Appendix C1. Benchmarks considered for evaluation of water quality. Shade indicates criterion that was selected for each parameter for application at Faro.

Measurements	Units	Water Quality Criteria					Alternative Aquatic Effects-Based Benchmarks[p]	Background (Minnow 2007)
		Canadian Water Quality Guideline (for protection of FW aquatic life)[a]	British Columbia (freshwater)[b]	Saskatchewan[z]	Ontario Provincial Water Quality Objective[c]	Canadian Drinking Water Quality Guideline[a]		
Micellaneous Parameters								
alkalinity	mg/L				no decreases more than 25% of natural concentration			16.8
ammonia - N, total	"	0.24[d]			0.25[d]			0.03
chloride	"					250[k]		
conductivity	uS							292
cyanide, WAD	mg/L	0.005 (free)	0.01		0.005 (free)	0.2		
dissolved solids, total (TDS)	"					500[k]		
fluoride	"	0.120				1.5		
hardness	"							153
mercury, total	ug/L	0.026[e]	0.004-0.02[m]	0.026[e]	0.2 (filtered)	0.001		
nitrate - N	mg/L	13	40		narrative	10		
nitrite - N	"	0.06	0.02		0.06	3.2		
organic carbon, dissolved (DOC)	"							
organic carbon, total (TOC)	"							
pH	pH units	6.5-9.0	6.5 - 9.0		6.5-8.5	6.5-8.5		7.1
phosphorus, total	mg/L				0.03 for rivers[o]			
sulphate	"		50			500[k]		20
suspended solids, total (TSS)	"	no more than 25 mg/L above background						3.65
ICP - Metals Scan								
aluminum	mg/L	0.005 - 0.100[f]	0.05	0.005 - 0.100[f]	0.015 - 0.075[o]	0.1		0.13
antimony	"				0.02[o]	0.006	0.15[q]	
arsenic	"	0.005	0.005	0.005	0.005[o]	0.005 proposed		
barium	"					1.0	5.8[s]	0.087
beryllium	"				0.011 - 1.1[aa]		0.0038[r]	
bismuth							0.26[y]	
boron	"		1.2		0.2[o]	5.000		
cadmium	"	0.000017 or more depending on hardness[g]		0.000017 or more depending on hardness	0.0001 - 0.0005[o]	0.005		
calcium	"						116[s]	43.8
chromium	"	0.001 (for hexavalent form), 0.0089 (for trivalent form)		0.001 (hexavalent form)	0.001 (for hexavalent form), 0.0089 (for trivalent form)	0.05		
cobalt	"		0.004		0.0009			
copper	"	0.002-0.004[h]	0.002-0.008[l]	0.002-0.004[h]	0.001-0.005[o]	1.0[k]		0.002
iron	"	0.3		0.3	0.300	0.3[k]		0.385
lead	"	0.001 - 0.007[i]	0.005-0.011[l]	0.001 - 0.007[i]	0.001 - 0.005[o]	0.010		
magnesium	"						82[s]	11.2
manganese	"		0.7 - 1.9[l]			0.05[k]		0.045
molybdenum	"	0.073	1		0.04[o]			0.0009
nickel	"	0.025 - 0.150[j]		0.025 - 0.150[j]	0.025			
potassium	"						53[s]	1.52
selenium	"	0.001	0.002	0.001	0.100	0.01		
silver	"	0.0001	0.00005/0.0015[n]	0.0001	0.0001			
sodium	"					200[k]	680[s]	3.4
strontium	"						9.3[t]	0.176
thallium	"	0.0008			0.0003[o]			
tin	"						0.35[s]	
titanium	"						1.83[u]	0.0036
uranium	"			0.015	0.005[o]	0.02	0.011[v]	0.0024
vanadium	"				0.006[o]		0.024[w]	
zinc	"	0.030	0.0075-0.090[l]	0.030	0.02[o]	5.0		0.08
zirconium	"				0.004		548[x]	

[a] CCME (Canadian Council of Ministers of the Environment). 1999. Canadian Environmental Quality Guidelines. 1999 (plus updates), Canadian Council of Ministers of the Environment, Winnipeg

[b] BCMOE (British Columbia Ministry of Environment). 2006. British Columbia Approved Water Quality Guidelines (Criteria), 2006 Edition. Updated August 2006. For parameters with both maximum and 30-day average values, the 30-d average is shown.

[c] OMOE (Ontario Ministry of Environment and Energy). 1994. Policies, Guidelines, Provincial Water Quality Objectives of the Ministry of the Environment and Energy (Ontario), July 1994

[d] based on conservative assumption of pH 8.5 and temperature of 15C to achieve un-ionized ammonia of <0.02 mg/L

[e] Inorganic mercury

[f] 0.005 mg/L at pH<6.5, Ca<4 mg/L and DOC<2 mg/L; 0.1 mg/L at pH ≥ 6.5; [Ca^{2+}] ≥ 4 mg/L; DOC ≥ 2 mg/L

[g] CWQG for cadmium = $10^{\{0.86[\log(\text{hardness})] - 3.2\}}$ in ug/L

[h] 0.002 at [$CaCO_3$] = 0-120 mg/L, 0.003 at [$CaCO_3$] = 120-180 mg/L, 0.004 at [$CaCO_3$] > 180 mg/L

[i] 0.001 at [$CaCO_3$] = 0-60 mg/L, 0.002 at [$CaCO^3$] = 60-120 mg/L, 0.004 at [$CaCO_3$] = 120-180 mg/L, 0.007 at [$CaCO_3$] > 180 mg/L

[j] 0.025 at [$CaCO_3$] = 0-60 mg/L, 0.065 at [$CaCO^3$] = 60-120 mg/L, 0.110 at [$CaCO_3$] = 120-180 mg/L, 0.150 at [$CaCO_3$] > 180 mg/L

[k] Canadian drinking water quality guideline, aesthetic objective (CCME 1999).

[l] for hardnesses ranging between 25 and 300 mg/L, respectively

[m] depending on proportion present as MeHg

[n] hardnesses of ≤100 mg/L and >100 mg/L, respectively

[o] interim objective

[p] toxicity reference value for most sensitive aquatic receptor (aquatic plants, phytoplankton, benthic invertebrates, zooplankton, fish). From Senes Consultants Limited, Richmond Hill, Ontario.

[q] for phytoplankton; U.S. EPA (United States Environmental Protection Agency). 1978. In-depth Studies on Health and Environmental Impacts of Selected Water Pollutants. Contract No. 68-0104646, U.S. EPA, Duluth, MN.

[r] for zooplankton; Kimball, G. n.d. The Effects of Lesser Known Metals and One Organic to Fathead minnows (*Pimephales promelas*) and *Daphnia magna*. U.S. Environmental Protection Agency, Duluth, MN.

[s] for zooplankton; Biesinger, K.E. and G.M. Christensen. 1982. Effects of Varioue Metals on Survival, Growth, Reproduction, and Metabolism of *Daphnia magna*. *J. Fish. Res. Bd. Canada.* 29:1691-1700.

[t] for fish; Dwyer, F.J., S.A. Burch, C.G. Ingersoll, and J.B. Hunn 1992 Toxicity of Trace Element and Salinity Mixtures to Striped Bass (Morone saxatilis) and Daphnia magna. Environ.Toxicol.Chem. 11(4):513-520

[u] for fish; Birge, W.J., J.A. Black, A.G. Westerman, and J.E. Hudson. 1979. In: C. Gale (Ed.) EPA-600/9-80-022, Oil Shale Symposium: Sampling, Analysis and Quality Assurance, March 1979, U.S. EPA, Cincinnati, OH: 519-534 (US NTIS PB80-221435).

[v] for phytoplankton and zooplankton; Franklin, N.M., J.L.Stauber, S.J. Markich, and R.P. Lim. 2000. pH-dependent Toxicity of Copper and Uranium to a Tropical Freshwater Algae (*Chlorella sp*.). *Aquatic Toxicology*. 48:275-289.

[w] for benthic invertebrates; Fargasova, A. 1997. Sensitivity of *Chironomus plumosus* Larvae to V^{5+}, Mo^{6+}, Mn^{2+}, Ni^{2+}, Cu^{2+}, and Cu^{+} Metal Ions and their Combinations. *Bull. Environ. Contam. Toxicol.* 59(1):956-962.

[x] Cushman, R.M, S.G. Hildebrand, R.H. Strand, and R.M. Anderson. 1977. The Toxicity of 35 Trace Elements in Coal to Freshwater Biota: A Data Base with Automated Retrieval Capabilities. ORNL/TM-5793. Oak Ridge National Laboratory.

[y] Khangarot, B.S. Toxicity of Metals to a Freshwater Tubificid Worm, Tubifex tubifex (Muller) Bull.Environ.Contam.Toxicol. 46:906-912

[z] Saskatchewan Environment. 2006. Surface Water Quality Objectives. Interim Edition. EPB356. July 2006. 9pp.

[aa] 0.011 for hardness <75 mg/L and 1.1 for hardness >75 mg/L.

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 1. Reference Site Physical and Routine Parameters

Station	Date	ALK-C mg/L	ALK-H mg/L	ALK-T mg/L	COLOR CU	COND-L µS/cm	HARD mg/L	HCO3 mg/L	NH3 mg/L	PH-F pH unit	SO4 mg/L	TEMP-F °C	TSS mg/L	TURB NTU
Benchmark				12.6					0.25	6.5 - 9.0	50		29	
FDU	22-Jun-05					27	11		0.01	7.4	1.6	7.4	< 1	
FDU	19-Sep-05					33	14		< 0.01	7.9	2.1	6.5	1	
FDU	07-Jun-06					19	7		0.01	7.9	1.13	1	< 1	
FDU	18-Sep-06					36	12		< 0.01	7.5	1.97	2.1	1	
FDU	11-Jun-07					21			< 0.01	7.1	1.04	4.6	1	
FDU	02-Oct-07					33	11		0.02	7.2	1.99	1	< 1	
	N	0	0	0	0	6	5	0	6	6	6	6	6	0
	median					30	11		0.0075	7.45	1.785	3.35	0.75	
	mean					28.2	11		0.009166667	7.5	1.6	3.8	0.8	
	std					7	2.5		0.005845226	0.3	0.5	2.8	0.3	
	minimum					19	7		< 0.01	7.1	1.04	1	< 1	
	maximum					36	14		0.02	7.9	2.1	7.4	1	
	# < DL					0	0		3	0	0	0	3	
	% < DL					0%	0%		50%	0%	0%	0%	50%	
	# > BM								0	0	0		0	
	% > BM								0%	0%	0%		0%	
	# < DL (DL>BM)								0	0	0		0	
	% < DL (DL>BM)								0%	0%	0%		0%	
	max DL								0.01				1	
	95th percentile					35.25	13.6		0.0175	7.9	2.0725	7.175	1	
	5th percentile					19.5	7.8		0.005	7.125	1.0625	1	0.5	
R6	29-Mar-05	< 0.5	< 0.5	135	< 5	382	261	165	< 0.01	7.5	80.1	0.5	< 1	0.31
R6	17-Aug-05	< 0.5	< 0.5	122	5	240	158	148	< 0.01	8	19.3	7.3	2	0.35
R6	21-Feb-06	< 0.5	< 0.5	143	< 5	317	170	174	0.01	7.9	20.4	0.9	< 1	0.67
R6	07-Aug-06	2.3	< 0.5	132	< 5	277	144	157	< 0.01	8.1	20	6	< 1	0.36
R6	20-Feb-07	< 0.5	< 0.5	159	< 5	301	166	194	0.02	8.3	19.5	-0.2	< 1	0.7
R6	17-Aug-07	< 0.5	< 0.5	140	7	263	132	171	< 0.01	8.1	20.2	9.3	< 1	0.42
	N	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.25	0.25	137.5	2.5	289	162	168	0.005	8.05	20.1	3.45	0.5	0.39
	mean	0.6	0.3	138.5	3.7	296.7	171.8	168.2	0.008	8	29.9	4	0.8	0.5
	std	0.8	0	12.4	1.9	49.9	45.9	15.8	0.006	0.3	24.6	4.1	0.6	0.2
	minimum	< 0.5	< 0.5	122	< 5	240	132	148	< 0.01	7.5	19.3	-0.2	< 1	0.31
	maximum	2.3	< 0.5	159	7	382	261	194	0.02	8.3	80.1	9.3	2	0.7
	# < DL	5	6	0	4	0	0	0	4	0	0	0	5	0
	% < DL	83%	100%	0%	67%	0%	0%	0%	67%	0%	0%	0%	83%	0%
	# > BM			6					0	0	1		0	
	% > BM			100%					0%	0%	17%		0%	
	# < DL (DL>BM)			0					0	0	0		0	
	% < DL (DL>BM)			0%					0%	0%	0%		0%	
	max DL	0.5	0.5		5				0.01				1	
	95th percentile	1.7875	0.25	155	6.5	365.75	238.25	189	0.0175	8.25	65.175	8.8	1.625	0.6925
	5th percentile	0.25	0.25	124.5	2.5	245.75	135	150.25	0.005	7.6	19.35	-0.025	0.5	0.32
R7	21-Jan-05									7.3		-0.5		
R7	22-Jan-05					240	133		< 0.01		10		< 1	
R7	09-Feb-05					240	134		0.02	7.4	8.2	0.5	< 1	
R7	14-Mar-05					229	143		0.01	7.8	9.1	0.7	< 1	
R7	11-Apr-05					238	132			7.7	8.9	1.5	< 1	
R7	09-May-05					53	28		0.02	7.8	1.7	3	15	
R7	20-Jun-05					133	68		0.07	7.9	6.5	8.9	2	
R7	26-Jul-05					144	72		0.03	7.6	6.9	7.7	< 1	
R7	23-Aug-05					157	99		< 0.01	7.7	7.2	6	< 1	
R7	06-Sep-05					140	80		< 0.01	8.1	7.5	5.5	< 1	
R7	11-Oct-05					145	103		0.02	7.7	7.97	0.8	< 1	
R7	02-Nov-05					172	112		< 0.01	7.9	8.85	0.3	< 1	
R7	13-Dec-05					236	123		< 0.01	7.6	16.9	0.1	< 1	
R7	24-Jan-06					260	129		< 0.01	8	10.1	-0.7	< 1	
R7	14-Feb-06					264	132		0.01	7.7	11	0.8	< 1	
R7	25-Mar-06					289	138		< 0.01	7.8	10.7	1.1	< 1	
R7	24-Apr-06					278	126		0.01	8	9.73	1.4	< 1	
R7	18-May-06					64	33		< 0.01	8.2	2.14	0.2	13	
R7	19-Jun-06					111	59		< 0.01	8	5.52	4.8	4	
R7	17-Jul-06					151	76		< 0.01	8		7.5	2	
R7	22-Aug-06					154	76		0.02	7.9	6.97	6.6	< 1	
R7	12-Sep-06					159	74		0.01	8	7.2	4	< 1	
R7	16-Oct-06					263	100		< 0.01	7.9	8.07	0.3	< 1	
R7	14-Nov-06					240	117		< 0.01	7.8	9.81	-0.8	< 1	
R7	14-Dec-06					267	126		< 0.01	7.8	11.2	-0.1	< 1	
R7	14-Feb-07					264	141		0.02	7.8	9.86	-0.1	< 1	
R7	12-Mar-07					260	147		0.03	8	10.5	0.2	< 1	
R7	19-Apr-07					275	139		< 0.01	7.7	11.1	0.2	< 1	
R7	15-May-07					95	47		0.02	7.6	8.22	0.4	21	
R7	19-Jun-07					126	66		< 0.01	7.9	6.36	5.5	3	
R7	17-Jul-07					126	53		< 0.01	7.7	5.62	7.9	3	
R7	14-Aug-07					151	79		0.02	7.7	7.28	7.5	2	
R7	11-Sep-07					131	57		0.02	7.5	6.9	6.8	5	
R7	23-Oct-07					192	96		< 0.01	7.8	9.33	0.4	< 1	
R7	14-Nov-07					213	112		0.02	7.6	9.18	0	< 1	
R7	09-Dec-07					234	110		0.02	7.4	9.73	0	< 1	
	N	0	0	0	0	35	35	0	34	35	34	35	35	0
	median					192	103		0.0075	7.8	8.535	0.8	0.5	
	mean					191.3	98.9		0.013	7.8	8.4	2.5	2.4	
	std					66.6	34.4		0.013	0.2	2.7	3.1	4.6	
	minimum					53	28		< 0.01	7.3	1.7	-0.8	< 1	
	maximum					289	147		0.07	8.2	16.9	8.9	21	
	# < DL					0	0		17	0	0	0	25	
	% < DL					0%	0%		50%	0%	0%	0%	71%	
	# > BM								0	0	0		0	
	% > BM								0%	0%	0%		0%	
	# < DL (DL>BM)								0	0	0		0	
	% < DL (DL>BM)								0%	0%	0%		0%	
	max DL								0.01				1	
	95th percentile					275.9	141.6		0.03	8.03	11.135	7.76	13.6	
	5th percentile					85.7	42.8		0.005	7.4	4.337	-0.56	0.5	

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 1. Reference Site Physical and Routine Parameters

Station	Date	ALK-C mg/L	ALK-H mg/L	ALK-T mg/L	COLOR CU	COND-L µS/cm	HARD mg/L	HCO3 mg/L	NH3 mg/L	PH-F pH unit	SO4 mg/L	TEMP-F °C	TSS mg/L	TURB NTU
Benchmark				12.6					0.25	6.5 - 9.0	50		29	
W10	22-Jun-05					98	49		< 0.01	7.5	3.4	7.4	< 1	
W10	20-Sep-05					107	60		< 0.01	7.9	4.2	5	1	
W10	07-Jun-06					62	27		< 0.01	7.9	3.01	2.5	< 1	
W10	18-Sep-06					123	57		< 0.01	7.8	3.48	2	< 1	
W10	11-Jun-07					55			0.04	7.2	2.5	3.2	3	
W10	02-Oct-07					106	45		< 0.01	7.7	4.11	1.1	< 1	
	N	0	0	0	0	6	5	0	6	6	6	6	6	0
	median					102	49		0.005	7.75	3.44	2.85	0.5	
	mean					91.8	47.6		0	7.7	3.5	3.5	1	
	std					27.2	13		0	0.3	0.6	2.3	1	
	minimum					55	27		< 0.01	7.2	2.5	1.1	< 1	
	maximum					123	60		0.04	7.9	4.2	7.4	3	
	# < DL					0	0		5	0	0	0	4	
	% < DL					0%	0%		83%	0%	0%	0%	67%	
	# > BM								0	0	0		0	
	% > BM								0%	0%	0%		0%	
	# < DL (DL>BM)								0	0	0		0	
	% < DL (DL>BM)								0%	0%	0%		0%	
	max DL								0.01				1	
	95th percentile					119	59.4		0.03125	7.9	4.1775	6.8	2.5	
	5th percentile					56.75	30.6		0.005	7.275	2.6275	1.325	0.5	

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, quideline source provided in Appendix C1

Method Detection Limit set to 1/2 method detection limit for statistical calculations

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 2. Reference Sites Total Metals

