOLIDS:							
	TSS	160.2	16.4	10.4	5.2	12.0	12.8	12.8
	TDS	160.1	711	687	689	693	694	656
	TOC	9060	NA	NA	NA	NA	NA	NA
	ALKALINITY, TOTAL: AS CaCO3	310.1	99.6	103	104	106	106	106
	ALKALINITY, BICARB AS CAC03	310.1	99.6	103	104	106	106	106
	DISSOLVED OXYGEN (mg/L)	--	NA	8.0	8.5	7.3	7.6	NA
	pH	--	6.9	7.54	7.5	7.5	7.9	7.0
	CONDUCTIVITY (µS)	--	605	600	610	600	610	NA
	TEMPERATURE (degrees C)	--	7.9	8.0	6.5	9.0	7.9	8.1

* = Dissolved metals
-- = Not applicable
µS = Microsiemens
mg/L = Milligrams per liter

NA = Not analyzed
ND = Not detected

Table A-1 (continued). Influent Results

INFLUENT

	ANALYTE	ANALYTICAL METHOD	WI022795 02/27/95 mg/L	WI031595 03/15/95 mg/L	WI032995 03/29/95 mg/L	WI041295 04/12/95 mg/L	WI042695 04/26/95 mg/L	WI051095 05/10/95 mg/L
AQUEOUS	ALUMINUM	6010	0.024	0.049	ND	ND	0.060	0.15
	ARSENIC	6020	ND	ND	ND	ND	ND	ND
	CADMIUM	6020	0.071	0.076	0.074	0.057	0.095	0.095
	CALCIUM	6010	92.6	91.4	85.2	90.9	88.2	92.0
	IRON	6010	0.33	0.36	0.33	0.32	0.41	0.48
	LEAD	6020	0.014	0.016	0.014	0.015	0.022	0.026
	MAGNESIUM	6010	45.1	44.4	41.9	42.9	41.2	41.9
	MANGANESE	6010	2.5	2.5	2.3	2.4	2.6	3.0
	NICKEL	6010	0.068	0.045	0.045	0.048	0.071	0.054
	POTASSIUM	6010	2.9	2.9	2.8	3.0	2.9	3.1
	SILVER	6020	ND	ND	ND	ND	ND	ND
	SODIUM	6010	16.2	15.8	16.4	16.1	14.2	14.8
	ZINC	6010	58.6	57.0	53.1	55.0	55.7	61.4
	ANIONS:							
	SULFATE	300.0	384.0	384.0	368.0	376.0	370.0	374
	SULFIDE TOTAL	376.2	NA	NA	NA	NA	NA	NA
	FLUORIDE	340.2	1.1	1.1	1.0	1.0	1.1	1.1
	CHLORIDE	300.0	22.6	22.4	23.1	22.4	23.8	20.5
	PHOSPHORUS, TOTAL	365.3	ND	ND	ND	ND	ND	ND
	ORTHOPHOSPHATE	365.3	ND	ND	ND	0.11	ND	ND
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	ND	0.14	ND
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	ND	ND	ND	ND	0.14	ND
	AMMONIA	350.1	ND	ND	ND	ND	ND	ND
	TOTAL SOLIDS:							
	TSS	160.2	11.2	9.2	12.8	14.4	7.2	2.8
	TDS	160.1	692	672	655	656	575	689
	TOC	9060	NA	NA	NA	NA	NA	ND
	ALKALINITY, TOTAL: AS CaCO3	310.1	107	104	107	107	104	103
	ALKALINITY, BICARB AS CAC03	310.1	107	104	107	107	104	103
	DISSOLVED OXYGEN (mg/L)	--	7.8	NA	7.5	8.6	7.5	
	pH	--	7.4	7.5	7.7	7.5	NA	
	CONDUCTIVITY (µS)	--	630	620	600	620	600	
	TEMPERATURE (degrees C)	--	8.6	9.3	8.1	8.4	9.0	

* = Dissolved metals
-- = Not applicable
µS = Microsiemens
mg/L = Milligrams per liter

NA = Not analyzed
ND = Not detected

Table A-1 (continued). Influent Results

INFLUENT

	ANALYTE	ANALYTICAL METHOD	WI061295 6/12/1995 mg/L	WI062895 6/28/1995 mg/L	WI071095 7/10/1995 mg/L	WI072695 7/26/1995 mg/L	WI080895 8/8/1995 mg/L	WI082395 8/23/1995 mg/L
AQUEOUS	ALUMINUM	6010	0.065	ND	ND	ND	ND	0.079
	ARSENIC	6020	ND	ND	ND	ND	ND	ND
	CADMIUM	6020	0.25	0.26	0.25	0.24	0.26	0.240
	CALCIUM	6010	94.4	111	119	129	123	125
	IRON	6010	0.12	0.11	0.10	ND	0.15	0.19
	LEAD	6020	0.058	0.051	0.050	0.038	0.043	0.039
	MAGNESIUM	6010	58.3	61.4	64.0	64.2	61.7	61.3
	MANGANESE	6010	3.9	4.4	5.0	5.5	5.2	5.2
	NICKEL	6010	0.061	0.073	0.081	0.084	0.093	0.086
	POTASSIUM	6010	4.1	ND	3.6	3.7	3.5	3.2
	SILVER	6020	ND	ND	ND	ND	ND	ND
	SODIUM	6010	9.9	14.2	14.8	13.2	14.1	15.2
	ZINC	6010	75.5	86.8	99.8	105	109	108
	ANIONS:							
	SULFATE	300.0	499	502	582	596	638	630
	SULFIDE TOTAL	376.2						
	FLUORIDE	340.2	0.8	0.89	0.96	0.88	0.87	0.95
	CHLORIDE	300.0	6.9		8.8	10.2	11.7	13.1
	PHOSPHORUS, TOTAL	365.3	ND	ND	ND	ND	ND	0.093
	ORTHOPHOSPHATE	365.3	ND	ND	ND	ND	0.095	ND
	NITRATE PLUS NITRITE AS N	353.2	0.13	0.10	ND	0.63	ND	ND
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	0.13	ND	ND	0.63	ND	ND
	AMMONIA	350.1	ND	ND	ND	ND	ND	ND
	TOTAL SOLIDS:							
	TSS	160.2	20.4	20.4	24.8	22.4	18.8	32.0
	TDS	160.1	838	967	1010	999	10.0	1050
	TOC	9060						
	ALKALINITY, TOTAL:							
	AS CaCO3	310.1	120	125	118	107	107	107
	ALKALINITY, BICARB							
	AS CAC03	310.1	120	125	118	107	107	107
	DISSOLVED OXYGEN (mg/L)	--	NA	7.1	NA	NA	NA	NA
	pH	--	7.4	7.2	7.4	NA	NA	NA
	CONDUCTIVITY (µS)	--	NA	700	NA	NA	750	NA
	TEMPERATURE (degrees C)	--	10.2	10.3	10.3	NA	10.4	NA

* = Dissolved metals
-- = Not applicable
µS = Microsiemens
mg/L = Milligrams per liter

NA = Not analyzed
ND = Not detected

Table A-1 (continued). Influent Results

INFLUENT

	ANALYTE	ANALYTICAL METHOD	WI090595 9/5/1995 mg/L	WI110995 11/9/1995 mg/L	CDPHE 1/29/1996 mg/L	CDPHE 2/29/1996 mg/L	CDPHE 4/25/1996 mg/L	CDPHE 5/31/1996 mg/L
AQUEOUS	ALUMINUM	6010	ND	ND	NA	NA	NA	NA
	ARSENIC	6020	ND	ND	NA	NA	NA	NA
	CADMIUM	6020	0.24	0.20	0.160	0.200	0.12	0.14
	CALCIUM	6010	123	113	NA	NA	NA	NA
	IRON	6010	0.28	0.18	0.24	0.26	0.18	0.17
	LEAD	6020	0.038	0.027	NA	NA	NA	NA
	MAGNESIUM	6010	60.2	56.2	NA	NA	NA	NA
	MANGANESE	6010	5.2	5.2	3.60	3.50	2.4	2.7
	NICKEL	6010	0.087	0.082	NA	NA	NA	NA
	POTASSIUM	6010	ND	3.2	NA	NA	NA	NA
	SILVER	6020	ND	ND	NA	NA	NA	NA
	SODIUM	6010	12.4	15.6	NA	NA	NA	NA
	ZINC	6010	107	105	73	69	46	56
	ANIONS:							
	SULFATE	300.0	652	591	490	450	NA	NA
	SULFIDE TOTAL	376.2	NA	NA	NA	NA	NA	NA
	FLUORIDE	340.2	0.88	0.97	NA	NA	NA	NA
	CHLORIDE	300.0	NA	17.7	NA	NA	NA	NA
	PHOSPHORUS, TOTAL	365.3	0.067	0.060	NA	NA	NA	NA
	ORTHOPHOSPHATE	365.3	ND	0.20	NA	NA	NA	NA
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	NA	NA	NA	NA
	NITRITE AS N	354.1	ND	ND	NA	NA	NA	NA
	NITRATE AS N	353.2/354.1	ND	ND	NA	NA	NA	NA
	AMMONIA	350.1	ND	ND	NA	NA	NA	NA
	TOTAL SOLIDS:							
	TSS	160.2	18.4	14.4	NA	NA	NA	NA
	TDS	160.1	1050	956	NA	NA	NA	NA
	TOC	9060				NA	NA	NA
	ALKALINITY, TOTAL:							
	AS CaCO3	310.1	107	95.7	NA	NA	NA	NA
	ALKALINITY, BICARB				NA	NA	NA	NA
	AS CAC03	310.1	107	95.7	NA	NA	NA	NA
	DISSOLVED OXYGEN (mg/L)	--			NA	NA	NA	NA
	pH	--			NA	NA	NA	NA
	CONDUCTIVITY (µS)	--			NA	NA	NA	NA
	TEMPERATURE (degrees C)	--			NA	NA	NA	NA

* = Dissolved metals
-- = Not applicable
µS = Microsiemens
mg/L = Milligrams per liter

