

## **APPENDIX A**

MONTHLY CHEMICAL SAMPLE ANALYSIS AND FLOW MEASUREMENTS

SL 103-5

DISCHARGE : EXPORT

MONTH	FLOW		PH	ACIDITY		ALKALINITY		NET (1) ACID LOAD Lb/Day	TOTAL IRON		FERROUS IRON		SULFATES	
	MGD	GPM		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day
Aug. '73	1.000	694	2.6	380	3167	0	0	3167	56	466	12	100	810	6746
Sept.	.447	310	2.8	410	1527	0	0	1527	47	175	15	56	820	3050
Oct.	.447	310	2.8	440	1639	0	0	1639	38	141	17	63	1000	3720
Nov.	.75(E)	521	2.9	600	3750	0	0	3750	46	288	8	50	700	4375
Dec.	-	-	No	Sample	Obtained	-	-	-	-	-	-	-	-	-
Jan. '74	1.294	899	3.1	320	3451	0	0	3451	40	432	2	22	525	5664
Feb.	.773	537	2.7	300	1933	0	0	1933	32	206	9	58	350	2255
Mar.	1.02	708	3.0	298	2533	0	0	2533	38	323	1	8	350	2974
Apr.	.878	610	2.9	100	732	0	0	732	28	205	2	15	425	3111
May	1.280	889	2.9	360	3840	0	0	3840	31	331	6	64	675	7201
June	1.25	868	2.7	400	4167	0	0	4167	27	281	2	21	450	4687
July	1.121	778	2.8	800	7473	0	0	7473	25	233	0	0	650	6068
Aug.	.988	686	2.7	700	5763	0	0	5763	13	107	0	0	700	5762
Sept.	1.03	715	2.8	400	3433	0	0	3433	15	129	-	-	900	7722

# MONTHLY CHEMICAL SAMPLE ANALYSIS AND FLOW MEASUREMENTS

DISCHARGE : EXPORT (cont'd.)

SL 103-5

MONTH	FLOW		pH	ACIDITY		ALKALINITY		NET(1) ACID LOAD Lb/Day	TOTAL IRON		FERROUS IRON		SULFATES	
	MGD	GPM		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day
Oct.	.997	692	3.1	310	2576	0	0	2576	16	133	-	-	900	7474
Nov.	.994	690	2.8	500	4142	0	0	4142	25	207	1	8	775	6417
Dec.	1.141	792	3.0	700	6656	0	0	6656	13	124	12	114	600	5702
Jan. '75	1.101	765	3.0	700	6423	0	0	6423	18	165	8	73	700	6426
Feb.	1.304	906	3.1	362	3934	0	0	3934	20	220	16	174	800	8698
Mar.	1.207	838	3.0	600	6035	0	0	6035	19	191	6	60	825	8296
Apr.	1.44	1000	2.8	800	9600	0	0	9600	21	252	2	24	975	11700
May	1.442	1001	3.2	336	4038	0	0	4038	25	300	2	24	800	9610
June	1.338	929	3.0	380	4237	-	0	4237	18	198	-	-	714	7960
July	1.233	856	2.4	400	4110	0	0	4110	17	175	-	-	630	6471
Aug.	1.166	810	3.1	290	2818	-	0	2818	19	181	-	-	506	4918
Sept.	1.828	1269	2.8	248	3778	-	0	3778	18	274	5	76	1000	15228
Oct.	2.051	1424	2.9	270	4615	-	0	4615	26	444	4	68	900	15379
Average (2)	1.14	792	2.9	439	4172	0	0	4172	27	257	6	57	711	6757

Notes: (E) - Denotes estimate of flow.  
 (-) - Denotes no analysis done.  
 (1) - Negative value denotes alkaline condition.  
 (2) - Average flow based on 55 measurements.  
 (\*) - Product of average flow (GPM) x average concentration (mg/l) x 0.012