Station	Date	AG-T mg/L	AL-T mg/L	AS-T mg/L	BA-T mg/L	BE-T mg/L	BI-T mg/L	B-T mg/L	CA-T mg/L	CD-T mg/L	CO-T mg/L	CR-T mg/L	CU-T mg/L	FE-T mg/L	HG-T mg/L	HG-T µg/L	K-T mg/L	LI-T mg/L	MG-T mg/L	MN-T mg/L	MO-T mg/L	NA-T mg/L	NI-T mg/L	PB-T mg/L	P-T mg/L	SB-T mg/L	SE-T mg/L	SI-T mg/L	SN-T mg/L	SR-T mg/L	TE-T mg/L	TH-T mg/L	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
Benchmark		0.0001	0.1	0.005	1	1.1	0.26			0.00003		0.001	0.002	0.3		0.026	53		82	1	0.073	200	0.065	0.002	0.03	0.02	0.001		0.35	9.3			1.83	0.0008	0.005	0.006	0.03	0.004
FDU	22-Jun-05	< 0.00025	0.078	< 0.001	0.014	< 0.001	< 0.001	< 0.05	3.27	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	< 0.1	0.002	0.66	0.002	< 0.0005	1.64	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	14	< 0.001	0.02	< 0.001	< 0.0005	0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
FDU	19-Sep-05	< 0.00025	0.047	< 0.001	0.015	< 0.001	< 0.001	< 0.05	4.11	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.2	0.002	0.79	0.002	< 0.0005	1.92	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	15.8	< 0.001	0.023	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.007	< 0.01
FDU	07-Jun-06	< 0.00025	0.1	< 0.001	0.011	< 0.001	< 0.001	< 0.05	2.14	< 0.0002	< 0.001	< 0.001	0.001	0.07	< 0.00002	< 0.02	0.3	0.002	0.43	0.001	< 0.0005	1.07	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.013	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
FDU	18-Sep-06	< 0.00025	0.068	< 0.001	0.014	< 0.001	< 0.001	< 0.05	3.69	< 0.0002	< 0.001	< 0.001	< 0.001	0.08	< 0.00002	< 0.02	0.2	0.002	0.75	0.002	< 0.0005	1.73	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	7.2	< 0.001	0.021	< 0.001	< 0.0005	0.002	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
FDU	11-Jun-07	< 0.00025	0.18	< 0.001	0.013	< 0.001	< 0.001	< 0.05	2.07	< 0.0002	< 0.001	< 0.001	0.001	0.14	< 0.00002	< 0.02	0.2	< 0.005	0.4	0.004	< 0.0005	1.2	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.014	< 0.001	< 0.0005	0.002	< 0.0001	< 0.0005	< 0.001	0.011	< 0.01
FDU	02-Oct-07	< 0.00025	0.057	< 0.001	0.013	< 0.001	< 0.001	< 0.05	3.37	< 0.0002	< 0.001	< 0.001	0.003	0.05	< 0.00002	< 0.02	< 0.1	0.002	0.65	0.002	< 0.0005	1.86	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	6.1	< 0.001	0.02	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.073	0.0005	0.0135	0.0005	0.0005	0.025	3.32	0.0001	0.0005	0.0005	0.00075	0.06	0.00001	0.01	0.2	0.002	0.655	0.002	0.00025	1.685	0.0005	0.0005	0.075	0.0005	0.0005	6.65	0.0005	0.02	0.0005	0.00025	0.00075	0.00005	0.00025	0.0005	0.0025	0.005
	mean	0.000125	0.088	0.0005	0.01333	0.0005	0.0005	0.025	3.11	0.0001	0.0005	0.0005	0.00108	0.065	0.00001	0.01	0.167	0.002	0.613	0.002	0.00025	1.57	0.0005	0.0005	0.075	0.0005	0.0005	8.42	0.0005	0.0185	0.0005	0.00025	0.00108	0.00005	0.00025	0.0005	0.00467	0.005
	std	0	0.048	0	0.00137	0	0	3.80E-18	0.83	0	0	0	0.00097	0.04313	0	0	0.098	0	0.163	0.001	0	0.35327	0	0	0	0	0	5.24	0	0.00404	0	0	0.00074	0	0	0	0.00359	0
	minimum	< 0.00025	0.047	< 0.001	0.011	< 0.001	< 0.001	< 0.05	2.07	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	< 0.1	0.002	0.4	0.001	< 0.0005	1.07	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.013	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.18	< 0.001	0.015	< 0.001	< 0.001	< 0.05	4.11	< 0.0002	< 0.001	< 0.001	0.003	0.14	< 0.00002	< 0.02	0.3	< 0.005	0.79	0.004	< 0.0005	1.92	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	15.8	< 0.001	0.023	< 0.001	< 0.0005	0.002	< 0.0001	< 0.0005	< 0.001	0.011	< 0.01
	# < DL	6	0	6	0	6	6	6	0	6	6	6	3	2	6	6	2	1	0	0	6	0	6	6	6	6	6	0	6	0	6	6	3	6	6	6	4	6
	% < DL	100%	0%	100%	0%	100%	100%	100%	0%	100%	100%	100%	50%	33%	100%	100%	33%	17%	0%	0%	100%	0%	100%	100%	100%	100%	100%	0%	100%	0%	100%	100%	50%	100%	100%	100%	67%	100%
	# > BM	6	1	0	0	0	0			6		0	1	0		0	0		0	0	0	0	0	0	6	0	0		0	0			0	0	0	0	0	6
	% > BM	100%	17%	0%	0%	0%	0%			100%		0%	17%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	# < DL (DL>BM)	6	0	0	0	0	0			6		0	0	0		0	0		0	0	0	0	0	0	6	0	0		0	0			0	0	0	0	0	6
	% < DL (DL>BM)	100%	0%	0%	0%	0%	0%			100%		0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025		0.001		0.001	0.001	0.05		0.0002	0.001	0.001	0.001	0.05	0.00002	0.02	0.1	0.005			0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001	0.0005	0.001	0.005	0.01
	95th percentile	0.000125	0.16	0.0005	0.01475	0.0005	0.0005	0.025	4.005	0.0001	0.0005	0.0005	0.0025	0.125	0.00001	0.01	0.275	0.00238	0.78	0.0035	0.00025	1.905	0.0005	0.0005	0.075	0.0005	0.0005	15.35	0.0005	0.0225	0.0005	0.00025	0.002	0.00005	0.00025	0.0005	0.01	0.005
	5th percentile	0.000125	0.0495	0.0005	0.0115	0.0005	0.0005	0.025	2.0875	0.0001	0.0005	0.0005	0.0005	0.025	0.00001	0.01	0.05	0.002	0.4075	0.00125	0.00025	1.1025	0.0005	0.0005	0.075	0.0005	0.0005	3.7	0.0005	0.01325	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0025	0.005
R6	29-Mar-05	0.0017	0.017	< 0.001	0.094	< 0.001	< 0.001	< 0.05	77.8	< 0.0002	< 0.001	< 0.001	< 0.001	0.11	< 0.00002	< 0.02	1.9	0.004	16	0.018	0.0014	5.5	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12.8	< 0.001	0.25	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0031	< 0.001	0.006	< 0.01
R6	17-Aug-05	< 0.00025	0.028	< 0.001	0.068	< 0.001	< 0.001	< 0.05	43.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1	0.001	11.8	0.014	0.001	1.41	< 0.001	< 0.001	< 0.15	< 0.001	0.002	8.8	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	< 0.005	< 0.01
R6	21-Feb-06	< 0.00025	0.14	< 0.001	0.093	< 0.001	< 0.001	< 0.05	49.5	< 0.0002	< 0.001	0.003	0.003	0.18	< 0.00002	< 0.02	1.4	0.003	11.3	0.014	0.0013	2.38	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.4	0.002	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	0.006	< 0.01
R6	07-Aug-06	< 0.00025	0.019	< 0.001	0.064	< 0.001	< 0.001	< 0.05	40	< 0.0002	< 0.001	< 0.001	< 0.001	0.12	< 0.00002	< 0.02	0.9	0.002	10.6	0.012	0.0011	1.66	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	< 0.005	< 0.01
R6	20-Feb-07	< 0.00025	0.013	< 0.001	0.092	< 0.001	< 0.001	< 0.05	48.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.09	< 0.00002	< 0.02	1.4	0.002	10.7	0.011	0.0012	2.18	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	< 0.005	< 0.01
R6	17-Aug-07	< 0.00025	0.014	< 0.001	0.078	< 0.001	< 0.001	< 0.05	35.3	< 0.0002	< 0.001	< 0.001	< 0.001	0.16	< 0.00002	< 0.02	1	< 0.005	10.7	0.01	0.0009	1.66	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	< 0.005	< 0.01
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.018	0.0005	0.085	0.0005	0.0005	0.025	46.2	0.0001	0.0005	0.0005	0.0005	0.115	0.00001	0.01	1.2	0.00225	11	0.013	0.00115	1.92	0.0005	0.0005	0.075	0.0005	0.0005	5.2	0.0005	0.13	0.0005	0.00025	0.0005	0.00005	0.002	0.0005	0.0025	0.005
	mean	0.000388	0.0385	0.0005	0.0815	0.0005	0.0005	0.025	49.2	0.0001	0.0005	0.00092	0.00092	0.11417	0.00001	0.01	1.2667	0.0024	11.85	0.0132	0.0012	2.465	0.0008	0.0005	0.075	0.0005	0.00075	6.63	0.00075	0.145	0.0005	0.00025	0.0005	0.00005	0.0021	0.0005	0.00367	0.005
	std	0.000643	0.05	0	0.0134	0	0	3.80E-18	15	0	0	0.00102	0.00102	0.05481	0	0	0.3777	0.001	2.0849	0.0029	0.0002	1.5303	0.0006	0	0	0	0.00061	3.53	0.00061	0.0532	0	0	0	0	0.00058	0	0.00181	0
	minimum	< 0.00025	0.013	< 0.001	0.064	< 0.001	< 0.001	< 0.05	35.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.9	0.001	10.6	0.01	0.0009	1.41	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	< 0.005	< 0.01
	maximum	0.0017	0.14	< 0.001	0.094	< 0.001	< 0.001	< 0.05	77.8	< 0.0002	< 0.001	0.003	0.003	0.18	< 0.00002	< 0.02	1.9	< 0.005	16	0.018	0.0014	5.5	0.002	< 0.001	< 0.15	< 0.001	0.002	12.8	0.002	0.25	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0031	< 0.001	0.006	< 0.01
	# < DL	5	0	6	0	6	6	6	0	6	6	5	5	1	6	6	0	1	0	0	0	0	5	6	6	6	5	0	5	0	6	6	6	6	0	6	4	6
	% < DL	83%	0%	100%	0%	100%	100%	100%	0%	100%	100%	83%	83%	17%	100%	100%	0%	17%	0%	0%	0%	0%	83%	100%	100%	100%	83%	0%	83%	0%	100%	100%	100%	100%	0%	100%	67%	100%
	# > BM	6	1	0	0	0	0			6		1	1	0		0	0		0	0	0	0	0	0	6	0	1		0	0			0	0	0	0	0	6
	% > BM	100%	17%	0%	0%	0%	0%			100%		17%	17%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	17%		0%	0%			0%	0%	0%	0%	0%	100%
	# < DL (DL>BM)	5	0	0	0	0	0			6		0	0	0		0	0		0	0	0	0	0	0	6	0	0		0	0			0	0	0	0	0	6
	% < DL (DL>BM)	83%	0%	0%	0%	0%	0%			100%		0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025		0.001		0.001	0.001	0.05		0.0002	0.001	0.001	0.001	0.05	0.00002	0.02		0.005					0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001	0.005	0.01
	95th percentile	0.001306	0.112	0.0005	0.09375	0.0005	0.0005	0.025	70.725	0.0001	0.0005	0.00238	0.00238	0.175	0.00001	0.01	1.775	0.00375	14.95	0.017	0.00138	4.72	0.00163	0.0005	0.075	0.0005	0.00163	11.8	0.00163	0.2225	0.0005	0.00025	0.0005	0.00005	0.0029	0.0005	0.006	0.005
	5th percentile	0.000125	0.01325	0.0005	0.065	0.0005	0.0005	0.025	36.475	0.0001	0.0005	0.0005	0.0005	0.04125	0.00001	0.01	0.925	0.00125	10.625	0.01025	0.00093	1.4725	0.0005	0.0005	0.075	0.0005	0.0005	3.65	0.0005	0.11	0.0005	0.00025	0.0005	0.00005	0.00155	0.0005	0.0025	0.005
R7	22-Jan-05	< 0.00025	0.01	< 0.001	0.068	< 0.001	< 0.001	< 0.05	40.3	< 0.0002	< 0.001	< 0.001	< 0.001	0.2	< 0.00002	< 0.02	1	0.008	8.7	0.15	0.0007	2.99	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12.3	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	0.035	< 0.01
R7	09-Feb-05	< 0.00025	0.005	< 0.001	0.068	< 0.001	< 0.001	< 0.05	40.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.9	0.007	7.88	0.014	0.0007	3.24	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12.6	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0021	< 0.001	0.025	< 0.01
R7	14-Mar-05	< 0.00025	0.018	< 0.001	0.077	< 0.001	< 0.001	< 0.05	43.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.22	< 0.00002	< 0.02	1.2	0.008	7.99	0.01	0.0009	3.76	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	14	< 0.001	0.19	< 0.001	< 0.0005	0.001	< 0.0001	0.0024	< 0.001	0.013	< 0.01
R7	11-Apr-05	< 0.00025	0.007	< 0.001	0.065	< 0.001	< 0.001	< 0.05	39.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.07	< 0.00002	< 0.02	1	0.008	7.85	0.005	0.0008	3.45	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	13.2	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	< 0.005	< 0.01
R7	09-May-05	< 0.00025	0.31	0.001	0.031	< 0.001	< 0.001	< 0.05	8.41	< 0.0002	< 0.001	< 0.001	0.002	0.72	< 0.00002	< 0.02	1.4	0.001	1.62	0.056	< 0.0005	0.8	0.001	< 0.001	0.2	< 0.001	< 0.001	5.3	< 0.001	0.035	< 0.001	< 0.0005	0.008	< 0.0001	< 0.0005	< 0.001	0.007	< 0.01
R7	20-Jun-05	0.0004	0.072	< 0.001	0.038	< 0.001	< 0.001	< 0.05	19.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.22	< 0.00002	< 0.02	0.5	0.002	4.65	0.019	< 0.0005	1.56	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.7	< 0.001	0.07	< 0.001	< 0.0005	0.002	< 0.0001	0.0007	< 0.001	< 0.005	< 0.01
R7	26-Jul-05	< 0.00025	0.038	< 0.001	0.048	< 0.001	< 0.001	< 0.05	21.8	< 0.0002	< 0.001	< 0.001	0.003	0.07	< 0.00002	< 0.02	0.4	0.003	4.16	0.023	< 0.0005	1.7	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.5	< 0.001	0.091	< 0.001	< 0.0005	0.001	< 0.0001	0.0008	< 0.001	< 0.005	< 0.01
R7	23-Aug-05	< 0.00025	0.024	0.001	0.046	< 0.001	< 0.001	< 0.05	29.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.11	< 0.00002	< 0.02	0.5	0.004	6.01	0.024	0.0005	2.11	< 0.001	< 0.001	< 0.15	< 0.001	0.001	10	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	< 0.005	< 0.01
R7	06-Sep-05	< 0.00025	0.02	< 0.001	0.042	< 0.001	< 0.001	< 0.05	23.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.19	< 0.00002	< 0.02	0.5	0.003	5.07	0.02	< 0.0005	2.62	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.8	< 0.001	0.1	< 0.001	0.002	< 0.001	< 0.0001	0.0013	< 0.001	0.006	< 0.01
R7	11-Oct-05	< 0.00025	0.029	< 0.001	0.054	< 0.001	< 0.001	< 0.05	30.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.11	< 0.00002	< 0.02	0.7	0.004	6.57	0.026	0.0005	2.32	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12.8	0.002	0.12	< 0.001	< 0.0005	0.001	< 0.0001	0.0011	< 0.001	< 0.005	< 0.01
R7	02-Nov-05	< 0.00025	0.01	< 0.001	0.058	< 0.001	< 0.001	< 0.05	33.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.7	0.005	6.73	0.013	0.0006	2.1	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12.4	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	< 0.005	< 0.01
R7	13-Dec-05	< 0.00025	0.009	< 0.001	0.07	< 0.001	< 0.001	< 0.05	37.3	< 0.0002	< 0.001	< 0.001	< 0.001	0.11	< 0.00002	< 0.02	0.8	0.007	7.33	0.015	0.0006	2.73	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.9	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	< 0.005	< 0.01
R7	24-Jan-06	< 0.00025	0.008	< 0.001	0.069	< 0.001	< 0.001	< 0.05	38.3	< 0.0002	< 0.001	< 0.001	< 0.001	0.13	< 0.00002	< 0.02	0.7	0.008	8.11	0.009	0.0007	3.03	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	6.3	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	0.005	< 0.01
R7	14-Feb-06	< 0.00025	0.017	< 0.001	0.072	< 0.001	< 0.001	< 0.05	39.2	< 0.0002	< 0.001	< 0.001	< 0.001	0.08	< 0.00002	< 0.02	1	0.008	8.16	0.009	0.0008	3.22	< 0.001	< 0.001	< 0.15	< 0.001	0.002	6.2	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	0.01	< 0.01
R7	25-Mar-06	< 0.00025	< 0.005	< 0.001	0.072	< 0.001	< 0.001	< 0.05	41.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.1	0.009	8.41	0.009	0.0008	3.38	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.9	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0024	< 0.001	< 0.005	< 0.01
R7	24-Apr-06	< 0.00025	< 0.005	< 0.001	0.073	< 0.001	< 0.001	< 0.05	38	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1	0.008	7.46	0.008	0.0008	3.12	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	< 0.005	< 0.01
R7	18-May-06	< 0.00025	0.26	0.001	0.038	< 0.001	< 0.001	< 0.05	10	< 0.0002	< 0.001	< 0.001	0.002	0.84	< 0.00002	< 0.02	1.6	0.002	1.86	0.09	< 0.0005	0.77	0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.4	< 0.001	0.041	< 0.001	< 0.0005	0.007	< 0.0001	< 0.0005	< 0.001	0.006	< 0.01
R7	19-Jun-06	< 0.00025	0.097	< 0.001	0.035	< 0.001	< 0.001	< 0.05	17.5	< 0.0002	< 0.001	< 0.001	< 0.001	0.23	< 0.00002	< 0.02	0.5	0.002	3.73	0.016	< 0.0005	1.39	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.059	< 0.001	< 0.0005	0.002	< 0.0001	0.0007	< 0.001	< 0.005	< 0.01
R7	17-Jul-06	< 0.00025	0.052	< 0.001	0.039	< 0.001	< 0.001	< 0.05	21.8	< 0.0002	< 0.001	< 0.001	< 0.001	0.19	< 0.00002	< 0.02	0.4	0.008	5.2	0.017	< 0.0005	1.66	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.073	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	< 0.005	< 0.01
R7	22-Aug-06	< 0.00025	0.018	< 0.001	0.041	< 0.001	< 0.001	< 0.05	23.1	< 0.0002	< 0.001	< 0.001	< 0.001	0.11	< 0.00002	< 0.02	0.5	0.003	4.51	0.014	< 0.0005	1.94	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.088	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	< 0.005	< 0.01
R7	12-Sep-06	< 0.00025	0.019	< 0.001	0.038	< 0.001	< 0.001	< 0.05	21.8	< 0.0002	< 0.001	< 0.001	< 0.001	0.18	< 0.00002	< 0.02	0.4	0.003	4.81	0.017	< 0.0005	1.93	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.084	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	< 0.005	< 0.01
R7	16-Oct-06	< 0.00025	0.014	< 0.001	0.054	< 0.001	< 0.001	< 0.05	29.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.11	< 0.00002	< 0.02	0.7	0.005	6.17	0.017	< 0.0005	2.52	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	< 0.005	< 0.01
R7	14-Nov-06	< 0.00025	0.014	< 0.001	0.066	< 0.001	< 0.001	< 0.05	34.4	< 0.0002	< 0.001	< 0.001	< 0.001	0.09	< 0.00002	< 0.02	0.6	0.005	7.47	0.014	0.0006	2.74	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0019	< 0.001	< 0.005	< 0.01
R7	14-Dec-06	< 0.00025	0.008	< 0.001	0.074	< 0.001	< 0.001	< 0.05	37.8	< 0.0002	< 0.001	< 0.001	< 0.001	0.09	< 0.00002	< 0.02	0.9	0.007	7.72	0.014	0.0006	2.85	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.7	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	< 0.005	< 0.01
R7	14-Feb-07	< 0.00025	0.007	< 0.001	0.071	< 0.001	< 0.001	< 0.05	42.2	< 0.0002	< 0.001	< 0.001	< 0.001	0.1	< 0.00002	< 0.02	1	0.008	8.57	0.007	0.0007	3.34	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.4	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0025	< 0.001	< 0.005	< 0.01
R7	12-Mar-07	< 0.00025	< 0.005	< 0.001	0.083	< 0.001	< 0.001	< 0.05	43.8	< 0.0002	< 0.001	< 0.001	< 0.001	0.09	< 0.00002	< 0.02	1.2	0.011	9.05	0.008	0.0009	3.71	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.003	< 0.001	< 0.005	< 0.01
R7	19-Apr-07	< 0.00025	0.007	< 0.001	0.076	< 0.001	< 0.001	< 0.05	42.3	< 0.0002	< 0.001	< 0.001	0.002	0.13	< 0.00002	< 0.02	1.2	0.007	8.08	0.012	0.0009	3.15	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.016	< 0.01
R7	15-May-07	< 0.00025	0.35	0.002	0.047	< 0.001	< 0.001	< 0.05	14.1	< 0.0002	< 0.001	0.002	0.002	1.41	< 0.00002	< 0.02	1.6	< 0.005	2.79	0.14	0.0008	1.14	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.061	< 0.001	< 0.0005	0.014	< 0.0001	0.0005	0.001	0.007	< 0.01
R7	19-Jun-07	< 0.00025	0.095	< 0.001	0.039	< 0.001	< 0.001	< 0.05	18.9	< 0.0002	< 0.001	< 0.001	0.001	0.27	< 0.00002	< 0.02	0.6	< 0.005	4.61	0.016	0.0005	1.6	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.067	< 0.001	< 0.0005	0.004	< 0.0001	0.0008	< 0.001	0.017	< 0.01
R7	17-Jul-07	< 0.00025	0.06	< 0.001	0.038	< 0.001	< 0.001	< 0.05	15.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.16	< 0.00002	< 0.02	0.3	< 0.005	3.45	0.012	< 0.0005	1.38	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.067	< 0.001	< 0.0005	0.002	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
R7	14-Aug-07	< 0.00025	0.1	< 0.001	0.045	< 0.001	< 0.001	< 0.05	23.3	0.0004	< 0.001	< 0.001	< 0.001	0.18	< 0.00002	< 0.02	0.5	< 0.005	5.09	0.014	0.0007	1.91	0.001	< 0.001	< 0.15	< 0.001	0.002	4.2	< 0.001	0.09	0.001	< 0.0005	0.003	0.0002	0.001	< 0.001	< 0.005	< 0.01

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 2. Reference Sites Total Metals

Station	Date	AG-T mg/L	AL-T mg/L	AS-T mg/L	BA-T mg/L	BE-T mg/L	BI-T mg/L	B-T mg/L	CA-T mg/L	CD-T mg/L	CO-T mg/L	CR-T mg/L	CU-T mg/L
Benchmark		0.0001	0.1	0.005	1	1.1	0.26			0.00003		0.001	0.002
R7	11-Sep-07	< 0.00025	0.083	< 0.001	0.041	< 0.001	< 0.001	< 0.05	16.7	< 0.0002	< 0.001	< 0.001	< 0.001
R7	23-Oct-07	< 0.00025	0.01	< 0.001	0.052	< 0.001	< 0.001	< 0.05	27.9	< 0.0002	< 0.001	< 0.001	< 0.001
R7	14-Nov-07	< 0.00025	0.04	< 0.001	0.056	< 0.001	< 0.001	< 0.05	33.5	< 0.0002	< 0.001	< 0.001	< 0.001
R7	09-Dec-07	< 0.00025	0.021	< 0.001	0.059	< 0.001	< 0.001	< 0.05	33.2	< 0.0002	< 0.001	< 0.001	< 0.001
	N	35	35	35	35	35	35	35	35	35	35	35	35
	median	0.000125	0.018	0.0005	0.054	0.0005	0.0005	0.025	30.6	0.0001	0.0005	0.0005	0.0005
	mean	0.000133	0.0526	0.0006	0.0555	0.0005	0.0005	0.025	29.5	0.0001	0.0005	0.0005	0.0008
	std	0.000046	0.0847	0.0003	0.0151	0	0	0	10.5	0.0001	0	0.0003	0.0006
	minimum	< 0.00025	< 0.005	< 0.001	0.031	< 0.001	< 0.001	< 0.05	8.41	< 0.0002	0.001	< 0.001	< 0.001
	maximum	0.0004	0.35	0.002	0.083	< 0.001	< 0.001	< 0.05	43.9	0.0004	0.001	0.002	0.003
	# < DL	34	3	31	0	35	35	35	0	34	35	34	29
	% < DL	97%	9%	89%	0%	100%	100%	100%	0%	97%	100%	97%	83%
	# > BM	35	3	0	0	0	0			35		1	1
	% > BM	100%	9%	0%	0%	0%	0%			100%		3%	3%
	# < DL (DL>BM)	34	0	0	0	0	0			34		0	0
	% < DL (DL>BM)	97%	0%	0%	0%	0%	0%			97%		0%	0%
	max DL	0.00025	0.005	0.001		0.001	0.001	0.05		0.0002	0.001	0.001	0.001
	95th percentile	0.000125	0.275	0.001	0.0763	0.0005	0.0005	0.025	42.75	0.0001	0.0005	0.0005	0.002
	5th percentile	0.000125	0.0025	0.0005	0.0371	0.0005	0.0005	0.025	12.87	0.0001	0.0005	0.0005	0.0005
W10	22-Jun-05	< 0.00025	0.043	< 0.001	0.015	< 0.001	< 0.001	< 0.05	16.1	< 0.0002	< 0.001	< 0.001	0.001
W10	20-Sep-05	< 0.00025	0.012	< 0.001	0.018	< 0.001	< 0.001	< 0.05	20	< 0.0002	< 0.001	< 0.001	0.001
W10	07-Jun-06	< 0.00025	0.043	< 0.001	0.009	< 0.001	< 0.001	< 0.05	8.92	< 0.0002	< 0.001	< 0.001	0.002
W10	18-Sep-06	< 0.00025	0.011	< 0.001	0.018	< 0.001	< 0.001	< 0.05	18.9	< 0.0002	< 0.001	< 0.001	< 0.001
W10	11-Jun-07	< 0.00025	0.13	< 0.001	0.011	< 0.001	< 0.001	< 0.05	7.67	< 0.0002	< 0.001	< 0.001	0.003
W10	02-Oct-07	< 0.00025	0.02	< 0.001	0.014	< 0.001	< 0.001	< 0.05	15.1	< 0.0002	< 0.001	< 0.001	< 0.001
	N	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.0315	0.0005	0.0145	0.0005	0.0005	0.025	15.6	0.0001	0.0005	0.0005	0.001
	mean	0.000125	0.0432	0.0005	0.0142	0.0005	0.0005	0.025	14.4	0.0001	0.0005	0.0005	0.0013
	std	0	0.0449	0	0.0037	0	0	0	5.1	0	0	0	0.001
	minimum	< 0.00025	0.011	< 0.001	0.009	< 0.001	< 0.001	< 0.05	7.67	< 0.0002	< 0.001	< 0.001	< 0.001
	maximum	< 0.00025	0.13	< 0.001	0.018	< 0.001	< 0.001	< 0.05	20	< 0.0002	< 0.001	< 0.001	0.003
	# < DL	6	0	6	0	6	6	6	0	6	6	6	2
	% < DL	100%	0%	100%	0%	100%	100%	100%	0%	100%	100%	100%	33%
	# > BM	6	1	0	0	0	0			6		0	1
	% > BM	100%	17%	0%	0%	0%	0%			100%		0%	17%
	# < DL (DL>BM)	6	0	0	0	0	0			6		0	0
	% < DL (DL>BM)	100%	0%	0%	0%	0%	0%			100%		0%	0%
	max DL	0.00025		0.001		0.001	0.001	0.05		0.0002	0.001	0.001	0.001
	95th percentile	0.000125	0.10825	0.0005	0.018	0.0005	0.0005	0.025	19.725	0.0001	0.0005	0.0005	0.00275
	5th percentile	0.000125	0.01125	0.0005	0.0095	0.0005	0.0005	0.025	7.9825	0.0001	0.0005	0.0005	0.0005

