

APPENDIX C. - Stream Sample Data Obtained From the Operation Scarliff Project, SL-185

ID #	Level	Flow (cfs)	LAB pH	Acidity (mg/L)	Alkalinity (mg/L)	Acid Load (#/day)	Fe (mg/L)	Fe Load (#/day)	Ferr. Fe (mg/L)	SO4 (mg/L)	SO4 Load (#/day)	Al (mg/L)	Al Load (#/day)	Mn (mg/L)
106	MIN	0.42	4.3	4	0	-82	0	0	0	12	26			
	MAX	9.099	6.1	20	12	130	20	327	0	225	1799			
107	AVG	2.942	5.2	9	5	44	1.9	29	0	64	671			
	MIN	0.368	3.8	10	0	39	0	0	0	33	227			
108	MAX	7.968	4.4	68	0	594	1.2	10	0	350	2512			
	AVG	2.774	4.1	23	0	292	0.2	3	0	116	1086			
109	MIN	0.01	3.6	2	0	-27	0	0	0	15	6			
	MAX	2.564	5.1	16	6	42	3.6	2	2.2	172	528			
110	AVG	0.952	4.35	6	3	3	0.5	0	0.2	52	177			
	MIN	0.432	3.3	20	0	46	0	0	0	16	240			
111	MAX	9.362	4.5	1500	0	22573	1.3	14	0	275	7564			
	AVG	3.027	3.9	166	0	587	0.3	3	0	116	1803			
112	MIN	0	3.6	0	0	0	0	0	0	0	0			
	MAX	0.588	4.5	28	0	82	2	6	1.1	300	625			
113	AVG	0.259	4.05	13	0	22	0.5	0	0.1	99	137			
	MIN	0.317	2.9	40	0	110	1	2	0	84	298	0.8	10	1
114	MAX	8.562	3.6	4800	0	16299	2.7	69	2.2	800	11750	4.8	65	1
	AVG	2.234	3.25	473	0	897	2	24	0.2	237	2584	2.8	38	1
115	MIN	0.464	6.3	2	6	-210	0	0	0	23	102			
	MAX	6.512	5.1	20	16	40	0.8	10	0	150	1519			
116	AVG	2.044	5.7	6	12	-66	0.2	2	0	64	528			
	MIN	0.146	3.3	10	0	62	6	5	0	100	165			
117	MAX	3.943	2.7	1200	0	1700	13.5	133	1.1	425	3185			
	AVG	1.028	3	267	0	704	8.7	42	0	209	931			
118	MIN	0	3.8	0	0	-7	0	0	0	0	0			
	MAX	4.876	4.9	100	6	432	2	6	1.1	225	682			
119	AVG	0.938	4.35	13	1	60	0.4	1	0	48	163			
	MIN	0.02	3.2	8	0	2	0	0	0	11	26			
120	MAX	6.162	4.4	80	0	436	0.5	3	0	250	844			
	AVG	1.19	3.8	20	0	110	0.1	0	0	91	241			
121	MIN	0.048	2.9	20	0	5	0.3	0	0	116	51			
	MAX	2.393	4.3	140	0	445	1.4	7	0	300	1495			
122	AVG	0.646	3.6	51	0	173	0.9	3	0	191	566			
	GRAB	N/A	8.1	0	54	N/A	1.1	N/A	0.4	160	N/A			
123	MIN	0.038	2.4	46	0	384	27.2	84	0	225	2027	142.8	1561	3.9
	MAX	11.287	2.9	16200	0	31709	1070	1654	85.1	12500	22321	186.7	2602	6.7
124	AVG	2.18	2.65	4167	0	13223	267.8	918	32.4	3272	10857	164.7	2082	5.3