NA = Not analyzed
ND = Not detected

Table A-1 (continued). Influent Results

INFLUENT

	ANALYTE	ANALYTICAL METHOD	CDPHE 6/14/1996 mg/L	CDPHE 7/19/1996 mg/L	CDPHE 8/31/1996 mg/L	WI120996 12/9/1996 mg/L	WI012197 1/21/1997 mg/L	WI022097 2/20/1997 mg/L
AQUEOUS	ALUMINUM	6010	NA	NA	NA	ND	ND	ND
	ARSENIC	6020	NA	NA	NA	NA	NA	NA
	CADMIUM	6020	0.16	0.19	0.20	0.15	0.12	0.11
	CALCIUM	6010	NA	NA	NA	104	100.0	105
	IRON	6010	0.18	0.20	0.24	0.30	0.30	0.33
	LEAD	6020	NA	NA	NA	NA	NA	NA
	MAGNESIUM	6010	NA	NA	NA	52.8	51.2	52
	MANGANESE	6010	2.9	3.5	4.1	3.7	3.5	3.7
	NICKEL	6010	NA	NA	NA	0.07	0.06	0.06
	POTASSIUM	6010	NA	NA	NA	3.1 J	3.0 J	3.0 J
	SILVER	6020	NA	NA	NA	NA	NA	NA
	SODIUM	6010	NA	NA	NA	17.4	16.4	17.0
	ZINC	6010	60	71	84	78	74	78
	ANIONS:							
	SULFATE	300.0	430	490	520	488	491	471
	SULFIDE TOTAL	376.2	NA	NA	NA	NA	NA	NA
	FLUORIDE	340.2	NA	NA	NA	NA	NA	NA
	CHLORIDE	300.0	NA	NA	NA	17.8	18.2	18.3
	PHOSPHORUS, TOTAL	365.3	NA	NA	NA	NA	NA	NA
	ORTHOPHOSPHATE	365.3	NA	NA	NA	0.31	0.17	0.22
	NITRATE PLUS NITRITE AS N	353.2	NA	NA	NA	ND	ND	ND
	NITRITE AS N	354.1	NA	NA	NA	ND	ND	ND
	NITRATE AS N	353.2/354.1	NA	NA	NA	ND	ND	ND
	AMMONIA	350.1	NA	NA	NA	ND	ND	ND
	TOTAL SOLIDS:							
	TSS	160.2	NA	NA	NA	NA	8.4	3.2
	TDS	160.1	NA	NA	NA	849	796	809
	TOC	9060	NA	NA	NA	0.8J	1.1	1.8
	ALKALINITY, TOTAL:							
	AS CaCO3	310.1	NA	NA	NA	97.6	94.9	101
	ALKALINITY, BICARB		NA	NA	NA			
	AS CAC03	310.1	NA	NA	NA	97.6	94.9	101
	DISSOLVED OXYGEN (mg/L)	--	NA	NA	NA	7.4	8.8	8.6
	pH	--	NA	NA	NA	7.2	5.1	7.5
	CONDUCTIVITY (µS)	--	NA	NA	NA	NA	NA	NA
	TEMPERATURE (degrees C)	--	NA	NA	NA	10.0	8.2	3.2

* = Dissolved metals
-- = Not applicable
µS = Microsiemens
mg/L= Milligrams per liter

NA = Not analyzed
ND = Not detected

Table A-1 (continued). Influent Results

INFLUENT

	ANALYTE	ANALYTICAL METHOD	WI032097 3/20/1997 mg/L	WI042297 4/22/1997 mg/L	WI052897 5/28/1997 mg/L	WI062397 6/23/1997 mg/L	WI082897 8/28/1997 mg/L	WI093097 9/30/1997 mg/L
AQUEOUS	ALUMINUM	6010	ND	0.17	ND	ND	ND	ND
	ARSENIC	6020	NA	NA	NA	NA	NA	NA
	CADMIUM	6020	0.14	0.07	0.11	0.19	0.22	0.200
	CALCIUM	6010	97.5	67.2	86.4	95.6	121	119
	IRON	6010	0.34	0.34	0.24	0.26	0.3	0.33
	LEAD	6020	NA	NA	NA	NA	NA	NA
	MAGNESIUM	6010	48.8	37.3	53.8	52.3	61.9	58.4
	MANGANESE	6010	3.6	2.0	2.7	3.3	4.9	4.9
	NICKEL	6010	0.07	0.034 J	0.042	0.030 J	0.090	0.098
	POTASSIUM	6010	ND	2.7 J	3.3 J	3.5 J	4.8 J	3.4 J
	SILVER	6020	NA	NA	NA	NA	NA	NA
	SODIUM	6010	15.6	ND	14.9	ND	ND	18.3
	ZINC	6010	75	42	56	72	104	104
	ANIONS:							
	SULFATE	300.0	476	279	358	428	541	568
	SULFIDE TOTAL	376.2	NA	NA	NA	NA	NA	NA
	FLUORIDE	340.2	NA	NA	NA	NA	NA	NA
	CHLORIDE	300.0	18.7	9.3	7.2	9.2	13.8	16
	PHOSPHORUS, TOTAL	365.3	NA	NA	NA	NA	NA	NA
	ORTHOPHOSPHATE	365.3	0.15	ND	ND	0.10	ND	ND
	NITRATE PLUS NITRITE AS N	353.2	ND	0.14	ND	0.14	ND	0.19
	NITRITE AS N	354.1	0.0021 J	0.0046 J	0.0024 J	0.0028 J	0.0037 J	ND
	NITRATE AS N	353.2/354.1	ND	ND	ND	ND	ND	ND
	AMMONIA	350.1	ND	ND	ND	ND	ND	ND
	TOTAL SOLIDS:							
	TSS	160.2	7.6	1.6 J	12.4	14.4		16.4
	TDS	160.1	751	507	653	765	927	940
	TOC	9060	0.20 J	1.30	1.4	0.98 J	0.80 J	0.58 J
	ALKALINITY, TOTAL: AS CaCO3	310.1	96.3	99.7	107	121		102
	ALKALINITY, BICARB AS CAC03	310.1	96.3	99.7	107	121		102
	DISSOLVED OXYGEN (mg/L)	--	7.8	7.3	7.3	8	8.7	NA
	pH	--	6.9	7.4	7.4	7.5	6.9	6.9
	CONDUCTIVITY (µS)	--	NA	NA	NA	NA	NA	NA
	TEMPERATURE (degrees C)	--	8.6	9.7	10.5	9.7	9.6	9.4

* = Dissolved metals
-- = Not applicable
µS = Microsiemens
mg/L = Milligrams per liter

NA = Not analyzed
ND = Not detected

Table A-1 (continued). Influent Results

INFLUENT

	ANALYTE	ANALYTICAL METHOD	WI102997 10/29/1997 mg/L	WI112597 11/25/1997 mg/L
AQUEOUS	ALUMINUM	6010	ND	ND
	ARSENIC	6020	NA	NA
	CADMIUM	6020	0.19	0.22
	CALCIUM	6010	113	103
	IRON	6010	0.37	0.39
	LEAD	6020	NA	NA
	MAGNESIUM	6010	58.8	50.4
	MANGANESE	6010	4.9	4.2
	NICKEL	6010	0.079	0.065
	POTASSIUM	6010	3.4 J	ND
	SILVER	6020	NA	NA
	SODIUM	6010	18.3	16.5
	ZINC	6010	95	86
	ANIONS:			
	SULFATE	300.0	571	548
	SULFIDE TOTAL	376.2	NA	NA
	FLUORIDE	340.2	NA	NA
	CHLORIDE	300.0	17.5	17.8
	PHOSPHORUS, TOTAL	365.3	NA	NA
	ORTHOPHOSPHATE	365.3	ND	0.15
	NITRATE PLUS NITRITE AS N	353.2	0.11	ND
	NITRITE AS N	354.1	0.002J	0.0025J
	NITRATE AS N	353.2/354.1	NA	NA
	AMMONIA	350.1	ND	ND
	TOTAL SOLIDS:			
	TSS	160.2	10.4	14.8
	TDS	160.1	940	869.0
	TOC	9060	0.71J	1.8
	ALKALINITY, TOTAL: AS CaCO3	310.1	84	102
	ALKALINITY, BICARB AS CAC03	310.1	84	102
	DISSOLVED OXYGEN (mg/L)	--	10.3	7.5
	pH	--	7.2	7.2
	CONDUCTIVITY (µS)	--	NA	NA
	TEMPERATURE (degrees C)	--	9.2	8.9

* = Dissolved metals
-- = Not applicable
µS = Microsiemens
mg/L= Milligrams per liter
NA = Not analyzed
ND = Not detected

Table A-2. Downflow Effluent Results

DOWNFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WED030994 03/09/94 mg/L	WED032394 03/23/94 mg/L	WED040694 04/06/94 mg/L	WED042094 04/20/94 mg/L	WED050594 05/05/94 mg/L
AQUEOUS	ALUMINUM	6010	0.021	0.021	0.027	0.029	0.033
	ARSENIC	6020	ND	0.00056	0.029	0.016	0.076
	CADMIUM	6020	0.00034	0.00025	0.00028	0.00053	0.00072
	CALCIUM	6010	105.0	107.0	110.0	113.0	113.0
	IRON	6010	1.5	1.2	1.1	1.0	1.1
	LEAD	6020	0.0015	0.0012	0.00065	0.0015	0.0017
	MAGNESIUM	6010	56.7	56.9	58.6	58.3	58.9
	MANGANESE	6010	1.6	1.5	1.5	1.4	1.4
	NICKEL	6010	0.0073	0.0081	0.0086	0.010	0.0090
	POTASSIUM	6010	55.8	56.6	54.0	50.6	48.3
	SILVER	6020	0.0015	0.00012	0.000060	0.000089	0.0051
	SODIUM	6010	19.0	17.1	18.1	15.3	18.6
	ZINC	6010	14.2	14.9	15.6	15.3	13.1
	ANIONS:						
	SULFATE	300.0	350	357	338	337	280
	SULFIDE TOTAL	376.2	4.1	5.2	5.7	2.1	0.74
	FLUORIDE	340.2	0.82	0.93	0.88	0.90	0.87
	CHLORIDE	300.0	15.6	28.4	27.2	28	22
	PHOSPHORUS, TOTAL	365.3	9.9	10.6	11.0	10.8	10.4
	ORTHOPHOSPHATE	365.3	10.6	12.4	10.7	11.1	11.1
	NITRATE PLUS NITRITE AS N	353.2	0.24	ND	ND	ND	ND
	NITRITE AS N	354.1	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	0.24	ND	ND	ND	ND
	AMMONIA	350.1	5.4	6.2	5.9	5.8	4.6
	TOTAL SOLIDS:						
	TSS	160.2	51.0	27.0	47.0	39.2	3.8
	TDS	160.1	864	781	766	783	753
	TOC	9060	60.4	20.6	29	28.2	20.8
	ALKALINITY, TOTAL: AS CaCO3	310.1	193	209	200	213	193
	ALKALINITY, BICARB AS CAC03	310.1	193	209	200	213	193
	ORP (mV)	--	-77.0		-180		-184
	pH	--	7.3		7.2		7.6
	CONDUCTIVITY (µS)	--	845		889		803
	TEMPERATURE (degrees C)	--	4.1		5.2		8.8

