FLOW MEASUREMENTS & CHEMICAL ANALYSES

		100	101	102	103	104	105	106	107	111	112	113	114	201	202	203	204	206	207	208	209	210	211	214	215	216	217	218	220	221	232	237	239	241	301	301a	302	303	304
DATE 2-5-73	Date		6			6	6			6							5	5	5	5	6	6		6	6	6	5	5	5	5			5	5	5	5	5	6	7
	Flow-g.p.m.		84.8			84.8	.2			43.9							41.8	30.9	24.6	16.7	91.1	8.2		21.7	55	62.3	34.2	43.9	1817	15.6			59.7	8.9	284	259	17.9	462	13.5
	pH		4.3			3.1	3.4			4.2							2.9	4.8	4.4	5.6	4.0	3.5		4.0	3.4	4.6	4.6	5.0	3.5	4.4			4.8	3.5	2.4	4.2	2.4	2.8	2.4
mg/l	Alkalinity		0			0	0			0							0	0	0	0	0	0		0	0	0	0	0	0	0			0	0	0	0	0	0	0
	Acidity		8			60	17			9							820	4	7	3	36	31		94	240	4	78	9	68	17			5	55	1000	30	620	240	1600
	Total Iron		.3			2.3	.2			.1							19	<0.1	<0.1	.6	.2	.2		<0.1	5.4	<0.1	<0.1	0.1	8.4	3.2			<0.1	.3	160	3.7	72	23	190
	Ferrous		<0.1			<0.1	<0.1			<0.1							.2	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	.5	<0.1	<0.1	<0.1	5.4	2.0			<0.1	<0.1	8.4	3.5	<0.1	5.5	<0.1
	Sulfate		22			62	31			19							1200	82	77	58	140	34		190	900	12	310	70	170	38			19	120	1100	130	990	250	2000
lb./day	Alkalinity		0			0	0			0							0	0	0	0	0	0		0	0	0	0	0	0	0			0	0	0	0	0	0	0
	Acidity		8.2			61.2	.1			4.8							412	1.5	2.1	.6	39.4	2.9		24.5	158.6	3	32	4.8	1485	3.2			3.6	5.9	3412	93.4	133.7	1332	259
	Total Iron		.3			2.3	.001			.05							9.5	<0.4	<0.3	.12	.22	.02		<.03	3.6	<.07	<.04	.05	183	.6			<.07	.03	546	11.5	15.5	127.7	30.8
	Ferrous		<0.1			<0.1	–			<.05							.1	<.04	<.03	<.02	<.11	<.01		<.03	.33	<.07	<.04	<.05	118	.38			<.07	<.01	28.7	10.9	<.02	30.5	<.02
	Sulfate		22.4			63.2	.1			10							603	30.4	22.8	11.6	153.2	3.3		49.5	595	5.6	127	36.9	3711	7.1			13.6	12.8	3754	404.6	212.5	1388	323.8
DATE 3-5-73	Date		6			6	6			6							5	5	5	5	5	5		5	5	5	5	5	5	5			5	5	6	6	6	6	7
	Flow-g.p.m.		50.3			88	12.4			36.1							29.2	16.7	13.5	27.5	73.1	6.1		123	55	43.9	38	160.5	835	3.4			55	6.1	193	494	23.2	880	8.2
	pH		4.4			3.3	4.4			3.4							2.9	4.4	4.3	5.6	4.1	3.6		4.1	3.4	4.6	4.6	4.7	3.4	3.8			4.6	3.4	2.4	3.8	2.5	3.1	2.5
mg/l	Alkalinity		0			0	0			0							0	0	0	0	0	0		0	0	0	0	0	0	0			0	0	0	0	0	0	0
	Acidity		8			45	32			9							650	6	10	3	26	21		96	240	7	36	13	99	34			6	10	1000	20	620	160	1200
	Total Iron		.3			1.3	.3			.1							18	<.1	.1	1.5	.2	.4		.2	1.4	.1	.2	.6	9.3	5.2			.1	.4	170	2.2	63	12	130
	Ferrous		<.2			<.2	<.2			<.1							1.0	<.1	<.1	.8	<.2	<.2		<.2	.2	<.1	<.2	.5	7.2	2.3			<.1	<.2	<.2	1.9	<.2	3.6	<.2
	Sulfate		20			50	36			20							900	75	100	48	90	30		190	690	15	240	70	190	80			20	30	1300	70	625	290	1400
lb./day	Alkalinity		0			0	0			0							0	0	0	0	0	0		0	0	0	0	0	0	0			0	0	0	0	0	0	0
	Acidity		4.8			47.6	4.8			3.9							228.1	1.2	1.6	1.0	22.8	1.5		141.9	158.6	3.7	16.4	25.1	993.3	1.4			4.0	.7	2319	118.7	172.8	1691.8	118.3
	Total Iron		.18			1.37	.04			.04							6.32	.02	.02	.5	.18	.03		.3	.93	.05	.09	1.16	93.31	.21			.07	.03	394.22	13.06	17.56	126.88	12.81
	Ferrous		.12			<.21	.03			<.04							.35	<.02	<.02	.26	<.18	<.02		<.3	.13	<.05	<.09	.96	72.24	.09			<.07	<.02	<.46	11.28	<.06	38.06	<.02
	Sulfate		12.1			52.9	5.4			8.7							315.8	15.1	16.2	15.9	79.1	2.2		280.8	456	7.9	109	135	1906.2	3.3			13.2	2.2	3014.7	415.5	174.2	3066.3	138
DATE 4-2-73	Date		3	3	3	3	3	3	5	5	2	2	5	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	4	4	4	4	4
	Flow-g.p.m.		70.2	178.6	–	70.2	8.9	19.2	16.7	34.2	1.7	24.6	19.2	34.2	27.5	26.1	23.2	19.2	3.0	14.6	127	6.1	956	41.8	34.2	46.1	7.5	29.2	907	8.9	29.2	16.7	59.7	11.5	123	300.5	10.7	388	36.1
	pH		4.5	4.5	3.7	3.3	3.6	3.4	3.9	4.7	4.7	3.4	4.1	3.9	5.9	3.7	2.9	4.8	4.4	5.1	4.2	3.5	3.7	4.2	3.5	4.9	4.5	4.8	3.5	4.0	5.4	5.5	4.9	3.5	2.5	3.9	2.7	3.3	2.8
mg/l	Alkalinity		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Acidity		10	9	31	52	31	56	78	8	6	43	26	39	2	49	950	6	7	3	28	34	250	110	290	5	150	26	110	34	4	3	4	54	850	36	440	160	1000
	Total Iron		.3	<.2	12	1.7	.2	1.8	.3	<.1	.2	1.0	.1	.4	.2	.5	13	<.1	<.1	2.0	.1	.1	.2	<.2	.6	<.1	.2	.2	8.3	3	.2	.1	<.1	.5	120	4.8	42	9.8	100
	Ferrous		<.2	<.2	<.2	<.2	<.2	.6	.3	<.1	<.2	.2	<.1	.4	<.2	.3	<.2	<.1	<.1	1.7	<.1	<.1	.2	<.2	.5	<.1	<.2	<.2	5.0	2.4	<.2	<.1	<.1	<.2	18	3.8	1	7.0	1
	Sulfate		29	14	24	62	24	48	380	31	34	38	140	86	19	86	1200	34	38	67	96	48	530	220	920	14	540	130	160	67	29	29	19	19	900	38	450	240	1200
lb./day	Alkalinity		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Acidity		8.4	19.3	–	43.9	3.3	12.9	15.7	3.3	.12	12.7	6	16.0	.66	15.3	264.3	1.4	.25	.52	42.7	2.5	2872	55.3	119.2	2.8	13.5	9.1	1198.8	3.6	1.4	.6	2.9	7.5	1256.2	130	56.3	745.9	433.8
	Total Iron		.25	.43	–	1.43	.02	.42	.06	.04	.004	.30	.02	.16	.07	.16	3.62	.02	.004	.35	.15	.007	2.30	.1	.25	.055	.02	.07	90.5	132	.07	.02	.07	0.7	177.4	17.3	5.4	45.7	43.4
	Ferrous		.17	.43	–	.17	.02	.14	.06	.04	.004	.06	.02	.16	.07	.09	.06	.02	.004	.30	.15	.007	2.30	.1	.21	.055	.02	.07	54.5	.26	.07	.02	.07	.03	26.6	13.7	.13	32.6	.43
	Sulfate		24.5	30.0	–	52.3	2.6	11.1	76.3	12.7	.67	11.2	32.3	35.3	6.3	26.9	333.8	7.8	1.4	11.7	146.5	3.5	6088	110.5	378.1	7.8	48.5	456	1743.7	7.2	10.2	5.8	13.6	26	1330.1	137.2	57.6	1118.9	520.5
DATE 5-7-73	Date	8	7	7		7	7	7	8	8		7	8		7	7	7	7	7	7	7	7	7		7	7	7	7	7	7	7	7	7	7	8	8	8	8	8
	Flow-g.p.m.	3.8	24.6	220.5	–	59.7	2.6	3.4	21.7	14.6	–	24.6	12.4		4.4	19.2	6.8	19.2	3.0	3.0	55	4.9	236		30.9	6.1	3.8	1.6	980.5	4.9	.8	3.4	6.1	7.5	123	164.5	7.5	200.5	6.1
	pH	3.2	4.1	4.7	D	3.3	3.7	3.3	3.7	4.4	D	3.4	4.0	R	5.7	3.6	2.8	4.5	4.3	5.3	4.3	3.5	3.5	E	3.5	4.3	4.7	3.5	3.7	5.4	5.4	5.6	5.0	3.5	2.4	4.0	2.6	3.1	2.5
mg/l	Alkalinity	0	0	0	R	0	0	0	0	0	R	0	0	E	0	0	0	0	0	0	0	0	0	L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Acidity	140	15	4	Y	54	27	63	140	8	Y	47	57	M	3	45	950	5	6	4	41	32	250	I	200	6	140	17	100	56	3	6	4	49	960	57	550	240	1500
	Total Iron	.4	.6	.1		2.0	.3	1.5	.8	.6		1.4	.3	0	.4	.6	14	.2	.2	2.0	.2	.2	1.1	M	.8	.2	.2	.2	7.1	5.4	.6	.1	.2	.4	140	6.8	52	18	150
	Ferrous	.2	.5	<.1		.5	.3	.8	.5	.6		.7	.3	V	.3	.6	5	<.2	<.2	2.0	<.2	.2	1.1	I	.7	<.2	<.2	<.2	4.1	4.2	.6	<.1	<.2	.4	25	6.6	5.0	8.2	20
	Sulfate	240	38	10		55	34	60	460	34		58	210	E	29	77	1400	46	89	74	100	55	1000	N	960	24	640	120	190	120	24	22	17	100	1000	160	540	360	1800
lb./day	Alkalinity	0	0	0		0	0	0	0	0		0	0	D	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Acidity	6.5	4.4	10.6		38.7	.8	2.6	36.5	1.4		13.9	8.5		.2	10.4	77.1	1.2	.2	.1	27.1	1.9	709	T	74.1	.4	6.5	.3	1178.1	3.3	T	.3	.3	4.4	1418.8	112.7	49.4	578.2	109
	Total Iron	.02	.18	.26		1.43	.01	.06	.21	.1		.41	.04		.02	.14	1.14	.05	<.01	.07	.13	.01	3.12	E	.3	.01	<.01	<.01	83.65	.32	T	<.01	.01	.04	206.9	13.44	4.67	43.36	10.9
	Ferrous	.01	.15	.26		.36	.01	.03	.13	.1		.21	.04		.02	.14	.41	.05	<.01	.07	.13	.01	3.12		.26	.01	<.01	<.01	48.3	.25	T	<.01	<.01	.04	36.95	13.04	.45	19.75	1.45
	Sulfate	11.1	11.2	26.5		39.5	1.1	2.5	119.9	5.9		17.1	31.3		1.5	17.8	113.7	10.6	3.2	21.9	66.1	3.3	2836		355.8	1.7	29.5	2.3	2238	7.1	T	.9	1.2	9.0	1478	316.2	48.5	867.3	130.8