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120	MIN	0.359	2.4	30	0	380	36.2	269	0	450	4737	62.6	793	3.1
	MAX	13.39	2.9	3000	0	53857	272	3540	35.8	3000	44118	91.6	4567	4.2
	AVG	3.384	2.65	1439	0	22509	102.1	1471	9.9	1530	20213	77.1	2680	3.6
121	MIN	0.132	4	2	0	-218	0.3	0	0	45	106			
	MAX	10.139	5	400	6	8736	2.4	32	0	250	3821			
	AVG	2.734	4.5	45	2	84	1.1	14	0	120	1324			
122	MIN	0.052	4.8	4	0	0	0	0	0	20	56			
	MAX	3.976	3.2	100	6	123	2.7	6	0	275	2584			
	AVG	1.072	4	32	1	61	0.9	2	0	112	514			
123	MIN	0	4.5	8	10	-796	1.1	25	0	1650	37439			
	MAX	3.264	6.8	12	20	46	3.8	252	0	1900	112796			
	AVG	0.773	5.65	9	17	-312	1.9	86	0	1775	59088			
124	MIN	4.21	5.8	8	10	-796	1.1	25	0	1650	37439			
	MAX	12.31	6.5	12	20	46	3.8	252	0	1900	112796			
	AVG	6.26	6.15	9	17	-312	1.9	86	0	1775	59088			
125	MIN	3.791	5.2	2	4	-1323	0	0	0	14	521			
	MAX	19.789	6.9	4	30	0	4	426	0	40	2117			
	AVG	9.279	6.05	3	19	-673	0.6	59	0	25	1187			
126	MIN	0.058	5	4	0	0	0	0	0	10	70			
	MAX	17.269	4	14	6	372	0.3	9	0	225	1578			
	AVG	3.336	4.5	6	2	78	0	1	0	77	487			
127	MIN	10.681	4.1	2	0	-6725	0.3	46	0	175	44833			
	MAX	71.533	6.7	42	38	12334	28.4	4698	15.7	1075	114525			
	AVG	34.749	5.4	16	10	1043	4.6	810	2.1	568	81747			
128	GRAB	N/A	6.5	4	0	N/A	0.8	N/A	0.5	10	N/A			
	GRAB	N/A	6.9	0	8	N/A	1	N/A	1	14	N/A			
	GRAB	N/A	6.9	0	8	N/A	1	N/A	1	14	N/A			
129	MIN	5.222	5.5	0	8	-4257	0	0	0	12	661			
	MAX	27.257	7.2	8	100	-79	2	293	0	80	3657			
	AVG	12.781	6.35	4	22	-999	0.3	40	0	33	1968			
131	GRAB	N/A	7	0	2	N/A	0.4	N/A	0.4	14	N/A			
	GRAB	N/A	7.1	0	10	N/A	0.3	N/A	0.3	29	N/A			
	GRAB	N/A	7	0	4	N/A	0.5	N/A	0.5	10	N/A			
134	MIN	1.906	3.5	50	0	3929	0.3	3	0	35	2025	16.7	709	1.8
	MAX	28.393	4.4	732	0	17647	11.9	612	5.6	1400	28114	24.2	1405	2.1
	AVG	9.719	3.95	259	0	7613	2.4	117	0.6	415	11834	21.7	951	1.9
135	MIN	1.471	5.3	2	2	-1826	0	0	0	10	314			
	MAX	21.919	6.7	14	64	236	25	556	16.8	225	12261			
	AVG	7.503	6	6	28	-583	2.7	66	1.1	109	3240			