-- = Not applicable
µS = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts

NA = Not analyzed
ND = Not detected

Table A-2 (continued). Downflow Effluent Results

DOWNFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WED051994 05/19/94 mg/L	WED060194 06/01/94 mg/L	WED062994 06/29/94 mg/L	WED071394 07/13/94 mg/L	WED072894 07/28/94 mg/L	WED081594 08/15/94 mg/L
AQUEOUS	ALUMINUM	6010	0.024	0.030	0.017	0.012	0.017	0.016
	ARSENIC	6020	0.066	0.0013	0.0011	0.0010	0.0012	0.0011
	CADMIUM	6020	0.0011	0.00073	ND	ND	ND	0.00033
	CALCIUM	6010	107.0	112.0	106.0	118.0	116.0	114.0
	IRON	6010	1.0	1.1	1.0	1.1	1.1	1.3
	LEAD	6020	0.0013	0.0011	ND	ND	ND	ND
	MAGNESIUM	6010	57.1	60.8	55.2	57.9	55.9	56.6
	MANGANESE	6010	1.3	1.4	1.5	1.8	1.8	2.1
	NICKEL	6010	0.0088	0.015	0.014	0.0089	0.013	0.013
	POTASSIUM	6010	39.5	29.2	19.8	20.8	17.8	23.0
	SILVER	6020	0.000063	ND	0.00010	0.00025	ND	0.00014
	SODIUM	6010	15.4	15.2	13.8	14.7	14.5	15.5
	ZINC	6010	9.9	10.3	12.6	15.3	16.5	14.5
	ANIONS:							
	SULFATE	300.0	270	319	338	337	354	311
	SULFIDE TOTAL	376.2	3.2	2.4	2.1	1.3	6.9	1.5
	FLUORIDE	340.2	0.91	0.95	0.80	0.90	1.1	1.0
	CHLORIDE	300.0	17.4	18.4	19.6	17.8	19.8	19.2
	PHOSPHORUS, TOTAL	365.3	11.4	10.1	8.9	9.5	7.8	8.7
	ORTHOPHOSPHATE	365.3	10.6	9.2	8.6	8.6	7.5	6.7
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	ND	2.3	1.7
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	ND	ND	ND	ND	2.3	1.7
	AMMONIA	350.1	4.4	3.2	2.3	3.1	2.9	3.2
	TOTAL SOLIDS:							
	TSS	160.2	ND	3.6	33.6	43	45.6	43.2
	TDS	160.1	739	741	709	722	747	759
	TOC	9060	26.3	35.6	17.8	15.9	15.4	15.6
	ALKALINITY, TOTAL:							
	AS CaCO3	310.1	196	208	188	190	188	194
	ALKALINITY, BICARB							
	AS CAC03	310.1	196	208	188	190	188	194
	ORP (mV)	--	-271		-253	-250	NA	NA
	pH	--	7.28		7.10	7	NA	7.06
	CONDUCTIVITY (µS)	--	812		1040	1010	996	1006
	TEMPERATURE (degrees C)	--	12.2		12.3	11.6	11.8	12.1

-- = Not applicable
µS = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts

NA = Not analyzed
ND = Not detected

Table A-2 (continued). Downflow Effluent Results

DOWNFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WED082494 08/24/94 mg/L	WED090794 09/07/94 mg/L	WED091994 09/19/94 mg/L	WED100494 10/04/94 mg/L	WED101994 10/19/1994 mg/L	WED110294 11/02/94 mg/L
AQUEOUS	ALUMINUM	6010	0.015	0.053	0.022	0.037	0.018	**0.023**
	ARSENIC	6020	0.0011	ND	0.0011	0.0018	ND	ND
	CADMIUM	6020	0.00030	ND	ND	0.00038	0.00048	0.00041
	CALCIUM	6010	117.0	113.0	124.0	115.0	112.0	112.0
	IRON	6010	1.7	1.8	2.0	1.8	1.7	1.8
	LEAD	6020	ND	0.0016	0.0023	0.0032	ND	ND
	MAGNESIUM	6010	57.5	55.8	63.9	57.6	57.7	58.0
	MANGANESE	6010	2.2	2.0	2.2	1.9	1.8	1.6
	NICKEL	6010	0.014	0.013	0.020	0.019	0.020	0.020
	POTASSIUM	6010	21.7	25.0	24.9	21.6	19.5	16.8
	SILVER	6020	ND	0.00032*	0.00034	0.0012	ND	ND
	SODIUM	6010	15.6	14.5	16.4	14.4	14.5	15.5
	ZINC	6010	15.3	15.2	17.5	15.5	14.2	12.1
	ANIONS:							
	SULFATE	300.0	345	349	349	333	353	365
	SULFIDE TOTAL	376.2	4.5	0.12	5.3	10.7	4.8	7.4
	FLUORIDE	340.2	1.0	0.94	0.96	0.88	0.85	0.87
	CHLORIDE	300.0	21.3	22.3	21.0	21.0	20.3	20.8
	PHOSPHORUS, TOTAL	365.3	10.4	1.6	9.1	8.8	9.0	8.2
	ORTHOPHOSPHATE	365.3	7.9	8.6	13.8	8.5	8.4	8.8
	NITRATE PLUS NITRITE AS N	353.2	1.8	ND	ND	ND	ND	ND
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	1.8	ND	ND	ND	ND	ND
	AMMONIA	350.1	3.2	2.6	2.5	2.9	2.2	1.5
	TOTAL SOLIDS:							
	TSS	160.2	48.8	49.6	47.2	52.0	45.6	40.0
	TDS	160.1	713	741	738	716	698	734
	TOC	9060	13.8	12.3	10.3	9.7	8.1	5.0
	ALKALINITY, TOTAL:							
	AS CaCO3	310.1	191	194	184	200	174	152
	ALKALINITY, BICARB							
	AS CAC03	310.1	191	194	184	200	174	152
	ORP (mV)	--	-125	-163	-216	-220	-331	-149
	pH	--	6.88	6.91	6.9	6.9	6.66	6.92
	CONDUCTIVITY (µS)	--	973	997	1010	960	750	890
	TEMPERATURE (degrees C)	--	13.4	12.4	10.7	9.0	6.8	4.9

-- = Not applicable
µS = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts

NA = Not analyzed
ND = Not detected

Table A-2 (continued). Downflow Effluent Results

DOWNFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WED112094 11/20/94 mg/L	WED113094 11/30/94 mg/L	WED121494 12/14/94 mg/L	WED010495 01/04/95 mg/L	WED011895 01/18/95 mg/L	WED020195 02/01/95 mg/L
AQUEOUS	ALUMINUM	6010	0.018	0.023	0.013	0.013	0.014	0.022
	ARSENIC	6020	ND	ND	ND	0.0039	0.0035	ND
	CADMIUM	6020	0.00030	0.00030	0.00088	ND	ND	ND
	CALCIUM	6010	120.0	118.0	120.0	117.0	119.0	115.0
	IRON	6010	1.8	2.4	2.0	2.7	3.0	2.6
	LEAD	6020	0.0054	0.0018	0.011	ND	0.0012	ND
	MAGNESIUM	6010	60.6	58.0	56.6	57.1	54.5	50.7
	MANGANESE	6010	1.6	1.7	1.5	1.9	1.9	1.8
	NICKEL	6010	0.019	0.019	0.017	0.013	0.014	0.018
	POTASSIUM	6010	16.0	13.1	11.5	9.7	9.9	8.3
	SILVER	6020	ND	0.00022	ND	ND	ND	ND
	SODIUM	6010	14.6	14.5	15.0	14.3	14.9	15.0
	ZINC	6010	10.9	11.7	8.8	8.3	9.7	10.5
	ANIONS:							
	SULFATE	300.0	357	391	391	386	386	380
	SULFIDE TOTAL	376.2	0.11	5.8	3.1	3.3	1.6	2.3
	FLUORIDE	340.2	0.90	1.1	0.99	1.1	1.0	1.0
	CHLORIDE	300.0	21.0	22.0	21.2	22.1	22.1	21.9
	PHOSPHORUS, TOTAL	365.3	6.5	7.2	7.3	6.6	6.4	6.3
	ORTHOPHOSPHATE	365.3	3.1	5.0	6.2	5.5	4.9	6.0
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	ND	ND	ND
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	ND	ND	ND	ND	ND	ND
	AMMONIA	350.1	2.2	2.0	0.41	1.6	1.5	1.3
	TOTAL SOLIDS:							
	TSS	160.2	41.0	40.5	28.5	34.0	37.0	33.0
	TDS	160.1	750	767	744	729	718	721
	TOC	9060	6.9	20.4	5.7	4.8	5.6	4.8
	ALKALINITY, TOTAL: AS CaCO3	310.1	187	143	152	146	141	129
	ALKALINITY, BICARB AS CAC03	310.1	187	143	152	146	141	129
	ORP (mV)	--	-170	-220	-195	-20.0	-6.5	-7.3
	pH	--	7.6	7.12	7.46	7.26	7.6	7.6
	CONDUCTIVITY (µS)	--	NA	600	600	590	590	670
	TEMPERATURE (degrees C)	--	3.7	3.0	2.9	3.3	3.0	4.0