FLOW MEASUREMENTS & CHEMICAL ANALYSES

		100	101	102	103	104	105	106	107	111	112	113	114	201	202	203	204	206	207	208	209	210	211	214	215	216	217	218	220	221	232	237	239	241	301	301a	302	303	304
DATE	Date	4	4	4		4	4	4	4	4		5	4		5	5	5	5	5	5	5	5	5		5	5	5	5	4	4		4	4	4	5	5		5	5
6-4-73	Flow-g.p.m.	1.1	24.6	258.9	D	50.3	1.1	10.7	8.9	7.5	D	21.7	7.5		6.1	24.6	6.1	12.4	2.2	7.5	41.8	2.2	207		30.9	–	2.2	21.7	931	4.9	M	3.8	30.9	6.1	139	164.5	M	200.5	3.0
	pH	3.1	4.0	4.8	R	3.4	3.6	3.2	3.6	4.2	R	3.5	3.9		6.1	3.6	2.9	4.5	4.4	5.6	4.3	3.6	3.6		3.5	5.0	4.3	4.6	3.5	3.7	I	5.7	4.9	3.5	2.5	3.8	I	3.1	2.5
	mg/l Alkalinity	0	0	0	Y	0	0	0	0	0	Y	0	0		0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	S	0	0	0	0	0	S	0	0
	mg/l Acidity	140	16	4		48	26	68	100	9		47	28		1	46	820	10	8	10	24	40	310		230	6	160	24	95	59	S	4	6	52	940	30	S	220	1300
	mg/l Total Iron	.75	.55	< .1		1.9	.4	1.5	1.4	< .1		1.1	.1		< .1	.6	21	< .1	.1	3	.25	.25	1.3		.65	.2	.2	.2	6.3	5.1	I	.45	< .1	.4	110	42.5	I	15	140
	mg/l Ferrous	.5	.5	< .1		< .5	.5	< .5	.9	< .1		< .5	< .1		< .1	< .5	< 1	< .1	< .1	3	< .2	< .2	.9		.6	< .2	< .2	< .2	4.0	4.5	N	< .45	< .1	< .4	< 1	3.8	N	7.2	< 1
	mg/l Sulfate	270	38	19		58	34	72	420	29		53	210		26	77	1200	50	91	60	91	48	990		1400	19	610	140	180	96	G	29	24	130	990	140	G	370	1700
	lb./day Alkalinity	0	0	0		0	0	0	0	0		0	0		0	0	0	0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0	0		0	0
	lb./day Acidity	1.9	4.7	12.4		29.0	.3	8.7	10.7	.8		12.2	2.5		< .1	13.6	59.6	1.5	.2	.9	12.1	1.1	771		85.2	–	4.2	6.3	1062.7	3.5		.2	2.2	3.8	1569.9	59.3		530	47
	lb./day Total Iron	.01	.16	.31		1.15	< .01	.19	.15	< .01		.29	< .01		< .01	.18	1.53	.02	T	.27	.13	< .01	3.23		.24	–	< .01	.05	70.47	.3		.02	.04	.03	183.71	8.4		36.14	5.06
	lb./day Ferrous	< .01	.15	.31		.30	< .01	.06	.10	< .01		.13	< .01		< .01	.15	.07	.02	T	.27	.10	< .01	2.24		.22	–	< .01	.05	44.75	.27		.02	.04	.03	1.67	7.51		17.35	.04
	lb./day Sulfate	3.6	11.2	59.1		35.1	.4	9.2	44.9	2.6		13.8	18.9		1.9	22.8	87.2	7.4	2.4	5.4	45.7	1.3	2462		518.9	–	16.1	36.5	2013.5	5.7		1.3	8.9	9.5	1653.4	276.7		891.4	61.5
DATE	Date	9	9	11	9	9			11	9		10	11		9		9	10	10	10	10	10	11		10	–	9	9	9	10				9	10	10	10	10	
7-9-73	Flow-g.p.m.	1.1	8.9	161.1	3.0	19.2	D	D	3.8	3.8	D	8.9	3.0		2.2	D	3.0	8.9	.8	6.1	19.2	.4	19.1		27.5	D	1.1	8.9	835	2.2	D	D	D	3.8	94.2	85.7	1.1	99.9	D
	pH	3.4	3.8	5.2	3.6	3.4	R	R	3.4	4.5	R	3.6	4.0		5.7	R	3.0	4.8	4.7	5.6	4.4	3.7	3.6		3.6	R	4.3	4.8	3.6	3.6	R	R	R	3.6	2.9	3.7	2.9	3.3	R
	mg/l Alkalinity	0	0	0	0	0	Y	Y	0	0	Y	0	0		0	Y	0	0	0	0	0	0	0		0	Y	0	0	0	0	Y	Y	Y	0	0	0	0	0	Y
	mg/l Acidity	140	28	4	48	64			150	10		5.2	40		2		1100	6	8	14	26	50	310		250		190	48	88	86				56	980	40	510	320	
	mg/l Total Iron	.4	1.1	.2	.7	2.2			12	.2		1.3	.3		.4		34	.2	.2	6.7	2.5	1.3	3.9		1.1		.3	.7	12	11				1.5	180	13	42	20	
	mg/l Ferrous	< .4	.9	< .2	< .5	.5			5.7	< .2		.5	< .3		< .4		5	< .2	< .2	6.2	1.8	.8	< .5		.9		< .3	< .5	4	3.5				.7	12	6.4	7	14	
	mg/l Sulfate	270	110	24	120	77			600	43		100	240		24		1600	53	58	77	91	98	1300		940		740	150	200	210				120	1100	200	520	480	
	lb./day Alkalinity	0	0	0	0	0			0	0		0	0		0		0	0	0	0	0	0	0		0		0	0	0	0				0	0	0	0	0	
	lb./day Acidity	1.9	3.0	7.7	1.7	14.8			6.9	.5		5.6	1.5		< .1		39.8	.6	< .1	1.0	6.0	.3	71.1		82.6		2.5	5.2	882.9	2.3				2.6	1110.3	41.2	6.7	384.1	
	lb./day Total Iron	.005	.12	.39	.03	.51			.55	.009		.14	.01		.01		1.23	.02	.002	.49	.58	.007	.89		.36		.004	.07	120.39	.29				.07	203.73	13.39	.56	24.0	
	lb./day Ferrous	< .005	.10	< .39	.02	.11			.26	< .009		.05	< .01		< .01		.18	.02	< .002	.45	.42	.004	.11		.30		< .004	< .05	40.13	.09				.03	13.58	6.59	.09	16.8	
	lb./day Sulfate	3.6	11.8	46.5	4.3	17.8			27.6	2.0		10.7	8.7		.6		57.9	5.7	.5	5.6	21.0	.5	298		310.6		9.8	16.0	2008.8	5.5				5.5	1245.0	205.9	6.9	576.2	
DATE	Date	6	8			8			6	8		6	6		6		6	8	8	8	8		8		8		8	8	6	8				8	7	7	7	7	
8-6-73	Flow-g.p.m.	1.7	8.9	E	D	16.7	D	D	1.7	.4	D	8.9	1.7	R	3.0	R	2.2	10.7	1.1	8.9	12.4	D	67.8	E	27.5	D	1.7	6.0	835	2.2	D	D	D	8.2	81.7	99.9	.8	71.5	D
	pH	3.0	3.5	L	R	3.1	R	R	3.0	4.3	R	3.2	3.7	E	4.9	E	2.6	4.5	4.6	5.5	4.2	R	3.4	L	3.3	R	4.1	4.7	3.4	3.4	R	R	R	3.3	2.3	3.3	2.5	2.8	R
	mg/l Alkalinity	0	0	I	Y	0	Y	Y	0	0	Y	0	0	M	0	M	0	0	0	0	0	Y	0	I	0	Y	0	0	0	0	Y	Y	Y	0	0	0	0	0	Y
	mg/l Acidity	130	36	M		78			220	10		68	48	0	12	0	1100	10	6	2	24		360	M	150		200	6	92	96				76	1100	52	550	340	
	mg/l Total Iron	.4	1.6	I		2.5			15	.4		1.2	.4	V	.8	V	34	.3	.3	6.8	1.6		4.0	I	1.0		.4	.4	11	11				3.7	180	16	41	30	
	mg/l Ferrous	< .4	.3	N		< .5			6.2	< .4		< .5	< .4	E	< .5	E	1.3	< .3	< .3	6.4	1.1		.8	N	.4		< .4	< .4	8.7	8.7				.5	11	15	2.2	13	
	mg/l Sulfate	250	62	A		91			580	34		91	250	D	38	D	1700	53	58	58	96		1200	A	890		680	140	180	170				62	1100	220	570	560	
	lb./day Alkalinity	0	0	T		0			0	0		0	0		0		0	0	0	0	0		0	T	0		0	0	0	0				0	0	0	0	0	
	lb./day Acidity	12.8	3.9	E		15.7			4.4	0.5		7.3	.95		.4		29.1	1.3	.1	.2	3.6		271.6	E	49.6		4.0	.4	923.0	2.5				5.5	1079.8	62.4	5.0	292.1	
	lb./day Total Iron	.04	.17			.5			.3	.002		.13	.008		.03		.9	.04	.004	.73	.24		3.02		.33		.008	.03	110.4	.29				.27	176.7	19.21	.37	25.77	
	lb./day Ferrous	< .04	.03			.1			.12	.002		.05	< .008		.02		.03	< .04	< .004	.68	.16		.60		.13		< .008	< .03	87.3	.23				.04	10.8	18.01	.02	11.17	
	lb./day Sulfate	24.6	6.6			18.3			11.5	.2		9.7	5.0		1.4		44.9	6.8	.8	6.2	14.3		905		294.1		13.5	10.2	180.59	4.5				4.5	1079.8	264.1	5.2	481.1	
DATE	Date	11	11			11			11	11		12	11					12	12	12	12		12		12		12	12	11	11				10	10	10		10	
9-10-73	Flow-g.p.m.	1.1	6.1		D	6.1	D	D	1.1	2.2	D	6.1	1.7		D		D	3.8	.07	10.7	8.9	D	51.9		12.4	D	.4	2.2	835	2.2	D	D	D	6.2	81.7	85.7	D	99.9	D
	pH	3.2	3.4		R	3.1	R	R	3.2	4.2	R	3.3	3.8		R		R	4.6	4.6	6.0	4.3	R	3.3		3.3	R	4.3	5.5	3.6	3.4	R	R	R	3.4	2.5	3.4	R	2.9	R
	mg/l Alkalinity	0	0		Y	0	Y	Y	0	0	Y	0	0		Y		Y	0	0	0	0	Y	0		0	Y	0	0	0	0	Y	Y	Y	0	0	0	Y	0	Y
	mg/l Acidity	130	56			100			170	12		63	60					8	8	0	24		400		250		210	10	86	90				66	1200	42		480	
	mg/l Total Iron	.3	2.4			2.6			17	.3		1.0	.4					.2	.2	9.0	1.6		52		.3		.3	1.1	15	11				5.1	200	20		48	
	mg/l Ferrous	< .3	< .5			< .5			7.0	< .3		< .5	< .4					< .2	< .2	7.2	1.3		.9		< .3		< .3	< .5	11	5				1.5	< 10	16		23	
	mg/l Sulfate	230	86			100			500	17		82	280					65	58	72	120		1500		980		750	130	180	180				120	1200	200		710	
	lb./day Alkalinity	0	0			0			0	0		0	0					0	0	0	0		0		0		0	0	0	0				0	0	0		0	
	lb./day Acidity	1.1	4.1			7.3			2.3	.3		4.6	1.2					.4	.007	0	2.6		249.5		37.3		1.1	.3	862.8	2.4				4.9	1178.0	43.3		576.2	
	lb./day Total Iron	.003	.17			.19			.22	.008		.07	.008					.009	T	1.15	.17		32.43		.04		.002	.03	150.49	.29				.38	196.33	20.59		57.62	
	lb./day Ferrous	< .003	.04			.04			.09	< .008		.04	< .008					< .009	T	.92	.14		.56		< .04		< .002	.01	110.36	.13				.11	9.82	16.48		27.61	
	lb./day Sulfate	1.9	6.3			7.3			6.6	.5		6.0	5.6					3.0	.05	9.2	12.8		935		146.0		3.8	3.4	180.59	4.8				8.9	1178.0	206.0		852.2	