Station	Date	FE-T mg/L	HG-T mg/L	HG-T µg/L	K-T mg/L	LI-T mg/L	MG-T mg/L	MN-T mg/L	MO-T mg/L	NA-T mg/L	NI-T mg/L	PB-T mg/L	P-T mg/L	SB-T mg/L
Benchmark		0.3		0.026	53		82	1	0.073	200	0.065	0.002	0.03	0.02
R7	11-Sep-07	0.3	< 0.00002	< 0.02	0.5	< 0.001	3.63	0.027	< 0.0005	1.59	< 0.001	< 0.001	< 0.15	< 0.001
R7	23-Oct-07	0.12	< 0.00002	< 0.02	0.7	0.004	6.35	0.015	< 0.0005	2.44	< 0.001	< 0.001	< 0.15	< 0.001
R7	14-Nov-07	0.1	< 0.00002	< 0.02	0.8	0.004	6.74	0.013	0.0006	2.44	< 0.001	< 0.001	< 0.15	< 0.001
R7	09-Dec-07	0.12	< 0.00002	< 0.02	0.8	0.002	6.48	0.012	0.0005	2.36	< 0.001	< 0.001	< 0.15	< 0.001
	N	35	35	35	35	35	35	35	35	35	35	35	35	35
	median	0.12	0.00001	0.01	0.7	0.004	6.48	0.014	0.0006	2.44	0.0005	0.0005	0.075	0.0005
	mean	0.2043	0	0.01	0.8057	0.005	6.086	0.0253	0.0005	2.3711	0.0006	0.0005	0.0786	0.0005
	std	0.2686	0	0	0.3395	0.0028	2.0359	0.0336	0.0002	0.8214	0.0002	0	0.0211	0
	minimum	0.05	< 0.00002	< 0.02	0.3	< 0.001	1.62	0.005	< 0.0005	0.77	< 0.001	< 0.001	< 0.15	< 0.001
	maximum	1.41	< 0.00002	< 0.02	1.6	0.011	9.05	0.15	0.0009	3.76	0.001	< 0.001	0.2	< 0.001
	# < DL	4	35	35	0	5	0	0	13	0	30	35	34	35
	% < DL	11%	100%	100%	0%	14%	0%	0%	37%	0%	86%	100%	97%	100%
	# > BM	3		0	0		0	0	0	0	0	0	35	0
	% > BM	9%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%
	# < DL (DL>BM)	0		0	0		0	0	0	0	0	0	34	0
	% < DL (DL>BM)	0%		0%	0%		0%	0%	0%	0%	0%	0%	97%	0%
	max DL	0.05	0.00002	0.02		0.005			0.0005		0.001	0.001	0.15	0.001
	95th percentile	0.756	0.00001	0.01	1.46	0.0083	8.609	0.105	0.0009	3.528	0.001	0.0005	0.075	0.0005
	5th percentile	0.025	0.00001	0.01	0.4	0.0017	2.511	0.0077	0.00025	1.038	0.0005	0.0005	0.075	0.0005
W10	22-Jun-05	< 0.05	< 0.00002	< 0.02	0.5	< 0.001	2.11	< 0.001	< 0.0005	1.79	< 0.001	< 0.001	< 0.15	< 0.001
W10	20-Sep-05	< 0.05	< 0.00002	< 0.02	0.6	0.001	2.5	< 0.001	< 0.0005	1.97	< 0.001	< 0.001	< 0.15	< 0.001
W10	07-Jun-06	< 0.05	< 0.00002	< 0.02	0.4	0.002	1.16	< 0.001	< 0.0005	1.26	< 0.001	< 0.001	< 0.15	< 0.001
W10	18-Sep-06	< 0.05	< 0.00002	< 0.02	0.6	0.001	2.41	< 0.001	< 0.0005	1.87	< 0.001	< 0.001	< 0.15	< 0.001
W10	11-Jun-07	0.14	< 0.00002	< 0.02	0.4	< 0.005	1.04	0.003	< 0.0005	1.3	< 0.001	< 0.001	< 0.15	< 0.001
W10	02-Oct-07	< 0.05	< 0.00002	< 0.02	0.4	< 0.001	1.81	0.007	< 0.0005	1.77	< 0.001	< 0.001	< 0.15	< 0.001
	N	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.025	0.00001	0.01	0.45	0.001	1.96	0.0005	0.00025	1.78	0.0005	0.0005	0.075	0.0005
	mean	0.0442	0.00001	0.01	0.4833	0.0013	1.8383	0.002	0.00025	1.66	0.0005	0.0005	0.075	0.0005
	std	0.0469	0	0	0.0983	0.0008	0.6224	0.0026	0	0.3	0	0	0	0
	minimum	< 0.05	< 0.00002	< 0.02	0.4	< 0.001	1.04	< 0.001	< 0.0005	1.26	< 0.001	< 0.001	< 0.15	< 0.001
	maximum	0.14	< 0.00002	< 0.02	0.6	< 0.005	2.5	0.007	< 0.0005	1.97	< 0.001	< 0.001	< 0.15	< 0.001
	# < DL	5	6	6	0	3	0	4	6	0	6	6	6	6
	% < DL	83%	100%	100%	0%	50%	0%	67%	100%	0%	100%	100%	100%	100%
	# > BM	0		0	0		0	0	0	0	0	0	6	0
	% > BM	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%
	# < DL (DL>BM)	0		0	0		0	0	0	0	0	0	6	0
	% < DL (DL>BM)	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%
	max DL	0.05	0.00002	0.02		0.005		0.001	0.0005		0.001	0.001	0.15	0.001
	95th percentile	0.11125	0.00001	0.01	0.6	0.00238	2.4775	0.006	0.00025	1.945	0.0005	0.0005	0.075	0.0005
	5th percentile	0.025	0.00001	0.01	0.4	0.0005	1.07	0.0005	0.00025	1.27	0.0005	0.0005	0.075	0.0005

Station	Date	SE-T mg/L	SI-T mg/L	SN-T mg/L	SR-T mg/L	TE-T mg/L	TH-T mg/L	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
Benchmark		0.001		0.35	9.3			1.83	0.0008	0.005	0.006	0.03	0.004
R7	11-Sep-07	< 0.001	4.1	< 0.001	0.07	< 0.001	< 0.0005	0.004	< 0.0001	0.0007	< 0.001	0.011	< 0.01
R7	23-Oct-07	< 0.001	4.7	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	< 0.005	< 0.01
R7	14-Nov-07	< 0.001	5.4	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	< 0.005	< 0.01
R7	09-Dec-07	< 0.001	5	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	< 0.005	< 0.01
	N	35	35	35	35	35	35	35	35	35	35	35	35
	median	0.0005	5.4	0.0005	0.12	0.0005	0.00025	0.0005	0.00005	0.0013	0.0005	0.0025	0.005
	mean	0.0006	6.86	0.0005	0.1176	0.0005	0.0003	0.0017	0.0001	0.0014	0.0005	0.0062	0.005
	std	0.0004	3.3711	0.0003	0.0447	0.0001	0.0003	0.0028	0	0.0007	0.0001	0.0073	0
	minimum	< 0.001	2.4	< 0.001	0.035	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
	maximum	0.002	14	0.002	0.19	0.001	0.002	0.014	0.0002	0.003	0.001	0.035	< 0.01
	# < DL	32	0	34	0	34	34	23	34	3	34	23	35
	% < DL	91%	0%	97%	0%	97%	97%	66%	97%	9%	97%	66%	100%
	# > BM	2		0	0			0	0	0	0	1	35
	% > BM	6%		0%	0%			0%	0%	0%	0%	3%	100%
	# < DL (DL>BM)	0		0	0			0	0	0	0	0	35
	% < DL (DL>BM)	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.001		0.001		0.001	0.0005	0.001	0.0001	0.0005	0.001	0.005	0.01
	95th percentile	0.0013	12.92	0.0005	0.183	0.0005	0.00025	0.0073	0.00005	0.00243	0.0005	0.0194	0.005
	5th percentile	0.0005	3.7	0.0005	0.0536	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0025	0.005
W10	22-Jun-05	< 0.001	14.7	0.001	0.053	< 0.001	< 0.0005	0.002	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
W10	20-Sep-05	< 0.001	16	< 0.001	0.063	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.005	< 0.01
W10	07-Jun-06	< 0.001	4.7	< 0.001	0.027	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
W10	18-Sep-06	< 0.001	7.1	< 0.001	0.059	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
W10	11-Jun-07	< 0.001	4.8	< 0.001	0.028	< 0.001	< 0.0005	0.003	< 0.0001	< 0.0005	< 0.001	0.008	< 0.01
W10	02-Oct-07	< 0.001	5.7	< 0.001	0.049	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.023	< 0.01
	N	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.0005	6.4	0.0005	0.051	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.00375	0.005
	mean	0.0005	8.83333	0.0006	0.0465	0.0005	0.00025	0.00117	0.00005	0.00025	0.0005	0.00725	0.005
	std	0	5.13718	0.0002	0.0155	0	0	0.00108	0	0	0	0.00802	0
	minimum	< 0.001	4.7	0.001	0.027	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
	maximum	< 0.001	16	0.001	0.063	< 0.001	< 0.0005	0.003	< 0.0001	< 0.0005	< 0.001	0.023	< 0.01
	# < DL	6	0	5	0	6	6	4	6	6	6	3	6
	% < DL	100%	0%	83%	0%	100%	100%	67%	100%	100%	100%	50%	100%
	# > BM	0		0	0			0	0	0	0	0	6
	% > BM	0%		0%	0%			0%	0%	0%	0%	0%	100%
	# < DL (DL>BM)	0		0	0			0	0	0	0	0	6
	% < DL (DL>BM)	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.001		0.001		0.001	0.0005	0.001	0.0001	0.0005	0.001	0.005	0.01
	95th percentile	0.0005	15.675	0.00088	0.062	0.0005	0.00025	0.00275	0.00005	0.00025	0.0005	0.01925	0.005
	5th percentile	0.0005	4.725	0.0005	0.02725	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0025	0.005

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, quideline source provided in Appendix C1

Method Detection Limit set to 1/2 method detection limit for statistical calculations

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 3. Reference Sites Dissolved Metals

Station	Date	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																																					
FDU	22-Jun-05	< 0.00025	0.035	< 0.001	0.012	< 0.05	< 0.001	< 0.001	3.21	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		< 0.1	0.001	0.63	< 0.001	< 0.0005	1.49	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.9	< 0.001	0.019	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
FDU	19-Sep-05	< 0.00025	0.022	< 0.001	0.016	< 0.05	< 0.001	< 0.001	4.17	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		< 0.1	0.002	0.81	0.001	< 0.0005	1.87	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	15.8	< 0.001	0.024	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
FDU	07-Jun-06	< 0.00025	0.09	< 0.001	0.01	< 0.05	< 0.001	< 0.001	2.01	< 0.0002	< 0.001	< 0.001	0.001	0.05		0.3	0.002	0.41	< 0.001	< 0.0005	1.03	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.6	< 0.001	0.012	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
FDU	18-Sep-06	< 0.00025	0.037	< 0.001	0.013	< 0.05	< 0.001	< 0.001	3.54	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.2	0.002	0.72	0.001	< 0.0005	1.65	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	7.2	< 0.001	0.021	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
FDU	11-Jun-07	< 0.00025	0.11	< 0.001	0.011	< 0.05	< 0.001	< 0.001	2.07	< 0.0002	< 0.001	< 0.001	0.001	0.09		0.2	< 0.005	0.36	0.001	< 0.0005	1.2	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.6	< 0.001	0.014	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
FDU	02-Oct-07	< 0.00025	0.029	< 0.001	0.012	< 0.05	< 0.001	< 0.001	3.03	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		< 0.1	0.001	0.63	< 0.001	< 0.0005	1.73	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	6	< 0.001	0.018	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.036	0.0005	0.012	0.025	0.0005	0.0005	3.12	0.0001	0.0005	0.0005	0.0005	0.025		0.125	0.002	0.63	0.00075	0.00025	1.57	0.0005	0.0005	0.075	0.0005	0.0005	6.6	0.0005	0.0185	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0025	0.005
	mean	0.000125	0.05383	0.0005	0.012	0.025	0.0005	0.0005	3.005	0.0001	0.0005	0.0005	0.00067	0.04		0.1417	0.0018	0.5933	0.0008	0.00025	1.495	0.0005	0.0005	0.075	0.0005	0.0005	8	0.0005	0.018	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0025	0.005
	std	0	0.03669	0	0.002	0	0	0	0.843	0	0	0	0.00026	0.02646		0.1068	0.0006	0.1753	0.0003	0	0.32347	0	0	0	0	0	4.9	0	0.00443	0	0	0	0	0	0	0	0
	minimum	< 0.00025	0.022	< 0.001	0.01	< 0.05	< 0.001	< 0.001	2.01	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		< 0.1	0.001	0.36	< 0.001	< 0.0005	1.03	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.6	< 0.001	0.012	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.11	< 0.001	0.016	< 0.05	< 0.001	< 0.001	4.17	< 0.0002	< 0.001	< 0.001	0.001	0.09		0.3	< 0.005	0.81	0.001	< 0.0005	1.87	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	15.8	< 0.001	0.024	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
	# < DL	6	0	6	0	6	6	6	0	6	6	6	4	4		3	1	0	3	6	0	6	6	6	6	6	0	6	0	6	6	6	6	6	6	6	6
	% < DL	100%	0%	100%	0%	100%	100%	100%	0%	100%	100%	100%	67%	67%		50%	17%	0%	50%	100%	0%	100%	100%	100%	100%	100%	0%	100%	0%	100%	100%	100%	100%	100%	100%	100%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025		0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05		0.1	0.005		0.001	0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001	0.0005	0.001	0.005	0.01
	95th percentile	0.000125	0.105	0.0005	0.01525	0.025	0.0005	0.0005	4.0125	0.0001	0.0005	0.0005	0.001	0.08		0.275	0.00238	0.7875	0.001	0.00025	1.835	0.0005	0.0005	0.075	0.0005	0.0005	14.825	0.0005	0.02325	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0025	0.005
	5th percentile	0.000125	0.02375	0.0005	0.01025	0.025	0.0005	0.0005	2.025	0.0001	0.0005	0.0005	0.0005	0.025		0.05	0.001	0.3725	0.0005	0.00025	1.0725	0.0005	0.0005	0.075	0.0005	0.0005	3.6	0.0005	0.0125	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0025	0.005
R6	29-Mar-05	< 0.00025	< 0.005	< 0.001	0.092	< 0.05	< 0.001	< 0.001	71.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.6	0.004	14.7	0.002	0.0011	4.99	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.5	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0028	< 0.001	< 0.005	< 0.01
R6	17-Aug-05	< 0.00025	0.005	< 0.001	0.058	< 0.05	< 0.001	< 0.001	38.1	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	< 0.001	10.3	0.01	0.0009	1.17	< 0.001	< 0.001	< 0.15	< 0.001	0.002	8.1	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	< 0.005	< 0.01
R6	21-Feb-06	< 0.00025	0.077	< 0.001	0.081	< 0.05	< 0.001	< 0.001	43.2	< 0.0002	< 0.001	0.002	0.001	0.06		1.2	0.002	9.96	0.006	0.0012	2.06	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.1	0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	< 0.005	< 0.01
R6	07-Aug-06	< 0.00025	0.006	< 0.001	0.055	< 0.05	< 0.001	< 0.001	35.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	0.001	9.47	0.005	0.0009	1.47	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.097	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	< 0.005	< 0.01
R6	20-Feb-07	< 0.00025	< 0.005	< 0.001	0.081	< 0.05	< 0.001	< 0.001	44.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.1	0.002	9.69	0.004	0.0011	1.91	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	< 0.005	< 0.01
R6	17-Aug-07	< 0.00025	0.005	< 0.001	0.073	< 0.05	< 0.001	< 0.001	33.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		0.9	< 0.005	10.1	0.006	0.0008	1.57	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	< 0.005	< 0.01
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.005	0.0005	0.077	0.025	0.0005	0.0005	40.65	0.0001	0.0005	0.0005	0.0005	0.025		1	0.002	10.03	0.0055	0.001	1.74	0.0005	0.0005	0.075	0.0005	0.0005	5	0.0005	0.115	0.0005	0.00025	0.0005	0.00005	0.00185	0.0005	0.0025	0.005
	mean	0.000125	0.01633	0.0005	0.07333	0.025	0.0005	0.0005	44.38	0.0001	0.0005	0.00075	0.00058	0.03833		1.03333	0.002	10.7033	0.0055	0.001	2.195	0.00075	0.0005	0.075	0.0005	0.00075	6.11667	0.000583	0.12783	0.0005	0.00025	0.0005	0.00005	0.00187	0.0005	0.0025	0.005
	std	0	0.02976	0	0.0144	3.80E-18	0	0	14.01	0	0	0.00061	0.0002	0.0209		0.34448	0.00122	1.97993	0.00266	0.00015	1.40559	0.00061	0	0	0	0.000612	3.12565	0.000204	0.04618	0	0	0	0	0.00055	0	0	0
	minimum	< 0.00025	< 0.005	< 0.001	0.055	< 0.05	< 0.001	< 0.001	33.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	< 0.001	9.47	0.002	0.0008	1.17	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.097	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.077	< 0.001	0.092	< 0.05	< 0.001	< 0.001	71.7	< 0.0002	< 0.001	0.002	0.001	0.07		1.6	0.005	14.7	0.01	0.0012	4.99	0.002	< 0.001	< 0.15	< 0.001	0.002	11.5	0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0028	< 0.001	< 0.005	< 0.01
	# < DL	6	2	6	0	6	6	6	0	6	6	5	5	4		0	2	0	0	0	0	5	6	6	6	5	0	5	0	6	6	6	6	0	6	6	6
	% < DL	100%	33%	100%	0%	100%	100%	100%	0%	100%	100%	83%	83%	67%		0%	33%	0%	0%	0%	0%	83%	100%	100%	100%	83%	0%	83%	0%	100%	100%	100%	100%	0%	100%	100%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05			0.005					0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001	0.005	0.01
	95th percentile	0.000125	0.05925	0.0005	0.08925	0.025	0.0005	0.0005	64.825	0.0001	0.0005	0.00163	0.00088	0.0675		1.5	0.00363	13.6	0.009	0.00118	4.2575	0.00163	0.0005	0.075	0.0005	0.001625	10.65	0.000875	0.195	0.0005	0.00025	0.0005	0.00005	0.0026	0.0005	0.0025	0.005
	5th percentile	0.000125	0.0025	0.0005	0.05575	0.025	0.0005	0.0005	34.125	0.0001	0.0005	0.0005	0.0005	0.025		0.7	0.00063	9.525	0.0025	0.00083	1.245	0.0005	0.0005	0.075	0.0005	0.0005	3.375	0.0005	0.09775	0.0005	0.00025	0.0005	0.00005	0.00128	0.0005	0.0025	0.005
R7	22-Jan-05	< 0.00025	< 0.005	< 0.001	0.064	< 0.05	< 0.001	< 0.001	37.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.11		0.9	0.007	7.94	0.017	0.0006	2.77	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.5	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.035	< 0.01
R7	09-Feb-05	< 0.00025	< 0.005	< 0.001	0.062	< 0.05	< 0.001	< 0.001	35.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.007	6.94	0.011	0.0007	2.89	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.6	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0019	< 0.001	0.013	< 0.01
R7	14-Mar-05	< 0.00025	0.006	< 0.001	0.069	< 0.05	< 0.001	< 0.001	40.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.18		1.1	0.006	7.26	0.01	0.0007	3.41	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.2	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	0.013	< 0.01
R7	11-Apr-05	< 0.00025	< 0.005	< 0.001	0.061	< 0.05	< 0.001	< 0.001	38.5	< 0.0002	< 0.001	< 0.001	< 0.001	0.06		0.9	0.007	7.52	0.004	0.0007	3.24	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12.4	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	< 0.005	< 0.01
R7	09-May-05	< 0.00025	0.092	< 0.001	0.022	< 0.05	< 0.001	< 0.001	7.25	< 0.0002	< 0.001	< 0.001	0.001	0.17		1	0.001	1.34	0.009	< 0.0005	0.69	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.03	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.006	< 0.01
R7	20-Jun-05	< 0.00025	0.022	< 0.001	0.034	< 0.05	< 0.001	< 0.001	18	< 0.0002	< 0.001	< 0.001	< 0.001	0.11		0.4	0.002	4.27	0.015	< 0.0005	1.4	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.2	< 0.001	0.064	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	< 0.005	< 0.01
R7	26-Jul-05	< 0.00025	0.008	< 0.001	0.044	< 0.05	< 0.001	< 0.001	22.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.4	0.003	4.32	0.004	< 0.0005	1.66	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.3	< 0.001	0.088	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	< 0.005	< 0.01
R7	23-Aug-05	< 0.00025	< 0.005	< 0.001	0.039	< 0.05	< 0.001	< 0.001	26.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.4	0.003	5.4	0.014	< 0.0005	1.87	< 0.001	< 0.001	< 0.15	< 0.001	0.001	8.9	< 0.001	0.099	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	< 0.005	< 0.01
R7	06-Sep-05	< 0.00025	< 0.005	< 0.001	0.042	< 0.05	< 0.001	< 0.001	23	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	0.003	4.56	0.012	< 0.0005	1.83	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	8.8	< 0.001	0.087	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	< 0.005	< 0.01
R7	11-Oct-05	< 0.00025	< 0.005	< 0.001	0.042	< 0.05	< 0.001	< 0.001	23.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	0.003	5.03	0.017	< 0.0005	1.72	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.7	< 0.001	0.091	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	< 0.005	< 0.01
R7	02-Nov-05	< 0.00025	< 0.005	< 0.001	0.054	< 0.05	< 0.001	< 0.001	30.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.6	0.005	6.12	0.01	0.0005	1.81	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.1	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	< 0.005	< 0.01
R7	13-Dec-05	< 0.00025	< 0.005	< 0.001	0.065	< 0.05	< 0.001	< 0.001	35.1	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.006	7.13	0.007	0.0006	2.55	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	< 0.005	< 0.01
R7	24-Jan-06	< 0.00025	0.006	< 0.001	0.062	< 0.05	< 0.001	< 0.001	35.1	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		0.6	0.007	7.44	0.007	0.0006	2.74	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.9	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	0.006	< 0.01
R7	14-Feb-06	< 0.00025	0.006	< 0.001	0.064	< 0.05	< 0.001	< 0.001	35.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.007	7.48	0.008	0.0007	2.87	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	0.013	< 0.01
R7	25-Mar-06	< 0.00025	< 0.005	< 0.001	0.065	< 0.05	< 0.001	< 0.001	38.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.008	7.81	0.006	0.0008	3.02	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	< 0.005	< 0.01
R7	24-Apr-06	< 0.00025	< 0.005	< 0.001	0.062	< 0.05	< 0.001	< 0.001	35.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.007	7.06	0.004	0.0008	2.82	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0019	< 0.001	< 0.005	< 0.01
R7	18-May-06	< 0.00025	0.078	< 0.001	0.027	< 0.05	< 0.001	< 0.001	9.48	< 0.0002	< 0.001	< 0.001	0.002	0.21		1.4	0.001	1.61	0.003	< 0.0005	0.74	0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.2	< 0.001	0.036	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.005	< 0.01
R7	19-Jun-06	< 0.00025	0.021	< 0.001	0.032	< 0.05	< 0.001	< 0.001	17	< 0.0002	< 0.001	< 0.001	< 0.001	0.1		0.5	0.002	3.64	0.004	< 0.0005	1.38	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.6	< 0.001	0.058	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	< 0.005	< 0.01
R7	17-Jul-06	< 0.00025	0.017	< 0.001	0.034	< 0.05	< 0.001	< 0.001	19.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.1		0.3	0.007	4.8	0.008	< 0.0005	1.51	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.067	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	< 0.005	< 0.01
R7	22-Aug-06	< 0.00025	0.009	< 0.001	0.035	< 0.05	< 0.001	< 0.001	20.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	0.003	4.04	0.01	< 0.0005	1.72	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.076	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	< 0.005	< 0.01
R7	12-Sep-06	< 0.00025	0.01	< 0.001	0.036	< 0.05	< 0.001	< 0.001	21.1	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		0.4	0.003	4.56	0.012	< 0.0005	1.8	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.08	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	< 0.005	< 0.01
R7	16-Oct-06	< 0.00025	0.005	< 0.001	0.047	< 0.05	< 0.001	< 0.001	26.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	0.004	5.4	0.014	< 0.0005	2.16	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.098	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	< 0.005	< 0.01
R7	14-Nov-06	< 0.00025	0.014	< 0.001	0.065	< 0.05	< 0.001	< 0.001	34.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.6	0.005	7.37	0.008	0.0006	2.73	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	< 0.005	< 0.01
R7	14-Dec-06	< 0.00025	< 0.005	< 0.001	0.071	< 0.05	< 0.001	< 0.001	35.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.006	7.47	0.01	0.0006	2.71	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	< 0.005	< 0.01
R7	14-Feb-07	< 0.00025	< 0.005	< 0.001	0.067	< 0.05	< 0.001	< 0.001	37.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.007	7.72	0.005	0.0008	2.96	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	< 0.005	< 0.01
R7	12-Mar-07	< 0.00025	< 0.005	< 0.001	0.077	< 0.05	< 0.001	< 0.001	40.8	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.1	0.01	8.54	0.007	0.0008	3.49	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0028	< 0.001	< 0.005	< 0.01
R7	19-Apr-07	< 0.00025	< 0.005	< 0.001	0.072	< 0.05	< 0.001	< 0.001	40.1	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.1	0.006	7.47	0.005	0.0008	2.89	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	0.006	< 0.01
R7	15-May-07	< 0.00025	0.041	< 0.001	0.032	< 0.05	< 0.001	< 0.001	12.3	< 0.0002	< 0.001	< 0.001	0.002	0.22		1.3	< 0.005	2.5	0.002	0.0008	1.01	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.1	< 0.001	0.054	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
R7	19-Jun-07	< 0.00025	0.013	< 0.001	0.033	< 0.05	< 0.001	< 0.001	16.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		0.4	< 0.005	3.83	0.001	< 0.0005	1.35	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.06	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 3. Reference Sites Dissolved Metals

