Table 35
Stream Water Quality
Upper Yellow Creek

Location ID	Name	Beginning Sample Date	Ending Sample Date	Flow	Averge pH	Number of pH Samples	Number of Al Samples	Average Al	Number of Iron Samples	Average Iron	Number of Mn Samples	Average Mn	Number of Sulfate Samples	Average Sulfate	Number of Acidity Samples	Average Acidity	Total Average
UYC-015	Yellow Creek	6/1/2002	6/1/2002		6.10	1	1	0.50	1	31.30	1	3.68	1	234.00	1	8.60	55.62
UYC-011	Leanard Run	6/1/2002	6/1/2002	225.00	5.03	1	1	3.17	1	0.87	1	1.09	1	250.00	1	14.80	53.99
UYC-008	Ferrier Run at stream mouth	6/1/2002	6/1/2002	1170.00	6.06	1	1	0.10	1	0.19	1	0.09	1	226.00	1	1.00	45.48
UYC-017	Yellow Creek	6/1/2002	6/1/2002		6.40	1	1	0.50	1	5.12	1	2.07	1	213.00	1	1.00	44.34
UYC-039	Yellow Creek #1	11/4/1986	5/8/2002	4876.46	6.66	29	27	0.23	28	0.91	29	1.00	24	164.70	25	5.96	34.56
UYC-013	Little Yellow Creek	6/1/2002	6/1/2002		6.50	1	1	0.50	1	13.20	1	2.34	1	149.00	1	1.00	33.21
UYC-025	Leanard Run	6/1/2002	6/1/2002		4.88	1	1	4.38	1	0.41	1	0.37	1	140.00	1	8.00	30.63
UYC-016	Yellow Creek	6/1/2002	6/1/2002		6.70	1	1	0.14	1	1.97	1	1.39	1	112.00	1	1.00	23.30
UYC-018	Yellow Creek	6/1/2002	6/1/2002		6.90	1	1	0.20	1	0.26	1	0.11	1	100.00	1	1.00	20.31
UYC-021	Yellow Creek	6/1/2002	6/1/2002		6.50	1	1	0.48	1	0.22	1	0.13	1	95.00	1	1.00	19.37
UYC-050	Yellow Creek downstream	8/20/1998	9/17/2002	123.17	6.80	19	19	0.46	19	0.68	19	0.67	19	76.95	19	4.65	16.68
UYC-040	Yellow Creek #2	11/3/1986	10/25/2003	5412.88	7.12	13	13	0.14	13	0.44	13	0.20	9	76.89	2	0.05	15.54
UYC-022	Little Yellow Creek	6/1/2002	6/1/2002		7.45	1	1	0.10	1	0.08	1	0.05	1	74.00	1	1.00	15.05
UYC-026	Yellow Creek #3	5/27/1999	10/25/2003		7.07	10	11	0.07	11	0.17	11	0.09	10	54.79			13.78
UYC-020	Yellow Creek	6/1/2002	6/1/2002		6.60	1	1	0.14	1	0.12	1	0.03	1	58.00	1	1.00	11.86
UYC-041	Yellow Creek, upstream	1/3/1998	9/12/2002	56.55	7.00	23	22	0.42	23	0.59	23	0.29	23	48.95	9	-7.22	8.61
UYC-054	Yellow Creek upstream	8/20/1998	9/17/2002	43.79	6.31	18	18	0.55	18	1.19	18	0.41	18	33.95	18	5.12	8.24
UYC-043	Yellow Cr.	2/23/1996	5/8/2002	1000.00	6.70	21	21	0.13	21	0.25	21	0.15	21	31.54	21	7.53	7.92
UYC-009	Yellow Creek	6/1/2002	6/1/2002		6.25	1	1	0.10	1	0.11	1	0.61	1	33.70	1	1.00	7.10
UYC-052	Yellow Creek downstream	1/3/1998	9/12/2002	86.33	7.00	23	22	0.32	23	0.41	23	0.21	23	39.51	8	-6.00	6.89
UYC-023	Little Yellow Creek	6/1/2002	6/1/2002		5.92	1	1	0.10	1	0.02	1	0.02	1	29.00	1	1.00	6.03
UYC-051	Trib. To Yellow Creek, downstream	1/3/1998	9/12/2002	79.50	6.98	23	22	0.36	23	0.50	23	0.10	23	22.96	8	6.00	5.98
UYC-012	Little Yellow Creek	6/1/2002	6/1/2002		6.41	1	1	0.50	1	0.62	1	0.09	1	25.00	1	1.00	5.44
UYC-014	Yellow Creek	6/1/2002	6/1/2002		6.40	1	1	0.79	1	0.23	1	0.07	1	18.00	1	5.40	4.90
UYC-024	Leanard Run	6/1/2002	6/1/2002		6.81	1	1	0.10	1	0.10	1	0.05	1	23.00	1	1.00	4.85
UYC-055	Trib. To Yellow Creek, upstream	4/25/1998	9/12/2002	43.77	6.77	14	14	0.54	14	0.43	14	0.10	14	17.73	5	1.80	4.12
UYC-019	Little Yellow Creek	6/1/2002	6/1/2002		7.80	1	1	0.00	1	0.00	1	0.00	1	0.00	1	0.00	0.00
UYC-053	Yellow Creek Location	1/3/1998	9/12/2002	3.00	7.39	17	15	0.29	17	0.59	17	0.43	17	42.05	3	-54.00	-2.13