FLOW MEASUREMENTS & CHEMICAL ANALYSES

		100	101	102	103	104	105	106	107	111	112	113	114	201	202	203	204	206	207	208	209	210	211	214	215	216	217	218	220	221	232	237	239	241	301	301a	302	303	304
DATE 10-8-73	Date	8	10			10			10	10		10	10		9		9	10	10	10	10	10	9		8		8	9	8	8	8	8	8	8	8	8	8	8	9
	Flow-g.p.m.	.4	10.7		D	24.6	D	D	8.9	21.7	D	6.1	3.8		1.1		10.7	6.1	.2	6.1	12.4	.2	131		24.6	D	2.2	12.4	931	3.0	2.2	1.7	6.1	2.2	94.2	115.5	2.2	200.5	6.1
	pH	2.9	3.3		R	3.0	R	R	3.2	4.2	R	3.1	3.6		5.6		2.7	4.9	4.4	5.4	3.9	3.3	3.3		3.4	R	4.2	4.7	3.4	3.3	5.9	5.1	4.8	3.3	2.7	3.4	2.6	3.1	2.5
mg/l	Alkalinity	0	0		Y	0	Y	Y	0	0	Y	0	0		2		0	0	0	16	0	0	0		0	Y	0	2	0	0	12	2	0	0	0	0	0	0	0
	Acidity	112	22			72			114	6		70	24		2		1080	2	6	2	26	72	360		186		216	14	82	102	12	10	2	66	1420	34	820	226	1820
	Total Iron	.588	.894			1.844			2.515	2.01		.588	.146		.292		27.24	.741	.146	8.365	2.01	12.864	3.04		1.522		1.522	.146	2.121	7.369	1.047	.439	.741	7.133	244.06	15.997	46.92	29.438	157.2
	Ferrous	0	0			0			0	0		0	0		0		0	0	0	0	0	0	0		0		0	0	0	0	0	0	0	0	0	3.92	0	0	49.28
	Sulfate	215	30			70			350	35		105	215		35		1150	15	55	55	85	85	150		225		675	185	205	195	30	40	0	145	1200	165	950	550	1450
lb./day	Alkalinity	0	0			0			0	0		0	0		.03		0	0	0	1.17	0	0	0		0		0	.3	0	0	.32	.04	0	0	0	0	0	0	0
	Acidity	.54	2.8			21.3			12.2	1.6		5.1	1.1		.03		138.8	.15	.01	.15	3.87	.17	567		54.98		5.7	2.1	917.3	3.68	.32	2	.14	1.74	1607.2	47.2	21.7	544.4	133.4
	Total Iron	.003	.11			.54			.27	.52		.04	.007		.004		3.5	.05	.0004	.61	.30	.03	4.78		.45		.04	.02	23.73	.27	.03	.009	.05	.19	276.24	22.2	1.24	70.92	11.52
	Ferrous	0	0			0			0	0		0	0		0		0	0	0	0	0	0	0		0		0	0	0	0	0	0	0	0	0	5.44	0	0	3.61
	Sulfate	1.03	3.9			20.7			37.4	9.1		7.7	9.8		.46		147.8	1.1	.13	4.03	12.7	.20	236		66.5		17.8	27.6	229.32	7.03	.79	.82	0	3.8	1358.2	228.98	25.1	132.5	106.3
DATE 11-5-73	Date	6	6		6	6	6	6	6	6		7	6		5		5	7	7	7	7	7	6		7		7	7	6	6	6	6	6	6	5	5	5	5	5
	Flow-g.p.m.	.4	14.6		.07	50.3	1.1	6.1	12.4	21.7	D	12.4	6.1		3.8		10.7	7.5	1.1	12.4	14.6	2.2	183		27.5	D	12.4	21.7	1134.0	3.8	.8	2.2	3.0	2.2	193	111.1	3.0	105.5	6.1
	pH	3.1	3.6		3.6	3.2	3.3	3.2	3.6	4.3	R	3.2	3.8		5.8		3.0	4.5	4.4	5.5	4.1	3.2	3.5		3.3	R	4.2	41.7	3.5	3.4	6.6	5.4	4.8	3.5	2.8	3.4	2.8	3.1	2.7
mg/l	Alkalinity	0	0		0	0	0	0	0	0	Y	0	0		4		0	2	2	8	0	0	0		0	Y	0	2	0	0	16	2	2	0	0	0	0	0	0
	Acidity	310	18		46	58	48	176	116	10		76	36		4		854	4	6	20	26	66	340		186		134	20	40	20	40	40	6	50	200	60	100	120	420
	Total Iron	.15	.59		.44	1.36	.29	4.74	1.36	.15		.74	.15		.15		34.34	0	.15	68.97	.44	4.35	1.52		.29		.29	0	11.84	.322	.120	.29	.15	.89	30.59	9.71	51.46	16.0	
	Ferrous	0	0		0	0	0	0	0	0		0	0		0		0	0	0	4.48	0	0	0		0		0	0	10.08	0	0	0	0	0	3.36	2.24	6.72	56.0	2.24
	Sulfate	235	45		65	50	50	130	395	35		85	275		30		1150	40	30	250	95	90	1100		995		375	160	150	175	175	15	5	110	1175	225	675	325	1350
lb./day	Alkalinity	0	0		0	0	0	0	0	0		0	0		0		0	.2	.03	1.2	0	0	0		0		0	.5	0	0	.2	.05	.07	0	0	0	0	0	0
	Acidity	1.49	3.16		.04	35.1	.6	12.9	17.3	2.6		11.3	2.6		.2		109.8	.4	.08	3.0	4.6	1.7	748		61.5		20.0	5.2	545.0	.9	.4	1.06	.2	1.3	463.8	80.1	3.6	152.1	30.6
	Total Iron	.0007	.103		.0004	.82	.004	.35	.20	.04		.11	.01		.2		4.41	0	.002	10.28	.08	.11	3.34		.096		.04	0	161.38	.15	.01	.008	.005	.02	709.40	12.97	1.85	20.28	
	Ferrous	0	0		0	0	0	0	0	0		0	0		0		0	0	0	.67	0	0	0		0		0	0	137.34	0	0	0	0	0	7.79	2.99	.24	7.10	.16
	Sulfate	1.13	7.89		.05	30.2	.7	9.5	58.9	9.1		12.7	20.2		1.4		147.8	3.6	.4	37.2	16.7	2.4	2419		328.8		55.9	41.7	2043.8	8.0	1.7	.4	.2	2.9	2724.8	300.4	24.3	412.0	98.9
DATE 12-3-73	Date	3	3		3	3	3	3	3	4		5	3		3		3	5	5	5	5	5	3		5		5	5	3	3	3	3	3	3	4	4	4	4	4
	Flow-g.p.m.	1.1	309		2.2	650	3.8	12.4	342	24.6	D	27.5	24.6		10.7		10.7	19.2	3.8	21.7	46.1	6.1	396		38.0	D	34.2	38.0	1351.0	6.1	2.2	7.5	6.1	4.9	156.0	239.0	14.6	219.8	7.5
	pH	2.6	3.5		3.0	3.1	3.2	3.0	3.5	4.2	R	3.0	3.7		5.3		2.6	4.5	4.3	5.8	3.9	3.5	3.4		3.4	R	4.4	—	3.4	3.7	6.0	—	4.5	3.3	2.7	3.7	2.7	3.1	2.8
mg/l	Alkalinity	0	0		0	0	0	0	0	0	Y	0	0		2		0	2	0	10	0	0	0		294	Y	0	—	0	0	20	—	2	0	0	0	0	0	0
	Acidity	200	20		88	72	54	108	172	16		90	50		8		1400	10	10	10	74	38	412		0		118	—	110	52	10	400	10	56	1540	52	1000	240	1200
	Total Iron	.80	.25		.78	1.89	.26	1.65	.89	0		1.89	.29		.26		23.92	.130	0	7.70	.261	.261	1.49		.402		.130	.130	12.81	3.67	1.42	.127	0	.39	206.95	57.47	864.29	193.50	133.95
	Ferrous	0	0		0	0	0	0	0	0		0	0		0		0	0	0	1120	0	0	0		0		0	0	2.24	1.12	0	0	0	0	1.12	2.24	0	0	0
	Sulfate	175	35		70	45	50	60	485	30		70	210		45		1250	45	55	70	115	35	1050		990		375	—	200	175	40	175	45	85	975	135	725	275	1175
lb./day	Alkalinity	0	0		0	0	0	0	0	0		0	0		.3		0	.5	0	2.6	0	0	0		0		0	—	0	0	.5	—	.1	0	0	0	0	0	0
	Acidity	2.6	7.4		2.3	56.2	2.4	16.1	90.7	4.7		29.7	14.8		1.0		180.0	2.3	.5	2.6	41.0	2.9	1960		134.2		48.5	—	1785.6	3.8	.3	36.0	.7	3.3	2886.6	149.3	175.4	633.8	108.1
	Total Iron	.01	.09		.02	1.48	.01	.25	.37	0		.62	.09		.03		3.08	.03	0	2.01	.14	.02	7.09		.18		.05	.06	207.9	.27	.04	.01	0	.02	387.9	16.50	15.6	43.46	12.07
	Ferrous	0	0		0	0	0	0	0	0		0	0		0		0	0	0	.29	0	0	0		0		0	0	36.36	.08	0	0	0	0	2.10	6.43	0	0	0
	Sulfate	2.3	13.0		1.9	35.1	2.3	8.9	199.3	8.9		23.1	62.1		5.8		160.7	10.4	2.5	18.3	63.7	2.6	4996		452.0		154.1	—	3246.6	12.8	1.1	15.8	3.3	5.0	1827.5	387.7	127.2	726.3	.11
DATE 1-8-74	Date	11	11			11			11	8		11	11				15	10	10	10	10	10	10		11		11	11	11	11				10	10	7	7	7	7	7
	Flow-g.p.m.	2.2	275		F	27.5	F	F	27.5	21.7	F	21.7	21.7		F		2.2	16.7	3.0	12.4	41.8	2.2	289		27.5	F	21.7	34.2	1351	3.8	F	F	3.8	10.7	123.0	239.0	7.5	200.5	3.8
	pH	3.2	4.0		R	3.3	R	R	3.8	4.7	R	3.4	4.1		R		3.0	4.8	5.0	5.6	4.2	3.9	3.7		3.6	R	4.5	4.7	3.6	3.6	R	R	4.9	3.6	2.6	3.7	2.7	3.1	2.7
mg/l	Alkalinity	0	0		0	0	0	0	0	2	0	0	0		0		0	4	6	12	0	0	0		0	0	2	6	0	0	0	0	6	0	0	0	0	0	0
	Acidity	156	14		Z	56	Z	Z	84	4	Z	46	28		Z		740	2	4	4	18	30	238		208	Z	92	24	72	60	Z	Z	10	52	1020	44	540	180	1540
	Total Iron	.29	.59		E	2.18	E	E	.89	.15	E	.89	.29		E		15.22	.15	.29	6.90	.15	.15	.89		.44	E	.59	.29	17.86	225.18	E	E	.15	.29	194.35	6.90	41.51	18.89	64.56
	Ferrous	0	0		N	0	N	N	0	0	N	0	0		N		0	0	0	6.72	0	0	0		0	N	0	0	4.48	2.24	N	N	0	0	2.24	4.48	0	3.36	0
	Sulfate	245	45			60			300	24		225	175				900	68	69	72	90	45	1060		850		475	90	175	175			30	45	77.5	175	475	350	1075
lb./day	Alkalinity	0	0			0			0	.5		0	0				0	.8	.2	1.8	0	0	0		0		.5	2.5	0	0			.3	0	0	0	0	0	0
	Acidity	4.1	4.6			18.5			27.8	1.0		12.0	7.3				19.6	.4	.1	.6	9.0	.8	826		68.7		24.0	9.9	1168.8	2.7			.5	6.7	1507.4	126.4	48.7	433.6	70.3
	Total Iron	.008	.19			.72			30	.04		.23	.08				.40	.03	.01	1.03	.07	.004	3.09		.14		.15	.12	289.92	10.28			.007	.04	287.23	19.81	3.74	45.51	2.95
	Ferrous	0	0			0			0	0		0	0				0	0	0	1.00	0	0	0		0		0	0	72.72	.10			0	0	3.31	12.87	0	8.09	0
	Sulfate	6.5	14.9			19.8			99.1	63		58.7	45.6				23.8	13.6	2.5	10.7	45.2	1.2	368.1		280.9		123.8	37.0	284.0.7	8.0			1.4	5.9	1145.4	502.5	42.8	843.2	49.1
12 MONTH AVERAGE	Flow-g.p.m.	1.4	30	20.4	.5	47	2.5	5.2	13.7	19.4	.17	16.3	10.2	34.2	5.9	17.5	12.2	14.3	4.7	12.3	45.3	3.7	253	62.2	32.6	13.2	13.3	31.7	1061.8	5.1	3.9	3.5	19.2	6.3	140	196.5	8	260.7	7.5
	pH Range	2.6-3.4	3.3-4.5	4.5-5.6	3.0-3.7	3.0-3.4	3.1-4.4	3.0-3.4	3.0-3.9	3.4-4.7	4.7	3.0-3.6	3.0-4.1	3.9	4.9-6.1	3.6-3.7	2.6-3.0	4.4-4.9	3.0-4.7	4.3-5.0	3.9-4.4	3.2-3.9	3.3-3.7	4.0-4.2	3.3-3.6	4.3-5.0	4.1-4.7	3.5-5.5	3.4-5.4	3.3-5.4	5.4-6.6	5.1-5.7	4.5-5.0	3.3-3.6	2.3-2.9	3.3-4.8	2.4-2.9	2.8-3.3	2.4-2.8
lb./day	Alkalinity	0	0	0	0	0	0	0	0	.04	0	0	0	0	.03	0	0	.1	.04	.6	0	0	0	0	0	0	.04	.3	0	0	.1	.01	.1	0	0	0	0	0	0
	Acidity	3	5	13	—	32	1	5	20	3	-1	11	5	16	-1	18	130	1	1	1	18	1	3662	74	91	1	15	6	1083	3	1	4	1	4	1650	89	6	658	117
	Total Iron	.01	.17	.28	—	1.04	.01	.13	3.23	.03	0	.23	.03	16	.04	.12	2.97	<.27	0	1.43	20.0	2.0	25.63	.12	.58	0	.03	.14	133.07	12.11	.02	.01	.02	.1	312.1	15.70	10.67	55.61	13.36
	Ferrous	.007	.07	.28	—	.06	.004	.02	.08	.002	0	.05	.002	.16	.01	.10	.10	0	<.005	.41	.07	<.001	3.01	<.02	.13	<.006	<.01	.08	68.5	.14	.007	.003	<.003	.02	11.74	10.44	.07	17.42	.47
	Sulfate	6	10	27	—	35	1	4	68	11	0	17	24	35	2	17	170	10	4	13	56	2	10065	147	349	2	59	33	2169	7	1	3	5	7	1816	310	60	946	118