**MONTHLY CHEMICAL SAMPLE ANALYSIS AND FLOW MEASUREMENTS**

SL 103-5

**DISCHARGE : DELMONT**

MONTH	FLOW		PH	ACIDITY		ALKALINITY		NET (1)		TOTAL IRON		FERROUS IRON		SULFATES	
	MGD	GPM		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	ACID LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	
May '74	1.312	911	3.0	140	1530	0	0	1530	53	584	0	0	450	4919	
June	1.382	960	3.3	156	1797	0	0	1797	53	613	28	323	300	3456	
July	.943	655	3.3	74	582	0	0	582	35	272	28	220	475	3734	
Aug.	.732	508	3.1	106	646	0	0	646	3	17	0	0	350	2134	
Sept.	.780	542	2.9	400	2602	0	0	-	4	27	-	-	575	3740	
Oct.	No	Sample	-	Obtained	-	-	-	-	-	-	-	-	-	-	
Nov.	No	Sample	-	Obtained	-	-	-	-	-	-	-	-	-	-	
Dec.	1.211	841	4.9	60	605	10	101	504	20	199	19	192	400	4037	
Jan. '75	.524	364	3.4	48	210	0	0	210	27	118	25.8	113	800	3494	
Feb.	1.509	1048	3.7	132	1660	0	0	1660	27	337	25.8	324	500	6288	
Mar.	.323	224	3.3	100	269	0	0	269	26	71	22.4	60	550	1478	
Apr.	1.472	1022	3.0	300	3679	0	0	3679	32	390	22.4	275	600	7358	
May	.904	628	3.4	116	874	0	0	874	39	293	38.1	287	675	5087	
June	.007	5	3.3	90	5	-	-	5	26	2	-	-	550	33	

# MONTHLY CHEMICAL SAMPLE ANALYSIS AND FLOW MEASUREMENTS

SL 103-5

DISCHARGE: DELMONT (cont'd.)

MONTH	FLOW		PH	ACIDITY		ALKALINITY		NET(1) ACID LOAD		TOTAL IRON		FERROUS IRON		SULFATES	
	MGD	GPM		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day
July '75	.638	443	-	No	Sample Obtained	-	-	-	-	-	-	-	-	-	-
Aug.	.534	371	-	No	Sample Obtained	-	-	-	-	-	-	-	-	-	-
Sept.	.600	417	-	No	Sample Obtained	-	-	-	-	-	-	-	-	-	-
Oct.	.822	571	3.1	100	685	-	45	685	308	25	171	775	5310		
(2) Average	1.13	785	3.4	140	1319*	1	30	1310	283*	21	198	539	5077*		

Note: (E) - Denotes estimate of flow.  
 (-) - Denotes no analysis done.  
 (1) - Negative value denotes alkaline condition.  
 (2) - Average flow based on 43 measurements.  
 (\*) - Product of average flow (GPM) x average concentration (mg/l) x 0.012

MONTHLY CHEMICAL SAMPLE ANALYSIS AND FLOW MEASUREMENTS

DISCHARGE : COAL RUN

SL 103-5

MONTH	FLOW		PH	ACIDITY		ALKALINITY		NET (L) ACID LOAD Lb/Day	TOTAL IRON		FERROUS IRON		SULFATES	
	MGD	GPM		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day
Aug. '73	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sept.	1.45	1008	5.7	0	0	36	435	-435	36	435	32	337	500	6048
Oct.	.43	299	5.5	0	0	-	-	-	15	54	11	39	750	2691
Nov.	(B) .50	347	5.7	300	1249	72	300	949	31	129	29	121	425	1770
Dec.	-	-	-	No	Sample Obtained	-	-	-	-	-	-	-	-	-
Jan. '74	.606	421	5.7	116	586	104	525	61	27	136	22	111	400	2021
Feb.	1.466	1018	5.6	84	1026	114	1393	-367	28	342	24	293	335	4092
Mar.	1.533	1065	5.6	104	1329	108	1380	-51	23	294	18	230	325	4154
Apr.	2.085	1448	5.6	112	1946	118	2050	-104	28	487	19	330	300	5213
May	.667	463	5.8	60	333	132	733	-400	27	150	18	100	450	2500
June	.82	569	5.4	88	601	108	737	-136	26	178	22	150	250	1707
July	(E) .72	500	5.6	38	228	96	576	-348	25	150	15	90	450	2700
Aug.	.32	222	5.8	6	16	122	325	-309	0	0	0	0	225	599
Sept. Oct. 2	.33	229	5.7	60	165	80	220	-55	0	0	-	-	450	1237