Station	Date	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																																					
R7	17-Jul-07	< 0.00025	0.012	< 0.001	0.032	< 0.05	< 0.001	< 0.001	14.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.3	< 0.005	3.27	0.006	< 0.0005	1.31	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.064	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
R7	14-Aug-07	< 0.00025	0.007	< 0.001	0.043	< 0.05	< 0.001	< 0.001	22	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.4	< 0.005	4.94	0.007	< 0.0005	1.75	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.086	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	< 0.005	< 0.01
R7	11-Sep-07	< 0.00025	0.009	< 0.001	0.038	< 0.05	< 0.001	< 0.001	16.7	< 0.0002	< 0.001	< 0.001	0.002	0.08		0.4	< 0.001	3.66	0.005	< 0.0005	1.57	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.069	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	< 0.005	< 0.01
R7	23-Oct-07	< 0.00025	< 0.005	< 0.001	0.049	< 0.05	< 0.001	< 0.001	27	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		0.6	0.004	5.97	0.014	0.0006	2.27	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	< 0.005	< 0.01
R7	14-Nov-07	< 0.00025	0.026	< 0.001	0.052	< 0.05	< 0.001	< 0.001	31.5	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	0.004	6.37	0.009	0.0006	2.32	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.1	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	< 0.005	< 0.01
R7	09-Dec-07	< 0.00025	< 0.005	< 0.001	0.057	< 0.05	< 0.001	< 0.001	31.4	< 0.0002	< 0.001	< 0.001	< 0.001	0.06		0.7	0.002	6.31	0.009	0.0005	2.27	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	0.006	< 0.01
	N	35	35	35	35	35	35	35	35	35	35	35	35	35	0	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	median	0.000125	0.006	0.0005	0.049	0.025	0.0005	0.0005	27	0.0001	0.0005	0.0005	0.0005	0.025		0.6	0.004	5.97	0.008	0.0005	2.16	0.0005	0.0005	0.075	0.0005	0.0005	5.5	0.0005	0.11	0.0005	0.00025	0.0005	0.00005	0.0012	0.0005	0.0025	0.005
	mean	0.00013	0.013	0.0005	0.05	0.025	0.0005	0.0005	27.4	0.0001	0.0005	0.0005	0.00064	0.06286		0.7	0.00447	5.63114	0.0084	0.00048	2.14943	0.00053	0.0005	0.075	0.0005	0.000514	6.36	0.0005	0.10877	0.0005	0.00025	0.0005	0.00005	0.00125	0.0005	0.0048	0.005
	std	0	0.02	0	0.015	0	0	0	9.7	0	0	0	0.00043	0.05652		0.29205	0.00237	1.91014	0.00415	0.00023	0.75736	0.00012	3.30E-19	2.82E-17	3.30E-19	8.45E-05	2.95338	3.30E-19	0.04249	3.30E-19	1.65E-19	3.30E-19	3.44E-20	0.00073	3.30E-19	0.00608	1.76E-18
	minimum	< 0.00025	< 0.005	< 0.001	0.022	< 0.05	< 0.001	< 0.001	7.25	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		0.3	< 0.001	1.34	0.001	< 0.0005	0.69	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.2	< 0.001	0.03	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.092	< 0.001	0.077	< 0.05	< 0.001	< 0.001	40.8	< 0.0002	< 0.001	< 0.001	0.002	0.22		1.4	0.01	8.54	0.017	0.0008	3.49	0.001	< 0.001	< 0.15	< 0.001	0.001	12.4	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0028	< 0.001	0.035	< 0.01
	# < DL	35	16	35	0	35	35	35	0	35	35	35	31	20		0	5	0	0	16	0	33	35	35	35	34	0	35	0	35	35	35	35	5	35	26	35
	% < DL	100%	46%	100%	0%	100%	100%	100%	0%	100%	100%	100%	89%	57%		0%	14%	0%	0%	46%	0%	94%	100%	100%	100%	97%	0%	100%	0%	100%	100%	100%	100%	14%	100%	74%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05			0.005			0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001	0.0005	0.001	0.005	0.01
	95th percentile	0.000125	0.0521	0.0005	0.0713	0.025	0.0005	0.0005	40.28	0.0001	0.0005	0.0005	0.002	0.189		1.16	0.0073	7.849	0.0156	0.0008	3.291	0.00065	0.0005	0.075	0.0005	0.0005	11.53	0.0005	0.173	0.0005	0.00025	0.0005	0.00005	0.0023	0.0005	0.013	0.005
	5th percentile	0.000125	0.0025	0.0005	0.0305	0.025	0.0005	0.0005	11.454	0.0001	0.0005	0.0005	0.0005	0.025		0.37	0.001	2.233	0.0027	0.00025	0.929	0.0005	0.0005	0.075	0.0005	0.0005	3.31	0.0005	0.0486	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0025	0.005
W10	22-Jun-05	< 0.00025	0.013	< 0.001	0.012	< 0.05	< 0.001	< 0.001	13.8	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.3	< 0.001	1.9	< 0.001	< 0.0005	1.58	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12.8	< 0.001	0.047	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
W10	20-Sep-05	< 0.00025	0.006	< 0.001	0.014	< 0.05	< 0.001	< 0.001	17.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	< 0.001	2.19	< 0.001	< 0.0005	1.71	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	13.3	< 0.001	0.054	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.005	< 0.01
W10	07-Jun-06	< 0.00025	0.036	< 0.001	0.008	< 0.05	< 0.001	< 0.001	8.16	< 0.0002	< 0.001	< 0.001	0.002	< 0.05		0.4	0.002	1.07	< 0.001	< 0.0005	1.15	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.024	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
W10	18-Sep-06	< 0.00025	0.006	< 0.001	0.016	< 0.05	< 0.001	< 0.001	17.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	< 0.001	2.29	< 0.001	< 0.0005	1.78	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	6.9	< 0.001	0.056	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
W10	11-Jun-07	< 0.00025	0.068	< 0.001	0.01	< 0.05	< 0.001	< 0.001	7.73	< 0.0002	< 0.001	< 0.001	0.003	0.08		0.3	< 0.005	1.01	< 0.001	< 0.0005	1.24	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.027	< 0.001	< 0.0005	0.001	< 0.0001	< 0.0005	< 0.001	0.006	< 0.01
W10	02-Oct-07	< 0.00025	0.01	< 0.001	0.012	< 0.05	< 0.001	< 0.001	13.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.4	< 0.001	1.68	< 0.001	< 0.0005	1.66	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.044	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.0115	0.0005	0.012	0.025	0.0005	0.0005	13.6	0.0001	0.0005	0.0005	0.0005	0.025		0.4	0.0005	1.79	0.0005	0.00025	1.62	0.0005	0.0005	0.075	0.0005	0.0005	6.25	0.0005	0.0455	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0025	0.005
	mean	0.000125	0.02317	0.0005	0.012	0.025	0.0005	0.0005	13	0.0001	0.0005	0.0005	0.00117	0.03417		0.4	0.00108	1.69	0.0005	0.00025	1.52	0.0005	0.0005	0.075	0.0005	0.0005	7.95	0.0005	0.042	0.0005	0.00025	0.000583	0.00005	0.00025	0.0005	0.0035	0.005
	std	0	0.02466	0	0.00283	3.80E-18	0	0	4.3	0	0	0	0.00108	0.02245		0.08944	0.00092	0.54791	0	0	0.26161	0	0	0	0	0	4.04809	0	0.01355	0	0	0.000204	0	0	0	0.00158	0
	minimum	< 0.00025	0.006	< 0.001	0.008	< 0.05	< 0.001	< 0.001	7.73	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.3	< 0.001	1.01	< 0.001	< 0.0005	1.15	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.024	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.068	< 0.001	0.016	< 0.05	< 0.001	< 0.001	17.7	< 0.0002	< 0.001	< 0.001	0.003	0.08		0.5	< 0.005	2.29	< 0.001	< 0.0005	1.78	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	13.3	< 0.001	0.056	< 0.001	< 0.0005	0.001	< 0.0001	< 0.0005	< 0.001	0.006	< 0.01
	# < DL	6	0	6	0	6	6	6	0	6	6	6	4	5		0	5	0	6	6	0	6	6	6	6	6	0	6	0	6	6	5	6	6	6	4	6
	% < DL	100%	0%	100%	0%	100%	100%	100%	0%	100%	100%	100%	67%	83%		0%	83%	0%	100%	100%	0%	100%	100%	100%	100%	100%	0%	100%	0%	100%	100%	83%	100%	100%	100%	67%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025		0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05			0.005		0.001	0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001	0.0005	0.001	0.005	0.01
	95th percentile	0.000125	0.06	0.0005	0.0155	0.025	0.0005	0.0005	17.625	0.0001	0.0005	0.0005	0.00275	0.06625		0.5	0.00238	2.265	0.0005	0.00025	1.7625	0.0005	0.0005	0.075	0.0005	0.0005	13.175	0.0005	0.0555	0.0005	0.00025	0.000875	0.00005	0.00025	0.0005	0.00575	0.005
	5th percentile	0.000125	0.006	0.0005	0.0085	0.025	0.0005	0.0005	7.8375	0.0001	0.0005	0.0005	0.0005	0.025		0.3	0.0005	1.025	0.0005	0.00025	1.1725	0.0005	0.0005	0.075	0.0005	0.0005	4.475	0.0005	0.02475	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0025	0.005

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, quideline source provided in Appendix C1

Method Detection Limit set to 1/2 method detection limit for statistical calculations

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 4. Mine Runoff and Effluent Physical and Routine Parameters

Station	Date	ACID-T mg/L	ALK-C mg/L	ALK-H mg/L	ALK-T mg/L	Cl mg/L	COLOR CU	COND-L µS/cm	HARD mg/L	HCO3 mg/L	NO2 mg/L	NH3 mg/L	PH-F pH unit	PH-L pH unit	SO4 mg/L	TDS mg/L	TEMP-F °C	TSS mg/L	TURB NTU
Benchmark					**12.6**	**250**						**0.25**	**6.5 - 9.0**		**50**			**29**	
NE1	23-Jun-05							1060	256			< 0.01			136			< 1	
NE1	20-Sep-05							437	332			< 0.01	7.8		266		3.7	< 1	
NE1	07-Jun-06							362	158			< 0.01	8		100		3.4	< 1	
NE1	19-Sep-06							655	313			0.02	7.7		245		3.6	< 1	
NE1	12-Jun-07							352				< 0.01	7.5		106		4.8	< 1	
NE1	01-Oct-07							560	286			0.01	7.7		178		2	< 1	
	N	0	0	0	0	0	0	6	5	0		6	5		6		5	6	0
	median							498.5	286			0.005	7.7		157		3.6	0.5	
	mean							571	269			0.008	7.7		171.8		3.5	0.5	
	std							266.8	68.3			0.006	0.2		70.8		1	0	
	minimum							352	158			< 0.01	7.5		100		2	< 1	
	maximum							1060	332			0.02	8		266		4.8	1	
	# < DL							0	0			4	0		0		0	6	
	% < DL							0%	0%			67%	0%		0%		0%	100%	
	# > BM											0	0		6			0	
	% > BM											0%	0%		100%			0%	
	# < DL (DL>BM)											0	0		0			0	
	% < DL (DL>BM)											0%	0%		0%			0%	
	max DL											0.01						1	
	95th percentile							958.75	328.2			0.0175	7.96		260.75		4.58	0.5	
	5th percentile							354.5	177.6			0.005	7.54		101.5		2.28	0.5	
NE2	23-Jun-05							1040	595			< 0.01			391			33	
NE2	20-Sep-05							867	592			< 0.01	8.2		439		3.9	< 1	
NE2	07-Jun-06							1980	1020			0.04	8		927		1.3	< 1	
NE2	19-Sep-06							1090	584			0.01	7.4		445		2.6	51	
NE2	12-Jun-07							1620				< 0.01	7.7		652		1.8	< 1	
NE2	01-Oct-07							1060	635			< 0.01	7.8		464		2.6	2	
	N	0	0	0	0	0	0	6	5	0		6	5		6		5	6	0
	median							1075	595			0.005	7.8		454.5		2.6	1.25	
	mean							1276.2	685.2			0.012	7.8		553		2.4	14.6	
	std							428.5	188.2			0.014	0.3		204.2		1	22	
	minimum							867	584			< 0.01	7.4		391		1.3	< 1	
	maximum							1980	1020			0.04	8.2		927		3.9	51	
	# < DL							0	0			4	0		0		0	3	
	% < DL							0%	0%			67%	0%		0%		0%	50%	
	# > BM											0	0		6			2	
	% > BM											0%	0%		100%			33%	
	# < DL (DL>BM)											0	0		0			0	
	% < DL (DL>BM)											0%	0%		0%			0%	
	max DL											0.01						1	
	95th percentile							1890	943			0.0325	8.16		858.25		3.64	46.5	
	5th percentile							910.25	585.6			0.005	7.46		403		1.4	0.5	
X2	21-Jan-05							308	173			< 0.01	7.2		37.2		-0.3	1	
X2	08-Feb-05							305	187			< 0.01	7.7		31.8		-0.1	< 1	
X2	15-Mar-05							289	163			0.04	7.8		33.2		1.3	< 1	
X2	11-Apr-05							276	158			< 0.01	7.4		34		0.5	< 1	
X2	09-May-05							61	33			0.02	7.4		4		1.6	9	
X2	20-Jun-05							149	74			< 0.01	7.7		10.5		8	2	
X2	25-Jul-05							146	73			0.03	7.5		10.6		6.7	1	
X2	22-Aug-05							185	108			< 0.01	7.5		15.1		7.3	< 1	
X2	05-Sep-05							164	92			< 0.01	7.6		16.4		6.1	< 1	
X2	10-Oct-05							163	96			0.02	8		16.6		2.6	< 1	
X2	01-Nov-05						< 5	202	121			< 0.01	7.7		24.6		0.9	2	1.2
X2	13-Dec-05						< 5	283	146			< 0.01	7.2		28.1		0.6	< 1	1.2
X2	23-Jan-06						< 5	324	185			< 0.01	7.5		37.2		0.7	< 1	0.89
X2	14-Feb-06						< 5	327	163			0.01	7.8		39.7		0.6	< 1	0.72
X2	24-Apr-06						< 5	344	163			< 0.01	7.7		38.8		1	< 1	1.2
X2	17-May-06						117	71	34			< 0.01	8		4.85		0.1	7	3.7
X2	19-Jun-06						18	118	60			< 0.01	7.6		8.95		5.7	8	0.72
X2	18-Jul-06						< 5	163	79			0.06	7.8		11.7		7.9	2	0.47
X2	21-Aug-06						8	170	87			< 0.01	7.6		12.2		5.5	< 1	0.5
X2	11-Sep-06						8	173	82			0.01	7.7		12.8		4.2	< 1	0.47
X2	16-Oct-06						< 5	248	124			< 0.01	7.8		27.4		-0.3	1	1.2
X2	14-Nov-06						< 5	291	146			< 0.01	7.5		31.1		0.1	< 1	0.42
X2	18-Apr-07						< 5	342	170			0.01	7.2		33.7		0.2	< 1	0.95
X2	14-May-07						90	136	67			0.04	7.4		12.8		0.3	3	2.3
X2	18-Jun-07						25	121	61			0.01	7.6		9.25		5.8	5	2.2
X2	16-Jul-07						13	132	59			< 0.01	7.3		10.1		7.9	4	2.5
X2	13-Aug-07						7	191	90			0.03	7.4		15.3		6.1	< 1	0.56
X2	10-Sep-07						7	171	73			0.02	7.1		14.2		6.4	< 1	0.52
X2	22-Oct-07						7	210	110			< 0.01	7.5		19.9		0.2	< 1	1.5
X2	13-Nov-07						< 5	229	127			0.02	7.3		24.5		0	< 1	0.71
X2	09-Dec-07						< 5	278	130			0.02	7.3		28.1		2.3	1	1.5
	N		0	0	0		21	31	31	0		31	31		31		31	31	21
	median						2.5	191	108			0.005	7.5		16.6		1.3	0.5	0.95
	mean						15.6	211.9	110.8			0.014	7.5		21.1		2.9	1.8	1.2
	std						30.1	81.4	45.4			0.014	0.2		11.1		3	2.4	0.8
	minimum						< 5	61	33			< 0.01	7.1		4		-0.3	< 1	0.42
	maximum						117	344	187			0.06	8		39.7		8	9	3.7
	# < DL						11	0	0			17	0		0		0	18	0
	% < DL						52%	0%	0%			55%	0%		0%		0%	58%	0%
	# > BM											0	0		0			0	
	% > BM											0%	0%		0%			0%	
	# < DL (DL>BM)											0	0		0			0	
	% < DL (DL>BM)											0%	0%		0%			0%	
	max DL						5					0.01					0	1	0
	95th percentile						90	334.5	179			0.04	7.9		38		7.9	7.5	2.5
	5th percentile						2.5	94.5	46.5			0.005	7.2		6.9		-0.2	0.5	0.47
X5	08-Mar-05						< 5	1050	1230			0.93			755			< 1	3.4
X5	14-Mar-05						< 5	1790	1040			0.96	7.1		881		4	1	3.4
X5	22-Mar-05						< 5	1750	1090			0.89			908			< 1	2.4
X5	10-May-05						< 5	1430	692			0.71	7.2		712		7	1	0.85
X5	07-Jun-05												8.5				12.5		
X5	11-Jun-05						< 5	1190	661			0.57			641			< 1	1.5
X5	19-Jun-05						< 5	1190	666			0.56			643			< 1	0.75
X5	21-Jun-05						< 5	1210	642			0.74	7.9		664		13.4	< 1	0.89
X5	02-Jul-05						< 5	1210	677			0.65	8.3		704		15.8	< 1	0.75
X5	10-Jul-05		< 0.5	< 0.5	94		< 5	1140	596	115		0.71	8.2		581		14.1	< 1	1.4
X5	17-Jul-05						< 5	1110	582			0.97	7.8		576		14.1	< 1	1.6
X5	24-Jul-05						< 5	1060	563			1.04	8.2		537		13.9	< 1	1.6
X5	25-Jul-05		< 0.5	< 0.5	82.6		< 5	1130	601	101		1.67	8.2		660		13.7	1	2.4
X5	31-Jul-05		< 0.5	< 0.5	105		< 5	1040	538	129		0.99	8.1		555		11.8	< 1	1.6
X5	06-Aug-05						< 5	1190	656			0.99	7.8		591		11.9	< 1	2.1
X5	13-Aug-05						< 5	1210	687			1	7.6		581		15.4	< 1	2.2
X5	20-Aug-05						< 5	1140	664			1.12	7.6		593		13.6	< 1	2
X5	23-Aug-05		< 0.5	< 0.5	106		< 5	1120	808	130		1.25	7.7		664		13.1	< 1	2.7
X5	27-Aug-05						< 5	1100	671			0.94	7.7		664		13.2	< 1	2
X5	05-Sep-05				721		< 5	1040	679			1.13	8.4				11	< 1	2
X5	06-Sep-05		5.5	< 0.5	92.4		< 5	1040	660	102		1.04	8.7		746		10.6	1	2.3
X5	11-Sep-05				722		< 5	1160	703			1	8.6				11	< 1	1.7
X5	18-Sep-05				749		< 5	1120	710			0.95	8.7				10.4	5	1.6
X5	24-Sep-05				791		< 5	1400	683			0.89	8.5				8.1	< 1	0.69
X5	01-Oct-05						< 5	1460	806			0.86			774			1	1.6
X5	09-May-06		< 0.5	< 0.5	143		< 5	1770	818	174		0.54	7.8		812		2.7	< 1	0.43
X5	23-May-06		< 0.5	< 0.5	154		< 5	1540	733	188		0.46	7.6		780		4.5	1	0.46
X5	30-May-06		< 0.5	< 0.5	145		< 5	1500	748	176		0.45	7.4		720		6.7	3	0.64
X5	06-Jun-06						< 5	1190	586			0.42	7.6		565		8.1	2	0.8