FLOW MEASUREMENTS & CHEMICAL ANALYSES

DATE			304a	304b	304c	305	306	308	309	312	313	313a	315	316	317	320	322	323	324	325	329	330	332	334	335	336	337	340	341	342	343	345	346	346a	348a	349	350	351	352
2-5-73		Date	7			7			8	8				8		8	8	8	8		8		8					8		8			8				8	8	8
		Flow-g.p.m.	13.5			106.2			131	284				38		36.1	104.9	91.1	11.5		139		146					39.9		97.8			23.2				24.6	41.8	43.9
		pH	3.0			3.0			3.6	4.4				3.9		3.4	4.2	4.5	3.5		2.4		3.9					4.9		3.3			4.4				2.4	2.7	2.4
	mg/l	Alkalinity	0			0			0	0				0		0	0	0	0		0		0					0		0			0				0	0	0
		Acidity	120			370			190	12				20		76	23	7	94		890		170					3		120			28				680	500	680
		Total Iron	3.5			34			2.4	.8				.1		1.6	< 0.1	.3	.5		120		2.5					.2		.3			.2				95	39	67
		Ferrous	.3			12			1.5	.2				<0.1		.6	< 0.1	.2	< 0.1		< 0.1		1.2					< 0.1		<0.1			<0.1				< 0.1	3.0	< 0.1
		Sulfate	150			560			920	210				180		150	200	310	360		740		680					22		170			120				730	490	740
	lb./day	Alkalinity	0			0			0	0				0		0	0	0	0		0		0					0		0			0				0	0	0
		Acidity	19.4			350			299	40.9				9.1		33	29	7.7	13		1486		294					1.4		141			7.8				201	251	359
		Total Iron	.57			32.2			3.8	2.7				0.5		.7	.13	.33	.069		200.4		.43					.1		.35			.06				28.1	19.6	35.4
		Ferrous	.05			11.35			2.36	.68				<0.5		.26	< .13	.22	< .01		< .17		.21					< .05		< .12			< .03				< .03	1.51	< .05
		Sulfate	24.3			529.7			1448	717				82.2		65.1	252	339	498.4		1236		117.7					10.6		200			33.8				216	261	391
DATE		Date	7			7			7	7				7		7	7	7	7		6	6	7					7		7			7				6	6	6
3-5-73		Flow-g.p.m.	21.7			132			94.2	284				27.5		41.8	123	112.3	16.7		156	25.3	13.5					135		93.6			23.2				127	27.5	76.0
		pH	3.0			3.0			3.6	4.4				4.1		3.4	4.3	4.5	3.6		2.5	3.4	3.9					4.7		3.2			4.3				2.4	2.7	2.3
	mg/l	Alkalinity	0			0			0	0				0		0	0	0	0		0	0	0					0		0			0				0	0	0
		Acidity	180			240			180	13				15		40	20	15	91		750	740	94					6		190			30				760	350	740
		Total Iron	8.2			26			3.5	.2				.2		2.1	< .1	.4	.2		260	.9	.2					.1		8.5			.2				98	63	94
		Ferrous	1.0			13			2.7	< .2				< .2		.9	< .1	.2	< .2		< .2	.3	< .2					< .1		4.1			< .2				< .2	< .2	< .2
		Sulfate	220			340			880	180				120		110	160	190	300		700	85	120					12		220			40				740	340	820
	lb./day	Alkalinity	0			0			0	0				0		0	0	0	0		0	0	0					0		0			0				0	0	0
		Acidity	46.9			380.7			203.7	44.4				5.0		20.1	29.6	20.2	18.3		1405.8	224.9	15.3					9.7		213.7			8.4				1159.7	115.7	675.8
		Total Iron	2.14			41.24			3.96	.68				.07		1.05	< .15	.54	.04		487.3	.27	.03					.16		9.56			.06				149.54	20.82	85.84
		Ferrous	.26			20.62			3.06	<.68				<.07		.45	< .15	.27	<.04		.37	.09	<.03					<.16		4.61			<.06				.31	.07	<.18
		Sulfate	57.4			539.3			996.0	614.2				40.1		55.3	236.5	256.4	60.2		1312.1	25.8	19.5					19.5		247.4			11.2				1129.2	112.3	748.8
DATE		Date	4	4	4	4	4	4	4	4	4	4	4	4	5	5	4	4	4	3	3	3	3	5	5	5	5	3	3	3	3	3	5	5	5	5	3	3	3
4-2-73		Flow-g.p.m.	19.2	18	2.2	191.5	13.5	52.7	123	183.5	5.5	21.7	6.1	34.2	55	12.4	50.3	165	12.4	3.4	160.5	7.2	8.9	70.2	139	11.5	8.9	21.7	1.9	70.2	3.8	239	21.7	6.1	7.5	57.3	41.8	18.0	24.6
		pH	3.2	3.6	4.5	3.2	4.0	5.0	3.7	4.9	3.5	3.4	3.3	4.4	4.3	3.4	4.2	5.3	3.7	6.4	2.6	3.3	4.0	3.6	4.5	4.6	4.5	5.0	2.8	3.4	4.4	5.9	4.1	3.8	4.8	4.2	2.5	2.7	2.4
	mg/l	Alkalinity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Acidity	220	72	5	360	14	3	200	9	300	320	320	14	26	84	26	7	84	0	620	150	230	120	10	8	12	4	1800	100	16	6	34	110	4	42	780	400	650
		Total Iron	2.9	.8	< .1	34	3.6	.5	3.2	.4	.7	.9	1.5	.5	.5	2.7	.2	< .3	.1	.4	99	1.6	.2	1.8	.2	.2	.2	.4	78	3	.1	5	.1	1.0	.2	.3	99	29	30
		Ferrous	.7	.4	< .1	18	<.2	<.2	2.8	< .2	.6	.5	.9	-	.3	.5	< .2	< .2	< .1	< .2	< 1	.4	< .2	.6	< .2	<.2	<.2	.3	11	1.5	<.1	4.6	< .1	.6	< .2	.2	< 1	< 1	1
		Sulfate	130	86	10	510	10	14	670	150	1000	1300	1400	150	160	170	210	210	340	67	640	160	740	170	26	22	10	36	2000	140	55	430	150	350	5	260	780	390	700
	lb./day	Alkalinity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Acidity	50.8	15.5	.13	828.3	2.3	1.9	295.6	19.8	19.8	83.4	23.3	5.8	17.2	12.5	15.7	13.9	12.6	0	1195.7	12.9	24.6	101.2	16.7	1.1	1.3	1.0	41.5	84.4	.7	17.2	8.9	8.0	.36	28.9	391.8	86.3	192.1
		Total Iron	.67	.17	.003	78.2	.58	.32	4.7	.88	.05	.23	.11	.21	.33	.4	.12	.6	.015	.02	190.9	.14	.02	1.52	.33	.03	.02	.10	1.8	2.5	.005	14.4	.03	.07	.02	.2	49.7	6.3	8.9
		Ferrous	.16	.09	.003	41.4	.03	.13	4.1	.44	.04	.13	.07	-	.2	.07	.12	.4	.015	.008	1.93	.03	.02	.51	.33	.03	.02	.08	.25	1.3	.005	13.2	.03	.04	.02	.14	.5	.22	.3
		Sulfate	30	18.6	.26	1173.5	1.6	8.9	990.2	330.7	66.1	339	101.8	61.6	105.7	25.3	126.9	416.3	51	2.8	1234.2	13.8	79.1	143.4	43.4	3.1	1.1	9.4	46.1	118.1	2.5	1234.8	39.1	25.4	.5	178.9	391.8	84.1	206.9
DATE		Date	8	8	9	8	8	8	9	9	9	9	9	9	9	9	9	9	9	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	8	8	8
5-7-73		Flow-g.p.m.	1.7	3.8	1.1	93.6	2.2	1.6	94.2	101.1	4.9	21.7	34.2	30.9	65	34.2	94.2	139	10.7	1.1	78.9	5.1	8.9	65	123	12.4	16.7	41.8	6.05	88	27.5	506	21.7	2.2	6.8	65	30.9	10.74	30.9
		pH	3.2	3.5	4.5	3.1	4.9	5.0	3.5	4.7	3.3	3.3	3.1	4.2	4.1	3.2	4.1	5.0	3.5	6.7	2.6	3.2	3.9	3.4	3.4	4.2	4.3	5.0	2.6	3.2	4.2	5.5	4.2	3.8	4.5	4.3	2.5	2.6	2.5
	mg/l	Alkalinity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Acidity	140	98	6	530	5	4	180	8	280	330	290	12	25	90	30	11	77	0	700	200	220	160	150	13	10	6	1800	120	16	8	46	28	8	38	840	520	670
		Total Iron	1.4	.7	.6	60	.5	.2	2.6	.4	1.1	.9	1.6	.2	.1	2.5	.2	.6	.2	.7	110	1.7	.3	< .1	< .1	.2	.3	.4	64	3.6	.2	2.4	.7	.3	1.0	.4	120	46	72
		Ferrous	.5	.4	.5	30	.3	< .2	2.6	.4	1.1	.9	1.0	<.2	<.1	.9	< .2	.2	< .2	.6	28	.8	.2	< .1	< .1	<.2	.3	.3	11	1.2	< .2	1.8	.2	.3	.2	.3	27	6.8	7.6
		Sulfate	14	110	5	800	10	29	860	170	1100	1100	1100	120	160	160	60	200	330	60	710	250	320	210	190	31	17	22	1800	150	65	79	170	96	72	200	840	530	760
	lb./day	Alkalinity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Acidity	2.8	4.5	< .1	596	.1	.1	203.7	9.7	16.6	86.1	119.2	4.5	19.5	46	34	18.4	9.9	0	663.2	12.3	23.5	124.9	221.7	1.9	2.0	3.0	130.8	126.9	5.3	48.6	12	.7	.7	29.7	311.3	66.6	248.3
		Total Iron	.03	.03	<.01	67.48	.01	<.01	2.94	.49	.07	.23	.66	.07	.08	1.28	.22	1.0	.03	<.01	104.21	.1	.03	<.08	< .15	.03	.06	.2	4.65	3.81	.07	14.59	.18	<.01	.08	.31	44.48	5.89	26.69
		Ferrous	.01	.02	<.01	33.74	<.01	<.01	2.94	.49	.07	.23	.41	.07	.08	.46	.22	.33	.03	<.01	26.53	.05	.02	<.08	< .15	.03	.06	.15	.8	1.27	<.07	10.94	.05	<.01	.02	.23	10.01	.87	2.82
		Sulfate	.3	5.1	< .1	899.7	.3	.5	973.4	206.5	65.3	286.8	452	44.5	124.9	81.8	67.9	334	42.2	.8	672.6	15.4	34.2	164	280.8	4.6	3.4	11.1	130.8	158.6	21.5	480.3	44.3	2.5	5.9	156.1	311.3	67.8	281.7