**MONTHLY CHEMICAL SAMPLE ANALYSIS AND FLOW MEASUREMENTS**

**DISCHARGE: COAL RUN (cont'd.)**

SL 103-5

MONTH	FLOW		PH	ACIDITY		ALKALINITY		NET(1) ACID LOAD Lb/Day	TOTAL IRON		FERROUS IRON		SULFATES	
	MGD	GPM		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day
Oct.	.667	463	5.7	60	333	94	522	-189	0	0	-	500	2778	
Nov.	.432	300	5.9	88	317	128	461	-144	24	86	11	450	1620	
Dec.	1.222	849	5.8	8	82	80	815	-733	12	122	11	450	4585	
Jan. '75	1.222	849	6.3	40	408	84	856	-448	17	173	17	450	4585	
Feb.	1.281	890	6.5	68	726	98	1047	-321	17	185	17	450	4806	
Mar.	1.41	979	6.5	96	1128	78	916	212	20	238	20	450	5287	
Apr.	.694	482	5.7	46	266	66	382	-116	24	139	23	675	3904	
May	.777	540	6.4	50	324	66	428	-104	29	188	26	675	4374	
June	.711	494	6.0	10	59	74	439	-380	19	112	-	374	2217	
July	.555	385	5.9	0	0	70	323	-323	23	106	-	546	2523	
Aug.	.555	385	6.3	0	0	72	333	-333	28	129	-	484	2236	
Sept.	1.332	925	5.8	0	0	96	1066	-1066	36	400	20	410	4551	
Oct.	.880	611	5.8	2	15	84	616	-601	26	191	15	750	5499	
Average (2)	.970	674	5.9	57	461*	91	736*	-275	22*	178	19	461	3729*	

Notes: (E) - Denotes estimate of flow.  
 (-) - Denotes no analysis done.  
 (1) - Negative value denotes alkaline condition.  
 (2) - Average flow based on 53 measurements.  
 (\*) - Product of average flow (GPM) x average concentration (mg/l) x 0.012

**MONTHLY CHEMICAL SAMPLE ANALYSIS AND FLOW MEASUREMENTS**

SL 103-5

**DISCHARGE: IRWIN**

MONTH	FLOW		PH	ACIDITY		ALKALINITY		NET(1) ACID LOAD Lb/Day	TOTAL IRON		FERROUS IRON		SULFATES	
	MGD	GPM		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day
Aug. '73	9.05	6285	4.0	255	19232	0	0	19232	190	14330	150	11313	860	64861
Sept.	6.28	4361	4.1	265	13868	0	0	13868	195	10205	165	8635	1300	68032
Oct.	4.14	2875	3.2	200	6900	0	0	6900	173	5969	82	2829	1238	42711
Nov.	3.22	2236	3.4	500	13416	0	0	13416	107	2871	101	2710	1200	32198
Dec.	4.50	3125	4.0	394	14775	6	225	14550	172	6450	141	5288	963	36113
Jan. '74	5.34	3708	3.5	410	18243	0	0	18243	174	7742	143	6363	1125	50058
Feb.	9.87	6854	3.1	322	26484	0	0	26484	184	15134	131	10774	875	71967
Mar.	10.38	7208	5.0	420	36328	42	3633	32695	179	15483	152	13147	850	73522
Apr.	11.59	8049	3.2	100	9659	0	0	9659	129	12460	58	5602	1050	101417
May	11.81	8201	3.0	280	27555	0	0	27555	124	12203	122	12006	1175	115634
June	13.80	9583	2.8	200	22999	0	0	22999	118	13570	116	13340	775	89122
July	10.67	7410	3.2	240	21341	0	0	21341	122	10848	112	9959	1000	88920
Aug.	11.79	8188	3.6	298	29280	0	0	29280	63	6190	-	-	925	90887
Sept.	11.93	8285	4.7	394	39171	14	1392	37779	77	7616	-	-	1350	134217



# MONTHLY CHEMICAL SAMPLE ANALYSIS AND FLOW MEASUREMENTS

DISCHARGE: IRWIN (Cont'd.)

SL 103-5

MONTH	FLOW		pH	ACIDITY		ALKALINITY		NET(1) ACID LOAD Lb/Day	TOTAL IRON		FERROUS IRON		SULFATES	
	MGD	GPM		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day
Oct. '74	11.168	7756	4.5	336	31272	0	0	31272	76	7073	-	-	1150	107033
Nov.	11.63	8076	3.9	420	40703	0	0	40703	106	10273	101	9788	1200	116294
Dec.	10.96	7611	3.4	232	21189	0	0	21189	49	4475	48	4384	950	86765
Jan. '75	16.114	11190	3.2	152	20411	0	0	20411	90	12085	89	11951	975	130923
Feb.	19.00 (E)	13194	5.2	214	38882	22	3483	30399	80	12603	79.5	12587	1050	166244
Mar.	22.561	15667	4.1	184	34593	0	0	34593	85	15962	84	15792	1475	277306
Apr.	18.08	12556	2.6	300	45202	0	0	45202	56	8438	36	5424	1225	184573
May	14.18	9847	3.9	208	24578	0	0	24578	119	14062	117.6	13896	1425	168384
June	12.635	8774	4.4	220	23163	6	632	22531	127	13372	-	-	1320	138980
July	10.848	7533	5.6	350	31639	48	4339	27300	150	13559	-	-	1268	114622
Aug.	9.346	6490	5.6	262	20405	34	2648	17757	155	12071	-	-	2352	183174
Sept.	9.862	6849	5.5	428	35176	72	5918	29258	165	13561	150	12328	1000	82188
Oct.	10.441	7251	5.9	248	21579	24	2088	19491	140	12182	100	8701	1350	117466
Average	11.16 (2)	7750	4.0	290	26970*	10	930*	26040	126	11718*	109	10137*	1164	108252*