-- = Not applicable
µS = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts

NA = Not analyzed
ND = Not detected

Table A-2 (continued). Downflow Effluent Results

DOWNFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WED021595 02/15/95 mg/L	WED022795 02/27/95 mg/L	WED031595 03/15/95 mg/L	WED032995 03/29/95 mg/L	WED041295 04/12/95 mg/L	WED042695 04/26/95 mg/L
AQUEOUS	ALUMINUM	6010	0.018	0.011	0.011	ND	0.014	ND*
	ARSENIC	6020	0.0011	0.0019	ND	ND	0.0021	ND
	CADMIUM	6020	0.00033	ND	ND	ND	ND	ND
	CALCIUM	6010	116.0	121.0	126.0	103.0	113.0	109.0
	IRON	6010	2.4	2.1	2.2	1.8	1.8	1.7
	LEAD	6020	0.0010	ND	ND	ND	ND	ND
	MAGNESIUM	6010	51.2	52.5	54.3	46.0	48.1	46.6
	MANGANESE	6010	1.9	1.9	2.1	1.8	1.9	1.9
	NICKEL	6010	0.016	0.015	0.018	0.019	0.014	0.014
	POTASSIUM	6010	8.4	8.5	9.0	6.9	6.7	6.9
	SILVER	6020	ND	ND	ND	ND	ND	ND
	SODIUM	6010	15.9	15.1	16.5	14.7	14.1	14.1
	ZINC	6010	10.7	11.7	13.0	12.2	12.6	11.9
	ANIONS:							
	SULFATE	300.0	359	346	370	341	338	341
	SULFIDE TOTAL	376.2	1.9	1.9	3.1	3.1	0.099	1.6
	FLUORIDE	340.2	1.1	1.0	1.1	1.1	1.0	1.1
	CHLORIDE	300.0	22.1	22.7	24.4	22.5	21.8	23.8
	PHOSPHORUS, TOTAL	365.3	17.5	5.9	5.7	5.2	4.7	4.7
	ORTHOPHOSPHATE	365.3	5.1	5.8	5.7	3.8	5.4	2.4
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	ND	ND	ND
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	ND	ND	ND	ND	ND	ND
	AMMONIA	350.1	1.2	1.2	1.5	1.3	1.1	1.1
	TOTAL SOLIDS:							
	TSS	160.2	32.4	34.0	33.0	31.0	35.0	31.2
	TDS	160.1	679	723	707	662	655	651
	TOC	9060	4.3	5.5	5.4	5.8	6.9	6.8
	ALKALINITY, TOTAL: AS CaCO3	310.1	140	152	152	141	143	141
	ALKALINITY, BICARB AS CAC03	310.1	140	152	152	141	143	141
	ORP (mV)	--	59.0	-82.0	-65.0	-81.1	35.0	NA
	pH	--	8.8	7.1	7.1	7.3	7.2	NA
	CONDUCTIVITY (µS)	--	NA	620	680	580	580	600
	TEMPERATURE (degrees C)	--	2.8	5.6	6.8	5.6	4.8	7.0

-- = Not applicable
µS = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts
NA = Not analyzed
ND = Not detected

Table A-2 (continued). Downflow Effluent Results

DOWNFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WED051095 05/10/95 mg/L	WED061295 6/12/1995 mg/L	WED062895 6/28/1995 mg/L	WED071095 7/10/1995 mg/L	WED072695 7/26/1995 mg/L	WED080895 8/8/1995 mg/L
AQUEOUS	ALUMINUM	6010	ND*	ND	ND	ND	ND	0.015
	ARSENIC	6020	ND	ND	ND	ND	ND	ND
	CADMIUM	6020	ND	ND	ND	ND	ND	ND
	CALCIUM	6010	121.0	125	142	144	157	148
	IRON	6010	2.1	4.2	3.9	3.9	2.9	2.8
	LEAD	6020	ND	ND	ND	ND	ND	ND
	MAGNESIUM	6010	47.8	52.7	61.9	68.7	71.7	68.6
	MANGANESE	6010	2.4	3.9	4.4	4.1	4.1	3.8
	NICKEL	6010	0.016	0.017	0.020	0.021	0.020	0.022
	POTASSIUM	6010	6.5	6.8	7.1	8.2	7.6	6.8
	SILVER	6020	ND	ND	ND	ND	ND	ND
	SODIUM	6010	14.1	8.7	10.6	12.8	12.6	12.5
	ZINC	6010	13.3	26.5	31.2	30.8	29.7	33.1
	ANIONS:							
	SULFATE	300.0	348.0	425	453	525	537	535
	SULFIDE TOTAL	376.2	0.38	0.054	6.9	5.7	0.83	10.0
	FLUORIDE	340.2	1.1	0.87	0.80	0.96	0.86	0.91
	CHLORIDE	300.0	22.6	7.0	7.2	8.6	10.1	11.1
	PHOSPHORUS, TOTAL	365.3	4.3	3.7	4.7	3.5	2.6	2.5
	ORTHOPHOSPHATE	365.3	4.1	2.2	1.5	3.7	2.0	1.6
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	ND	ND	ND
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	ND	ND	ND	ND	ND	ND
	AMMONIA	350.1	0.96	0.90	0.94	1.0	0.50	0.64
	TOTAL SOLIDS:							
	TSS	160.2	29.2	43.0	53.6	48.0	28.0	38.8
	TDS	160.1	707	763	918	946	959	1090
	TOC	9060	4.4	6.6	11.4	5.4	7.2	4.7
	ALKALINITY, TOTAL:							
	AS CaCO3	310.1	137	129	195	146	141	
	ALKALINITY, BICARB			129	195			
	AS CAC03	310.1	137			146	141	
	ORP (mV)			-80	-68	-52		14
	pH			6.8	6.6	6.7		7.1
	CONDUCTIVITY (µS)			NA	720	NA		850
	TEMPERATURE (degrees C)			11.7	12.3	13.8		14.1

* - Aluminum was re-analyzed 6/2/95 due to blank contamination

-- = Not applicable

µS = MicroSiemens

mg/l = Milligrams per liter

mV = Millivolts

NA = Not analyzed

ND = Not detected

Table A-2 (continued). Downflow Effluent Results

DOWNFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WED082395 8/23/1995 mg/L	WED090595 9/5/1995 mg/L	WED110995 11/9/1995 mg/L	CDPHE 1/29/1996 mg/L	CDPHE 2/29/1996 mg/L	CDPHE 4/25/1996 mg/L
AQUEOUS	ALUMINUM	6010	ND	0.016	ND	NA	NA	NA
	ARSENIC	6020	ND	ND	ND	NA	NA	NA
	CADMIUM	6020	ND	ND	0.00030	0.00012	0.00072	0.15
	CALCIUM	6010	155	147	149	NA	NA	NA
	IRON	6010	2.7	2.2	2.4	NA	0.28	1.7
	LEAD	6020	ND	ND	0.0016	NA	NA	NA
	MAGNESIUM	6010	70.2	66.3	66.2	NA	NA	NA
	MANGANESE	6010	3.9	3.7	4.0	3.2	3.0	2.2
	NICKEL	6010	0.026	0.028	0.04	NA	NA	NA
	POTASSIUM	6010	6.2	6.2	5.3	NA	NA	NA
	SILVER	6020	ND	ND	ND	NA	NA	NA
	SODIUM	6010	13.7	12.5	14.5	NA	NA	NA
	ZINC	6010	34.1	29.1	34.5	28	26	15
	ANIONS:							
	SULFATE	300.0	539	529	535	440	430	318
	SULFIDE TOTAL	376.2	11.4	5.6	3.8	NA	NA	NA
	FLUORIDE	340.2	0.85	0.82	0.81	NA	NA	NA
	CHLORIDE	300.0	12.2	14	17.3	NA	NA	NA
	PHOSPHORUS, TOTAL	365.3	3.0	2.8	2.5	NA	NA	NA
	ORTHOPHOSPHATE	365.3	3.0	1.3	1.1	NA	NA	NA
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	NA	NA	NA
	NITRITE AS N	354.1	0.0070	ND	ND	NA	NA	NA
	NITRATE AS N	353.2/354.1	ND	ND	ND	NA	NA	NA
	AMMONIA	350.1	0.78	0.64	0.39	1.0	1.1	1.1
	TOTAL SOLIDS:							
	TSS	160.2	50.0	45.6	12.8	NA	NA	NA
	TDS	160.1	996	941	957	NA	NA	NA
	TOC	9060	4.2	4.9	4.2	NA	NA	NA
	ALKALINITY, TOTAL: AS CaCO3	310.1	143	179	152	NA	NA	NA
	ALKALINITY, BICARB AS CAC03	310.1	143	179	152	NA	NA	NA
	ORP (mV)				-60	NA	NA	NA
	pH				6.7	NA	NA	NA
	CONDUCTIVITY (µS)				750	NA	NA	NA
	TEMPERATURE (degrees C)				4.7	NA	NA	NA