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4542*	MIN	0.04	2.6	550	0	237	78.5	45	0	400	224			
	MAX	0.793	2.9	4300	0	3824	346.5	545	7.8	2224	2350			
	AVG	0.282	2.75	1164	0	1180	178.7	214	1.8	995	1195			
4750*	MIN	0	2.2	0	0	0	0	0	0	0	0			
	MAX	0.067	2.7	1800	0	397	531.9	192	4.5	1700	514			
	AVG	0.008	2.45	611	0	45	151.2	18	1	622	54			
4794*	MIN	0.03	2.6	60	0	36	1.3	0	0	100	44			
	MAX	0.597	3.1	2000	0	786	5.8	4	0	391	321			
	AVG	0.188	2.85	371	0	221	2.9	2	0	236	179			
4797*	MIN	0	2.9	0	0	0	0	0	0	0	0			
	MAX	0.431	2.5	800	0	673	57.4	41	2.2	846	638			
	AVG	0.051	2.7	445	0	98	30.4	6	0.2	400	92			
4798*	MIN	0.004	5.9	2	0	-6	0	0	0	14	0			
	MAX	0.408	3.6	80	10	8	3	6	0	50	65			
	AVG	0.166	4.75	13	5	0	0.6	0	0	32	24			
5027	N/A													
5031	N/A													
5039*	MIN	0.004	2.3	1040	0	67	69.1	4	0	561	36			
	MAX	0.048	2.7	4500	0	646	219.4	44	12.3	4500	485			
	AVG	0.018	2.5	3025	0	284	131.5	12	5.2	2355	206			
5040*	MIN	0.003	2.5	2084	0	56	15.4	0	0	1675	45			
	MAX	0.034	2.9	4100	0	494	37.5	4	66.7	5000	358			
	AVG	0.02	2.7	2845	0	289	26.8	2	7.3	2644	253			
5043*	MIN	0.107	5.4	0	12	-60	0.2	0	0	45	60			
	MAX	0.403	7	30	32	13	1	1	0	225	244			
	AVG	0.225	6.2	10	26	-21	0.6	0	0	110	132			
5076*	MIN	0.013	2.1	2320	0	312	104.6	8	0	5750	700			
	MAX	0.052	2.8	19400	0	3871	250	70	0	20000	3449			
	AVG	0.03	2.45	13335	0	2121	196.9	33	0	9427	1424			
5079*	MIN	0.042	2.7	98	0	72	3.7	1	0	100	62			
	MAX	0.335	3.2	1700	0	600	6	7	0	1100	677			
	AVG	0.185	2.95	315	0	200	4.4	4	0	341	250			
5081*	MIN	0.084	6	0	12	-112	0	0	0	35	15			
	MAX	0.134	7.3	20	156	-4	0.3	0	0	150	105			
	AVG	0.118	6.65	5	105	-67	0.1	0	0	78	52			
5189*	MIN	4.03	4.1	0	0	-2015	1.7	38	0	120	4450			
	MAX	7.72	9.2	244	50	10153	30.1	1252	0	3500	90929			
	AVG	5.461	6.65	41	18	1046	8.9	325	0	1301	38479			

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106A	MIN	20.781	2.5	200	0	47087	26.1	6329	0	475	140001	20.1	4469	
	MAX	139.17	3.1	800	0	399938	309	142835	211.7	1425	514206	20.1	4469	
106B*	AVG	65.983	2.8	499	0	96362	139.8	49656	83.5	876	263441	20.1	4469	
	MIN	0.31	2.5	1500	0	4177	348.9	1498	22.4	2350	7101	72.5	644	
	MAX	1.65	3.4	13000	0	86956	6970	25508	1254.4	7000	47464	102.3	693	
	AVG	0.972	2.95	3400	0	14012	1652.5	7943	745.7	4006	21501	87.4	669	
107A	GRAB	N/A	2.7	200	0	N/A	5.7	N/A	1.6	220	N/A			
107B	GRAB	N/A	2.6	220	0	N/A	2.7	N/A	0.4	240	N/A			
110A	MIN	16.375	3.6	40	0	8110	3.4	317	0	175	81629			
	MAX	109.665	4.5	102	0	33210	10	5910	3.4	1275	233585			
	AVG	53.273	4.05	74	0	19518	4.9	1579	0.5	648	141378			
	MIN	17.871	3.5	40	0	8851	3	442	0	50	24522			
110B	MAX	119.686	4.4	118	0	33140	8	4059	7.8	1175	244284			
	AVG	58.141	3.95	77	0	21335	4.6	1428	0.9	593	132964			
111A*	MIN	0.014	2.8	60	0	10	2.6	1	0	150	37			
	MAX	0.132	3.2	600	0	46	36.5	6	1.1	800	137			
	AVG	0.048	3	200	0	37	14.6	2	0.2	354	71			
	MIN	0.009	2.8	10	0	2	3.1	0	0	150	26			
111B*	MAX	0.052	3	500	0	91	21.2	3	0	550	118			
	AVG	0.036	2.9	247	0	42	9.5	1	0	296	52			
111C*	MIN	0.012	2.4	8	0	1	5.2	0	0	100	28			
	MAX	0.129	2.9	500	0	172	24	6	0	575	143			
	AVG	0.054	2.65	232	0	55	11.4	2	0	322	76			
	MIN	0.064	2.5	8	0	11	8.2	4	0	150	154			
111D*	MAX	0.939	3	500	0	921	21.2	41	5.8	525	1138			
	AVG	0.348	2.75	228	0	339	13.1	21	0.8	276	441			
111E	MIN	0.019	2.4	158	0	56	2.5	0	0	150	43	10.9	3	
	MAX	0.107	3	900	0	162	5.6	1	0	449	139	10.9	3	
	AVG	0.069	2.7	329	0	101	3.5	1	0	264	87	10.9	3	
	MIN	0.208	2.8	50	0	67	0.4	0	0	50	280			
112A	MAX	5.633	3.5	500	0	1518	5.6	57	1.1	325	2657			
	AVG	1.469	3.15	134	0	712	2.8	22	0	209	1200			
114A*	MIN	0.003	2.9	110	0	6	0.5	0	0	150	5			
	MAX	0.021	3.2	500	0	18	8.4	0	0	415	32			
	AVG	0.013	3.05	201	0	12	4.4	0	0	253	17			
	MIN	0	2.8	0	0	0	0	0	0	0	0			
114B*	MAX	0.067	3	500	0	28	2	0	0	350	36			
	AVG	0.017	2.9	144	0	8	0.8	0	0	112	9			