Table 4. Mine Runoff and Effluent Physical and Routine Parameters

Station	Date	ACID-T mg/L	ALK-C mg/L	ALK-H mg/L	ALK-T mg/L	Cl mg/L	COLOR CU	COND-L µS/cm	HARD mg/L	HCO3 mg/L	NO2 mg/L	NH3 mg/L	PH-F pH unit	PH-L pH unit	SO4 mg/L	TDS mg/L	TEMP-F °C	TSS mg/L	TURB NTU
Benchmark					**12.6**	**250**						**0.25**	**6.5 - 9.0**		**50**			**29**	
X5	19-Jun-06		< 0.5	< 0.5	87.7		< 5	1380	660	107		0.62	7.4		694		13.9	1	0.8
X5	20-Jun-06						< 5	1470	752			0.61	7.5		749		13	1	0.46
X5	11-Jul-06						< 5	1450	725			0.92	8.5		752		15	2	0.6
X5	17-Jul-06		< 0.5	< 0.5	77.7		< 5	1460	709	94.8		0.91	8.2		782		14.4	2	0.79
X5	18-Jul-06						< 5	1430	716			0.9	8.3		766		14.1	2	0.8
X5	25-Jul-06						< 5	1470	709			0.89	7.7		756		14.8	< 1	0.69
X5	01-Aug-06						< 5	1480	702			1.04	8.2		720		14.7	< 1	0.45
X5	15-Aug-06						< 5	1480	626			0.98	7.6		148		13	< 1	0.75
X5	21-Aug-06		< 0.5	< 0.5	83.1		< 5	1430	685	101		1.01	8.3		630		11.6	2	0.94
X5	22-Aug-06		< 0.5	< 0.5	94.2		< 5	1460	699	115		1.02	8		754		12.7	< 1	0.52
X5	29-Aug-06						< 5	1480	694			1.05	7.8		738		10.6	< 1	0.76
X5	05-Sep-06		< 0.5	< 0.5	108		< 5	1480	694	132		1.04	7.8		716		10.8	1	1.4
X5	10-Apr-07		< 0.5	< 0.5	280		< 5	2260	1140	341		0.77	7.1		1180		3.6	< 1	4
X5	14-May-07		< 0.5	< 0.5	29.8		< 5	297	266	36.4		0.08	8.8		103		0.8	< 1	0.25
X5	22-May-07		< 0.5	< 0.5	97.8		< 5	1180	632	119		0.53	7.8		593		6.3	1	1.3
X5	29-May-07		< 0.5	< 0.5	106		< 5	1060	583	130		0.51	7.7		541		10.2	< 1	1.5
X5	05-Jun-07		< 0.5	< 0.5	119		< 5	1170	633	146		0.57	7.9		587		13.7	< 1	1.3
X5	12-Jun-07		< 0.5	< 0.5	123		< 5	1200	737	150		0.6	8		599		12	< 1	0.8
X5	18-Jun-07		< 0.5	< 0.5	113		< 5	1260	658	137		0.59	8.2		622		15	< 1	1
X5	19-Jun-07		< 0.5	< 0.5	118		< 5	1290	680	145		0.58	7.9		645		14.8	< 1	0.8
X5	26-Jun-07		< 0.5	< 0.5	112		< 5	1300	688	136		0.63	8		632		14.4	5	0.76
X5	03-Jul-07		< 0.5	< 0.5	106		< 5	1290	649	129		0.7	8.1		646		14.9	< 1	0.62
X5	10-Jul-07		< 0.5	< 0.5	112		< 5	1320	665	137		0.75	8		659		14.3	2	0.65
X5	16-Jul-07		< 0.5	< 0.5	99.9		< 5	1290	713	122		0.9	8.1		689		14.7	< 1	0.66
X5	17-Jul-07		< 0.5	< 0.5	105		< 5	1280	683	128		0.79	8.1		684		15	< 1	0.71
X5	24-Jul-07		< 0.5	< 0.5	101		< 5	1290	756	123		0.91	8.1		654		16.5	< 1	0.61
X5	31-Jul-07		< 0.5	< 0.5	98.6		< 5	1280	689	120		0.89	8		625		16.1	< 1	0.55
X5	07-Aug-07		< 0.5	< 0.5	116		< 5	1330	686	141		0.91	7.6		700		14.7	< 1	0.71
X5	13-Aug-07		< 0.5	< 0.5	105		< 5	1270	729	128		0.96	7.8		678		13.1	< 1	0.8
X5	14-Aug-07		< 0.5	< 0.5	125		< 5	1360	747	153		0.83	7.4		694		12.9	< 1	1.3
X5	21-Aug-07		< 0.5	< 0.5	121		< 5	1310	638	147		0.89	7.6		683		14.5	< 1	0.97
X5	28-Aug-07		< 0.5	< 0.5	119		< 5	1320	714	145		0.91	7.6		676		11.8	< 1	0.85
X5	04-Sep-07		< 0.5	< 0.5	122		< 5	1470	707	149		0.97	7.7		714		10.5	< 1	1.4
X5	10-Sep-07		< 0.5	< 0.5	132		< 5	1500	754	161		0.93	7.5		74.2		10.4	< 1	1.7
X5	11-Sep-07		< 0.5	< 0.5	121		< 5	1470	786	148		0.96	7.6		688		10.7	< 1	2
X5	17-Sep-07		< 0.5	< 0.5	153		< 5	1540	763	186		0.72	7.5		748		8.6	< 1	2
X5	23-Oct-07		< 0.5	< 0.5	193		< 5	2050	973	236		0.81	7.5		880		0.9	< 1	4.3
X5	29-Oct-07		< 0.5	< 0.5	204		< 5	2040	899	249		0.76	7.3		906		2.5	< 1	3.6
	N	0	39	39	43	0	66	66	66	39		66	62		62		62	66	66
	median		0.25	0.25	113		2.5	1295	690.5	136		0.89	7.8		680.5		12.95	0.5	0.955
	mean		0.4	0.3	176.5		2.5	1336	714.1	143.8		0.8	7.9		667.9		11.5	0.9	1.4
	std		0.8	0	188.5		0	276.4	138.4	48.9		0.2	0.4		165.2		3.9	0.9	0.9
	minimum		< 0.5	< 0.5	29.8		< 5	297	266	36.4		0.08	7.1		74.2		0.8	< 1	0.25
	maximum		5.5	< 0.5	791		< 5	2260	1230	341		1.67	8.8		1180		16.5	5	4.3
	# < DL		38	39	0		66	0	0	0		0	0		0		0	47	0
	% < DL		97%	100%	0%		100%	0%	0%	0%		0%	0%		0%		0%	71%	0%
	# > BM				43							65	0		62			0	
	% > BM				100%							98%	0%		100%			0%	
	# < DL (DL>BM)				0							0	0		0			0	
	% < DL (DL>BM)				0%							0%	0%		0%			0%	
	max DL		0.5	0.5			5											1	
	95th percentile		0.25	0.25	721.9		2.5	1785	1023.25	237.3		1.1025	8.595		880.95		15.38	2	3.4
	5th percentile		0.25	0.25	82.65		2.5	1042.5	582.25	100.38		0.4725	7.305		537.2		2.745	0.5	0.46
X10	21-Jan-05						< 5	295	178		< 0.01		7.5		34.5		0.5	< 1	1.1
X10	08-Feb-05						< 5	295	159		< 0.01		7.8		30.4		0.8	< 1	1.1
X10	14-Mar-05						< 5	278	180		< 0.01		7.7		32.1		0.6	< 1	1.5
X10	11-Apr-05						< 5	282	160		< 0.01		7.7		32.8		2.1	< 1	1.4
X10	09-May-05						100	79	40		0.03		5		5.4		2.8	14	5.2
X10	21-Jun-05						10	153	76		0.02		8.1		12.4		7.9	< 1	0.71
X10	25-Jul-05				81.2		7	174	92	99	0.02		8.1		13.9		9.5	< 1	1.1
X10	23-Aug-05				92.4		7	185	128	113	< 0.01		8.2		17.4		8.7	< 1	1.1
X10	06-Sep-05				91.2		7	162	98	111	< 0.01		8.4		18.9		8.7	< 1	1.3
X10	11-Oct-05				94.5		7	173	117	115	0.03		8.5		19.8		1.4	< 1	1.2
X10	02-Nov-05				107		5	200	136	131	< 0.01		8		25.6		1.2	< 1	1.6
X10	15-Dec-05				122		< 5	302	156	148	< 0.01		7.8		29.2		0.8	< 1	1.3
X10	23-Jan-06				132		< 5	335	178	161	0.01		7.6		37		0.9	< 1	1.5
X10	14-Feb-06				242		< 5	334	172	169	0.01		7.8		40.9		0.8	< 1	0.69
X10	24-Mar-06				160		< 5	404	196	195	< 0.01		7.7		45.8		1.5	< 1	0.35
X10	25-Apr-06				138		< 5	345	167	169	< 0.01		8.1		36.6		1.2	< 1	0.62
X10	18-May-06				34.2		113	86	43	41.7	< 0.01		8.3		6.39		0.4	4	3
X10	19-Jun-06				53.7		18	125	60	65.5	< 0.01		8		9.63		7.7	2	0.76
X10	17-Jul-06				82		7	174	92	100	< 0.01		8		13.5		9.8	1	0.49
X10	21-Aug-06				82.7		7	183	93	101	< 0.01		8.1		14.9		7.5	< 1	0.65
X10	12-Sep-06				84.8		8	189	89	103	< 0.01		8.1		15.1		5.7	< 1	0.54
X10	17-Oct-06				114		< 5	243	122	139	0.02		8.1		20.1		-0.3	< 1	1.1
X10	14-Nov-06				155		< 5	290	148	127	0.02		7.5		29.6		-0.6	< 1	0.82
X10	13-Dec-06				190		< 5	421	212	231	0.01		7.7		45.8		-0.1	< 1	1.5
X10	16-Jan-07				157		< 5	310	171	192	0.03		7.6		34.3		-0.2	< 1	0.71
X10	15-Feb-07				159		< 5	317	176	194	0.02		7.5		30.4		0.5	< 1	0.25
X10	12-Mar-07				173		< 5	339	179	211	0.02		7.6		36.4		-0.3	< 1	0.27
X10	19-Apr-07				167		< 5	330	170	204	0.02		7.4		33.8		0.5	< 1	0.75
X10	15-May-07				61.4		70	134	65	74.9	< 0.01		7.8		12.3		0.5	10	4.2
X10	19-Jun-07				69.3		18	152	70	84.5	< 0.01		8.2		11.5		8.9	2	1
X10	16-Jul-07				72.3		12	153	69	88.1	< 0.01		7.7		11.4		9.5	2	2
X10	13-Aug-07				99.9		7	204	109	122	0.03		8.1		17.6		7.9	< 1	0.76
X10	10-Sep-07				90		7	187	88	110	0.03		8		15.9		7.3	< 1	0.56
X10	23-Oct-07				102		7	246	121	124	< 0.01		7.6		23		0.3	< 1	1.3
X10	14-Nov-07				109		< 5	242	125	133	0.03		7.5		25.1		2	< 1	1.5
X10	10-Dec-07				122		< 5	294	134	149	0.03		7.3		28.5		1.4	< 1	1.2
	N				30		36	36	36	30	36	0	36	0	36	0	36	36	36
	median				104.5		3.75	242.5	126.5	125.5	0.005		7.8		24.05		1.3	0.5	1.1
	mean				114.6		12.8	239.3	126.9	133.5	0.013		7.8		24.1		3.3	1.4	1.3
	std				45.5		25.8	87.3	46.6	46.4	0.01		0.6		11.2		3.7	2.7	1
	minimum				34.2		< 5	79	40	41.7	< 0.01		5		5.4		-0.6	< 1	0.25
	maximum				242		113	421	212	231	0.03		8.5		45.8		9.8	14	5.2
	# < DL				0		18	0	0	0	19		0		0		0	29	0
	% < DL				0%		50%	0%	0%	0%	53%		0%		0%		0%	81%	0%
	# > BM				30						0		1		0			0	
	% > BM				100%						0%		3%		0%			0%	
	# < DL (DL>BM)				0						0		0		0			0	
	% < DL (DL>BM)				0%						0%		0%		0%			0%	
	max DL				0		5				0.01						0	1	0
	95th percentile				182.35		77.5	359.75	184	207.85	0.03		8.325		42.125		9.5	5.5	3.3
	5th percentile				57.165		2.5	115.25	55.75	69.73	0.005		7.375		8.82		-0.3	0.5	0.33
X13	05-Jan-05												7.1				3.7		
X13	17-Jan-05												7.1				1.7		
X13	21-Jan-05						< 5	1720	830			0.64	7.1		811		1.8	6	25
X13	22-Jan-05												7.2				3.3		
X13	24-Jan-05												7.1				3.8		
X13	31-Jan-05												7				2.2		
X13	08-Feb-05						< 5	1490	854			0.66	7.3		643		3.3	4	21
X13	14-Mar-05						< 5	1420	760			0.58	7.3		567		4	3	14
X13	11-Apr-05						< 5	1520	738			0.62	7.1		592		3.8	4	21
X13	09-May-05						< 5	1520	758			0.64	7.1		718		5.9	5	22
X13	02-Jun-05												7.4				5.5		
X13	07-Jun-05												7.2				7.5		
X13	09-Jun-05												7.4				8.5		
X13	16-Jun-05												7.1				8.5		

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 4. Mine Runoff and Effluent Physical and Routine Parameters

Station	Date	ACID-T mg/L	ALK-C mg/L	ALK-H mg/L	ALK-T mg/L	Cl mg/L	COLOR CU	COND-L µS/cm	HARD mg/L	HCO3 mg/L	NO2 mg/L	NH3 mg/L	PH-F pH unit	PH-L pH unit	SO4 mg/L	TDS mg/L	TEMP-F °C	TSS mg/L	TURB NTU
Benchmark					**12.6**	**250**						**0.25**	**6.5 - 9.0**		**50**			**29**	
X13	21-Jun-05						< 5	1420	769			0.77	7.1		637		6.2	3	19
X13	23-Jun-05												7.1				8.1		
X13	30-Jun-05												7.3				7.7		
X13	25-Jul-05		< 0.5	< 0.5	273		< 5	1370	758	333		0.72	7.1		681		7.5	3	23
X13	23-Aug-05		< 0.5	< 0.5	253		< 5	1160	838	309		0.52	7.3		548		7.1	3	15
X13	06-Sep-05		< 0.5	< 0.5	250		< 5	1140	694	304		0.62	7.4		674		6.4	3	17
X13	06-Oct-05												7.3				4.7		
X13	11-Oct-05		< 0.5	< 0.5	254		< 5	1100	702	310		0.65	7.7		689		3.4	4	18
X13	13-Oct-05												7.2				4.2		
X13	20-Oct-05												7.1				3.3		
X13	27-Oct-05												7.2				4.1		
X13	02-Nov-05		< 0.5	< 0.5	235		< 5	852	578	286		0.35	7.6		422		1.7	1	4.1
X13	15-Dec-05		< 0.5	< 0.5	258		< 5	1720	739	315		0.58	7.3		714		4.7	3	25
X13	23-Jan-06		< 0.5	< 0.5	255		< 5	1640	831	312		0.61	7.4		689		3.3	5	22
X13	14-Feb-06		< 0.5	< 0.5	253		< 5	1510	849	309		0.66	7.5		826		2.9	6	25
X13	24-Mar-06		< 0.5	< 0.5	257		< 5	1680	770	314		0.71	7.2		762		4.9	6	23
X13	25-Apr-06		< 0.5	< 0.5	257		< 5	1800	898	314		0.64	7.6		819		3.4	5	20
X13	18-May-06		< 0.5	< 0.5	231		< 5	1660	893	282		0.55	7.4		785		2.6	4	17
X13	19-Jun-06		< 0.5	< 0.5	254		< 5	1690	836	309		0.49	7.1		751		6.6	3	15
X13	17-Jul-06		< 0.5	< 0.5	271		< 5	1590	774	330		0.48	7		686		7.3	3	9
X13	21-Aug-06		< 0.5	< 0.5	279		< 5	1710	800	340		0.57	7.1		636		5.9	4	20
X13	12-Sep-06		< 0.5	< 0.5	282		8	1580	688	344		0.67	7.3		682		5.4	5	24
X13	17-Oct-06		< 0.5	< 0.5	302		< 5	1640	816	368		0.68	7.3		763		1.8	5	24
X13	14-Nov-06		< 0.5	< 0.5	283		< 5	1340	754	345		0.49	7.1		595		0.7	3	15
X13	13-Dec-06		< 0.5	< 0.5	302		< 5	1650	954	368		0.62	7.2		788		0	4	23
X13	16-Jan-07		< 0.5	< 0.5	290		< 5	1990	1080	354		0.62	7.4		902		1.8	5	23
X13	15-Feb-07		< 0.5	< 0.5	283		< 5	1810	980	345		0.61	7.5		770		0.7	5	21
X13	12-Mar-07		< 0.5	< 0.5	295		< 5	1530	765	360		0.64	7.2		761		1.5	5	22
X13	19-Apr-07		< 0.5	< 0.5	298		< 5	1680	872	364		0.75	7.2		817		2.4	4	22
X13	15-May-07		< 0.5	< 0.5	292		< 5	1990	1010	356		0.61	7		750		4.9	5	21
X13	19-Jun-07		< 0.5	< 0.5	290		< 5	1970	907	353		0.64	7.2		812		8.5	5	20
X13	16-Jul-07		< 0.5	< 0.5	270		< 5	1910	820	329		0.58	7.1		842		7.1	3	20
X13	13-Aug-07		< 0.5	< 0.5	287		< 5	1640	1007	351		0.58	7.2		792		6.2	3	18
X13	10-Sep-07		< 0.5	< 0.5	288		< 5	1780	874	352		0.61	7.1		797		5.9	4	16
X13	23-Oct-07		< 0.5	< 0.5	283		< 5	2260	1120	345		0.69	7.2		939		2.2	6	27
X13	14-Nov-07		< 0.5	< 0.5	280		< 5	1800	1040	342		0.62	7		768		3.7	4	19
X13	10-Dec-07		< 0.5	< 0.5	281		< 5	2700	907	343		0.64	7		863		2.3	5	20
X13	11-Dec-07												7.1				5		
	N	0	30	30	30	0	36	36	36	30		36	52		36		52	36	36
	median		0.25	0.25	279.5		2.5	1645	830.5	341		0.62	7.2		756		4.05	4	20.5
	mean		0.25	0.25	272.9		2.7	1638.4	840.6	332.9		0.6	7.2		730.3		4.4	4.1	19.7
	std		0	0	19.5		0.9	329.4	117.8	23.8		0.1	0.2		106		2.3	1.2	4.6
	minimum		< 0.5	< 0.5	231		5	852	578	282		0.35	7		422		0	1	4.1
	maximum		< 0.5	< 0.5	302		8	2700	1120	368		0.77	7.7		939		8.5	6	27
	# < DL		30	30	0		35	0	0	0		0	0		0		0	0	0
	% < DL		100%	100%	0%		97%	0%	0%	0%		0%	0%		0%		0%	0%	0%
	# > BM				30							36	0		36			0	
	% > BM				100%							100%	0%		100%			0%	
	# < DL (DL>BM)				0							0	0		0			0	
	% < DL (DL>BM)				0%							0%	0%		0%			0%	
	max DL		0.5	0.5			5												
	95th percentile		0.25	0.25	300.2		2.5	2057.5	1050	366.2		0.7275	7.545		872.75		8.28	6	25
	5th percentile		0.25	0.25	241.75		2.5	1130	692.5	294.1		0.4875	7		562.25		1.14	3	12.75

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, quideline source provided in Appendix C1

Method Detection Limit set to 1/2 method detection limit for statistical calculations