-- = Not applicable
µS = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts

NA = Not analyzed
ND = Not detected

Table A-2 (continued). Downflow Effluent Results

DOWNFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	CDPHE 5/31/1996 mg/L	CDPHE 6/14/1996 mg/L	CDPHE 7/19/1996 mg/L	CDPHE 8/31/1996 mg/L	WED012197 1/21/1997 mg/l	WED022097 2/20/1997 mg/l
AQUEOUS	ALUMINUM	6010	*NA*	*NA*	*NA*	NA	0.098	ND
	ARSENIC	6020	*NA*	*NA*	*NA*	NA	NA	NA
	CADMIUM	6020	0.00016	ND	0.00021	0.00013	0.016	0.034
	CALCIUM	6010	*NA*	*NA*	*NA*	NA	115	113
	IRON	6010	0.87	0.92	1.10	1.60	0.53	0.72
	LEAD	6020	*NA*	*NA*	*NA*	NA	57.3	56.9
	MAGNESIUM	6010	*NA*	*NA*	*NA*	NA	3.3	5.0
	MANGANESE	6010	1.8	2.00	2.10	2.20	NA	NA
	NICKEL	6010	*NA*	*NA*	*NA*	NA	0.05	0.035
	POTASSIUM	6010	*NA*	*NA*	*NA*	NA	0.39	3.80
	SILVER	6020	*NA*	*NA*	*NA*	NA	NA	NA
	SODIUM	6010	*NA*	*NA*	*NA*	NA	16.6	16
	ZINC	6010	11	9.7	8.7	5.8	55	59.7
	ANIONS:							
	SULFATE	300.0	230	82	340	350	421	322
	SULFIDE TOTAL	376.2	*NA*	*NA*	*NA*	NA	0.13	ND
	FLUORIDE	340.2	*NA*	*NA*	*NA*	NA	NA	NA
	CHLORIDE	300.0	*NA*	*NA*	*NA*	NA	18.6	18.6
	PHOSPHORUS, TOTAL	365.3	*NA*	*NA*	*NA*	NA	NA	NA
	ORTHOPHOSPHATE	365.3	*NA*	*NA*	*NA*	NA	1.1	0.54
	NITRATE PLUS NITRITE AS N	353.2	*NA*	*NA*	*NA*	NA	ND	0.2
	NITRITE AS N	354.1	*NA*	*NA*	*NA*	NA	0.0025	0.0055
	NITRATE AS N	353.2/354.1	*NA*	*NA*	*NA*	NA	NA	NA
	AMMONIA	350.1	0.67	1.2	0.90	ND	0.24	0.20
	TOTAL SOLIDS:							
	TSS	160.2	*NA*	*NA*	*NA*	NA	7.2	6.0
	TDS	160.1	*NA*	*NA*	*NA*	NA	787	752
	TOC	9060	*NA*	*NA*	*NA*	NA	7.2	25.8
	ALKALINITY, TOTAL:							
	AS CaCO3	310.1	*NA*	*NA*	*NA*	NA	158	259
	ALKALINITY, BICARB							
	AS CAC03	310.1	*NA*	*NA*	*NA*	NA	158	259
	ORP(mV)		*NA*	*NA*	*NA*	NA	110	92.0
	pH		*NA*	*NA*	*NA*	NA	5.3	7.0
	CONDUCTIVITY (uS)		*NA*	*NA*	*NA*	NA	NA	NA
	TEMPERATURE (degrees C)		*NA*	*NA*	*NA*	*NA*	*1.8*	1.8

-- = Not applicable
µS = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts

NA = Not analyzed
ND = Not detected

Table A-3. Upflow Effluent Results

UPFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WEU030994 03/09/94 mg/L	WEU032394 03/23/94 mg/L	WEU040694 04/06/94 mg/L	WEU042094 04/20/94 mg/L	WEU050594 05/05/94 mg/L	WEU051994 05/19/94 mg/L
AQUEOUS	ALUMINUM	6010	0.077	0.20	0.078	0.39	0.062	0.028
	ARSENIC	6020	0.0062	0.0071	0.036	0.028	0.085	0.067
	CADMIUM	6020	0.00042	0.00049	0.00034	0.00036	0.00024	0.00020
	CALCIUM	6010	75.3	96.2	112.0	115.0	123.0	115.0
	IRON	6010	0.48	0.61	0.48	0.99	0.27	0.25
	LEAD	6020	0.0042	0.0030	0.0038	0.020	0.0022	0.0015
	MAGNESIUM	6010	72.7	71.4	69.3	63.1	66.0	60.1
	MANGANESE	6010	0.051	0.072	0.065	0.16	0.17	0.25
	NICKEL	6010	0.0054	0.0071	0.0095	0.0086	0.0086	0.0086
	POTASSIUM	6010	223.0	188.0	150.0	108.0	91.2	49.4
	SILVER	6020	0.0014	0.00015	0.000084	0.00048	0.000071	0.000072
	SODIUM	6010	33.9	31.2	27.3	21.8	22	16.8
	ZINC	6010	0.22	0.22	0.13	0.43	0.14	0.32
	ANIONS:							
	SULFATE	300.0	354	388	364	343	292	265
	SULFIDE TOTAL	376.2	0.38	7.9	9.4	1.9	0.47	2.4
	FLUORIDE	340.2	0.30	0.57	0.62	0.72	0.71	0.88
	CHLORIDE	300.0	83.2	76.0	59.7	50.0	35.5	21.8
	PHOSPHORUS, TOTAL	365.3	24.3	23.2	20.5	20.8	18.3	17.6
	ORTHOPHOSPHATE	365.3	26.8	26.7	20.9	20.6	18.6	15.9
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	0.060	ND	ND	ND
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	ND	ND	0.060	ND	ND	ND
	AMMONIA	350.1	23.8	19.6	15.0	12.9	10.5	6.8
	TOTAL SOLIDS:							
	TSS	160.2	6	12.0	6.0	25.2	ND	ND
	TDS	160.1	1390	1200	1110	1010	934	804
	TOC	9060	264	51.3	60.0	49.3	35.6	23.8
	ALKALINITY, TOTAL: AS CaCO3	310.1	367	347	310	308	265	230
	ALKALINITY, BICARB AS CAC03	310.1	367	347	310	308	265	230
	ORP (mV)	--	-377		-280		-269	-271
	pH	--	8		7.85		7.20	7.84
	CONDUCTIVITY (µS)	--	1410		1222		954	893
	TEMPERATURE (degrees C)	--	5		6.0		7.8	8.8

-- = Not applicable
µ/s = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts

NA = Not analyzed
ND = Not detected

Table A-3 (continued). Upflow Effluent Results

UPFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WEU060194 06/01/94 mg/L	WEU062994 06/29/94 mg/L	WEU071394 07/13/95 mg/L	WEU072894 07/28/95 mg/L	WEU081594 08/15/94 mg/L	WEU082494 08/24/94 mg/L
AQUEOUS	ALUMINUM	6010	0.045	0.021	ND	0.38	0.015	0.023
	ARSENIC	6020	ND	ND	ND	ND	ND	ND
	CADMIUM	6020	ND	ND	ND	ND	ND	ND
	CALCIUM	6010	117	120	132	132	134	132
	IRON	6010	0.26	0.47	0.79	1.4	2.7	3.3
	LEAD	6020	0.0030	0.0017	ND	ND	ND	ND
	MAGNESIUM	6010	61.5	61.7	61.4	58.6	58.3	57.1
	MANGANESE	6010	0.33	0.79	1.3	1.7	2.1	2.3
	NICKEL	6010	0.014	0.011	0.0052	0.0075	0.0089	0.0077
	POTASSIUM	6010	37.3	24.2	17.3	13.7	12.8	11.3
	SILVER	6020	ND	0.00014	0.00015	ND	0.00021	ND
	SODIUM	6010	15.7	15.6	15	14.2	14.4	14.4
	ZINC	6010	0.20	0.35	0.18	0.29	0.38	0.58
	ANIONS:							
	SULFATE	300.0	330	355	372	356	369	392
	SULFIDE TOTAL	376.2	5	3.2	0.59	1.5	0.69	1.0
	FLUORIDE	340.2	0.81	0.90	0.80	1.0	0.96	1.1
	CHLORIDE	300.0	22.2	20.9	18.9	20.2	19.9	20.5
	PHOSPHORUS, TOTAL	365.3	27.3	12.8	13.3	10.8	10.5	9.8
	ORTHOPHOSPHATE	365.3	14.9	21.3	19.5	10.5	7.8	9.2
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	1.9	1.7	1.8
	NITRITE AS N	354.1	ND	ND	ND	ND	0.077	ND
	NITRATE AS N	353.2/354.1	ND	ND	ND	1.9	1.7	1.8
	AMMONIA	350.1	5.6	3.0	3.0	2.6	1.6	1.3
	TOTAL SOLIDS:							
	TSS	160.2	ND	2.4	2.0	18.8	7.6	27.2
	TDS	160.1	808	759	766	816	802	767
	TOC	9060	28.0	11.4	9.0	9.6	8.8	6.0
	ALKALINITY, TOTAL: AS CaCO3	310.1	244	220	211	206	194	183
	ALKALINITY, BICARB AS CAC03	310.1	244	220	211	206	194	183
	ORP (mV)	--		-275	-280	NA	NA	-344
	pH	--		7.7	7.6	NA	7.6	7.46
	CONDUCTIVITY (µS)	--		1115	1090	1049	1069	1037
	TEMPERATURE (degrees C)	--		9.7	9.4	9.7	9.4	10.0