FLOW MEASUREMENTS & CHEMICAL ANALYSES

		304a	304b	304c	305	306	308	309	312	313	313a	315	316	317	320	322	323	324	325	329	330	332	334	335	336	337	340	341	342	343	345	346	346a	348a	349	350	351	352
DATE 6-4-73	Date	5	5	6	5	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	6	6	6	6	6	6	6	6	6	6	6		6	6	5	5	5
	Flow-g.p.m.	3.0	4.9	2.2	72.3	3.0	10.7	88	50.3	3.8	16.7	12.4	8.9	16.7	16.7	38	81.7	7.5	1.1	123	3.5	4.9	21.7	59.7	8.9	3.8	16.7	1.7	76	.07	131.1	10.7	D	1.7	34.2	41.8	12.4	41.8
	pH	3.2	3.4	4.4	2.9	5.4	4.9	3.7	4.7	3.5	3.4	3.4	4.3	4.3	3.4	4.1	5.5	3.7	7.0	2.6	3.1	4.0	3.5	4.4	4.1	4.8	5.3	2.9	3.4	4.4	5.8	4.6	R	4.8	4.5	2.6	2.7	2.5
mg/l	Alkalinity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	Y	0	0	0	0	0
	Acidity	130	120	8	580	5	6	140	10	230	240	240	18	24	82	30	10	80	0	600	180	420	130	16	18	6	30	1500	140	14	12	45		6	32	760	440	730
	Total Iron	1.65	1.15	.2	45.5	.15	.2	3.0	.5	1.9	.8	1.6	< .1	< .1	1.6	.2	.95	.25	.8	85	3.2	6.2	1.95	.25	.2	.3	.5	42	3.1	.1	4.6	< .1		.4	.5	75	24.5	55
	Ferrous	.6	.8	< .2	29	< .15	< .2	3.0	.5	1.4	.8	1.1	< .1	< .1	1.0	< .2	.9	<.25	< .5	< 1	1.8	3.9	1.0	.25	<.2	< .3	<.5	7.4	2.5	< .1	4.0	< .1		< .4	<.5	< .1	< .1	< .1
	Sulfate	160	150	14	870	7	32	870	210	1300	1400	1500	150	72	150	19	240	380	53	750	200	900	140	62	58	19	43	1800	150	55	190	180		10	250	810	550	870
lb./day	Alkalinity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.48	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
	Acidity	4.7	7.1	.2	503.9	.2	.8	148.0	6.0	10.6	48.2	35.8	1.9	4.8	16.4	13.7	9.8	7.2	0	886.7	7.6	24.9	33.9	11.5	1.9	.3	6.0	29.8	127.8	.01	18.9	5.8		.1	13.2	381.7	65.6	366.6
	Total Iron	.06	.07	< .01	39.53	<.01	.03	3.17	.3	.09	.16	.24	.01	.02	.32	.09	.93	.02	.01	125.62	.13	.37	.51	.18	.02	.01	.1	.83	2.83	T	7.25	.01		<.01	.21	37.67	3.65	27.62
	Ferrous	.02	.05	< .01	25.19	< .01	.03	3.17	.3	.06	.16	.16	.01	.02	.20	.09	.88	.02	< .01	1.48	.08	.23	.26	.18	.02	.01	.1	.01	2.28	T	6.3	.01		<.01	.21	.5	.15	.50
	Sulfate	5.8	8.9	.4	755.8	.2	4.1	919.9	126.9	59.8	280.9	223.5	16.0	14.5	30.1	8.7	235.6	34.1	.7	1108.4	8.4	53.4	36.5	44.5	6.2	.9	8.6	35.7	137.0	.05	299.3	23.0		.2	102.7	406.8	81.9	436.9
DATE 7-9-73	Date		10	10	10		10	10	11	10	10	10	11	11	11	11	11	11		9	9	11	11	11	11	11	11	11		11	11			11	9	9	9
	Flow-g.p.m.	D	1.1	< .1	17.9	D	.2	59.7	27.5	3.0	12.4	10.7	1.7	1.7	2.2	16.7	12.4	3.0	D	59.7	.2	4.9	10.7	34.2	3.0	1.7	8.9	.4	34.2	D	36.2	3.8	D	D	8.9	14.6	4.9	14.6
	pH	R	3.5	4.6	3.1	R	5.6	3.8	5.5	3.7	3.6	3.5	4.1	4.1	3.5	5.7	5.8	3.7	R	2.9	3.5	4.1	3.5	3.7	5.4	5.1	5.5	2.9	3.6	R	5.9	4.9	R	R	4.5	2.8	3.0	2.8
mg/l	Alkalinity	Y	0	0	0	Y	0	0	0	0	0	0	0	0	0	0	0	0	Y	0	0	0	0	0	0	0	0	0	0	Y	0	0	Y	Y	0	0	0	0
	Acidity		140	8	820		4	170	14	340	280	250	24	34	68	10	12	68		880	130	330	160	98	12	8	10	1600	130		32	50			64	900	540	830
	Total Iron		1.9	1.5	82		2.7	4.7	1.7	2.7	1.1	1.1	6.0	.7	1.1	2.3	2.3	.5		140	3.5	1.8	4.8	3.9	2.2	2.5	1.4	46	2.7		8.5	.4			3.2	140	35	93
	Ferrous		1.0	1.1	38		1.3	4.2	1.5	1.5	1.0	.8	3.7	< .5	.8	1.9	2.0	< .5		17	.8	1.8	1.5	1.9	1.4	1.4	1.2	9.4	1.9		7.1	< .4			17	24	4	10
	Sulfate		180	19	1100		24	860	220	1400	1400	390	240	230	150	250	290	350		790	160	1100	250	190	22	10	55	1700	170		240	170			250	950	740	900
lb./day	Alkalinity		0	0	0		0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0			0	0	0	0
	Acidity		1.9	< .01	176.4		.01	121.9	4.6	12.3	41.7	32.0	.5	.3	1.8	2.0	1.8	1.0		631.2	.4	19.6	20.5	40.3	.4	.2	1.1	8.1	53.4		13.9	2.3			6.8	157.3	32.1	145.3
	Total Iron		.03	.001	17.64		.008	3.37	.56	.10	.16	.14	.12	.006	.03	.46	.34	.007		10.42	.01	.11	.61	1.6	.08	.05	.15	.23	1.12		3.7	.02			.34	24.47	2.08	16.26
	Ferrous		.01	<.001	8.17		.004	3.01	.50	.05	.15	.10	.07	<.004	.02	.38	.30	<.007		12.19	.002	.11	.19	.78	.05	.03	.13	.05	.78		3.09	< .02			.07	4.2	.24	1.75
	Sulfate		2.4	< .02	236.6		.07	616.9	72.7	50.6	208.6	49.9	4.8	1.9	4.0	50.2	43.2	5.2		566.7	.5	65.3	32.0	78.1	.8	.2	5.9	8.6	69.9		104.4	7.8			26.7	166.1	43.9	157.3
DATE 8-6-73	Date			7	7		7	7	7	7	7	7	7	7	7	7	7	7		6	6	8	8	8	8	8	8	8	8		8	7			7	6	6	6
	Flow-g.p.m.	D	D	–	17.9	D	2.2	55	27.5	4.9	12.4	12.4	3.8	.4	3.8	14.6	8.9	3.0	D	41.8	.2	4.9	8.9	27.5	2.2	1.1	4.9	.8	21.7	D			D	D				
	pH	R	R	4.3	2.7	R	5.5	3.4	5.8	3.3	3.3	3.3	3.9	3.9	3.3	4.9	5.0	3.5	R	2.4	3.3	3.8	3.1	3.1	5.3	5.3	5.3	2.5	3.2	R	5.5	4.2	R	R	4.0	2.3	2.4	2.3
mg/l	Alkalinity	Y	Y	0	0	Y	0	0	0	0	0	0	0	0	0	0	0	0	Y	0	0	0	0	0	0	0	0	0	0	Y	0	0	Y	Y	0	0	0	0
	Acidity			10	760		8	200	4	390	360	340	22	24	84	20	12	100		820	110	380	200	180	8	10	6	1600	160		16	36			50	980	640	910
	Total Iron			.8	75		1.9	6.1	3.8	2.1	2.4	1.1	.6	.5	5.4	1.3	1.2	.3		140	1.8	1.7	6.6	6.2	3.9	3.7	2.0	36	3.9		9	1.4			1.0	140	42	100
	Ferrous			.3	27		1.1	2.4	2.2	1.1	.7	.6	< .5	< .5	2.4	.7	.7	< .3		2	1.2	1.1	1.8	1.3	2.1	2.0	.8	6	2.0		6.2	.3			1.0	42	2.2	1.2
	Sulfate			14	970		34	860	210	1300	1300	1400	240	140	160	290	320	340		820	1.20	1200	300	280	14	14	58	1600	200		270	170			280	960	670	970
lb./day	Alkalinity			–	0		0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0			0	0	0	0
	Acidity			–	163.5		.2	132.2	1.3	23.2	53.6	50.7	1.0	1.1	3.9	3.5	1.3	3.6		411.8	.3	22.6	21.4	59.5	.2	.1	.4	14.6	41.7		9.0	1.3			8.7	171.3	23.2	159.1
	Total Iron			–	16.13		.05	4.03	1.26	.12	.36	.16	.03	.02	.25	.23	.13	.01		70.31	.005	.10	.71	2.05	.10	.05	.12	.33	1.02		5.06	.05			.17	24.47	1.52	17.48
	Ferrous			–	5.81		.03	1.59	.73	.07	.10	.09	< .02	<.02	.11	.12	.07	<.01		1.00	.003	.07	.19	.43	.06	.03	.05	.05	.52		3.49	.01			.17	.73	.08	.21
	Sulfate			–	208.6		.9	568.3	69.4	77.2	193.7	208.6	11.0	6.4	7.4	50.7	34.2	12.3		411.8	.4	71.2	32.1	92.5	.4	.2	3.4	14.6	52.2		151.8	6.2			49.0	167.8	24.2	169.6
DATE 9-10-73	Date			10	10			10	10	10	10	10	10		11	10	10	10		10	10	12	12	12	12	12	12		12		12	11			11	12	12	10
	Flow-g.p.m.	D	D	–	13.4	D	D	24.6	8.9	1.1	8.9	6.1	.4	D	3.0	12.4	–	2.2	D	24.6	.04	1.7	6.1	19.2	1.7	.8	3.0	D	14.6	D	46.8	1.7	D	D	2.2	3.8	1.7	6.1
	pH	R	R	4.3	2.8	R	R	3.4	6.7	3.4	3.4	3.3	4.2	R	3.4	5.6	5.6	3.5	R	2.5	3.5	3.8	3.2	3.2	5.6	5.6	5.5	R	3.4	R	6.0	4.4	R	R	4.1	2.5	2.5	2.4
mg/l	Alkalinity	Y	Y	0	0	Y	Y	0	30	0	0	0	0	Y	0	0	0	0	Y	0	0	0	0	0	0	0	0	Y	0	Y	0	0	Y	Y	0	0	0	0
	Acidity			6	750			180	0	290	280	270	14		76	40	8	94		880	86	340	180	180	6	5	7		140		18	23			34	1100	630	930
	Total Iron			.5	100			10	4.0	2.5	.9	.7	.3		1.4	2.9	2.7	.1		150	.1	3.2	10	10	2.2	2.2	4.2		3.2		11	1.7			2.6	150	53	90
	Ferrous			<.5	93			7	1.2	1.2	< .5	< .5	< .3		1.0	2.3	2.3	< .1		< 10	< .1	1.5	2.0	2.2	.9	.8	1.7		1.7		7	.5			2.1	< 10	< 2	2
	Sulfate			22	1200			900	170	1400	1500	1400	170		160	250	240	360		920	96	1200	300	300	14	12	60		190		240	130			200	1100	650	990
lb./day	Alkalinity			0	0			0	3.2	0	0	0	0		0	0	–	0		0	0	0	0	0	0	0	0		0		0	0			0	0	0	0
	Acidity			–	120.8			53.2	0	3.8	29.9	19.6	.07		2.7	6.0	–	2.5		260.1	.04	6.7	13.1	41.5	.1	.05	.25		24.5		10.1	.5			.9	50.6	12.5	67.6
	Total Iron			–	16.1			2.96	.43	.03	.1	.05	.002		.05	.43	–	.003		44.34	T	.06	.73	2.31	.04	.02	.15		.56		6.19	.03			.07	6.9	1.05	6.54
	Ferrous			–	14.97			2.07	.13	.02	< .05	.04	<.002		.04	.34	–	<.003		2.96	T	.03	.15	.51	.02	.007	.06		.30		3.94	.01			.06	.46	.04	.15
	Sulfate			–	193.2			266.0	18.2	18.5	160.4	101.8	.9		5.8	37.2	–	9.5		271.9	.05	23.8	21.8	69.2	.3	.1	2.2		33.2		135.0	2.6			5.3	50.6	12.9	72.0