Table 5. Mine Runoff and Effluent Total Metals

Station	Date	AG-T mg/L	AL-T mg/L	AS-T mg/L	BA-T mg/L	BE-T mg/L	BI-T mg/L	B-T mg/L	CA-T mg/L	CD-T mg/L	CN-T mg/L	CO-T mg/L	CR-T mg/L	CU-T mg/L	FE-T mg/L	HG-T mg/L	HG-T µg/L	K-T mg/L	LI-T mg/L	MG-T mg/L	MN-T mg/L	MO-T mg/L	NA-T mg/L	NI-T mg/L	PB-T mg/L	P-T mg/L	SB-T mg/L	SE-T mg/L	SI-T mg/L	SN-T mg/L	SR-T mg/L	TE-T mg/L	TH-T mg/L	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
Benchmark		**0.0001**	**0.1**	**0.005**	**1**	**1.1**	**0.26**			**0.00003**			**0.001**	**0.002**	**0.3**		**0.026**	**53**		**82**	**1**	**0.073**	**200**	**0.065**	**0.002**	**0.03**	**0.02**	**0.001**		**0.35**	**9.3**			**1.83**	**0.0008**	**0.005**	**0.006**	**0.03**	**0.004**
NE1	23-Jun-05	< 0.00025	0.01	< 0.001	0.015	< 0.001	< 0.001	< 0.05	67	< 0.0002		< 0.001	< 0.001	0.004	< 0.05	< 0.00002	< 0.02	2.7	0.01	21.5	< 0.001	0.0073	4.21	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.4	< 0.001	0.31	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.011	< 0.01
NE1	20-Sep-05	< 0.00025	< 0.005	< 0.001	0.019	< 0.001	< 0.001	< 0.05	88.1	< 0.0002		< 0.001	< 0.001	0.002	< 0.05	< 0.00002	< 0.02	2.9	0.012	27.2	< 0.001	0.0044	5.03	0.001	< 0.001	< 0.15	< 0.001	0.001	9.5	< 0.001	0.43	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	< 0.005	< 0.01
NE1	07-Jun-06	< 0.00025	< 0.005	< 0.001	0.009	< 0.001	< 0.001	< 0.05	41.5	< 0.0002		< 0.001	< 0.001	0.003	< 0.05	< 0.00002	< 0.02	2	0.023	13.3	< 0.001	0.0049	2.93	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	< 0.005	< 0.01
NE1	19-Sep-06	< 0.00025	0.019	< 0.001	0.018	< 0.001	< 0.001	< 0.05	82.4	< 0.0002		< 0.001	< 0.001	0.001	0.07	< 0.00002	< 0.02	2.7	0.01	25.9	0.004	0.0053	4.8	0.001	0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.41	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.011	< 0.01
NE1	12-Jun-07	< 0.00025	0.006	< 0.001	0.011	< 0.001	< 0.001	< 0.05	45.1	< 0.0002		< 0.001	< 0.001	0.004	0.09	< 0.00002	< 0.02	2.1	0.007	15	0.001	0.0044	3.19	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.3	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	0.006	< 0.01
NE1	01-Oct-07	< 0.00025	< 0.005	< 0.001	0.017	< 0.001	< 0.001	< 0.05	75.3	< 0.0002		< 0.001	< 0.001	0.002	0.07	< 0.00002	< 0.02	2.9	0.011	23.7	< 0.001	0.0071	4.47	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.38	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	< 0.005	< 0.01
	N	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.00425	0.0005	0.016	0.0005	0.0005	0.025	71.15	0.0001		0.0005	0.0005	0.0025	0.0475	0.00001	0.01	2.7	0.0105	22.6	0.0005	0.0051	4.34	0.001	0.0005	0.075	0.0005	0.0005	4.15	0.0005	0.345	0.0005	0.00025	0.0005	0.00005	0.001	0.0005	0.00425	0.005
	mean	0.00013	0.007	0.001	0.015	0.001	0.001	0.025	66.57	0.0001		0.0005	0.0005	0.0027	0.05	0.00001	0.01	2.55	0.01	21.1	0.0012	0.0056	4.11	0.001	0.0006	0.075	0.0005	0.001	5.65	0.001	0.32	0.0005	0.0003	0.0005	0.0001	0.0009	0.0005	0.0059	0.01
	std	0	0.007	0	0.004	0	0	0	19.39	0		0	0	0.0012	0.03	0	0	0.4	0.01	5.75	0.0014	0.0013	0.86	0.0005	0.0002	0	0	0	2.97	0	0.1	0	0	0	0	0.0003	0	0.0042	0
	minimum	< 0.00025	< 0.005	< 0.001	0.009	< 0.001	< 0.001	< 0.05	41.5	0.0002		< 0.001	< 0.001	0.001	< 0.05	< 0.00002	< 0.02	2	0.007	13.3	< 0.001	0.0044	2.93	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.3	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.019	< 0.001	0.019	< 0.001	< 0.001	< 0.05	88.1	0.0002		< 0.001	< 0.001	0.004	0.09	< 0.00002	< 0.02	2.9	0.023	27.2	0.004	0.0073	5.03	0.002	0.001	< 0.15	< 0.001	0.001	9.5	< 0.001	0.43	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.011	< 0.01
	# < DL	6	3	6	0	6	6	6	0	6		6	6	0	3	6	6	0	0	0	4	0	0	2	5	6	6	5	0	6	0	6	6	6	6	0	6	3	6
	% < DL	100%	50%	100%	0%	100%	100%	100%	0%	100%		100%	100%	0%	50%	100%	100%	0%	0%	0%	67%	0%	0%	33%	83%	100%	100%	83%	0%	100%	0%	100%	100%	100%	100%	0%	100%	50%	100%
	# > BM	6	0	0	0	0	0			6			0	3	0		0	0		0	0	0	0	0	0	6	0	0		0	0			0	0	0	0	0	6
	% > BM	100%	0%	0%	0%	0%	0%			100%			0%	50%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	# < DL (DL>BM)	6	0	0	0	0	0			6			0	0	0		0	0		0	0	0	0	0	0	6	0	0		0	0			0	0	0	0	0	6
	% < DL (DL>BM)	100%	0%	0%	0%	0%	0%			100%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0.005	0.001		0.001	0.001	0.05		0.0002		0.001	0.001		0.05	0.00002	0.02				0.001			0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001	0.005	0.01
	95th percentile	0.000125	0.01675	0.0005	0.01875	0.0005	0.0005	0.025	86.675	0.0001		0.0005	0.0005	0.004	0.085	0.00001	0.01	2.9	0.02025	26.875	0.00325	0.00725	4.9725	0.00175	0.00088	0.075	0.0005	0.00088	9.475	0.0005	0.425	0.0005	0.00025	0.0005	0.00005	0.00118	0.0005	0.011	0.005
	5th percentile	0.000125	0.0025	0.0005	0.0095	0.0005	0.0005	0.025	42.4	0.0001		0.0005	0.0005	0.00125	0.025	0.00001	0.01	2.025	0.00775	13.725	0.0005	0.0044	2.995	0.0005	0.0005	0.075	0.0005	0.0005	3.325	0.0005	0.195	0.0005	0.00025	0.0005	0.00005	0.00053	0.0005	0.0025	0.005
NE2	23-Jun-05	< 0.00025	0.24	< 0.001	0.041	< 0.001	< 0.001	< 0.05	106	< 0.0002		< 0.001	< 0.001	0.002	0.29	< 0.00002	< 0.02	2.8	0.016	80.1	0.012	< 0.0005	6.02	0.005	< 0.001	< 0.15	< 0.001	< 0.001	11.8	< 0.001	0.48	< 0.001	< 0.0005	0.008	< 0.0001	0.0057	< 0.001	0.12	< 0.01
NE2	20-Sep-05	< 0.00025	0.13	< 0.001	0.039	< 0.001	< 0.001	< 0.05	108	< 0.0002		< 0.001	< 0.001	0.002	0.13	< 0.00002	< 0.02	2.9	0.017	78.4	0.004	< 0.0005	5.77	0.005	< 0.001	< 0.15	< 0.001	< 0.001	11.3	< 0.001	0.49	< 0.001	< 0.0005	0.005	< 0.0001	0.0047	< 0.001	0.085	< 0.01
NE2	07-Jun-06	< 0.00025	< 0.005	< 0.001	0.081	< 0.001	< 0.001	< 0.05	155	< 0.0002		< 0.001	< 0.001	0.002	0.06	< 0.00002	< 0.02	4.2	0.065	154	< 0.001	< 0.0005	8.13	0.002	< 0.001	< 0.15	< 0.001	0.004	5	< 0.001	0.69	< 0.001	< 0.0005	< 0.001	< 0.0001	0.011	< 0.001	< 0.005	< 0.01
NE2	19-Sep-06	< 0.00025	0.39	< 0.001	0.038	< 0.001	< 0.001	< 0.05	103	< 0.0002		< 0.001	< 0.001	0.002	0.52	< 0.00002	< 0.02	2.7	0.017	79.2	0.012	< 0.0005	5.69	0.006	< 0.001	< 0.15	< 0.001	< 0.001	5.7	< 0.001	0.48	< 0.001	< 0.0005	0.012	< 0.0001	0.0045	0.001	0.092	< 0.01
NE2	12-Jun-07	< 0.00025	0.005	< 0.001	0.064	< 0.001	< 0.001	< 0.05	132	< 0.0002		< 0.001	< 0.001	0.002	0.15	< 0.00002	< 0.02	3.6	0.015	130	0.001	< 0.0005	7.45	0.002	< 0.001	< 0.15	< 0.001	0.003	4	< 0.001	0.67	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0048	< 0.001	< 0.005	< 0.01
NE2	01-Oct-07	< 0.00025	0.049	< 0.001	0.034	< 0.001	< 0.001	< 0.05	108	< 0.0002		< 0.001	< 0.001	0.002	0.12	< 0.00002	< 0.02	2.8	0.017	88.5	0.001	< 0.0005	6.21	0.005	< 0.001	< 0.15	< 0.001	0.001	4.9	< 0.001	0.52	< 0.001	< 0.0005	0.002	< 0.0001	0.0051	< 0.001	0.071	< 0.01
	N	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.0895	0.0005	0.04	0.0005	0.0005	0.025	108	0.0001		0.0005	0.0005	0.002	0.14	0.00001	0.01	2.85	0.017	84.3	0.0025	0.00025	6.115	0.005	0.0005	0.075	0.0005	0.00075	5.35	0.0005	0.505	0.0005	0.00025	0.0035	0.00005	0.00495	0.0005	0.078	0.005
	mean	0.00013	0.136	0.001	0.05	0.001	0.001	0.025	118.67	0.0001		0.0005	0.0005	0.002	0.21	0.00001	0.01	3.17	0.02	101.7	0.0051	0.0003	6.55	0	0.0005	0.075	0.0005	0.002	7.12	0.001	0.56	0.0005	0.0003	0.0047	0.0001	0.006	0.0006	0.0622	0.01
	std	0	0.154	0	0.019	0	0	0	20.65	0		0	0	0	0.17	0	0	0.6	0.02	32.33	0.0055	0	1.01	0	0	0	0	0.002	3.48	0	0.1	0	0	0.0046	0	0.0025	0.0002	0.0489	0
	minimum	< 0.00025	< 0.005	< 0.001	0.034	< 0.001	< 0.001	< 0.05	103	< 0.0002		< 0.001	< 0.001	0.002	0.06	< 0.00002	< 0.02	2.7	0.015	78.4	< 0.001	< 0.0005	5.69	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.48	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0045	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.39	< 0.001	0.081	< 0.001	< 0.001	< 0.05	155	< 0.0002		< 0.001	< 0.001	0.002	0.52	< 0.00002	< 0.02	4.2	0.065	154	0.012	< 0.0005	8.13	0.006	< 0.001	< 0.15	< 0.001	0.004	11.8	< 0.001	0.69	< 0.001	< 0.0005	0.012	< 0.0001	0.011	0.001	0.12	< 0.01
	# < DL	6	1	6	0	6	6	6	0	6		6	6	0	0	6	6	0	0	0	1	6	0	0	6	6	6	3	0	6	0	6	6	2	6	0	5	2	6
	% < DL	100%	17%	100%	0%	100%	100%	100%	0%	100%		100%	100%	0%	0%	100%	100%	0%	0%	0%	17%	100%	0%	0%	100%	100%	100%	50%	0%	100%	0%	100%	100%	33%	100%	0%	83%	33%	100%
	# > BM	6	3	0	0	0	0			6			0	0	1		0	0		3	0	0	0	0	0	6	0	2		0	0			0	0	3	0	4	6
	% > BM	100%	50%	0%	0%	0%	0%			100%			0%	0%	17%		0%	0%		50%	0%	0%	0%	0%	0%	100%	0%	33%		0%	0%			0%	0%	50%	0%	67%	100%
	# < DL (DL>BM)	6	0	0	0	0	0			6			0	0	0		0	0		0	0	0	0	0	0	6	0	0		0	0			0	0	0	0	0	6
	% < DL (DL>BM)	100%	0%	0%	0%	0%	0%			100%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0.005	0.001		0.001	0.001	0.05		0.0002		0.001	0.001			0.00002	0.02				0.001	0.0005			0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001	0.005	0.01
	95th percentile	0.000125	0.3525	0.0005	0.07675	0.0005	0.0005	0.025	149.25	0.0001		0.0005	0.0005	0.002	0.4625	0.00001	0.01	4.05	0.053	148	0.012	0.00025	7.96	0.00575	0.0005	0.075	0.0005	0.00375	11.675	0.0005	0.685	0.0005	0.00025	0.011	0.00005	0.00968	0.00088	0.113	0.005
	5th percentile	0.000125	0.00313	0.0005	0.035	0.0005	0.0005	0.025	103.75	0.0001		0.0005	0.0005	0.002	0.075	0.00001	0.01	2.725	0.01525	78.6	0.00063	0.00025	5.71	0.002	0.0005	0.075	0.0005	0.0005	4.225	0.0005	0.48	0.0005	0.00025	0.0005	0.00005	0.00455	0.0005	0.0025	0.005
X2	21-Jan-05	< 0.00025	0.059	< 0.001	0.077	< 0.001	< 0.001	< 0.05	50.2	< 0.0002		< 0.001	< 0.001	0.002	0.33	< 0.00002	< 0.02	1.1	0.008	11.6	0.094	0.0007	3.75	0.001	< 0.001	< 0.15	< 0.001	< 0.001	13.8	< 0.001	0.21	< 0.001	< 0.0005	0.003	< 0.0001	0.0024	< 0.001	0.031	< 0.01
X2	08-Feb-05	< 0.00025	0.007	< 0.001	0.079	< 0.001	< 0.001	< 0.05	53.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.2	< 0.00002	< 0.02	1.3	0.009	12.9	0.092	0.0008	4.31	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	14.8	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0028	< 0.001	0.035	< 0.01
X2	15-Mar-05	< 0.00025	0.01	< 0.001	0.07	< 0.001	< 0.001	< 0.05	47.6	< 0.0002		< 0.001	< 0.001	< 0.001	0.18	< 0.00002	< 0.02	1.3	0.009	10.8	0.091	0.0009	3.57	0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.2	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0027	< 0.001	0.031	< 0.01
X2	11-Apr-05	< 0.00025	0.007	< 0.001	0.068	< 0.001	< 0.001	< 0.05	45.3	< 0.0002		< 0.001	< 0.001	< 0.001	0.18	< 0.00002	< 0.02	1.1	0.008	10.9	0.091	0.0008	3.72	0.001	< 0.001	< 0.15	< 0.001	< 0.001	13.4	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0025	< 0.001	0.038	< 0.01
X2	09-May-05	< 0.00025	0.27	0.001	0.03	< 0.001	< 0.001	< 0.05	9.71	< 0.0002		< 0.001	< 0.001	0.003	0.66	< 0.00002	< 0.02	1.3	0.002	2.03	0.051	< 0.0005	0.91	0.002	0.007	< 0.15	< 0.001	< 0.001	5.3	< 0.001	0.043	< 0.001	< 0.0005	0.008	< 0.0001	< 0.0005	< 0.001	0.031	< 0.01
X2	20-Jun-05	< 0.00025	0.11	< 0.001	0.041	< 0.001	< 0.001	< 0.05	21.2	< 0.0002		< 0.001	< 0.001	0.001	0.25	< 0.00002	< 0.02	0.5	0.003	4.99	0.029	< 0.0005	1.77	< 0.001	0.002	< 0.15	< 0.001	< 0.001	9.9	< 0.001	0.083	< 0.001	< 0.0005	0.002	< 0.0001	0.0008	< 0.001	0.016	< 0.01
X2	25-Jul-05	< 0.00025	0.029	< 0.001	0.041	< 0.001	< 0.001	< 0.05	21.7	< 0.0002		< 0.001	< 0.001	0.001	0.07	< 0.00002	< 0.02	0.4	0.003	4.51	0.019	< 0.0005	1.73	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.7	< 0.001	0.092	< 0.001	< 0.0005	0.001	< 0.0001	0.0007	< 0.001	0.015	< 0.01
X2	22-Aug-05	< 0.00025	0.025	< 0.001	0.05	< 0.001	< 0.001	< 0.05	31.1	< 0.0002		< 0.001	< 0.001	< 0.001	0.1	< 0.00002	< 0.02	0.7	0.004	7.29	0.05	< 0.0005	3.05	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.9	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.023	< 0.01
X2	05-Sep-05	< 0.00025	0.016	< 0.001	0.041	< 0.001	< 0.001	< 0.05	26.9	< 0.0002		< 0.001	< 0.001	< 0.001	0.23	< 0.00002	< 0.02	0.7	0.004	5.93	0.048	0.0009	2.05	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.7	< 0.001	0.11	< 0.001	0.0006	< 0.001	< 0.0001	0.0011	< 0.001	0.036	< 0.01
X2	10-Oct-05	< 0.00025	< 0.005	< 0.001	0.044	< 0.001	< 0.001	< 0.05	27.9	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.7	0.004	6.3	0.047	< 0.0005	2.07	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.5	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.028	< 0.01
X2	01-Nov-05	< 0.00025	0.015	< 0.001	0.059	< 0.001	< 0.001	< 0.05	34.6	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.8	0.005	8.45	0.09	0.0006	2.26	0.001	< 0.001	< 0.15	< 0.001	< 0.001	12.3	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	0.035	< 0.01
X2	13-Dec-05	< 0.00025	0.017	< 0.001	0.07	< 0.001	< 0.001	< 0.05	41.9	< 0.0002		< 0.001	< 0.001	< 0.001	0.18	< 0.00002	< 0.02	1	0.007	10	0.09	0.0007	3.14	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	6.2	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0019	< 0.001	0.058	< 0.01
X2	23-Jan-06	< 0.00025	0.008	< 0.001	0.083	< 0.001	< 0.001	< 0.05	51.9	< 0.0002		< 0.001	< 0.001	< 0.001	0.17	< 0.00002	< 0.02	1.1	0.009	13.4	0.12	0.0008	3.76	0.001	< 0.001	< 0.15	< 0.001	< 0.001	7	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0024	< 0.001	0.094	< 0.01
X2	14-Feb-06	< 0.00025	0.016	< 0.001	0.074	< 0.001	< 0.001	< 0.05	45.8	< 0.0002		< 0.001	< 0.001	< 0.001	0.16	< 0.00002	< 0.02	1.1	0.009	11.7	0.1	0.0008	3.7	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	6.4	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	0.035	< 0.01
X2	24-Apr-06	< 0.00025	0.008	< 0.001	0.072	< 0.001	< 0.001	< 0.05	46	< 0.0002		< 0.001	0.001	< 0.001	0.19	< 0.00002	< 0.02	1.3	0.009	11.7	0.16	0.0008	3.72	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	0.14	< 0.01
X2	17-May-06	< 0.00025	0.18	0.001	0.027	< 0.001	< 0.001	< 0.05	9.94	< 0.0002		< 0.001	< 0.001	0.003	0.62	< 0.00002	< 0.02	1.6	0.002	2.16	0.059	< 0.0005	0.9	0.002	0.004	< 0.15	< 0.001	< 0.001	2.3	< 0.001	0.042	< 0.001	< 0.0005	0.004	< 0.0001	< 0.0005	< 0.001	0.042	< 0.01
X2	19-Jun-06	< 0.00025	0.073	< 0.001	0.035	< 0.001	< 0.001	< 0.05	17.6	< 0.0002		< 0.001	< 0.001	0.001	0.19	< 0.00002	< 0.02	0.5	0.002	3.98	0.024	< 0.0005	1.47	< 0.001	0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.065	< 0.001	< 0.0005	0.002	< 0.0001	0.0007	< 0.001	0.017	< 0.01
X2	18-Jul-06	< 0.00025	0.054	< 0.001	0.04	< 0.001	< 0.001	< 0.05	22.7	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.17	< 0.00002	< 0.02	0.5	0.009	5.4	0.027	< 0.0005	1.68	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.08	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.02	< 0.01
X2	21-Aug-06	< 0.00025	0.015	< 0.001	0.045	< 0.001	< 0.001	< 0.05	25.8	< 0.0002		< 0.001	< 0.001	< 0.001	0.12	< 0.00002	< 0.02	0.6	0.003	5.42	0.033	< 0.0005	2.13	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.099	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.023	< 0.01
X2	11-Sep-06	< 0.00025	0.022	< 0.001	0.04	< 0.001	< 0.001	< 0.05	23.6	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.2	< 0.00002	< 0.02	0.5	0.003	5.53	0.038	< 0.0005	2.07	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.3	< 0.001	0.092	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.023	< 0.01
X2	16-Oct-06	< 0.00025	0.028	< 0.001	0.057	< 0.001	< 0.001	< 0.05	34.2	< 0.0002		< 0.001	< 0.001	0.001	0.4	< 0.00002	< 0.02	0.8	0.005	9.29	0.21	0.0005	2.78	0.001	0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.065	< 0.01
X2	14-Nov-06	< 0.00025	0.018	< 0.001	0.072	< 0.001	< 0.001	< 0.05	41.6	< 0.0002		< 0.001	< 0.001	< 0.001	0.08	< 0.00002	< 0.02	0.9	0.006	10.3	0.11	0.0006	3.11	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.7	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0021	< 0.001	0.064	< 0.01
X2	18-Apr-07	< 0.00025	0.021	< 0.001	0.075	< 0.001	< 0.001	< 0.05	48	< 0.0002		< 0.001	< 0.001	< 0.001	0.29	< 0.00002	< 0.02	1.7	0.01	12.2	0.16	0.0008	3.97	0.002	< 0.001	< 0.15	< 0.001	< 0.001	6.3	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0026	< 0.001	0.18	< 0.01
X2	14-May-07	< 0.00025	0.1	< 0.001	0.039	< 0.001	< 0.001	< 0.05	19.6	< 0.0002		< 0.001	0.001	0.003	0.5	< 0.00002	< 0.02	1.7	< 0.005	4.47	0.068	< 0.0005	1.74	0.002	0.002	< 0.15	< 0.001	< 0.001	4	< 0.001	0.087	< 0.001	< 0.0005	0.003	< 0.0001	0.0008	< 0.001	0.068	< 0.01
X2	18-Jun-07	< 0.00025	0.11	< 0.001	0.036	< 0.001	< 0.001	< 0.05	17.3	< 0.0002		< 0.001	< 0.001	0.002	0.28	< 0.00002	< 0.02	0.6	< 0.005	4.32	0.03	< 0.005	1.63	0.001	0.002	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.065	< 0.001	< 0.0005	0.005	< 0.0001	0.0007	< 0.001	0.029	< 0.01
X2	16-Jul-07	< 0.00025	0.098	< 0.001	0.037	< 0.001	< 0.001	< 0.05	16.7	< 0.0002		< 0.001	< 0.001	0.001	0.25	< 0.00002	< 0.02	0.5	< 0.005	4.15	0.026	< 0.0005	1.64	< 0.001	0.004	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.075	< 0.001	< 0.0005	0.003	< 0.0001	0.0005	< 0.001	0.025	< 0.01
X2	13-Aug-07	< 0.00025	0.021	< 0.001	0.044	< 0.001	< 0.001	< 0.05	26.1	0.0002		< 0.001	< 0.001	0.001	0.19	< 0.00002	< 0.02	0.6	< 0.005	6.08	0.044	0.0007	2.13	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	0.0002	0.0012	< 0.001	0.031	< 0.01
X2	10-Sep-07	< 0.00025	0.015	< 0.001	0.046	< 0.001	< 0.001	< 0.05	21.2	< 0.0002		< 0.001	< 0.001	< 0.001	0.15	< 0.00002	< 0.02	0.5	0.002	4.88	0.034	< 0.0005	1.93	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.077	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.025	< 0.01
X2	22-Oct-07	< 0.00025	0.03	< 0.001	0.056	< 0.001	< 0.001	< 0.05	31.5	< 0.0002		< 0.001	< 0.001	< 0.001	0.3	< 0.00002	< 0.02	0.8	0.004	7.55	0.11	0.0006	2.54	0.001	0.004	< 0.15	< 0.001	< 0.001	5.1	< 0.001	0.12	< 0.001	< 0.0005	0.001	< 0.0001	0.0013	< 0.001	0.063	< 0.01
X2	13-Nov-07	< 0.00025	0.039	< 0.001	0.057	< 0.001	< 0.001	< 0.05	36.5	< 0.0002		< 0.001	< 0.001	< 0.001	0.15	< 0.00002	< 0.02	0.9	0.005	8.75	0.098	0.0006	2.85	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.7	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.068	< 0.01
X2	09-Dec-07	< 0.00025	0.009	< 0.001	0.063	< 0.001	< 0.001	< 0.05	37.8	< 0.0002		< 0.001	< 0.001	< 0.001	0.2	< 0.00002	< 0.02	0.9	0.005	8.71	0.1	0.0005	2.61	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.4	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	0.097	< 0.01
	N	31	31	31	31	31	31	31	31	31	2	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
	median	0.000125	0.021	0.0005	0.05	0.0005	0.0005	0.025	31.1	0.0001	0.0025	0.0005	0.0005	0.0005	0.19	0.00001		0.8	0.004	7.29	0.068	0.0005	2.26	0.001	0.0005	0.075	0.0005	0.0005	5.7	0.0005	0.12	0.0005	0.00025	0.0005	0.00005	0.0012	0.0005	0.035	0.005
	mean	0.000125	0.046	0.0005	0.0538	0.001	0.001	0.025	31.785	0	0.0025	0.0005	0.0005	0.001	0.23	0.00001		0.903	0.005	7.603	0.076	0.001	2.5384	0.0009	0.0012	0.075	0.0005	0.0005	7.2	0.0005	0.13	0.0005	0.00026	0.0014	5.48E-05	0.0014	0.0005	0.048	0.005
	std	8.27E-20	0.059	0.0001	0.0164	0	0	0	12.794	0	0	3.31E-19	0.0001	0.0008	0.15	5.17E-21		0.375	0.003	3.284	0.046	0	0.9425	0.0005	0.0015	1.41E-17	3.31E-19	3.31E-19	3.5	3.31E-19	0.055	3.31E-19	6.29E-05	0.0017	2.69E-05	0.0008	3.31E-19	0.037	1.76E-18

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 5. Mine Runoff and Effluent Total Metals