-- = Not applicable
µ/s = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts

NA = Not analyzed
ND = Not detected

Table A-3 (continued). Upflow Effluent Results

UPFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WEU090794 09/07/94 mg/L	WEU090794EB 09/07/94 mg/L	WEU091994 09/19/94 mg/L	WEU100494 10/04/94 mg/L	WB5100494 10/04/94 mg/L	WEU101994 10/19/94 mg/L
AQUEOUS	ALUMINUM	6010	0.052	ND	0.023	0.017	6.1	0.015
	ARSENIC	6020	ND	ND	ND	0.0011	0.0021	0.0011
	CADMIUM	6020	ND	ND	ND	ND	0.024	ND
	CALCIUM	6010	126	0.15	132	127	344	128
	IRON	6010	4.3	ND	5.1	5.7	92.7	5.6
	LEAD	6020	0.0011	ND	0.0015	ND	0.020	ND
	MAGNESIUM	6010	53.3	ND	56.6	54.5	139.0	54.1
	MANGANESE	6010	2.4	ND	2.6	2.4	28.6	2.7
	NICKEL	6010	0.0083	ND	0.015	0.015	0.20	0.019
	POTASSIUM	6010	10.2	ND	9.0	11.9	7.4	7.7
	SILVER	6020	0.00011*	ND*	0.00046	0.00052	0.00099	ND
	SODIUM	6010	13.6	ND	14.2	13.8	46.8	14.6
	ZINC	6010	0.82	0.019	1.4	2.4	9.4	3.1
	ANIONS:							
	SULFATE	300.0	395	ND	391	369	1760	392
	SULFIDE TOTAL	376.2	0.12	ND	0.23	5.0	NS	1.3
	FLUORIDE	340.2	1.0	ND	1.1	0.99	1.0	0.95
	CHLORIDE	300.0	21.1	ND	20.4	21.4	6.0	20.2
	PHOSPHORUS, TOTAL	365.3	1.6	ND	7.9	8.0	NS	6.8
	ORTHOPHOSPHATE	365.3	8.8	ND	9.8	7.1	ND	6.8
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	ND	NS	ND
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	0.018
	NITRATE AS N	353.2/354.1	ND	ND	ND	ND	NS	ND
	AMMONIA	350.1	1.0	ND	0.87	1.0	NS	0.51
	TOTAL SOLIDS:							
	TSS	160.2	27.6	ND	28.8	37.6	49.6	40.8
	TDS	160.1	787	ND	790	750	2520	734
	TOC	9060	6.4	ND	5.8	7.4	NS	5.3
	ALKALINITY, TOTAL: AS CaCO3	310.1	175	ND	164	182	ND	150
	ALKALINITY, BICARB AS CAC03	310.1	175	ND	164	182	ND	150
	ORP (mV)	--	-315		-267	-260	NA	-344
	pH	--	7.39		7.3	7.3	5.2	6.95
	CONDUCTIVITY (µS)	--	1007		990	960	NA	760
	TEMPERATURE (degrees C)	--	9.3		9.2	8.7	15.0	7.7

-- = Not applicable
µ/s = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts
NA = Not analyzed
ND = Not detected

Table A-3 (continued). Upflow Effluent Results

UPFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WEU101994D 10/19/94 mg/L	WEU110294 11/02/94 mg/L	WEU112094 11/20/94 mg/L	WEU113094 11/30/94 mg/l	WEU121494 12/14/94 mg/L	WEU010495 01/04/95 mg/L
AQUEOUS	ALUMINUM	6010	0.025	0.025	0.012	0.013	0.015	0.020
	ARSENIC	6020	ND	0.0011	0.0011	0.0014	0.0010	0.0035
	CADMIUM	6020	ND	ND	ND	ND	ND	ND
	CALCIUM	6010	130	122	127	123	127	116
	IRON	6010	5.7	7.0	6.0	7.5	6.8	6.3
	LEAD	6020	ND	ND	ND	ND	ND	ND
	MAGNESIUM	6010	54.8	52.5	53.8	51.4	52.4	53.1
	MANGANESE	6010	2.7	2.7	2.8	2.9	2.9	2.7
	NICKEL	6010	0.018	0.018	0.016	0.018	0.016	0.012
	POTASSIUM	6010	7.6	11.6	9.6	7.6	7.6	15.3
	SILVER	6020	ND	ND	0.00082	0.00028	ND	0.00033
	SODIUM	6010	15	14.2	14.7	14.5	15.6	14.5
	ZINC	6010	3.2	6.8	6.5	7.9	9.0	11.7
	ANIONS:							
	SULFATE	300.0	380	371	360	379	375	341
	SULFIDE TOTAL	376.2	1.8	3.8	3.8	4.6	3.2	3.3
	FLUORIDE	340.2	0.97	1.1	1.0	1.2	1.1	1.1
	CHLORIDE	300.0	20.0	23.2	23.0	22.2	22.4	25.6
	PHOSPHORUS, TOTAL	365.3	6.9	6.2	5.5	6.9	5.3	4.8
	ORTHOPHOSPHATE	365.3	6.2	5.9	2.7	2.7	4.7	3.0
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	ND	ND	ND
	NITRITE AS N	354.1	0.017	0.016	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	ND	ND	ND	ND	ND	ND
	AMMONIA	350.1	0.52	0.38	0.74	0.55	1.5	0.68
	TOTAL SOLIDS:							
	TSS	160.2	36.8	52.0	49.0	47.0	44.0	51.0
	TDS	160.1	742	727	745	729	729	707
	TOC	9060	5.6	9.4	7.3	19.1	6.4	12.5
	ALKALINITY, TOTAL: AS CaCO3	310.1	148	141	185	142	157	171
	ALKALINITY, BICARB AS CAC03	310.1	148	141	185	142	157	171
	ORP (mV)	--	-344	-164	-160	-216	-196	-80
	pH	--	6.95	7.01	7.2	6.8	7.33	7.0
	CONDUCTIVITY (µS)	--	760	935	NA	640	670	670
	TEMPERATURE (degrees C)	--	7.7	8.5	8.1	7.1	7.7	7.0

-- = Not applicable
µs = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts

NA - Not applicable
ND - Not detected

Table A-3 (continued). Upflow Effluent Results

UPFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WEU011895 01/18/95 mg/L	WEU020195 02/01/95 mg/L	WEU021595 02/15/95 mg/L	WEU022795 02/27/95 mg/L	WEU031595 03/15/95 mg/L	WEU032995 03/29/95 mg/L
AQUEOUS	ALUMINUM	6010	0.026	0.017	0.012	0.014	0.012	0.015
	ARSENIC	6020	0.0043	0.0015	0.0020	0.0021	0.0012	0.0012
	CADMIUM	6020	ND	ND	ND	ND	ND	ND
	CALCIUM	6010	116	119	119	116	116	105
	IRON	6010	5.4	4.9	4.3	4.0	4.0	3.5
	LEAD	6020	0.0034	ND	ND	ND	ND	ND
	MAGNESIUM	6010	49.5	49.0	49.1	48.2	48.2	44.6
	MANGANESE	6010	2.6	2.5	2.5	2.4	2.4	2.2
	NICKEL	6010	0.012	0.016	0.016	0.016	0.019	0.019
	POTASSIUM	6010	10.5	9.1	9.1	8.9	7.5	5.9
	SILVER	6020	ND	ND	ND	ND	ND	ND
	SODIUM	6010	15	16.7	16	15.2	16.0	15.7
	ZINC	6010	12.5	16.9	12.9	17.8	18.0	17.5
	ANIONS:							
	SULFATE	300.0	347	330	308	340	335	317
	SULFIDE TOTAL	376.2	3.0	6.0	3.3	4.3	2.7	4.3
	FLUORIDE	340.2	1.1	1.0	1.1	1.0	1.1	1.1
	CHLORIDE	300.0	23.0	23.4	23.4	23.6	24.3	23.0
	PHOSPHORUS, TOTAL	365.3	4.7	5.5	13.3	3.4	4.1	3.4
	ORTHOPHOSPHATE	365.3	3.0	5.0	3.7	3.0	2.6	1.8
	NITRATE PLUS NITRITE AS N	353.2	ND	1.4	ND	ND	ND	ND
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	ND	1.4	ND	ND	ND	ND
	AMMONIA	350.1	0.63	0.52	0.51	0.34	0.38	0.31
	TOTAL SOLIDS:							
	TSS	160.2	51.0	54.0	45.2	47.0	39.0	41.0
	TDS	160.1	693	692	682	700	671	667
	TOC	9060	7.8	6.8	6.2	5.8	4.3	7.0
	ALKALINITY, TOTAL:							
	AS CaCO3	310.1	168	161	191	150	151	154
	ALKALINITY, BICARB							
	AS CAC03	310.1	168	161	191	150	151	154
	ORP (mV)	--	5	-11.7	-44.0	-65	-63	-81.1
	pH	--	7.1	7.4	7.2	6.9	6.9	7.3
	CONDUCTIVITY (µS)	--	650	610	NA	680	650	580
	TEMPERATURE (degrees C)	--	8.3	6.1	7.6	8.4	8.8	5.6

-- = Not applicable
µS = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts
NA = Not analyzed
ND = Not detected

Table A-3 (continued). Upflow Effluent Results

UPFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WEU041295 04/12/95 mg/L	WEU042695 04/26/95 mg/L	WEU051095 05/10/95 mg/L	WEU061295 06/12/95 mg/L	WEU062895 6/28/1995 mg/L	WEU071095 7/10/1995 mg/L
AQUEOUS	ALUMINUM	6010	0.013	ND*	ND*	0.028	ND	ND
	ARSENIC	6020	0.0028	ND	ND	ND	ND	ND
	CADMIUM	6020	ND	0.00078	0.0094	0.0084	0.0045	ND
	CALCIUM	6010	114	106	110	103	121	130
	IRON	6010	3.5	2.2	2.2	4.6	3.7	3.8
	LEAD	6020	ND	ND	0.0019	0.0018	ND	ND
	MAGNESIUM	6010	46.5	45.3	44.5	45.2	60.2	68.2
	MANGANESE	6010	2.5	2.0	2.5	3	4.0	4.1
	NICKEL	6010	0.013	0.015	0.022	0.019	0.026	0.026
	POTASSIUM	6010	7.1	11.7	18.1	7.5	6.0	5.4
	SILVER	6020	ND	ND	ND	ND	ND	ND
	SODIUM	6010	15.3	14.2	13.3	8.9	11.2	13.2
	ZINC	6010	15.9	18.5	26.7	33.5	47.1	50.8
	ANIONS:							
	SULFATE	300.0	326	326	355	326	494	514
	SULFIDE TOTAL	376.2	0.39	2.9	1.3	0.065	1.5	1.5
	FLUORIDE	340.2	1.0	1.1	1.2	0.90	0.90	0.96
	CHLORIDE	300.0	22.5	26.0	25.9	7.6	7.0	8.3
	PHOSPHORUS, TOTAL	365.3	3.0	3.2	2.0	2.3	1.2	1.5
	ORTHOPHOSPHATE	365.3	2.7	1.6	2.4	1.5	0.34	0.48
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	ND	ND	ND
	NITRITE AS N	354.1	ND	ND	ND	ND	ND	ND
	NITRATE AS N	353.2/354.1	ND	ND	ND	ND	ND	ND
	AMMONIA	350.1	0.33	0.31	0.42	0.36	0.20	0.20
	TOTAL SOLIDS:							
	TSS	160.2	41.9	31.2	29.0	47.3	18.8	25.6
	TDS	160.1	657	607	724	668	885	944
	TOC	9060	8.0	8.3	9.9	9.1	4.9	4.8
	ALKALINITY, TOTAL:							
	AS CaCO3	310.1	152	147	138	181	136	147
	ALKALINITY, BICARB							
	AS CAC03	310.1	152	147	138	181	136	147
	ORP (mV)	--	-7.0	NA		-57		
	pH	--	7.1	NA		6.7	6.9	6.9
	CONDUCTIVITY (µS)	--	620	620		NA		
	TEMPERATURE (degrees C)	--	8.5	8.0		10.1		