FLOW MEASUREMENTS & CHEMICAL ANALYSES

		304a	304b	304c	305	306	308	309	312	313	313a	315	316	317	320	322	323	324	325	329	330	332	334	335	336	337	340	341	342	343	345	346	346a	348a	349	350	351	352
DATE 10-8-73	Date	8	8	8	9	8	8	8	8	8	8	8	8	10	10	10	10	10		8	8	9	10	10	10	10	9	9	9		9	9			9	9	9	8
	Flow-g.p.m.	1.1	2.2	1.1	51	2.2	7.5	34.2	21.7	2.2	12.4	8.9	7.5	6.1	12.4	34.2	12.4	6.1		21.7	1.1	1.1	12.4	27.5	2.2	1.1	16.7	1.7	38	D	115.5	4.9	D	D	14.6	12.4	4.9	12.4
	pH	2.8	2.9	4.0	2.7	5.9	5.4	3.3	6.1	3.4	3.4	3.4	4.1	4.0	3.4	3.6	4.9	3.5		2.6	3.5	3.3	3.3	3.2	4.5	4.4	4.6	2.7	3.1	R	4.9	4.3	R	R	4.0	2.7	2.7	2.6
mg/l	Alkalinity	0	0	0	0	0	2	0	18	0	0	0	0	0	0	0	2	0		0	0	0	0	0	0	0	0	0	0	Y	0	0	Y	Y	0	0	0	0
	Acidity	248	192	4	420	8	12	240	12	258	330	282	220	40	84	100	22	94		840	60	234	170	154	10	16	14	1680	242		18	32			84	1100	54	1120
	Total Iron	1.844	3.402	1.522	40.20	.588	4.15	18.89	4.542	1.362	1.362	1.844	.741	.292	2.176	.146	439	.146		137.94	.741	5.997	5.997	4.542	1.203	1.046	3.04	30.44	5.777		2.515	1.362			1.362	142.66	27.24	86.92
	Ferrous	0	0	0	35.28	0	0	11.20	2.576	0	0	0	0	0	0	0	0	0		20.16	0	3360	2.24	0	0	0	0	15.68	1.904		0	0			0	19.04	0	0
	Sulfate	275	225	0	450	5	60	0	185	1175	1450	1275	170	130	160	335	245	335		950	65	675	280	240	0	40	40	1175	335		240	170			450	1075	425	82.5
lb./day	Alkalinity	0	0	0	0	.1	.18	0	4.7	0	0	0	0	0	0	0	.3	0		0	0	0	0	0	0	0	0	0	0		0	0			0	0	0	0
	Acidity	3.3	5.1	.05	257.4	.2	1.1	98.6	3.1	6.8	49.2	30.2	19.8	2.9	12.5	41.1	3.3	6.9		219	.79	3.1	25.3	50.9	.26	.21	2.8	34.3	134.7		25	1.9			14.7	163.9	3.2	166.9
	Total Iron	.02	.09	.02	24.63	.016	.37	7.76	1.18	.04	.2	.20	.07	.02	.32	.06	.07	.01		35.97	.01	.08	.89	1.5	.03	.01	.61	.62	3.22		3.49	.08			.24	21.25	1.61	12.95
	Ferrous	0	0	0	21.62	0	0	4.60	.67	0	0	0	0	0	0	0	0	0		5.26	0	.04	.33	0	0	0	0	.32	1.06		0	0			0	2.84	0	0
	Sulfate	3.6	5.9	0	275.8	.13	5.4	0	48.2	31.1	216.04	136.3	15.3	9.5	23.8	137.7	36.5	24.6		247.7	.86	8.9	41.7	79.3	0	.53	8.0	4.32	186.5		333.5	10			78.9	160.2	25	122.9
DATE 11-5-73	Date	5	5	5	5	5	5	5	5	5	5	5	5	6	6	7	7	7		7	7	7	7	7	7	7	7	7	7		7	6		6	7	6	7	7
	Flow-g.p.m.	4.9	3.8	1.1	51.0	2.2	3.8	30.9	4.9	1.7	12.4	6.1	10.7	21.7	8.9	27.5	12.4	7.5		27.5	3.9	1.1	16.7	34.2	4.9	2.2	14.6	1.7	50.3	D	164.5	6.1	D	1.1	24.6	16.7	3.8	21.7
	pH	3.0	3.2	4.4	3.1	5.4	5.6	3.9	5.9	3.4	3.3	3.3	4.2	4.1	3.1	2.7	4.5	3.4		2.6	3.4	3.7	3.3	3.2	4.3	4.3	5.2	2.7	3.1	R	5.7	4.4	R	4.4	4.2	2.6	2.7	2.5
mg/l	Alkalinity	0	0	2	0	4	4	0	4	0	0	0	0	0	0	0	2	0		0	0	0	0	0	0	0	4	0	0	Y	6	0	Y	0	0	0	0	0
	Acidity	192	164	10	160	4	8	80	10	280	274	220	14	18	60	214	14	76		200	54	132	130	130	12	6	4	1600	400		16	32		12	60	1200	700	1200
	Total Iron	1.36	1.36	0	32.09	0	.15	21.84	1.20	.89	.74	.74	.44	.15	9.44	.15	.59	.15		173.72	1.20	1.68	3.22	3.40	.44	.29	.44	57.23	5.36		3.77	.15		.15	.59	200.08	35.84	125.18
	Ferrous	0	0	0	4.48	0	0	13.44	0	0	0	0	0	0	4.48	0	0	0		2.24	0	0	0	0	0	0	0	2.24	0		0	0		0	0	2.24	1.12	3.36
	Sulfate	260	205	30	525	35	35	725	195	1075	1425	1475	180	165	300	300	245	325		850	55	450	215	215	35	30	55	1200	275		240	190		35	355	1000	625	950
lb./day	Alkalinity	0	0	.03	0	.11	.2	0	.2	0	0	0	0	0	0	0	.3	0		0	0	0	0	0	0	0	.7	0	0		11.9	0		0	0	0	0	0
	Acidity	11.3	7.5	.1	98.0	.11	.4	29.7	.6	5.7	40.8	16.1	1.8	4.7	6.4	70.7	2.1	6.8		66.1	2.5	1.7	26.1	53.4	.7	.16	.7	32.7	241.7		31.6	2.3		.2	17.7	240.8	31.96	312.9
	Total Iron	.08	.06	0	19.67	0	.007	8.11	.07	.02	.11	.05	.06	.04	1.01	.05	.09	.01		57.4	.06	.02	.65	1.40	.03	.008	.08	1.17	3.24		7.45	.01		.002	.17	40.14	1.54	32.64
	Ferrous	0	0	0	2.75	0	0	4.99	0	0	0	0	0	0	.48	0	0	0		.74	0	0	0	0	0	0	0	.05	0		0	0		0	0	.45	.05	.88
	Sulfate	15.3	9.4	.4	321.7	.9	1.6	269.2	14.5	22.0	212.3	108.1	23.1	43.0	32.1	99.1	36.5	29.3		280.9	2.6	5.9	43.1	88.3	2.1	.8	9.6	24.5	166.2		474.4	13.9		4.6	104.9	200.7	28.5	247.7
DATE 12-3-73	Date	4	4	4	4	5	5	5	5	5	5	5	5	4	4	5	5	5		4	4	4	5	5	5	5	4	4	4	4	4	5		5	5	4	4	4
	*Flow-g.p.m.	6.1	6.1	2.2	219.8	6.1	30.9	46.1	193.0	4.9	34.2	21.7	46.1	12.4	27.5	34.2	34.2	12.4		123.0	2.9	6.1	38.0	55.0	12.4	8.9	34.2	1.7	81.7	24.6	239.0	38.0	D	10.7	38.0	50.3	19.2	24.6
	pH	3.2	3.5	4.4	3.2	5.2	5.1	3.5	5.1	3.6	3.4	3.5	4.6	4.3	3.7	2.9	4.9	3.6		2.9	3.3	4.1	2.9	3.5	2.8	2.8	4.2	3.0	3.3	4.2	4.1	4.4	R	4.6	4.3	2.9	2.9	2.9
mg/l	Alkalinity	0	0	0	0	6	6	0	6	0	0	0	2	0	0	0	8	0		0	0	0	0	0	0	0	0	0	0	0	0	0	Y	2	0	0	0	0
	Acidity	154	96	8	288	6	6	220	22	264	314	340	42	30	80	240	38	94		1280	304	126	460	240	380	380	18	1580	210	20	54	34		12	40	1200	1340	1200
	Total Iron	1.20	894	0	26.28	.247	.127	14.72	.25	.47	.86	.91	.78	.25	.75	.25	.37	.26		175.35	3.46	.37	2.95	3.03	40 5	2.15	.27	41.73	5.68	.134	2.00	.54		.27	540	116.55	93.14	86.16