Station	Date	AG-T mg/L	AL-T mg/L	AS-T mg/L	BA-T mg/L	BE-T mg/L	BI-T mg/L	B-T mg/L	CA-T mg/L	CD-T mg/L	CN-T mg/L	CO-T mg/L	CR-T mg/L	CU-T mg/L	FE-T mg/L	HG-T mg/L	HG-T µg/L	K-T mg/L	LI-T mg/L	MG-T mg/L	MN-T mg/L	MO-T mg/L	NA-T mg/L	NI-T mg/L	PB-T mg/L	P-T mg/L	SB-T mg/L	SE-T mg/L	SI-T mg/L	SN-T mg/L	SR-T mg/L	TE-T mg/L	TH-T mg/L	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
Benchmark		**0.0001**	**0.1**	**0.005**	**1**	**1.1**	**0.26**			**0.00003**			**0.001**	**0.002**	**0.3**		**0.026**	**53**		**82**	**1**	**0.073**	**200**	**0.065**	**0.002**	**0.03**	**0.02**	**0.001**		**0.35**	**9.3**			**1.83**	**0.0008**	**0.005**	**0.006**	**0.03**	**0.004**
	minimum	< 0.00025	< 0.005	< 0.001	0.027	< 0.001	< 0.001	< 0.05	9.71	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.05	< 0.00002		0.4	0.002	2.03	0.019	< 0.005	0.9	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.3	< 0.001	0.042	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	0.015	< 0.01
	maximum	< 0.00025	0.27	0.001	0.083	< 0.001	< 0.001	< 0.05	53.4	0.0002	< 0.005	< 0.001	0.001	0.003	0.66	< 0.00002		1.7	0.01	13.4	0.21	0.0009	4.31	0.002	0.007	< 0.15	< 0.001	< 0.001	14.8	< 0.001	0.23	< 0.001	0.0006	0.008	0.0002	0.0028	< 0.001	0.18	< 0.01
	# < DL	31	1	29	0	31	31	31	0	30	2	31	29	19	2	31	31	0	4	0	0	14	0	15	22	31	31	31	0	31	0	31	30	21	30	2	31	0	31
	% < DL	100%	3%	94%	0%	100%	100%	100%	0%	97%	100%	100%	94%	61%	6%	100%	100%	0%	13%	0%	0%	45%	0%	48%	71%	100%	100%	100%	0%	100%	0%	100%	97%	68%	97%	6%	100%	0%	100%
	# > BM	31	4	0	0	0	0			31			0	3	5		0	0		0	0	0	0	0	4	31	0	0		0	0			0	0	0	0	20	31
	% > BM	100%	13%	0%	0%	0%	0%			100%			0%	10%	16%		0%	0%		0%	0%	0%	0%	0%	13%	100%	0%	0%		0%	0%			0%	0%	0%	0%	65%	100%
	# < DL (DL>BM)	31	0	0	0	0	0			30			0	0	0		0	0		0	0	0	0	0	0	31	0	0		0	0			0	0	0	0	0	31
	% < DL (DL>BM)	100%	0%	0%	0%	0%	0%			97%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0.005	0.001	0	0.001	0.001	0.05	0	0.0002	0.005	0.001	0.001	0.001	0.05	0.00002		0	0.005	0	0	0.0005	0	0.001	0.001	0.15	0.001	0.001	0	0.001	0	0.001	0.0005	0.001	0.0001	0.0005	0.001	0	0.01
	95th percentile	0.000125	0.145	0.00075	0.078	0.0005	0.0005	0.025	51.05	0.0001	0.0025	0.0005	0.00075	0.003	0.56	0.00001		1.65	0.009	12.55	0.16	0.00085	3.865	0.002	0.004	0.075	0.0005	0.0005	13.6	0.0005	0.215	0.0005	0.00025	0.0045	0.00005	0.00265	0.0005	0.1185	0.005
	5th percentile	0.000125	0.007	0.0005	0.0325	0.0005	0.0005	0.025	13.32	0.0001	0.0025	0.0005	0.0005	0.0005	0.0475	0.00001		0.5	0.002	3.07	0.025	0.00025	1.19	0.0005	0.0005	0.075	0.0005	0.0005	3.75	0.0005	0.054	0.0005	0.00025	0.0005	0.00005	0.00038	0.0005	0.0165	0.005
X5	01-Mar-05										< 0.005																												
X5	05-Mar-05										< 0.005																												
X5	08-Mar-05	0.001	0.012	< 0.001	0.04	< 0.001	< 0.001	< 0.05	361	< 0.0002	< 0.005	0.019	< 0.001	0.005	0.77	< 0.00002	< 0.02	8.7	0.024	80.8	16.4	0.0044	45.1	0.035	< 0.001	< 0.15	< 0.001	0.001	17.7	< 0.001	0.97	< 0.001	< 0.0005	0.002	0.0003	0.0055	< 0.001	0.47	< 0.01
X5	14-Mar-05	< 0.00025	0.008	< 0.001	0.026	< 0.001	< 0.001	< 0.05	315	< 0.0002		0.021	< 0.001	0.002	0.75	< 0.00002	< 0.02	6.1	0.014	62	19.4	0.0009	40.8	0.039	< 0.001		< 0.001	< 0.001	16.5	< 0.001	0.89	< 0.001	< 0.0005	0.001	< 0.0001	0.0045	< 0.001	0.34	< 0.01
X5	22-Mar-05	< 0.00025	0.013	< 0.001	0.03	< 0.001	< 0.001	< 0.05	292	< 0.0002	0.0169	0.026	< 0.001	0.001	1.02	< 0.00002	< 0.02	8	0.018	86.2	17.5	0.0011	49.8	0.046	< 0.001	< 0.15	< 0.001	< 0.001	20.5	< 0.001	1.03	< 0.001	< 0.0005	0.002	< 0.0001	0.0051	< 0.001	0.4	< 0.01
X5	10-May-05	< 0.00025	0.017	< 0.001	0.022	< 0.001	< 0.001	< 0.05	210	< 0.0002	0.0171	0.008	< 0.001	< 0.001	0.14	< 0.00002	< 0.02	4.6	0.014	40.3	6.5	0.0009	21.5	0.015	< 0.001	< 0.15	< 0.001	< 0.001	7.5	< 0.001	0.61	< 0.001	< 0.0005	< 0.001	0.0004	0.0024	< 0.001	0.27	< 0.01
X5	11-Jun-05	< 0.00025	< 0.005	< 0.001	0.017	< 0.001	< 0.001	< 0.05	195	< 0.0002	0.0525	0.004	< 0.001	0.001	0.11	< 0.00002	< 0.02	5.8	0.029	42.1	2.45	0.0013	19.7	0.008	0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.63	< 0.001	< 0.0005	< 0.001	0.0005	0.0009	< 0.001	0.19	< 0.01
X5	19-Jun-05	< 0.00025	< 0.005	< 0.001	0.018	< 0.001	< 0.001	< 0.05	199	< 0.0002	0.0128	0.004	< 0.001	0.001	0.12	< 0.00002	< 0.02	6	0.027	41	2.29	0.0015	19.5	0.007	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	0.0006	0.0009	< 0.001	0.12	< 0.01
X5	21-Jun-05	< 0.00025	0.016	< 0.001	0.017	< 0.001	< 0.001	< 0.05	191	0.0003	0.0138	0.004	< 0.001	0.001	0.23	< 0.00002	< 0.02	5.5	0.03	39.8	2.88	0.0013	19.4	0.009	< 0.001	< 0.15	< 0.001	< 0.001	5.3	< 0.001	0.64	< 0.001	< 0.0005	< 0.001	0.0005	0.001	< 0.001	0.19	< 0.01
X5	26-Jun-05										0.0268																												
X5	02-Jul-05	< 0.00025	0.006	< 0.001	0.013	< 0.001	< 0.001	< 0.05	194	< 0.0002	0.025	0.004	< 0.001	0.001	0.12	< 0.00002	< 0.02	7	0.045	46.3	1.96	0.0014	26.9	0.007	< 0.001	< 0.15	< 0.001	< 0.001	6	< 0.001	0.62	< 0.001	< 0.0005	< 0.001	0.0006	0.0008	< 0.001	0.066	< 0.01
X5	10-Jul-05	< 0.00025	0.016	< 0.001	0.02	< 0.001	< 0.001	< 0.05	173	< 0.0002	0.0151	0.004	< 0.001	0.002	0.17	< 0.00002	< 0.02	6	0.028	40.1	2.47	0.0014	18.3	0.007	0.001	< 0.15	< 0.001	< 0.001	6.2	< 0.001	0.57	< 0.001	< 0.0005	< 0.001	0.0004	0.001	< 0.001	0.12	< 0.01
X5	17-Jul-05	< 0.00025	0.011	< 0.001	0.023	< 0.001	< 0.001	< 0.05	168	< 0.0002	0.0058	0.004	< 0.001	< 0.001	0.1	< 0.00002	< 0.02	6	0.027	39.6	2.74	0.0015	18.5	0.007	< 0.001	< 0.15	< 0.001	< 0.001	6.3	< 0.001	0.56	< 0.001	< 0.0005	< 0.001	0.0004	0.001	< 0.001	0.17	< 0.01
X5	24-Jul-05	< 0.00025	0.01	< 0.001	0.024	< 0.001	< 0.001	< 0.05	161	< 0.0002	0.0135	0.004	< 0.001	< 0.001	0.19	< 0.00002	< 0.02	5.8	0.03	39.1	2.87	0.0014	18.4	0.008	< 0.001	< 0.15	< 0.001	0.001	6.9	< 0.001	0.56	< 0.001	< 0.0005	< 0.001	0.0003	0.0012	< 0.001	0.15	< 0.01
X5	25-Jul-05	< 0.00025	0.009	< 0.001	0.017	< 0.001	< 0.001	< 0.05	176	< 0.0002	0.0129	0.004	< 0.001	0.001	0.11	< 0.00002	< 0.02	6.6	0.038	39	2.58	0.0016	20.3	0.007	0.001	< 0.15	< 0.001	< 0.001	5.4	< 0.001	0.6	< 0.001	< 0.0005	< 0.001	0.0004	0.001	< 0.001	0.15	< 0.01
X5	31-Jul-05	< 0.00025	0.016	< 0.001	0.023	< 0.001	< 0.001	< 0.05	158	< 0.0002	0.0275	0.004	< 0.001	0.001	0.14	< 0.00002	< 0.02	6.1	0.029	34.5	2.68	0.0014	18	0.007	0.001	< 0.15	< 0.001	< 0.001	6.9	< 0.001	0.54	< 0.001	< 0.0005	< 0.001	0.0003	0.0011	< 0.001	0.11	< 0.01
X5	06-Aug-05	0.001	0.012	0.001	0.023	< 0.001	< 0.001	< 0.05	190	0.0005	0.0082	0.008	< 0.001	0.002	0.19	< 0.00002	< 0.02	6.3	0.03	44	5.85	0.002	22.6	0.014	0.002	< 0.15	0.001	0.001	8	0.001	0.61	< 0.001	0.0006	< 0.001	0.0007	0.002	0.001	0.3	< 0.01
X5	13-Aug-05	< 0.00025	0.005	< 0.001	0.023	< 0.001	< 0.001	< 0.05	195	< 0.0002	< 0.005	0.008	< 0.001	0.001	0.2	< 0.00002	< 0.02	6.7	0.029	48.4	5.9	0.0016	24	0.014	0.002	< 0.15	< 0.001	< 0.001	8.2	< 0.001	0.64	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	0.28	< 0.01
X5	20-Aug-05	< 0.00025	0.007	0.001	0.021	< 0.001	< 0.001	< 0.05	188	< 0.0002	0.0051	0.007	< 0.001	< 0.001	0.16	< 0.00002	< 0.02	6.9	0.035	47.1	4.82	0.0017	22.1	0.011	0.003	< 0.15	< 0.001	0.001	6.3	< 0.001	0.6	< 0.001	< 0.0005	< 0.001	0.0003	0.0017	< 0.001	0.24	< 0.01
X5	23-Aug-05	< 0.00025	0.012	< 0.001	0.021	< 0.001	< 0.001	< 0.05	228	< 0.0002	< 0.005	0.008	< 0.001	0.001	0.28	< 0.00002	< 0.02	8.3	0.045	57.5	6.05	0.0021	28.8	0.013	0.003	< 0.15	< 0.001	0.001	7	< 0.001	0.76	< 0.001	< 0.0005	< 0.001	0.0004	0.0018	0.001	0.29	< 0.01
X5	27-Aug-05	< 0.00025	0.02	0.001	0.019	< 0.001	< 0.001	< 0.05	194	< 0.0002	< 0.005	0.008	< 0.001	0.001	0.24	< 0.00002	< 0.02	6.7	0.03	45.2	6.2	0.0016	22.9	0.014	0.003	< 0.15	< 0.001	0.003	6.1	< 0.001	0.63	< 0.001	< 0.0005	0.001	0.0003	0.0015	< 0.001	0.3	< 0.01
X5	05-Sep-05	< 0.00025	0.008	< 0.001	0.017	< 0.001	< 0.001	< 0.05	196	< 0.0002	< 0.005	0.006	< 0.001	0.001	0.54	< 0.00002	< 0.02	6.4	0.034	45.8	4.21	0.0021	21.9	0.011	0.004	< 0.15	< 0.001	< 0.001	6.5	< 0.001	0.64	< 0.001	< 0.0005	< 0.001	0.0004	0.0013	0.001	0.28	< 0.01
X5	06-Sep-05	< 0.00025	0.017	< 0.001	0.014	< 0.001	< 0.001	< 0.05	191	< 0.0002	0.0058	0.005	< 0.001	0.002	0.55	< 0.00002	< 0.02	6	0.033	44.4	3.54	0.0012	20.3	0.009	0.005	< 0.15	< 0.001	0.001	5.8	< 0.001	0.61	< 0.001	0.0006	< 0.001	0.0004	0.001	< 0.001	0.29	< 0.01
X5	11-Sep-05	< 0.00025	< 0.005	< 0.001	0.016	< 0.001	< 0.001	< 0.05	210	0.0003	< 0.005	0.005	< 0.001	0.001	0.17	< 0.00002	< 0.02	6.3	0.031	43.2	4.11	0.0015	22.9	0.009	0.004	< 0.15	< 0.001	< 0.001	5.9	< 0.001	0.69	< 0.001	< 0.0005	< 0.001	0.0004	0.001	< 0.001	0.24	< 0.01
X5	18-Sep-05	< 0.00025	< 0.005	< 0.001	0.013	< 0.001	< 0.001	< 0.05	224	< 0.0002	< 0.005	0.004	< 0.001	0.001	< 0.05	< 0.00002	< 0.02	6	0.032	36.5	3.02	0.0012	22.6	0.007	0.001	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.72	< 0.001	< 0.0005	0.002	0.0004	0.0008	< 0.001	0.099	< 0.01
X5	24-Sep-05	< 0.00025	0.021	< 0.001	0.015	< 0.001	< 0.001	< 0.05	213	< 0.0002	< 0.005	0.004	< 0.001	< 0.001	0.06	< 0.00002	< 0.02	5.8	0.026	36.4	3.38	0.001	24.2	0.009	< 0.001	< 0.15	< 0.001	< 0.001	5.5	0.009	0.7	< 0.001	< 0.0005	0.002	0.0004	0.0008	< 0.001	0.067	< 0.01
X5	01-Oct-05	< 0.00025	0.006	< 0.001	0.02	< 0.001	< 0.001	< 0.05	245	0.0004	< 0.005	0.009	< 0.001	0.001	0.31	< 0.00002	< 0.02	5.9	0.025	47	7.84	0.0012	29.3	0.018	0.004	< 0.15	< 0.001	< 0.001	8.1	0.002	0.77	< 0.001	< 0.0005	< 0.001	0.0004	0.0016	< 0.001	0.39	< 0.01
X5	09-May-06	< 0.00025	< 0.005	< 0.001	0.02	< 0.001	< 0.001	< 0.05	236	< 0.0002		0.009	< 0.001	0.001	0.09	< 0.00002	< 0.02	5	0.016	55.5	8.02	0.0007	29.1	0.019	< 0.001	< 0.15	< 0.001	< 0.001	5.9	< 0.001	0.87	< 0.001	< 0.0005	< 0.001	0.0004	0.0022	< 0.001	0.31	< 0.01
X5	23-May-06	< 0.00025	< 0.005	< 0.001	0.019	< 0.001	< 0.001	< 0.05	232	< 0.0002		0.009	< 0.001	< 0.001	0.06	< 0.00002	< 0.02	3.6	0.011	37.3	8.67	0.0006	21.1	0.017	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.66	< 0.001	< 0.0005	< 0.001	0.0002	0.0019	< 0.001	0.34	< 0.01
X5	30-May-06	< 0.00025	< 0.005	< 0.001	0.02	< 0.001	< 0.001	< 0.05	236	< 0.0002		0.01	< 0.001	< 0.001	0.08	< 0.00002	< 0.02	3.6	0.011	38.5	9.99	< 0.0005	21.7	0.019	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	0.0003	0.0022	< 0.001	0.27	< 0.01
X5	06-Jun-06	< 0.00025	< 0.005	< 0.001	0.022	< 0.001	< 0.001	< 0.05	183	< 0.0002		0.007	< 0.001	< 0.001	0.07	< 0.00002	< 0.02	3.6	0.011	31.3	6.07	0.0005	17.8	0.014	0.002	< 0.15	< 0.001	< 0.001	3	< 0.001	0.56	< 0.001	< 0.0005	< 0.001	0.0002	0.0015	< 0.001	0.26	< 0.01
X5	19-Jun-06	< 0.00025	0.014	< 0.001	0.019	< 0.001	< 0.001	< 0.05	208	< 0.0002		0.005	< 0.001	< 0.001	0.15	< 0.00002	< 0.02	4.8	0.019	34.3	4.18	0.0008	19.6	0.01	0.002	< 0.15	< 0.001	< 0.001	2.6	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	0.0003	0.001	< 0.001	0.16	< 0.01
X5	20-Jun-06	< 0.00025	0.01	< 0.001	0.018	< 0.001	< 0.001	< 0.05	234	< 0.0002	< 0.005	0.007	< 0.001	< 0.001	0.14	< 0.00002	< 0.02	5.2	0.02	40.8	6.3	0.0009	22.3	0.014	0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.72	< 0.001	< 0.0005	< 0.001	0.0003	0.0013	< 0.001	0.25	< 0.01
X5	11-Jul-06	< 0.00025	< 0.005	< 0.001	0.014	< 0.001	< 0.001	< 0.05	224	< 0.0002		0.004	< 0.001	0.001	0.13	< 0.00002	< 0.02	6.3	0.031	39.7	2.86	0.0012	21.4	0.008	< 0.001	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.72	< 0.001	< 0.0005	< 0.001	0.0004	0.0008	< 0.001	0.046	< 0.01
X5	17-Jul-06	< 0.00025	0.026	< 0.001	0.013	< 0.001	< 0.001	< 0.05	217	< 0.0002	< 0.005	0.005	< 0.001	0.002	0.13	< 0.00002	< 0.02	6.1	0.1	40.7	3.43	0.0013	22.1	0.009	0.001	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.73	< 0.001	< 0.0005	< 0.001	0.0004	0.0008	< 0.001	0.089	< 0.01
X5	18-Jul-06	< 0.00025	0.014	< 0.001	0.013	< 0.001	< 0.001	< 0.05	218	< 0.0002		0.004	< 0.001	< 0.001	0.13	< 0.00002	< 0.02	6.2	0.11	41.4	2.89	0.0013	22.2	0.008	< 0.001	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.72	< 0.001	< 0.0005	< 0.001	0.0004	0.0007	< 0.001	0.056	< 0.01
X5	25-Jul-06	< 0.00025	< 0.005	< 0.001	0.014	< 0.001	< 0.001	< 0.05	226	< 0.0002		0.004	< 0.001	< 0.001	0.08	< 0.00002	< 0.02	5.9	0.028	35.1	3.35	0.0011	20.9	0.009	< 0.001	< 0.15	< 0.001	< 0.001	2.6	< 0.001	0.75	< 0.001	< 0.0005	< 0.001	0.0005	0.0009	< 0.001	0.077	< 0.01
X5	01-Aug-06	< 0.00025	0.019	< 0.001	0.014	< 0.001	< 0.001	< 0.05	226	< 0.0002		0.003	< 0.001	< 0.001	0.1	< 0.00002	< 0.02	7.2	0.037	33.3	2.36	0.0011	22.8	0.005	< 0.001	< 0.15	< 0.001	< 0.001	2.5	< 0.001	0.86	< 0.001	< 0.0005	< 0.001	0.0005	0.0007	< 0.001	0.045	< 0.01
X5	15-Aug-06	< 0.00025	< 0.005	< 0.001	0.013	< 0.001	< 0.001	< 0.05	190	< 0.0002		0.005	< 0.001	< 0.001	0.14	< 0.00002	< 0.02	5.4	0.022	36.8	4.08	0.0012	20.5	0.01	< 0.001	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.69	< 0.001	< 0.0005	< 0.001	0.0003	0.0009	< 0.001	0.1	< 0.01
X5	21-Aug-06	< 0.00025	0.009	< 0.001	0.016	< 0.001	< 0.001	< 0.05	216	< 0.0002	< 0.005	0.005	< 0.001	0.001	0.17	< 0.00002	< 0.02	6.8	0.038	35.3	3.85	0.0016	22.7	0.011	0.001	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.71	< 0.001	< 0.0005	< 0.001	0.0004	0.001	< 0.001	0.15	< 0.01
X5	22-Aug-06	< 0.00025	0.013	< 0.001	0.016	< 0.001	< 0.001	< 0.05	215	< 0.0002		0.006	< 0.001	0.001	0.22	< 0.00002	< 0.02	6.5	0.033	39.2	4.96	0.0013	23	0.013	0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.68	< 0.001	< 0.0005	< 0.001	0.0003	0.0012	< 0.001	0.15	< 0.01
X5	29-Aug-06	< 0.00025	0.008	< 0.001	0.015	< 0.001	< 0.001	< 0.05	212	< 0.0002		0.006	< 0.001	< 0.001	0.19	< 0.00002	< 0.02	6.5	0.035	39.5	5.07	0.0014	22.9	0.012	0.001	< 0.15	< 0.001	< 0.001	3.1	< 0.001	0.67	< 0.001	< 0.0005	< 0.001	0.0003	0.0013	< 0.001	0.16	< 0.01
X5	05-Sep-06	< 0.00025	0.013	< 0.001	0.017	< 0.001	< 0.001	< 0.05	209	< 0.0002		0.007	< 0.001	< 0.001	0.27	< 0.00002	< 0.02	6.5	0.034	41.4	5.69	0.0014	22.9	0.012	0.002	< 0.15	< 0.001	< 0.001	3.3	< 0.001	0.69	< 0.001	< 0.0005	< 0.001	0.0003	0.0013	< 0.001	0.2	< 0.01
X5	10-Apr-07	< 0.00025	< 0.005	0.001	0.02	< 0.001	< 0.001	< 0.05	343	< 0.0002		0.025	< 0.001	0.001	0.38	< 0.00002	< 0.02	5.7	0.017	69.6	26.5	0.0029	32.9	0.051	< 0.001	< 0.15	< 0.001	0.002	7.7	< 0.001	0.87	< 0.001	< 0.0005	< 0.001	0.0001	0.0053	< 0.001	0.34	< 0.01
X5	14-May-07	< 0.00025	0.008	< 0.001	0.05	< 0.001	< 0.001	< 0.05	90.6	< 0.0002		< 0.001	< 0.001	0.001	0.2	< 0.00002	< 0.02	1.6	< 0.005	9.55	0.86	< 0.0005	5.48	0.002	0.002	< 0.15	< 0.001	< 0.001	1.4	< 0.001	0.27	< 0.001	< 0.0005	< 0.001	0.0002	0.0006	< 0.001	0.018	< 0.01
X5	22-May-07	< 0.00025	0.006	< 0.001	0.019	< 0.001	< 0.001	< 0.05	202	< 0.0002		0.005	< 0.001	< 0.001	0.14	< 0.00002	< 0.02	4.5	0.018	31	4.69	0.001	16.9	0.01	< 0.001	< 0.15	< 0.001	0.001	2.6	< 0.001	0.59	< 0.001	< 0.0005	< 0.001	0.0002	0.0013	< 0.001	0.14	< 0.01
X5	29-May-07	< 0.00025	0.015	< 0.001	0.019	< 0.001	< 0.001	< 0.05	184	< 0.0002		0.004	< 0.001	0.001	0.12	< 0.00002	< 0.02	4	0.015	29.7	3.85	0.001	16.6	0.009	< 0.001	< 0.15	< 0.001	0.001	2.9	< 0.001	0.55	< 0.001	< 0.0005	< 0.001	0.0002	0.0017	< 0.001	0.15	< 0.01
X5	05-Jun-07	< 0.00025	0.01	< 0.001	0.02	< 0.001	< 0.001	< 0.05	201	< 0.0002	< 0.005	0.005	< 0.001	0.001	0.14	< 0.00002	< 0.02	4.5	0.018	31.5	4.62	0.0009	17.7	0.011	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.6	< 0.001	< 0.0005	< 0.001	0.0002	0.0019	< 0.001	0.15	< 0.01
X5	12-Jun-07	< 0.00025	0.039	< 0.001	0.023	< 0.001	< 0.001	< 0.05	234	0.0003	< 0.005	0.006	< 0.001	0.002	0.18	< 0.00002	< 0.02	5.2	0.023	36.9	5.39	0.0015	23.9	0.015	0.002	< 0.15	< 0.001	0.001	3.5	< 0.001	0.7	< 0.001	< 0.0005	< 0.001	0.0004	0.0023	< 0.001	0.16	< 0.01
X5	18-Jun-07	< 0.00025	< 0.005	< 0.001	0.017	< 0.001	< 0.001	< 0.05	212	< 0.0002	< 0.005	0.005	< 0.001	< 0.001	0.2	< 0.00002	< 0.02	4.7	0.019	31.3	4.76	0.0009	18.4	0.01	< 0.001	< 0.15	< 0.001	0.001	2.7	< 0.001	0.61	< 0.001	< 0.0005	< 0.001	0.0003	0.0017	< 0.001	0.12	< 0.01
X5	19-Jun-07	< 0.00025	0.005	< 0.001	0.018	< 0.001	< 0.001	< 0.05	217	< 0.0002	< 0.005	0.006	< 0.001	0.001	0.2	< 0.00002	< 0.02	4.9	0.019	33.4	5.44	0.001	19.5	0.013	< 0.001	< 0.15	< 0.001	< 0.001	2.8	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	0.0003	0.0019	< 0.001	0.13	< 0.01
X5	26-Jun-07	< 0.00025	0.011	< 0.001	0.018	< 0.001	< 0.001	< 0.05	221	< 0.0002	0.0052	0.005	< 0.001	< 0.001	0.37	< 0.00002	< 0.02	5.2	0.022	32.8	4.76	0.0011	18.2	0.011	< 0.001	< 0.15	< 0.001	0.001	2.9	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	0.0002	0.0017	< 0.001	0.11	< 0.01
X5	03-Jul-07	< 0.00025	0.009	< 0.001	0.019	< 0.001	< 0.001	< 0.05	207	< 0.0002	< 0.005	0.005	< 0.001	0.001	0.13	< 0.00002	< 0.02	5.2	0.023	31.8	4.35	0.0011	18.1	0.011	< 0.001	< 0.15	< 0.001	0.001	2.5	< 0.001	0.66	< 0.001	< 0.0005	< 0.001	0.0003	0.0016	< 0.001	0.1	< 0.01
X5	10-Jul-07	< 0.00025	0.006	< 0.001	0.018	< 0.001	< 0.001	< 0.05	214	< 0.0002	< 0.005	0.006	< 0.001	< 0.001	0.13	< 0.00002	< 0.02	5.2	0.024	31.5	4.69	0.001	18.3	0.012	< 0.001	< 0.15	< 0.001	< 0.001	2.8	< 0.001	0.67	< 0.001	< 0.0005	< 0.001	0.0003	0.0017	< 0.001	0.092	< 0.01
X5	16-Jul-07	< 0.00025	0.007	< 0.001	0.018	< 0.001	< 0.001	< 0.05	221	< 0.0002	0.0071	0.005	< 0.001	< 0.001	0.22	< 0.00002	< 0.02	6.3	0.032	38.8	4.24	0.0012	22.1	0.012	< 0.001	< 0.15	< 0.001	< 0.001	3.1	< 0.001	0.69	< 0.001	< 0.0005	< 0.001	0.0003	0.0015	0.001	0.11	< 0.01
X5	17-Jul-07	< 0.00025	0.009	< 0.001	0.018	< 0.001	< 0.001	< 0.05	215	< 0.0002	0.006	0.005	< 0.001	< 0.001	0.25	< 0.00002	< 0.02	5.9	0.029	35.5	4.43	0.0013	19.8	0.011	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.73	< 0.001	< 0.0005	< 0.001	0.0003	0.0015	0.001	0.086	< 0.01
X5	24-Jul-07	< 0.00025	0.005	< 0.001	0.017	< 0.001	< 0.001	< 0.05	239	< 0.0002	< 0.005	0.006	< 0.001	< 0.001	0.22	< 0.00002	< 0.02	7	0.035	38.6	4.83	0.0013	21.8	0.013	0.002	< 0.15	< 0.001	0.002	2.8	< 0.001	0.7	< 0.001	< 0.0005	< 0.001	0.0003	0.0014	0.001	0.091	< 0.01
X5	31-Jul-07	< 0.00025	< 0.005	< 0.001	0.016	< 0.001	< 0.001	< 0.05	213	< 0.0002	< 0.005	0.005	< 0.001	< 0.001	0.17	< 0.00002	< 0.02	6.7	0.034	38.1	4.19	0.0013	20.6	0.011	< 0.001	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.71	< 0.001	< 0.0005	< 0.001	0.0004	0.0015	0.001	0.071	< 0.01
X5	07-Aug-07	< 0.00025	< 0.005	< 0.001	0.018	< 0.001	< 0.001	< 0.05	211	< 0.0002	< 0.005	0.007	< 0.001	0.001	0.21	< 0.00002	< 0.02	6	0.03	38.6	5.4	0.0015	20.2	0.015	< 0.001	< 0.15	< 0.001	0.001	3.2	< 0.001	0.73	< 0.001	< 0.0005	< 0.001	0.0004	0.0018	0.001	0.095	< 0.01
X5	13-Aug-07	< 0.00025	0.008	< 0.001	0.016	< 0.001	< 0.001	< 0.05	223	< 0.0002	0.0058	0.006	< 0.001	0.001	0.3	< 0.00002	< 0.02	7	0.036	41.7	5.05	0.0013	21.6	0.013	< 0.001	< 0.15	< 0.001	< 0.001	2.6	< 0.001	0.67	< 0.001	< 0.0005	< 0.001	0.0003	0.0015	0.002	0.098	< 0.01
X5	14-Aug-07	< 0.00025	0.016	< 0.001	0.018	< 0.001	< 0.001	< 0.05	225	< 0.0002	0.0084	0.009	< 0.001	0.001	0.26	< 0.00002	< 0.02	6.4	0.031	45	6.73	0.0016	22.6	0.017	< 0.001	< 0.15	< 0.001	< 0.001	3.3	< 0.001	0.72	< 0.001	< 0.0005	< 0.001	0.0003	0.002	0.001	0.12	< 0.01
X5	21-Aug-07	< 0.00025	0.013	< 0.001	0.02	< 0.001	< 0.001	< 0.05	191	0.0002	< 0.005	0.007	< 0.001	0.001	0.27	< 0.00002	< 0.02	5.8	0.032	38.7	5.83	0.0014	20.8	0.013	< 0.001	< 0.15	< 0.001	< 0.001	2.4	< 0.001	0.75	< 0.001	< 0.0005	< 0.001	0.0004	0.0021	0.001	0.1	< 0.01
X5	28-Aug-07	< 0.00025	< 0.005	< 0.001	0.017	< 0.001	< 0.001	< 0.05	215	< 0.0002	< 0.005	0.007	< 0.001	0.003	0.23	< 0.00002	< 0.02	6.4	0.032	42.7	6.22	0.0015	21	0.016	0.001	< 0.15	< 0.001	0.001	2.8	< 0.001	0.69	< 0.001	< 0.0005	< 0.001	0.0003	0.0019	0.001	0.11	< 0.01
X5	04-Sep-07	< 0.00025	< 0.005	< 0.001	0.018	< 0.001	< 0.001	< 0.05	210	< 0.0002	< 0.005	0.007	< 0.001	0.001	0.29	< 0.00002	< 0.02	6.5	< 1	44	6.39	0.0019	20.9	0.016	0.001	< 0.15	< 0.001	0.001	2.9	< 0.001	0.79	< 0.001	< 0.0005	< 0.001	0.0003	0.0017	0.002	0.13	< 0.01
X5	10-Sep-07	< 0.00025	< 0.005	< 0.001	0.018	< 0.001	< 0.001	< 0.05	221	< 0.0002	0.0059	0.009	< 0.001	0.001	0.32	< 0.00002	< 0.02	6.6	0.032	49	7.75	0.0015	22.6	0.019	0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.66	< 0.001	< 0.0005	< 0.001	0.0003	0.002	0.002	0.17	< 0.01
X5	11-Sep-07	< 0.00025	0.015	< 0.001	0.016	< 0.001	< 0.001	< 0.05	227	< 0.0002	0.0063	0.008	< 0.001	0.001	0.39	< 0.00002	< 0.02	7.3	0.033	52.8	7.27	0.0017	23.9	0.017	0.001	< 0.15	< 0.001	0.001	3.2	< 0.001	0.75	< 0.001	< 0.0005	< 0.001	0.0003	0.0016	0.002	0.16	< 0.01