* - Aluminum was re-analyzed 6/2/95 due to blank contamination

-- = Not applicable

NA = Not analyzed

µS = MicroSiemens

ND = Not detected

mg/L = Milligrams per liter

mV = Millivolts

Table A-3 (continued). Upflow Effluent Results

UPFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WEU072695 7/26/1995 mg/L	WEU080895 8/8/1995 mg/L	WEU082395 8/23/1995 mg/L	WEU090595 9/5/1995 mg/L	WEU110995 11/9/1995 mg/L	CDPHE 1/29/1996 mg/L
AQUEOUS	ALUMINUM	6010	ND	ND	ND	ND	ND	NA
	ARSENIC	6020	ND	ND	ND	ND	ND	NA
	CADMIUM	6020	0.0060	0.0046	0.0093	0.010	0.04400	0.037
	CALCIUM	6010	144	135	141	137	133	NA
	IRON	6010	2.5	2.5	2.1	1.8	0.93	1.6
	LEAD	6020	ND	ND	ND	ND	0.0022	NA
	MAGNESIUM	6010	68.6	64.4	66.1	64.3	62.1	NA
	MANGANESE	6010	4.1	3.8	3.8	3.6	4.4	3.3
	NICKEL	6010	0.028	0.032	0.036	0.04	0.059	NA
	POTASSIUM	6010	5.7	4.9	4.5	ND	4.3	NA
	SILVER	6020	ND	ND	ND	ND	ND	NA
	SODIUM	6010	12.2	13.3	14.0	12.2	15.6	NA
	ZINC	6010	53.2	56.6	59.8	59.9	73.6	47
	ANIONS:							
	SULFATE	300.0	549	584	561	569	559	460
	SULFIDE TOTAL	376.2	4.3	3.5	5.2	2.8	0.84	NA
	FLUORIDE	340.2	0.89	0.88	0.90	0.86	0.96	NA
	CHLORIDE	300.0	10.0	11.2	12.5	13.7	17.1	NA
	PHOSPHORUS, TOTAL	365.3	1.1	1.1	1.3	1.5	0.69	NA
	ORTHOPHOSPHATE	365.3	1.0	0.9	1.2	0.43	0.80	NA
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	ND	ND	NA
	NITRITE AS N	354.1	ND	ND	0.0080	ND	ND	NA
	NITRATE AS N	353.2/354.1	ND	ND	ND	ND	ND	NA
	AMMONIA	350.1	0.11	ND	0.21	ND	ND	0.2
	TOTAL SOLIDS:							
	TSS	160.2	16.8	17.6	30.0	26	5.2	NA
	TDS	160.1	961	999	1010	978	932	NA
	TOC	9060	5.7	3.4	3.2	3.7	2.1	NA
	ALKALINITY, TOTAL: AS CaCO3	310.1	135	138	149	160	115	NA
	ALKALINITY, BICARB AS CAC03	310.1	135	138	149	160	115	NA
	ORP (mV)	--						
	pH	--	6.8	7.1	7.1	6.9	7.0	NA
	CONDUCTIVITY (µS)	--						NA
	TEMPERATURE (degrees C)	--						NA

-- = Not applicable
µS = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts

NA = Not analyzed
ND = Not detected

Table A-3 (continued). Upflow Effluent Results

UPFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	CDPHE 2/29/1996 mg/L	CDPHE 4/25/1996 mg/L	CDPHE 5/31/1996 mg/L	CDPHE 6/14/1996 mg/L	CDPHE 7/19/1996 mg/L	CDPHE 8/31/1996 mg/L
AQUEOUS	ALUMINUM	6010	NA	NA	NA	NA	NA	NA
	ARSENIC	6020	NA	NA	NA	NA	NA	NA
	CADMIUM	6020	0.035	0.030	0.140	0.031	0.051	0.053
	CALCIUM	6010	NA	NA	NA	NA	NA	NA
	IRON	6010	1.3	0.81	0.17	1.1	0.87	0.90
	LEAD	6020	NA	NA	NA	NA	NA	NA
	MAGNESIUM	6010	NA	NA	NA	NA	NA	NA
	MANGANESE	6010	3.1	2.3	2.7	2.2	2.6	2.5
	NICKEL	6010	NA	NA	NA	NA	NA	NA
	POTASSIUM	6010	NA	NA	NA	NA	NA	NA
	SILVER	6020	NA	NA	NA	NA	NA	NA
	SODIUM	6010	NA	NA	NA	NA	NA	NA
	ZINC	6010	42	31	56	30	41	43.0
	ANIONS:							
	SULFATE	300.0	430	329	420	310	410	45
	SULFIDE TOTAL	376.2	NA	NA	NA	NA	NA	NA
	FLUORIDE	340.2	NA	NA	NA	NA	NA	NA
	CHLORIDE	300.0	NA	NA	NA	NA	NA	NA
	PHOSPHORUS, TOTAL	365.3	NA	NA	NA	NA	NA	NA
	ORTHOPHOSPHATE	365.3	NA	NA	NA	NA	NA	NA
	NITRATE PLUS NITRITE AS N	353.2	NA	NA	NA	NA	NA	NA
	NITRITE AS N	354.1	NA	NA	NA	NA	NA	NA
	NITRATE AS N	353.2/354.1	NA	NA	NA	NA	NA	NA
	AMMONIA	350.1	0.4	0.3	ND	0.2	0.2	ND
	TOTAL SOLIDS:							
	TSS	160.2	NA	NA	NA	NA	NA	NA
	TDS	160.1	NA	NA	NA	NA	NA	NA
	TOC	9060	NA	NA	NA	NA	NA	NA
	ALKALINITY, TOTAL: AS CaCO3	310.1	NA	NA	NA	NA	NA	NA
	ALKALINITY, BICARB AS CAC03	310.1	NA	NA	NA	NA	NA	NA
	ORP (mV)	--	NA	NA	NA	NA	NA	NA
	pH	--	NA	NA	NA	NA	NA	NA
	CONDUCTIVITY (µS)	--	NA	NA	NA	NA	NA	NA
	TEMPERATURE (degrees C)	--	NA	NA	NA	NA	NA	NA

-- = Not applicable
µS = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts

NA = Not analyzed
ND = Not detected

Table A-3 (continued). Upflow Effluent Results

UPFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WEU120996 12/09/96 mg/L	WEU012197 01/21/97 mg/L	WEU022097 02/20/96 mg/L	WEU031997 03/19/97 mg/L	WEU042297 04/22/97 mg/L	04/22/97 mg/L
AQUEOUS	ALUMINUM	6010	ND	ND	ND	ND	ND	ND (D)
	ARSENIC	6020	NA	NA	NA	NA	NA	NA
	CADMIUM	6020	0.088	0.032	0.057	0.034	0.015	0.015 (D)
	CALCIUM	6010	115	116	119	109	95.9	97.3 (D)
	IRON	6010	0.99	1.2	0.8	1.1	0.98	0.99 (D)
	LEAD	6020	NA	NA	NA	NA	NA	NA
	MAGNESIUM	6010	53.4	52.8	55.4	47.8	43.2	43.9 (D)
	MANGANESE	6010	2.9	2.7	3	2.8	2	2 (D)
	NICKEL	6010	0.035 J	0.032 J	0.033 J	0.041	0.021 J	0.021 J (D)
	POTASSIUM	6010	3.6 J	3.5 J	4.4	ND	4.6 J	4.6 J
	SILVER	6020	NA	NA	NA	NA	NA	NA
	SODIUM	6010	15.3	15.5	15.7	14.4	7.3	7 (D)
	ZINC	6010	46	41.3	48.6	38	22.7	22.9 (D)
	ANIONS:							
	SULFATE	300.0	434	400	413	392	252	248 (D)
	SULFIDE TOTAL	376.2	0.8	1.2	0.71	0.037 J	3.5	3.6 (D)
	FLUORIDE	340.2	NA	NA	NA	NA	NA	NA
	CHLORIDE	300.0	17.4	18.1	19.4	18.5	12.4	12.2 (D)
	PHOSPHORUS, TOTAL	365.3	NA	NA	NA	NA	NA	NA
	ORTHOPHOSPHATE	365.3	0.84	1.7	1.1	2	1.7	1.8 (D)
	NITRATE PLUS NITRITE AS N	353.2	ND	ND	ND	ND	0.020 J	ND (D)
	NITRITE AS N	354.1	ND	0.0057 J	0.0055 J	0.0058 J	0.0038 J	.0036 J (D)
	NITRATE AS N	353.2/354.1	NA	NA	NA	NA	NA	NA
	AMMONIA	350.1	0.070 J	0.17	0.11	0.19	0.22	0.21 (D)
	TOTAL SOLIDS:							
	TSS	160.2	NA	17.2	7.2	16.4	21.6	23.2 (D)
	TDS	160.1	806	773	800	712	575	574 (D)
	TOC	9060	5.6	5.2	5.3	5	7.6	7.7 (D)
	ALKALINITY, TOTAL: AS CaCO3	310.1	158	178	160	153	180	179 (D)
	ALKALINITY, BICARB AS CAC03	310.1	158	178	160	153	180	179 (D)
	ORP (mV)	--	94	108	80	82	72	72
	pH	--	6.5	5.4	6.7	6.3	6.2	6.2
	CONDUCTIVITY (µS)	--	NA	NA	NA	NA	NA	NA
	TEMPERATURE (degrees C)	--	5.1	3.2	5.0	6.0	7.0	7.0