	Ferrous	0	0	0	2.24	0	0	6.72	0	0	0	0	0	0	0	0	0	0		1.12	0	0	0	0	0	0	0	2.24	0	0	0	0		0	0	1.120	0	0
	Sulfate	155	105	25	225	30	30	700	255	550	600	1175	210	170	155	275	265	290		800	275	410	300	355	175	175	30	1075	275	70	180	135		35	260	700	600	700
lb./day	Alkalinity	0	0	0	0	.4	2.2	0	13.9	0	0	0	1.1	0	0	0	3.3	0		0	0	0	0	0	0	0	0	0	0	0	0	0		.3	0	0	0	0
	Acidity	11.3	7.0	.2	760.0	.4	2.2	121.9	51.0	15.5	129.0	88.6	23.3	4.5	26.4	98.6	15.6	14.0		1891.7	10.6	9.2	210.0	158.6	56.6	40.6	7.4	32.3	206.2	5.9	155.1	15.5		1.5	18.3	725.2	309.1	354.7
	Total Iron	.09	.07	0	69.41	.02	.05	8.15	.59	.03	.35	.24	.43	.04	.25	.10	.15	.04		259.0	.12	.03	1.35	2.00	.60	.23	.11	.85	5.57	.04	5.74	.25		.03	.25	71.65	21.49	25.47
	Ferrous	0	0	0	5.92	0	0	3.72	0	0	0	0	0	0	0	0	0	0		1.66	0	0	0	0	0	0	0	.05	0	0	0	0		0	0	.68	0	0
	Sulfate	11.4	7.7	.7	594.2	2.2	11.1	387.7	591.3	32.4	246.6	306.4	116.3	25.3	51.2	113.0	108.9	43.2		1182.3	9.6	30.0	137.0	234.6	26.1	18.7	12.3	22.0	270.0	20.7	516.9	61.6		4.5	118.7	423.1	138.4	206.9
DATE 1-8-74	Date	7	7		7	7	7	7	7	7	7	7	7	8	8	8	8	11		10		10	8	8	8	8	8		10		10	11		11	11	10	10	10
	Flow-g.p.m.	2.2	4.9	F	93.6	3.8	14.6	65.0	115.5	4.9	41.3	37.5	41.8	10.7	12.4	38.0	34.2	10.7		76.0	F	12.4	14.6	50.3	8.9	6.1	14.6	F	50.3	F	239	34.2	D	3.8	19.2	21.7	6.1	24.6
	pH	3.3	3.5	R	3.0	5.5	5.1	3.6	4.7	3.5	3.4	3.4	4.1	4.4	3.7	4.3	4.8	3.7		2.7	R	4.0	3.6	4.1	4.0	4.7	5.4	R	3.4	R	4.9	4.6	R	4.5	4.4	2.6	2.7	2.6
mg/l	Alkalinity	0	0	0	0	6	6	0	6	0	0	0	0	2	0	2	4	0		0	0	0	0	0	0	6	4	0	0	0	8	2	Y	4	2	0	0	0
	Acidity	152	78	Z	472	6	6	184	10	250	266	246	18	24	16	28	26	84		660	Z	186	154	106	126	8	4	Z	110	Z	16	28		6	30	1380	1740	660
	Total Iron	1.52	1.52	E	34.30	.15	.15	4.74	.29	1.20	.74	.89	.29	.15	.59	0	.44	.15		125.18	E	.29	2.69	.59	6.67	41.51	.44	E	2.52	E	8.63	0		.44	.29	159.97	105.91	46.38
	Ferrous	0	0	N	10.08	0	0	6.72	0	0	0	0	0	0	0	0	0	0		2.24	N	0	0	0	0	13.44	0	N	0	N	6.72	0		0	0	0	0	0
	Sulfate	100	275		625	7	19	700	275	975	900	1050	220	190	300	225	225	275		375		375	300	275	350	30	45		150		205	140		12	175	700	900	600
lb./day	Alkalinity	0	0		0	.3	1.1	0	8.3	0	0	0	0	.3	0	.9	.1.6	0		0		0	0	0	0	.4	.7		0		23.0	.8		.2	.5	0	0	0
	Acidity	4.0	4.6		530.8	.3	1.1	143.7	13.9	14.7	183.8	81.3	9.0	3.1	2.4	12.8	10.7	10.8		602.7		27.7	27.0	64.1	13.5	.6	.7		66.5		45.9	11.5		.3	6.9	359.8	127.5	195.1
	Total Iron	.04	.09		38.58	.007	.03	3.70	.41	.07	.37	.30	.15	.02	.09	0	.18	.02		114.31		.04	.47	.36	.71	3.04	.08		1.52		24.77	0		.02	.07	41.7	7.76	13.71
	Ferrous	0	0		11.34	0	0	5.25	0	0	0	0	0	0	0	0	0	0		2.05		0	0	0	0	.99	0		0		19.30	0		0	0	0	0	0
	Sulfate	2.6	16.2		702.9	.3	3.3	546.7	381.6	57.4	452.0	346.9	110.5	24.4	44.7	102.7	92.5	35.3		342.4		55.9	52.6	166.2	37.4	8.2	7.9		90.7		58.87	57.5		.5	40.4	182.5	66.0	177.3
12 MONTH AVERAGE	Flow-g.p.m.	6.1	4.5	1.0	88.4	3.3	12.4	70.5	108.5	36.9	19.4	15.6	21	19	17.6	49	58.6	8.6	.9	86	4.5	17.9	26.4	57	6.8	5.1	29.3		59.7	5.6	-		.8	3.2				
	pH Range	2.8-3.3	2.9-3.8	4.0-4.6	2.7-3.2	4.0-5.9	4.9-5.6	3.3-3.9	4.6-6.7	3.3-3.7	3.3-3.6	3.1-3.5	3.9-4.6	3.9-4.4	3.1-3.7	2.7-5.7	4.5-5.8	3.4-3.7	6.4-7.0	2.4-2.9	3.1-3.5	3.3-4.1	2.9-3.6	3.1-4.5	2.8-5.6	2.8-5.6	4.2-5.5	2.5-3.0	3.1-3.6	4.2-4.4	4.1-6.0	4.1-4.9	3.8	4.4-4.8	4.0-4.5	2.3-3.8	2.4-3.0	2.3-2.9
	Alkalinity	0	0	0	0	.1	.4	0	2.6	0	0	0	.1	.03	0	.1	.5	0	.1	0	0	0	0	0	0	.04	.1	0	0	0	3.5	.1	0	.1	.1	0	0	0
	Acidity	1	5	1	397	1	1	85	16	13	75	50	7	1	15	30	80	9	-1	810	25	1	60	72	8	5	3	32	243	1	38	13	1	1	15	360	94	270
lb./day	Total Iron	.31	.06	0	38.40	.06	.09	4.72	.85	.06	.23	.22	.14	.06	.48	.30	.36	.02	.002	149.18	2.48	.11	.74	1.16	.17	.35	.16	1.05	2.94	.01	9.26	.07	.01	.01	.20	45.01	7.78	25.79
	Ferrous	.04	.02	<.0008	16.9	.001	.02	3.4	.27	.03	.07	.09	<.027	.03	.13	.08	.22	.004	.005	4.69	.02	.06	.17	.24	.02	.11	.07	.16	1.02	.01	6.03	.01	<0	.01	.10	1.73	.27	.57
	Sulfate	13	7	0	336	1	4	665	266	48	260	204	44	36	36	107	161	70	0	708	7	47	70	118	8	3	9	29	144	4	379	26	3	2	86	317	79	268

ACID LOAD AVERAGES

Rank	Area	Discharges	Acid Load (lbs/day)	Percent of Total
1	XXIII	301	1651	21.64
2	XLVI	329, 350, 351	1263	16.55
3	XIX	220, 221	1086	14.23
4	XVI	211 - 214	904	11.85
5	XXVI	303	658	8.62
6	XXIX	305	397	5.20
7	XXXIX	330, 352	295	3.87
8	XLIII	341, 342, 343	184	2.41
9	XL	334, 335, 336, 337	139	1.82
10	XXXIV	313,313A, 315	137	1.79
11	XI	204	130	1.70
12	XXVII	304, 304A, 304B	127	1.66
13	XVII	215, 216	91	1.19
14	XVIV	301A	89	1.17
15	XXXII	309	85	1.11
16	XXV	302	61	.80
17	XXXVII	332, 323, 324	47	.62
18	XLV	346, 346A, 348A, 349	39	.51
19	XLIV	345	38	.50
20	IV	103, 104, 105	34	.45
21	XXXVI	317, 320	21	.28
22	XVIII	217, 218	21	.20

ACID LOAD AVERAGES (CONTD.)