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114C*	MIN	0.008	2.3	1200	0	136	116.3	7	0	950	79			
	MAX	0.078	2.8	3600	0	504	173	55	2.2	2750	399			
	AVG	0.028	2.55	2600	0	278	147	20	1.1	1893	212			
115A*	MIN	0.011	2.3	200	0	44	21.7	4	0	150	17			
	MAX	0.67	2.9	750	0	1227	79.3	205	7.8	950	992			
	AVG	0.21	2.6	434	0	393	47.5	47	1.7	419	366			
117A*	MIN	0.022	2.8	180	0	71	1.3	0	0	225	33			
	MAX	0.134	3	600	0	130	3.6	2	0	650	216			
	AVG	0.055	2.9	450	0	96	2.6	0	0	443	114			
119A*	MIN	0.613	2.5	200	0	1961	55.6	233	0	425	3138			
	MAX	1.82	2.8	1400	0	4625	84	824	14.6	975	6166			
	AVG	1.157	2.65	786	0	3788	69.8	430	5.7	783	4349			
120A*	MIN	0	2.9	0	0	0	0	0	0	0	0			
	MAX	0.028	4.5	400	10	17	14.3	0	1.1	325	29			
	AVG	0.011	3.7	48	3	2	1.8	0	0.1	124	10			
122A	MIN	0.071	3.7	4	0	0	0.7	0	0	51	76			
	MAX	5.447	5	50	4	232	2.7	23	2.2	250	1759			
	AVG	1.468	4.35	19	1	90	1.4	10	0.1	122	660			
122B	MIN	0.03	5.1	2	2	-9	0	0	0	7	2			
	MAX	0.253	6.9	14	38	7	2.4	1	0	250	133			
	AVG	0.105	6	7	14	-1	1.1	0	0	91	40			
127A	MIN	0.567	5.2	0	16	-468	0.1	0	0	13	95			
	MAX	3.35	7.3	6	52	-152	1	18	0	150	1018			
	AVG	1.655	6.25	3	39	-275	0.3	4	0	76	528			
130A	MIN	3.478	3.8	16	0	2467	0.2	6	0	45	4706			
	MAX	51.817	4.5	264	0	8524	8	2234	0	575	35446			
	AVG	17.738	4.15	92	0	5083	1.2	204	0	203	14445			
5043A*	MIN	0	2.7	0	0	0	0	0	0	0	0			
	MAX	0.01	5.2	2000	8	107	64.3	3	1.1	1500	70			
	AVG	0.001	3.95	299	0	10	6.3	0	0	273	8			
5043B	MIN	0.166	3.5	0	0	-195	0	0	0	21	55			
	MAX	3.629	7.2	340	96	1887	2	11	0	600	3331			
	AVG	0.753	5.35	37	31	-59	0.6	2	0	146	487			

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