Table 36
Discharge Water Quality Ranking
Upper Yellow Creek

Location ID	Name	Beginning Sample Date	Ending Sample Date	Flow	Average pH	Number of pH Samples	pH Rank	Number of Al Samples	Average Al	Al Rank Factor	Al Rank	Number of Iron Samples	Average Iron	Iron Rank Factor	Iron Rank	Number of Mn Samples	Average Mn	Mn Rank Factor	Mn Rank	Number of Sulfate Samples	Average Sulfate	Sulfate Rank Factor	Sulfate Rank	Number of Acidity Samples	Average Acidity	Acidity Rank Factor	Acidity Rank	FINAL AVERAGE RANK
UYC-042	Deep mine discharge	11/30/2000	4/12/2001	30.5	6	4.60	1	6	0.69	0.69	1	6	0.095	0.095	3	6	1.81	1.81	1	6	119.83	119.83	1	6	10	10	1	1.33
UYC-007	Deep mine discharge	8/10/2000	5/7/2001	0.15	6	6.13	2	6	0.21	0.21	2	6	1.3	1.3	1	6	0.34	0.34	2	6	15.67	15.67	3	4	6.5	6.5	2	2.00
UYC-032	Heilwood No. 2 and No. 3 Mines	6/1/2002	6/1/2002	1000	1	6.26	3	1	0.13	0.07	3	1	0.44	0.22	2	1	0.37	0.19	3	1	228.00	114.00	2	1	1	0.5	3	2.67

Table 37
Discharge Loading Rankings
Upper Yellow Creek

Location ID	Name	Beginning Sample Date	Ending Sample Date	Average Flow	Number of Al Loading Samples	Average Al Loading	AL Loading Rank Factor	AL Loading Rank	Number of Iron Loading Samples	Average Iron Loading	Iron Loading Rank Factor	Iron Loading Rank	Number of Mn Loading Samples	Average Mn Loading	Mn Loading Rank Factor	Mn Loading Rank	Number of Sulfate Loading Samples	Average Sulfate Loading	Sulfate Loading Rank Factor	Sulfate Loading Rank	Number of Acidity Loading Samples	Average Acidity Loading	Acidity Loading Rank Factor	Acidity Loading Rank	FINAL LOADING AVG RANK	FINAL WATER QUALITY AVG RANK	FINAL AVG RANK	FINAL RANK
UYC-032	Heilwood No. 2 and No. 3 Mines	6/1/2002	6/1/2002	1000	1	1.56	0.78	1	1	5.28	2.64	1	1	4.44	2.22	1	1	2736.00	1368.00	1	1	12.00	6.00	1	1.00	2.67	2.33	1
UYC-042	Deep mine discharge	11/30/2000	4/12/2001	30.5	6	0.25	0.25	2	6	0.03	0.03	2	6	0.65	0.65	2	6	43.56	43.56	2	6	3.62	3.62	2	2.00	1.33	2.67	2
UYC-007	Deep mine discharge	8/10/2000	5/7/2001	0.15	4	0.00	0.00	3	4	0.01	0.01	3	4	0.00	0.00	3	4	0.05	0.05	3	4	0.02	0.02	3	3.00	2.00	4.00	3

Table 38
Upper Yellow Creek
Prioritized Sites and General Recommendations

Assessed Rank	Loading Rank	Water Quality Rank	Site Designation/Name	Subwatershed	Principal Problem's	Range of Flows (gpm)	Source Reduction	Aerobic Wetlands	Anaerobic Wetlands	Oxic LS Channel	Anoxic LS Trench	Vertical Flow Reactor	Active Treatment	Comments
2	2	1	UYC-042 Deep mine discharge 32010110 MP-2A	Leonard Run	Low flow; Very low AL and FE (both <1 mg/l); Low MN, SO4 Acidity; Moderate pH > 4.50.	25-38		X	X		X	X		Low Al value makes this a site that could possibly use multiple passive treatment techniques, possibly a small vertical drain or SRB, followed by a wetland to capture the moderate volume of iron. Relatively low load to the overall watershed. Not a priority watershed wide.
3	3	2	UYC-007 Deep mine discharge 32010110 MP-18	Little Yellow Creek	Very low flow; Very low AL and FE (both <1 mg/l); Low MN; Very low SO4, Acidity; High pH > 6.00.	0-0.5		X	X		X	X		Low Al value makes this a site that could possibly use multiple passive treatment techniques, possibly a small vertical drain or SRB, followed by a wetland to capture the moderate volume of iron. Relatively low load to the overall watershed. Not a priority watershed wide.