Notes: (E) - Denotes estimate of flow.  
 (-) - Denotes no analysis done.  
 (1) - Negative value denotes alkaline condition.  
 (2) - Average flow based on 53 measurements.  
 (\*) - Product of average flow (GPM) x average concentration (mg/l) x 0.012

**MONTHLY CHEMICAL SAMPLE ANALYSIS AND FLOW MEASUREMENTS**

DISCHARGE : MARCHAND

SL 103-5

MONTH	FLOW		PH	ACIDITY		ALKALINITY		NET (1) ACID LOAD Lb/Day	TOTAL IRON		FERROUS IRON		SULFATES	
	MGD	GPM		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day
Aug. '73	2.577	1790	5.8	200	4296	0	0	4296	310	6659	270	5300	3000	64440
Sept.	2.676	1858	5.8	140	3121	0	0	3121	290	6466	180	4013	2800	62429
Oct.	2.577	1790	5.8	600	12888	254	5456	7432	280	6014	173	3716	2225	47793
Nov.	2.480	1722	5.9	500	10332	214	4422	5910	153	3162	133	2748	2276	47031
Dec.	-	-	-	No Sample	Obtained	-	-	-	-	-	-	-	-	-
Jan. '74	2.480	1722	5.9	532	10993	400	8266	2727	247	5104	199	4112	2125	43911
Feb.	2.676	1858	5.8	82	1828	188	4190	-2364	311	6934	223	4972	1600	35674
Mar.	2.480	1722	5.6	250	5166	344	7108	-1942	302	6241	215	4443	1875	38745
Apr.	2.480	1722	5.6	158	3265	308	6365	-3100	212	4381	205	4236	2075	42878
May	2.480	1722	5.5	500	10332	224	4629	5703	216	4463	215	4443	2500	51660
June	2.577	1790	5.1	170	3652	160	3437	215	193	4146	185	3974	1975	42423
July	2.102	1460	4.8	430	7534	46	806	6728	191	3346	134	2348	2450	42924
Aug.	2.480	1722	5.3	326	6736	158	3265	3471	72	1488	0	0	2350	48560
Sept.	2.102	1460	5.4	450	7884	126	2208	5676	81	1419	-	-	3500	61320

**MONTHLY CHEMICAL SAMPLE ANALYSIS AND FLOW MEASUREMENTS**

**DISCHARGE : MARCHAND (cont'd.)**

SL 103-5

MONTH	FLOW		PH	ACIDITY		ALKALINITY		NET (1) ACID LOAD		TOTAL IRON		FERROUS IRON		SULFATES	
	MGD	GPM		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day
Oct. '74	2.480	1722	5.5	605	12502	140	2893	9609	-	-	-	-	3250	67158	
Nov.	2.676	1858	5.7	480	10702	226	5039	5663	188	4192	146	3255	3000	66888	
Dec.	2.802	1946	5.1	464	10835	44	1027	9808	113	2639	112	2615	2550	59548	
Jan. '75	2.877	1998	5.4	186	4460	90	2158	2302	150	3596	149	3572	2500	59940	
Feb.	3.187	2213	6.1	298	7914	150	3983	3931	151	4010	146	3867	2375	63071	
Mar.	3.292	2286	6.2	124	3402	200	5486	-2084	105	2880	104	2857	2375	65151	
Apr.	3.186	2213	6.0	352	9348	102	2709	6639	144	3824	143	3798	2750	73029	
May	2.676	1858	6.2	182	4058	102	2274	1784	164	3657	163	3634	1575	35116	
June	3.082	2140	5.9	70	1798	174	4468	-2670	178	4558	-	-	2260	58037	
July	2.676	1858	6.1	100	2230	270	6020	-3790	191	4265	-	-	2772	61805	
Aug.	2.577	1790	6.3	-	-	266	5714	-	188	4028	-	-	2488	53442	
Sept.	2.776	1928	5.8	64	1481	396	9162	-7681	285	6594	195	4512	2300	53213	
Oct.	2.776	1928	5.8	50	1157	224	5182	-4025	183	4234	128	2950	2100	48586	
Average	2.757	1915	5.7	293	6733	185	4251	2482	196	4504	163	3746	2425	55727	