-- = Not applicable
µS = MicroSiemens
mg/l = Milligrams per liter
mV = Millivolts

NA = Not analyzed
ND = Not detected

Table A-3 (continued). Upflow Effluent Results

UPFLOW EFFLUENT

	ANALYTE	ANALYTICAL METHOD	WEU052897 05/28/97 mg/L	WEU062397 06/23/97 mg/L	WEU082897 8/28/1997 mg/L	WEU093097 9/30/1997 mg/L	WEU102997 10/29/1997 mg/L	WEU112597 11/25/1997 mg/L
AQUEOUS	ALUMINUM	6010	ND	ND	0.10	0.078	ND	ND
	ARSENIC	6020	NA	NA	NA	NA	NA	NA
	CADMIUM	6020	0.2	ND	0.0063	0.0040	0.010	0.016
	CALCIUM	6010	99.6	113	153	152	144	138
	IRON	6010	3.3	1.2	4.0	2.9	1.2	1
	LEAD	6020	NA	NA	NA	NA	NA	NA
	MAGNESIUM	6010	48.9	53.7	64.6	64.8	65.6	56.6
	MANGANESE	6010	2.1	2.2	3.0	2.7	3.6	3.0
	NICKEL	6010	0.022 J	ND	0.023	ND	ND	ND
	POTASSIUM	6010	4.0 J	4.9 J	5.2	4.5	3.9	ND
	SILVER	6020	NA	NA	NA	NA	NA	NA
	SODIUM	6010	14.8	0.94 J	6.9	13.5	14.7	15.0
	ZINC	6010	60.1	25.4	21.2	14.8	26.4	24.6
	ANIONS:							
	SULFATE	300.0	250	275	308	311	484	460
	SULFIDE TOTAL	376.2	17	6.1	2.4	4.1	2.2	2.4
	FLUORIDE	340.2	NA	NA	NA	NA	NA	NA
	CHLORIDE	300.0	6.9	9.2	12.9	15.5	16.7	17.8
	PHOSPHORUS, TOTAL	365.3	NA	NA	NA	NA	NA	NA
	ORTHOPHOSPHATE	365.3	1.1	1.9	0.70	2.7	1.1	1.9
	NITRATE PLUS NITRITE AS N	353.2	ND	ND		0.034	ND	ND
	NITRITE AS N	354.1	0.0051 J	0.0047J	0.0040	ND	0.0020J	0.0032J
	NITRATE AS N	353.2/354.1	NA	NA	NA	NA	NA	NA
	AMMONIA	350.1	ND	0.4	1.7	1.3	0.64	1.0
	TOTAL SOLIDS:							
	TSS	160.2	102	38		31.6	13.6	27.2
	TDS	160.1	566	683	808	865	892	887
	TOC	9060	5.3	16	29.7	18.8	6.7	6.6
	ALKALINITY, TOTAL: AS CaCO3	310.1	190	228	NA	317	166	199
	ALKALINITY, BICARB AS CAC03	310.1	190	228	NA	317	166	199
	ORP (mV)	--	-58	47	30	-37	NA	49
	pH	--	6.4	6.8	5.7	6.2	6.7	6.7
	CONDUCTIVITY (µS)	--	NA	NA	NA	NA	NA	NA
	TEMPERATURE (degrees C)	--	9.2	12.7	12.0	10.3	5.7	5.5

-- = Not applicable
µS = MicroSiemens
mg/L = Milligrams per liter
mV = Millivolts
NA = Not analyzed
ND = Not detected

Table A-4. Substrate Results - Downflow Cell

SUBSTRATE - DOWNFLOW CELL

	ANALYTE	ANALYTICAL METHOD	SD2032394 03/23/94 mg/kg	SD2062994 06/29/94 mg/kg	SD5062994 06/29/94 mg/kg	SD5082594 08/25/94 mg/kg
SEDIMENT	ALUMINUM	6010	1410.0	65.6	423.0	2580.0
	ARSENIC	6020	2.9	0.14	ND	0.59
	CADMIUM	6020	2.2	0.56	4.8	5.1
	CALCIUM	6010	7040.0	406	2330.0	7650.0
	IRON	6010	2250.0	88.7	653.0	3650.0
	LEAD	6020	7.4	3.1	53.4	16.2
	MAGNESIUM	6010	2140.0	145	571.0	2120.0
	MANGANESE	6010	99.2	4.1	36.0	140.0
	NICKEL	6010	3.9	ND	1.9	4.9
	POTASSIUM	6010	890.0	149.0	184.0	1360.0
	SILVER	6020	0.061	0.024	0.79	0.16
	SODIUM	6010	ND	76.3	ND	ND
	ZINC	6010	1560.0	59.7	1000.0	2650.0
	ANIONS:					
	SULFATE	300.0	214	56.5	143.0	214
	SULFIDE, REACTIVE	EPA/OSW	0.40	19.1	18.6	3.2
	SULFIDE, ACID VOLATILE	EPA (Draft)	NA	226	178.0	ND
	FLUORIDE	340.2	NA	NA	NA	NA
	CHLORIDE	300.0	NA	NA	NA	NA
	PHOSPHORUS, TOTAL	365.3	NA	NA	NA	NA
	ORTHOPHOSPHATE	365.3	25.8	63.4	30.5	18.8
	NITRATE PLUS NITRITE AS N	353.2	NA	NA	NA	NA
	NITRITE AS N	354.1	NA	NA	NA	NA
	NITRATE AS N	353.2/354.1	NA	NA	NA	NA
	AMMONIA	350.1	NA	NA	NA	NA
	WATER (%)	ILMO1.1	82	62	70	75

NA = Not analyzed
ND = Not detected

Table A-4 (continued). Substrate Results - Downflow Cell

SUBSTRATE - DOWNFLOW CELL

	ANALYTE	ANALYTICAL METHOD	SD2100494 10/04/94 mg/kg	SD5100494 10/04/94 mg/kg	SD2110294 11/02/94 mg/kg	SD2010495 01/04/95 mg/kg
SEDIMENT	ALUMINUM	6010	2640.0	3200.0	3200.0	2430.0
	ARSENIC	6020	1.5	0.97	1.3	1.5
	CADMIUM	6020	4.6	10.5	4.3	4.3
	CALCIUM	6010	8460.0	4890.0	11700.0	8770.0
	IRON	6010	3410.0	4640.0	4860.0	3460.0
	LEAD	6020	46.4	30.8	11.3	18.2
	MAGNESIUM	6010	2180.0	1800.0	2910.0	2190.0
	MANGANESE	6010	160.0	151.0	232.0	144.0
	NICKEL	6010	3.7	6.4	7.0	4.9
	POTASSIUM	6010	930.0	1410.0	1140.0	729.0
	SILVER	6020	0.17	0.29	0.069	0.28
	SODIUM	6010	ND	108.0	92.8	ND
	ZINC	6010	1510.0	2850.0	3170.0	3250.0
	ANIONS:					
	SULFATE	300.0	86.8	187.0	159.0	184.0
	SULFIDE, REACTIVE	EPA/OSW	103.0	79.3	1.1	15.3
	SULFIDE, ACID VOLATILE	EPA (Draft)	190.0	70.6	171.0	117.0
	FLUORIDE	340.2	NA	NA	NA	NA
	CHLORIDE	300.0	NA	NA	NA	NA
	PHOSPHORUS, TOTAL	365.3	NA	NA	NA	NA
	ORTHOPHOSPHATE	365.3	39.0	3.3	12.6	6.4
	NITRATE PLUS NITRITE AS N	353.2	NA	NA	NA	NA
	NITRITE AS N	354.1	NA	NA	NA	NA
	NITRATE AS N	353.2/354.1	NA	NA	NA	NA
	AMMONIA	350.1	NA	NA	NA	NA
	WATER (%)	ILM01.0	62	70	NA	63

NA = Not analyzed
ND = Not detected

Table A-4 (continued). Substrate Results - Downflow Cell

SUBSTRATE - DOWNFLOW CELL

	ANALYTE	ANALYTICAL METHOD	SD2061295 06/12/95 mg/kg	SD2082395 34934 mg/kg	SD093097 09/30/97 mg/kg
SEDIMENT	ALUMINUM	6010	2050	1660	2200
	ARSENIC	6020	0.59	0.75	NA
	CADMIUM	6020	11.3	31.4	219
	CALCIUM	6010	7860	4720	7680
	IRON	6010	3200	2490	4400
	LEAD	6020	21.4	177	NA
	MAGNESIUM	6010	1860	1360	2070
	MANGANESE	6010	149	108	1950
	NICKEL	6010	7.0	6.2	22.5
	POTASSIUM	6010	646	463	666
	SILVER	6020	0.11	ND	NA
	SODIUM	6010	119	ND	1930
	ZINC	6010	4990	4680	37500
	ANIONS:				
	SULFATE	300.0	93.0	154	154
	SULFIDE, REACTIVE	EPA/OSW	5.3	2.5	NA
	SULFIDE, ACID VOLATILE	EPA (Draft)	528	687	187
	FLUORIDE	340.2	MNA	NA	NA
	CHLORIDE	300.0	NA	NA	NA
	PHOSPHORUS, TOTAL	365.3	NA	NA	NA
	ORTHOPHOSPHATE	365.3	5.0	1.8	NA
	NITRATE PLUS NITRITE AS N	353.2	NA	NA	NA
	NITRITE AS N	354.1	NA	NA	NA
	NITRATE AS N	353.2/354.1	NA	NA	NA
	AMMONIA	350.1	NA	NA	NA
	WATER (%)	ILM01.0		60	64

NA = Not analyzed
ND = Not detected