Rank	Area	Discharges	Acid Load (lbs/day)	Percent of Total
23	VI	107	20	.26
24	XIV	209	18	.24
25	XL	332	17	.22
26	III	102	13	.17
27	VIII	113	11	.14
28	X	112,201,202,203	8	.10
29	XXXV	316	7	.09
30	V	106	5	.07
31	XXI	237, 239	5	.07
32	II	101	5	.07
33	IX	114	5	.07
34	XXII	241	4	.05
35	VII	111	3	.04
36	XLII	340	3	.04
37	I	100	3	.04
38	XII	206, 207	2	.03
39	XV	210	1	.01
40	XIII	208	1	.01
41	XXXI	308	1	.01
42	XXX	306	1	.01
43	XXVIII	304C	1	.01
Total			7,631	100.00

MONTHLY STREAM ANALYSES

Sample - June 1973

Parameter	Kratzer Run	Little Anderson Creek	Anderson Creek
pH	5.3	3.4	4.3
Flow (gpm)	10,099	9,630	73,583
Acid (mg/l)	8	62	20
Acid (lbs/day)	848	8,207	17,682
Alkalinity (mg/l)	0	0	0
Alkalinity (lbs/day)	0	0	0
Fe-total (mg/l)	0.7	4.4	0.9
Fe-total (lbs/day)	74	582	796
Fe-ferrous (mg/l)	0.5	3.0	0.6
Fe-ferrous (lbs/day)	53	397	530
Sulfate (mg/l)	77	130	48
Sulfate (lbs/day)	8,167	17,209	42,438

Sample - July 1973

pH	4.7	3.3	4.3
Flow (gpm)	3,800	3,376	20,214
Acid (mg/l)	20	140	20
Acid (lbs/day)	913	5,678	4,857
Alkalinity (mg/l)	0	0	0
Alkalinity (lbs/day)	0	0	0
Fe-total (mg/l)	0.5	6.0	0.6
Fe-total (lbs/day)	23	243	146
Fe-ferrous (mg/l)	0.5	1.5	0.6
Fe-ferrous (lbs/day)	23	61	146
Sulfate (mg/l)	140	240	62
Sulfate (lbs/day)	6,391	8,922	15,058

MONTHLY STREAM ANALYSES (CONTD.)

Sample - August 1973

Parameter	Kratzer Run	Little Anderson Creek	Anderson Creek
pH	4.6	3.1	4.1
Flow (gpm)	3,725	3,009	13,820
Acid (mg/l)	38	170	26
Acid (lbs/day)	1,700	6,147	4,317
Alkalinity (mg/l)	0	0	0
Alkalinity (lbs/day)	0	0	0
Fe-total (mg/l)	0.5	7.0	0.5
Fe-total (lbs/day)	22	253	83
Fe-ferrous (mg/l)	0.5	1.3	0.5
Fe-ferrous (lbs/day)	22	47	83
Sulfate (mg/l)	130	270	77
Sulfate (lbs/day)	5,818	9,763	12,786

Sample - September 1973

pH	5.0	3.1	4.0
Flow (gpm)	1,468	1,660	3,794
Acid (mg/l)	20	200	36
Acid (lbs/day)	353	3,989	1,641
Alkalinity (mg/l)	0	0	0
Alkalinity (lbs/day)	0	0	0
Fe-total (mg/l)	0.4	14.0	0.5
Fe-total (lbs/day)	7	279	23
Fe-ferrous (mg/l)	0.4	0.9	0.5
Fe-ferrous (lbs/day)	7	18	23
Sulfate (mg/l)	140	350	96
Sulfate (lbs/day	2,469	6,980	4,377

MONTHLY STREAM ANALYSES (CONTD.)

Sample - October 1973

Parameter	Kratzer Run	Little Anderson Creek	Anderson Creek
pH	5.2	2.9	3.7
Flow (gpm)	6,732	1,614	7,632
Acid (mg/l)	4	82	20
Acid (lbs/day)	324	1,590	1,834
Alkalinity (mg/l)	0	0	0
Alkalinity (lbs/day)	0	0	0
Fe-total (mg/l)	1.2	6.2	.9
Fe-total (lbs/day)	97	121	82
Fe-ferrous (mg/l)	0	0	0
Fe-ferrous (lbs/day)	0	0	0
Sulfate (mg/l)	130	270	90
Sulfate (lbs/day)	10,515	5,234	8,253

Sample - November 1973

pH	4.6	3.3	4.1
Flow (gpm)	6,846	4,910	41,859
Acid (mg/l)	6	60	10
Acid (lbs/day)	494	3,540	5,029
Alkalinity (mg/l)	2	0	0
Alkalinity (lbs/day)	165	0	0
Fe-total (mg/l)	0.3	7.1	0.6
Fe-total (lbs/day)	24	421	296
Fe-ferrous (mg/l)	0	0	0
Fe-ferrous (lbs/day)	0	0	0
Sulfate (mg/l)	65	200	35
Sulfate (lbs/day)	5,347	11,799	17,601

MONTHLY STREAM ANALYSES (CONTD.)

Sample - December 1973

Parameter	Kratzer Run	Little Anderson Creek	Anderson Creek
pH	4.0	2.7	3.6
Flow (gpm)	12,821	9,544	91,966
Acid (mg/l)	18	240	20
Acid (lbs/day)	2,773	27,523	22,100
Alkalinity (mg/l)	0	0	0
Alkalinity (lbs/day)	0	0	0
Fe-total (mg/l)	0.4	8.2	1.1
Fe-total (lbs/day)	60	938	1,187
Fe-ferrous (mg/l)	0	0	0
Fe-ferrous (lbs/day)	0	0	0
Sulfate (mg/l)	60	200	65
Sulfate (lbs/day)	9,243	22,936	71,826

Sample - January 1974

pH	4.7	3.9	4.3
Flow (gpm)	10,686	10,171	28,566
Acid (mg/l)	16	98	14
Acid (lbs/day)	2,054	11,976	4,805
Alkalinity (mg/l)	4	0	0
Alkalinity (lbs/day)	514	0	0
Fe-total (mg/l)	0.7	10.3	0.9
Fe-total (lbs/day)	95	1,258	307
Fe-ferrous (mg/l)	0	1.1	0
Fe-ferrous (lbs/day)	0	137	0
Sulfate (mg/l)	116	195	47
Sulfate (lbs/day)	14,894	23,830	16,132

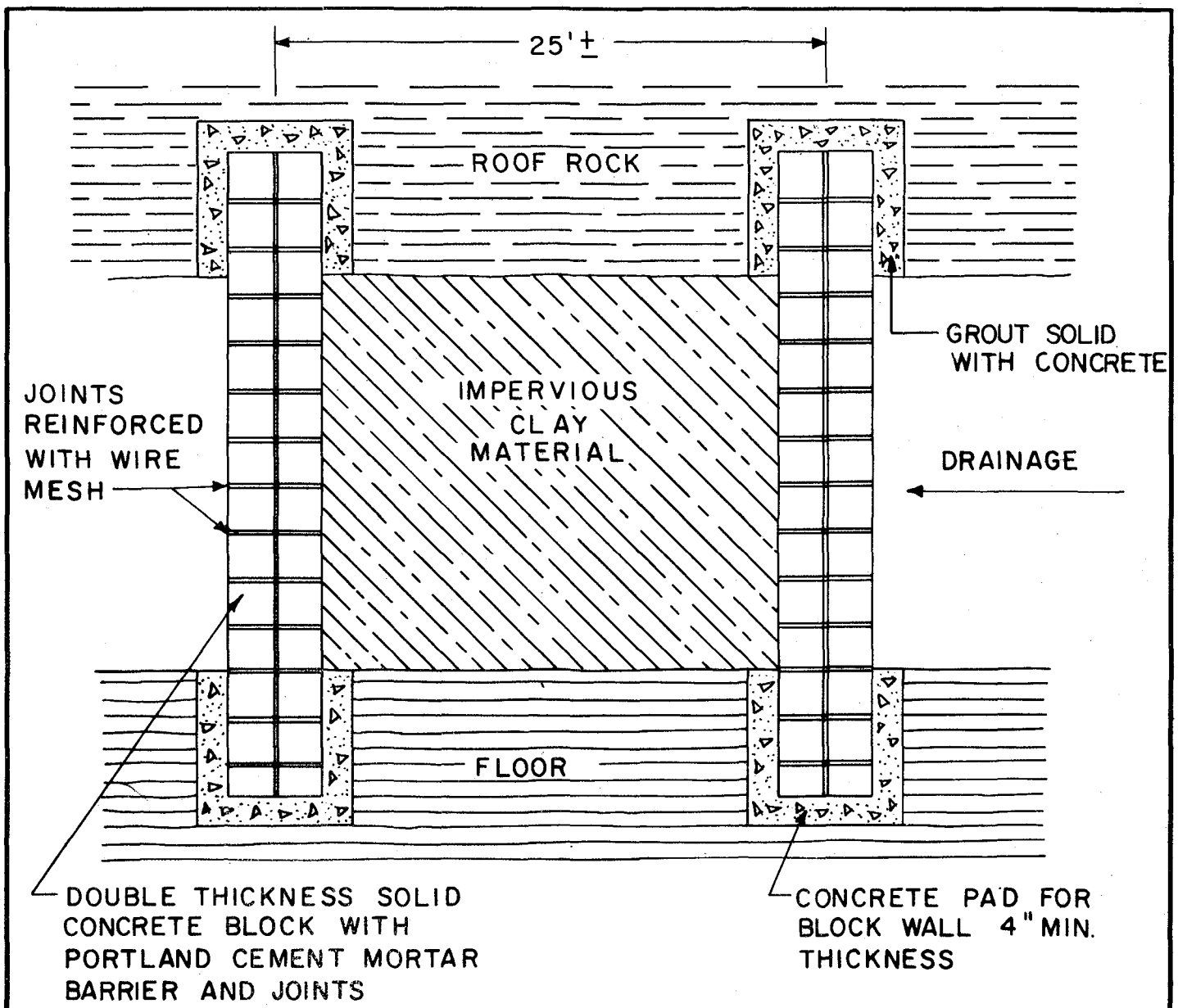
MONTHLY STREAM ANALYSES (CONTD.)

Sample - Average

Parameter	Kratzer Run	Little Anderson Creek	Anderson Creek
pH (range)	4.0 - 5.3	2.7 - 3.9	3.6 - 4.3
Flow (gpm)	7,022	5,489	35,179
Acid (mg/l)	16	132	21
Acid (lbs/day)	1,182	8,581	7,783
Alkalinity (mg/l)	0.8	0	0
Alkalinity (lbs/day)	85	0	0
Fe-total (mg/l)	0.6	7.9	0.8
Fe-total (lbs/day)	50	512	365
Fe-ferrous (mg/l)	0.2	1.0	0.3
Fe-ferrous (lbs/day)	13	83	98
Sulfate (mg/l)	107	232	65
Sulfate (lbs/day)	7,856	13,334	23,559

DEEP MINE REFUSE PILES

Location	Mine Name	pH
304	Pentz Mine	4.2
239	---	5.2
220-221	Widemire Mines	4.6
2500' N. of 220	Irvin Mine	4.4
101	Way Mine	4.4
106	---	Less than 3.8
113	---	5.2
210	---	4.0
217-218	Rankin Mine	4.4
350-351	Korb Mine	3.9
352	Spencer Mine	4.2
301	Draucker #1	Less than 3.8
301A	Draucker #2	4.4
302	Pearce Mine	Less than 3.8
100	---	Less than 3.8
114	---	4.1
4500' SW of 106	---	4.4



TYPICAL CONCRETE BLOCK DEEP MINE SEAL