Notes: (E) - Denotes estimate of flow.  
 (-) - Denotes no analysis done.  
 (1) - Negative Value denotes alkaline condition.  
 (2) - Average flow based on 58 measurements.  
 (\*) - Product of average flow (GPM) x average concentration / g/l) x 0.012

# MONTHLY CHEMICAL SAMPLE ANALYSIS AND FLOW MEASUREMENTS

DISCHARGE: UPPER GUFFEY STATION

SL 103-5

MONTH	FLOW		PH	ACIDITY		ALKALINITY		NET (1) ACID LOAD Lb/Day	TOTAL IRON		FERROUS IRON		SULFATES	
	MGD	GPM		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day
Aug. '73	2.676	1858	5.7	0	56	1249	-1249	98	2185	81	1806	1200	26755	
Sept.	2.195	1524	5.6	0	70	1280	-1280	110	2012	90	1646	1300	23774	
Oct.	2.481	1722	5.5	20	72	1488	-1075	94	1942	67	1384	1075	22214	
Nov.	2.102	1460	5.7	300	82	1437	3819	76	1332	71	1244	1175	20586	
Dec.	-	-	-	No Samples Obtained - Weir Out				-	-	-	-	-	-	-
Jan. '74	1.745	1212	5.8	190	142	2065	698	89	1294	68	989	1325	19271	
Feb.	1.492	1036	5.9	184	130	1616	671	90	1119	90	1119	650	8081	
Mar.	2.011	1397	5.7	138	182	3051	-738	49	821	37	620	350	5867	
Apr.	2.195	1524	5.4	144	150	2743	-110	67	1225	61	1116	825	15088	
May	2.676	1858	5.6	42	170	3790	-2854	73	1628	66	1472	1150	25640	
June	2.480	1722	5.5	70	160	3306	-1860	66	1364	61	1261	700	14465	
July	2.195	1524	5.7	44	160	2926	-2121	69	1262	12	219	1300	23774	
Aug.	1.767	1227	5.6	186	162	2385	354	1	15	0	0	1050	15460	
Sept	1.416	983	5.5	290	112	1321	2100	1	6	-	-	1450	17104	

**MONTHLY CHEMICAL SAMPLE ANALYSIS AND FLOW MEASUREMENTS**

**DISCHARGE: UPPER GUFFEY STATION (cont'd.)**

SL 103-5

MONTH	FLOW		PH	ACIDITY		ALKALINITY		NET (1)		TOTAL IRON		FERROUS IRON		SULFATES	
	MGD	GPM		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	ACID LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	
Oct. '74	2.384	1656	5.5	50	994	124	2464	-1470	1	14	-	1425	28318		
Nov.	1.304	906	5.7	164	1783	136	1479	304	70	761	67	1350	14677		
Dec.	1.588	1103	5.8	216	2859	112	1482	1377	30	397	28	925	12243		
Jan. '75	1.588	1103	5.9	82	1085	104	1377	-292	53	702	52	1050	13898		
Feb.	1.647	1144	6.4	200	2746	118	1620	1126	40	549	37	875	12012		
Mar.	3.019	2097	6.3	34	856	164	4127	-3271	39	981	38	800	20131		
Apr.	2.80	1944	6.1	70	1633	134	3126	-1493	44	1026	44	1075	25078		
May	2.739	1902	6.4	112	2556	138	3150	-594	56	1278	56	975	22253		
June	2.204	1531	6.1	10	184	140	2572	-2388	48	873	-	858	15763		
July	1.889	1312	6.1	0	0	194	3054	-3054	54	842	-	1218	19176		
Aug.	1.588	1103	6.3	194	2568	0	0	2568	47	626	-	1100	14560		
Sept.	1.530	1063	5.8	0	0	148	1888	-1888	82	1046	65	1050	13394		
Oct.	1.416	983	5.7	4	47	144	1699	-1652	70	826	53	1050	12386		
Average	2.07	1438	5.8	106	1829*	127	2192*	-363	58	1001*	55	1050	18119*		

Notes: (E) - Denotes estimate of flow.

(-) - Denotes no analysis done.

(1) - Negative value denotes alkaline condition.

(2) - Average flow based on 54 measurements.

(\*) - Product of average flow (GPM) x average concentration (mg/l) x 0.012

# MONTHLY CHEMICAL SAMPLE ANALYSIS AND FLOW MEASUREMENTS

DISCHARGE: LOWER GUFFEY STATION

SL 103-5

MONTH	FLOW		pH	ACIDITY		ALKALINITY		NET (1) ACID LOAD Lb/Day	TOTAL IRON		FERROUS IRON		SULFATES	
	MGD	GPM		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day
Aug. '73	2.195	1524	5.5	6	110	0	0	110	71	1298	58	1061	730	13350
Sept.	1.6 (E)	1111	5.7	0	880	66	880	-880	60	800	55	733	650	8666
Oct.	1.921	1334	5.7	0	0	162	2593	-2593	54	864	45	720	700	11206
Nov.	1.745	1212	5.8	400	5818	100	1454	4364	55	800	50	727	825	11999
Dec.	No	Sample	-	Obtained	-	-	-	-	-	-	-	-	-	-
Jan. '74	1.492	1036	5.8	204	2536	176	2188	348	71	883	46	572	850	10567
Feb.	1.659	1152	5.6	160	2212	156	2157	55	56	774	56	774	375	5184
Mar.	1.575	1094	5.5	230	3019	154	2022	997	87	1142	62	814	825	10831
Apr.	1.330	924	5.4	64	710	138	1530	-820	41	455	40	444	325	3604
May	1.659	1152	5.7	40	553	204	2820	-2267	47	650	36	498	550	7603
June	1.745	1212	5.3	148	2153	102	1483	670	47	684	41	596	350	5090
July	1.492	1036	5.6	68	845	96	1193	-348	50	622	15	186	550	6838
Aug.	1.492	1036	5.7	42	522	144	1790	-1268	0	2	0	0	375	4662
Sept. 2 Oct. 2	1.492	1036	5.6	100	1243	98	1218	25	300	3730	-	-	800	9946

# MONTHLY CHEMICAL SAMPLE ANALYSIS AND FLOW MEASUREMENTS

SL 103-5

DISCHARGE: LOWER GUFFEY STATION (cont'd.)

MONTH	FLOW		PH	ACIDITY		ALKALINITY		NET (1) ACID LOAD Lb/Day	TOTAL IRON		FERROUS IRON		SULFATES	
	MGD	GPM		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day		CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day	CONCENTRATION mg/L	LOAD Lb/Day
Oct. '74	1.659	1152	5.7	144	1991	114	1576	415	0	0	-	-	675	9331
Nov.	1.410	979	6.4	118	1386	146	1715	-329	39	458	22	258	675	7930
Dec.	1.026 (E)	713	6.3	76	650	110	941	-291	24	205	22	188	600	5134
Jan. '75	1.575	1094	6.0	86	1129	140	1838	-709	36	473	35	459	600	7877
Feb.	1.745	1212	6.1	122	1774	94	1367	407	29	422	28	407	500	7272
Mar.	1.745	1212	6.2	80	1164	106	1542	-378	35	506	33.6	489	575	8363
Apr.	1.740	1208	6.4	136	1971	80	1160	811	44	638	44	638	700	10147
May	1.745	1212	6.2	128	1862	76	1105	757	58	849	56	814	650	9454
June	1.659	1152	6.0	10	138	76	1051	-913	38	529	-	-	484	6691
July	1.410	979	6.0	10	117	82	963	-846	35	411	-	-	714	8388
Aug.	1.330	924	6.2	0	0	102	1131	-1131	39	432	-	-	506	5611
Sept.	1.330	924	6.0	0	0	128	1419	-1419	66	732	42.5	471	670	7429
Oct.	1.410	979	5.8	0	0	128	1503	-1503	53	623	35	411	900	10573
Average	1.55 <sup>(2)</sup>	1076	5.9	91	1175*	115	1485*	-310	55	710*	39	504*	621	8018

Notes: (E) - Denotes estimate of flow.  
 (-) - Denotes no analysis done.  
 (1) - Negative value denotes alkaline condition.  
 (2) - Average flow based on 58 measurements.  
 (\*) - Product of average flow (GPM) x average concentration (mg/l) x 0.012