Table 5. Mine Runoff and Effluent Total Metals

Station	Date	AG-T mg/L	AL-T mg/L	AS-T mg/L	BA-T mg/L	BE-T mg/L	BI-T mg/L	B-T mg/L	CA-T mg/L	CD-T mg/L	CN-T mg/L	CO-T mg/L	CR-T mg/L	CU-T mg/L	FE-T mg/L	HG-T mg/L	HG-T µg/L	K-T mg/L	LI-T mg/L	MG-T mg/L	MN-T mg/L	MO-T mg/L	NA-T mg/L	NI-T mg/L	PB-T mg/L	P-T mg/L	SB-T mg/L	SE-T mg/L	SI-T mg/L	SN-T mg/L	SR-T mg/L	TE-T mg/L	TH-T mg/L	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
Benchmark		**0.0001**	**0.1**	**0.005**	**1**	**1.1**	**0.26**			**0.00003**			**0.001**	**0.002**	**0.3**		**0.026**	**53**		**82**	**1**	**0.073**	**200**	**0.065**	**0.002**	**0.03**	**0.02**	**0.001**		**0.35**	**9.3**			**1.83**	**0.0008**	**0.005**	**0.006**	**0.03**	**0.004**
X5	17-Sep-07	< 0.00025	< 0.005	< 0.001	0.019	< 0.001	< 0.001	< 0.05	223	< 0.0002	< 0.005	0.01	< 0.001	0.001	0.36	< 0.00002	< 0.02	6.3	0.029	50.2	9.46	0.0016	23.4	0.023	0.002	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.69	< 0.001	< 0.0005	< 0.001	0.0003	0.0026	0.001	0.17	< 0.01
X5	23-Oct-07	< 0.00025	0.033	< 0.001	0.023	< 0.001	< 0.001	< 0.05	282	< 0.0002	0.0069	0.017	< 0.001	0.002	0.56	< 0.00002	< 0.02	6.2	0.024	65.3	15.4	0.0022	30.1	0.038	0.003	< 0.15	< 0.001	0.001	5.3	< 0.001	0.85	< 0.001	< 0.0005	< 0.001	0.0002	0.0036	< 0.001	0.22	< 0.01
X5	29-Oct-07	0.0007	0.017	< 0.001	0.021	< 0.001	< 0.001	< 0.05	257	< 0.0002	< 0.005	0.016	< 0.001	0.002	0.62	< 0.00002	< 0.02	5.9	0.022	62.1	15.4	0.0023	28.5	0.037	0.003	< 0.15	< 0.001	0.001	5.1	< 0.001	0.77	< 0.001	< 0.0005	< 0.001	0.0001	0.003	< 0.001	0.2	< 0.01
	N	66	66	66	66	66	66	66	66	66	51	66	66	66	66	66	66	66	66	66	66	66	66	66	66	65	66	66	66	66	66	66	66	66	66	66	66	66	66
	median	0.000125	0.0085	0.0005	0.018	0.0005	0.0005	0.025	213.5	0.0001	0.0025	0.006	0.0005	0.001	0.19	0.00001	0.01	6	0.029	39.75	4.79	0.0013	21.75	0.012	0.0005	0.075	0.0005	0.0005	3.3	0.0005	0.685	0.0005	0.00025	0.0005	0.0003	0.0015	0.0005	0.15	0.005
	mean	0.00016	0.01	0.001	0.019	0.001	0.001	0.025	215.9	0.0001	0.007	0.007	0.001	0.001	0.238	0.00001	0.01	5.905	0.036	42.4	6.029	0.001	22.677	0.014	0.001	0.075	0.001	0.001	4.9	0.001	0.686	0.001	0	0.001	0	0.002	0.001	0.176	0.005
	std	0.00017	0.007	0	0.006	0	0	0	39.2	0.0001	0.009	0.005	0	0.001	0.183	0	0	1.139	0.06	11.8	4.502	0.001	6.307	0.009	0.001	0	0	0	3.4	0.001	0.109	0	0	0	0	0.001	0	0.098	0
	minimum	< 0.00025	< 0.005	< 0.001	0.013	< 0.001	< 0.001	< 0.05	90.6	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.6	< 0.005	9.55	0.86	< 0.0005	5.48	0.002	< 0.001	< 0.15	< 0.001	< 0.001	1.4	< 0.001	0.27	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	0.018	< 0.01
	maximum	0.001	0.039	0.001	0.05	< 0.001	< 0.001	< 0.05	361	0.0005	0.0525	0.026	< 0.001	0.005	1.02	< 0.00002	< 0.02	8.7	< 1	86.2	26.5	0.0044	49.8	0.051	0.005	< 0.15	0.001	0.003	20.5	0.009	1.03	< 0.001	0.0006	0.002	0.0007	0.0055	0.002	0.47	< 0.01
	# < DL	63	19	62	0	66	66	66	0	60	28	1	66	24	1	66	66	0	2	0	0	2	0	0	34	65	65	45	0	63	0	66	64	60	3	0	50	0	66
	% < DL	95%	29%	94%	0%	100%	100%	100%	0%	91%	55%	2%	100%	36%	2%	100%	100%	0%	3%	0%	0%	3%	0%	0%	52%	100%	98%	68%	0%	95%	0%	100%	97%	91%	5%	0%	76%	0%	100%
	# > BM	66	0	0	0	0	0			66	51		0	2	13		0	0		1	65	0	0	0	9	65	0	3		0	0			0	0	3	0	65	66
	% > BM	100%	0%	0%	0%	0%	0%			100%	100%		0%	3%	20%		0%	0%		2%	98%	0%	0%	0%	14%	100%	0%	5%		0%	0%			0%	0%	5%	0%	98%	100%
	# < DL (DL>BM)	63	0	0	0	0	0			60	28		0	0	0		0	0		0	0	0	0	0	0	65	0	0		0	0			0	0	0	0	0	66
	% < DL (DL>BM)	95%	0%	0%	0%	0%	0%			91%	55%		0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0.005	0.001		0.001	0.001	0.05		0.0002	0.005	0.001	0.001	0.001	0.05	0.00002	0.02		1			0.0005			0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001		0.01
	95th percentile	0.000125	0.02075	0.00088	0.0255	0.0005	0.0005	0.025	289.5	0.0003	0.0259	0.0185	0.0005	0.002	0.605	0.00001	0.01	7.275	0.045	64.5	16.15	0.00218	32.2	0.03775	0.00375	0.075	0.0005	0.001	8.175	0.0005	0.87	0.0005	0.00025	0.00175	0.0005	0.00428	0.00175	0.34	0.005
	5th percentile	0.000125	0.0025	0.0005	0.013	0.0005	0.0005	0.025	169.25	0.0001	0.0025	0.004	0.0005	0.0005	0.0725	0.00001	0.01	3.7	0.01175	31.3	2.3825	0.00063	17.725	0.007	0.0005	0.075	0.0005	0.0005	2.525	0.0005	0.56	0.0005	0.00025	0.0005	0.0001	0.0008	0.0005	0.0585	0.005
X7	23-Jun-05	< 0.00025	0.78	0.009	0.011	< 0.001	< 0.001	< 0.05	439	0.0039		0.46	< 0.001	0.002	1460	< 0.00002	< 0.02	9.4	0.083	564	56.7	< 0.0005	62.6	0.59	0.019	< 0.15	< 0.001	0.004	34.5	< 0.001	2.43	< 0.001	< 0.0005	0.001	0.0003	0.0043	0.001	342	< 0.01
X7	20-Sep-05	< 0.00025	1	0.009	0.012	< 0.001	< 0.001	< 0.05	432	0.0042		0.51	0.002	0.004	1850	< 0.00002	< 0.02	10.3	0.098	530	64.3	< 0.0005	114	0.58	0.02	< 0.15	< 0.001	0.007	34.1	0.001	3.68	< 0.001	< 0.0005	0.001	0.0003	0.0047	0.002	472	< 0.01
X7	07-Jun-06	< 0.00025	0.85	0.009	0.01	< 0.001	< 0.001	< 0.05	401	0.0046		0.6	< 0.001	0.002	1300	< 0.00002	< 0.02	9.7	0.28	583	64.3	< 0.0005	55.3	0.68	0.011	< 0.15	< 0.001	0.005	16.9	< 0.001	3.53	< 0.001	< 0.0005	< 0.001	0.0002	0.0035	0.001	348	< 0.01
X7	18-Sep-06	0.0005	0.92	0.01	0.023	< 0.001	< 0.001	< 0.05	376	0.008		0.54	< 0.001	0.002	1270	< 0.00002	< 0.02	9.3	0.089	562	61.3	0.0036	61.9	0.64	0.039	< 0.15	< 0.001	0.005	16.3	< 0.001	3.91	< 0.001	< 0.0005	0.002	0.0002	0.0034	0.002	365	< 0.01
X7	11-Jun-07	0.0006	0.75	0.01	0.031	< 0.001	< 0.001	< 0.05	368	0.0081		0.47	< 0.001	0.004	982	< 0.00002	< 0.02	9	0.092	645	69	0.0054	58.1	0.61	0.031	< 0.15	< 0.001	0.004	13	< 0.001	3.59	< 0.001	< 0.0005	0.006	0.0002	0.0033	0.001	335	< 0.01
X7	02-Oct-07	0.0008	0.87	0.01	0.012	< 0.001	< 0.001	< 0.05	381	0.011		0.64	< 0.001	0.005	1350	< 0.00002	< 0.02	10.4	0.11	584	70.1	0.0068	64.1	0.77	0.017	< 0.15	< 0.001	0.005	16.8	< 0.001	3.79	< 0.001	< 0.0005	0.001	0.0001	0.0036	0.001	398	< 0.01
	N	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.0003125	0.86	0.0095	0.012	0.0005	0.0005	0.025	391	0.0063		0.525	0.0005	0.003	1325	0.00001	0.01	9.55	0.095	573.5	64.3	0.00193	62.25	0.625	0.0195	0.075	0.0005	0.005	16.85	0.0005	3.635	0.0005	0.00025	0.001	0.0002	0.00355	0.001	356.5	0.005
	mean	0.00038	0.8617	0.0095	0.0165	0.0005	0.0005	0.025	399.5	0.01		0.54	0.001	0.003	1368.67	0.00001	0.01	9.68	0.13	578	64.28	0.0028	69.33	0.65	0.023	0.08	0.001	0.01	21.93	0	3.49	0.0005	0.0003	0.0019	0.0002	0.0038	0.0013	376.7	0.01
	std	0.00029	0.0915	0.0005	0.0085	0	0	0	30	0		0.07	0.001	0.001	284.37	0	0	0.56	0.08	38.23	4.95	0.0029	22.12	0.07	0.01	0	0	0	9.69	0	0.54	0	0	0.0021	0.0001	0.0006	0.0005	51.8	0
	minimum	< 0.00025	0.75	0.009	0.01	< 0.001	< 0.001	< 0.05	368	0.0039		0.46	< 0.001	0.002	982	< 0.00002	< 0.02	9	0.083	530	56.7	< 0.0005	55.3	0.58	0.011	< 0.15	< 0.001	0.004	13	< 0.001	2.43	< 0.001	< 0.0005	< 0.001	0.0001	0.0033	0.001	335	< 0.01
	maximum	0.0008	1	0.01	0.031	< 0.001	< 0.001	< 0.05	439	0.011		0.64	0.002	0.005	1850	< 0.00002	< 0.02	10.4	0.28	645	70.1	0.0068	114	0.77	0.039	< 0.15	< 0.001	0.007	34.5	0.001	3.91	< 0.001	< 0.0005	0.006	0.0003	0.0047	0.002	472	< 0.01
	# < DL	3	0	0	0	6	6	6	0	0		0	5	0	0	6	6	0	0	0	0	3	0	0	0	6	6	0	0	5	0	6	6	1	0	0	0	0	6
	% < DL	50%	0%	0%	0%	100%	100%	100%	0%	0%		0%	83%	0%	0%	100%	100%	0%	0%	0%	0%	50%	0%	0%	0%	100%	100%	0%	0%	83%	0%	100%	100%	17%	0%	0%	0%	0%	100%
	# > BM	6	6	6	0	0	0			6			1	3	6		0	0		6	6	0	0	6	6	6	0	6		0	0			0	0	0	0	6	6
	% > BM	100%	100%	100%	0%	0%	0%			100%			17%	50%	100%		0%	0%		100%	100%	0%	0%	100%	100%	100%	0%	100%		0%	0%			0%	0%	0%	0%	100%	100%
	# < DL (DL>BM)	3	0	0	0	0	0			0			0	0	0		0	0		0	0	0	0	0	0	6	0	0		0	0			0	0	0	0	0	6
	% < DL (DL>BM)	50%	0%	0%	0%	0%	0%			0%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025				0.001	0.001	0.05					0.001			0.00002	0.02					0.0005				0.15	0.001			0.001		0.001	0.0005	0.001					0.01
	95th percentile	0.00075	0.98	0.01	0.029	0.0005	0.0005	0.025	437.25	0.01028		0.63	0.00163	0.00475	1752.5	0.00001	0.01	10.375	0.2375	629.75	69.825	0.00645	101.525	0.7475	0.037	0.075	0.0005	0.0065	34.4	0.00088	3.88	0.0005	0.00025	0.005	0.0003	0.0046	0.002	453.5	0.005
	5th percentile	0.000125	0.7575	0.009	0.01025	0.0005	0.0005	0.025	370	0.00398		0.4625	0.0005	0.002	1054	0.00001	0.01	9.075	0.0845	538	57.85	0.00025	56	0.5825	0.0125	0.075	0.0005	0.004	13.825	0.0005	2.705	0.0005	0.00025	0.00063	0.00013	0.00333	0.001	336.75	0.005
X10	21-Jan-05	< 0.00025	0.011	< 0.001	0.078	< 0.001	< 0.001	< 0.05	52.2	< 0.0002		< 0.001	< 0.001	< 0.001	0.26	< 0.00002	< 0.02	1.3	0.006	11.6	0.061	0.0005	3.28	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12.1	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0024	< 0.001	0.039	< 0.01
X10	08-Feb-05	< 0.00025	0.005	< 0.001	0.068	< 0.001	< 0.001	< 0.05	46	< 0.0002		< 0.001	< 0.001	< 0.001	0.17	< 0.00002	< 0.02	1.1	0.006	10.7	0.047	0.0005	3.19	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	0.038	< 0.01
X10	14-Mar-05	< 0.00025	< 0.005	< 0.001	0.077	< 0.001	< 0.001	< 0.05	53.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.3	< 0.00002	< 0.02	1.4	0.006	11.2	0.027	0.001	4.09	0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.8	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0028	< 0.001	0.039	< 0.01
X10	11-Apr-05	< 0.00025	0.007	< 0.001	0.067	< 0.001	< 0.001	< 0.05	46.5	< 0.0002		< 0.001	< 0.001	0.001	0.16	< 0.00002	< 0.02	1.1	0.006	10.6	0.015	0.0007	3.42	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12.5	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0025	< 0.001	0.023	< 0.01
X10	09-May-05	< 0.00025	0.25	0.001	0.031	< 0.001	< 0.001	< 0.05	11.7	< 0.0002		< 0.001	< 0.001	0.002	0.81	< 0.00002	< 0.02	1.2	0.001	2.55	0.086	< 0.0005	0.84	0.001	0.005	< 0.15	< 0.001	< 0.001	4.9	0.001	0.05	< 0.001	< 0.0005	0.008	< 0.0001	< 0.0005	< 0.001	0.024	< 0.01
X10	21-Jun-05	< 0.00025	0.041	< 0.001	0.039	< 0.001	< 0.001	< 0.05	22	< 0.0002		< 0.001	< 0.001	< 0.001	0.26	< 0.00002	< 0.02	0.5	0.002	5.19	0.033	< 0.0005	1.63	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	8.7	< 0.001	0.092	< 0.001	< 0.0005	0.001	< 0.0001	0.0008	< 0.001	0.014	< 0.01
X10	25-Jul-05	< 0.00025	0.027	< 0.001	0.047	< 0.001	< 0.001	< 0.05	26.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.16	< 0.00002	< 0.02	0.6	0.003	6.3	0.037	< 0.0005	1.8	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.2	< 0.001	0.12	< 0.001	< 0.0005	0.001	< 0.0001	0.001	< 0.001	0.022	< 0.01
X10	23-Aug-05	0.0023	0.019	< 0.001	0.054	< 0.001	< 0.001	< 0.05	36.7	< 0.0002		< 0.001	< 0.001	< 0.001	0.27	< 0.00002	< 0.02	0.8	0.004	8.81	0.05	< 0.0005	2.55	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.1	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.026	< 0.01
X10	06-Sep-05	< 0.00025	0.021	< 0.001	0.042	< 0.001	< 0.001	< 0.05	27.9	< 0.0002		< 0.001	< 0.001	< 0.001	0.35	< 0.00002	< 0.02	0.7	0.003	6.76	0.041	0.0007	2.02	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.2	0.001	0.12	< 0.001	0.0025	< 0.001	< 0.0001	0.0016	< 0.001	0.021	< 0.01
X10	11-Oct-05	< 0.00025	< 0.005	< 0.001	0.05	< 0.001	< 0.001	< 0.05	33.1	< 0.0002		< 0.001	< 0.001	< 0.001	0.25	< 0.00002	< 0.02	0.8	0.003	8.25	0.06	0.0005	2.08	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.035	< 0.01
X10	02-Nov-05	< 0.00025	0.016	< 0.001	0.061	< 0.001	< 0.001	< 0.05	38.9	< 0.0002		< 0.001	< 0.001	< 0.001	0.24	< 0.00002	< 0.02	0.9	0.004	9.32	0.084	< 0.0005	2.1	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.4	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.047	< 0.01
X10	15-Dec-05	< 0.00025	0.006	< 0.001	0.069	< 0.001	< 0.001	< 0.05	45.2	< 0.0002		< 0.001	< 0.001	< 0.001	0.19	< 0.00002	< 0.02	1.1	0.006	10.5	0.072	0.0005	3	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.7	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0019	< 0.001	0.062	< 0.01
X10	23-Jan-06	< 0.00025	0.006	< 0.001	0.072	< 0.001	< 0.001	< 0.05	50.3	< 0.0002		< 0.001	< 0.001	< 0.001	0.2	< 0.00002	< 0.02	1.1	0.007	12.6	0.055	0.0006	3.32	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	6.1	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	0.083	< 0.01
X10	14-Feb-06	< 0.00025	0.018	< 0.001	0.076	< 0.001	< 0.001	< 0.05	48.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.1	< 0.00002	< 0.02	1.3	0.007	12.5	0.053	0.0006	3.57	< 0.001	< 0.001	< 0.15	< 0.001	0.001	6	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	0.055	< 0.01
X10	24-Mar-06	< 0.00025	< 0.005	< 0.001	0.083	< 0.001	< 0.001	< 0.05	54.1	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.4	0.009	14.7	0.027	0.0008	3.76	0.001	< 0.001	< 0.15	< 0.001	< 0.001	6.2	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0027	< 0.001	0.067	< 0.01
X10	25-Apr-06	< 0.00025	< 0.005	< 0.001	0.07	< 0.001	< 0.001	< 0.05	46.9	< 0.0002		< 0.001	< 0.001	< 0.001	0.06	< 0.00002	< 0.02	1.3	0.007	12.2	0.021	0.0007	3.27	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.3	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	0.063	< 0.01
X10	18-May-06	< 0.00025	0.13	< 0.001	0.029	< 0.001	< 0.001	< 0.05	12.7	< 0.0002		< 0.001	< 0.001	0.003	0.54	< 0.00002	< 0.02	1.6	0.001	2.77	0.065	< 0.0005	0.92	0.002	0.003	< 0.15	< 0.001	< 0.001	2.5	< 0.001	0.052	< 0.001	< 0.0005	0.003	< 0.0001	< 0.0005	< 0.001	0.03	< 0.01
X10	19-Jun-06	< 0.00025	0.05	< 0.001	0.032	< 0.001	< 0.001	< 0.05	17.4	< 0.0002		< 0.001	< 0.001	0.001	0.2	< 0.00002	< 0.02	0.6	0.001	3.97	0.019	< 0.0005	1.37	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.07	< 0.001	< 0.0005	0.002	< 0.0001	0.0007	< 0.001	0.011	< 0.01
X10	17-Jul-06	< 0.00025	0.066	< 0.001	0.041	< 0.001	< 0.001	< 0.05	25.9	< 0.0002		< 0.001	< 0.001	0.001	0.27	< 0.00002	< 0.02	0.6	0.008	6.57	0.03	< 0.0005	1.85	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.099	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.019	< 0.01
X10	21-Aug-06	< 0.00025	0.018	< 0.001	0.043	< 0.001	< 0.001	< 0.05	26.8	< 0.0002		< 0.001	< 0.001	0.001	0.28	< 0.00002	< 0.02	0.7	0.003	6.25	0.03	< 0.0005	2.05	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.019	< 0.01
X10	12-Sep-06	< 0.00025	0.014	< 0.001	0.041	< 0.001	< 0.001	< 0.05	25.7	< 0.0002		< 0.001	< 0.001	< 0.001	0.12	< 0.00002	< 0.02	0.5	0.002	5.97	0.029	< 0.0005	1.89	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.018	< 0.01
X10	17-Oct-06	< 0.00025	0.01	< 0.001	0.053	< 0.001	< 0.001	< 0.05	34.9	< 0.0002		< 0.001	< 0.001	< 0.001	0.35	< 0.00002	< 0.02	0.9	0.004	8.46	0.061	< 0.0005	2.55	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	0.032	< 0.01
X10	14-Nov-06	< 0.00025	0.009	< 0.001	0.069	< 0.001	< 0.001	< 0.05	42.8	< 0.0002		< 0.001	< 0.001	< 0.001	0.22	< 0.00002	< 0.02	1.1	0.004	10.1	0.083	< 0.0005	2.94	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	0.066	< 0.01
X10	13-Dec-06	< 0.00025	0.005	< 0.001	0.11	< 0.001	< 0.001	< 0.05	62.6	< 0.0002		< 0.001	< 0.001	< 0.001	0.23	< 0.00002	< 0.02	1.8	0.007	13.4	0.089	0.0006	3.9	0.001	0.002	< 0.15	< 0.001	< 0.001	7.2	< 0.001	0.26	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0038	< 0.001	0.1	< 0.01
X10	16-Jan-07	< 0.00025	0.019	< 0.001	0.074	< 0.001	< 0.001	< 0.05	48.8	< 0.0002		< 0.001	< 0.001	0.001	0.13	< 0.00002	< 0.02	1.2	0.007	12	0.037	0.0006	3.17	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.21	< 0.001	< 0.0005	0.001	< 0.0001	0.0022	< 0.001	0.071	< 0.01
X10	15-Feb-07	< 0.00025	< 0.005	< 0.001	0.073	< 0.001	< 0.001	< 0.05	50.3	< 0.0002		< 0.001	< 0.001	< 0.001	0.1	< 0.00002	< 0.02	1.2	0.006	12.2	0.011	0.0008	2.96	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.036	< 0.01
X10	12-Mar-07	< 0.00025	0.007	< 0.001	0.08	< 0.001	< 0.001	< 0.05	50.4	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.3	0.006	12.7	0.009	0.0008	2.99	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0024	< 0.001	0.03	< 0.01
X10	19-Apr-07	< 0.00025	0.006	< 0.001	0.076	< 0.001	< 0.001	< 0.05	49.3	< 0.0002		< 0.001	< 0.001	< 0.001	0.18	< 0.00002	< 0.02	1.5	0.006	11.3	0.043	0.0007	3.3	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0024	< 0.001	0.083	< 0.01
X10	15-May-07	< 0.00025	0.15	< 0.001	0.037	< 0.001	< 0.001	< 0.05	18.7	< 0.0002		< 0.001	< 0.001	0.002	0.67	< 0.00002	< 0.02	1.4	< 0.005	4.36	0.088	< 0.0005	1.4	0.002	0.003	< 0.15	< 0.001	< 0.001	3.6	< 0.001	0.085	< 0.001	< 0.0005	0.005	< 0.0001	0.0008	< 0.001	0.04	< 0.01
X10	19-Jun-07	< 0.00025	0.043	< 0.001	0.035	< 0.001	< 0.001	< 0.05	19.5	< 0.0002		< 0.001	< 0.001	0.001	0.2	< 0.00002	< 0.02	0.7	< 0.005	5.05	0.019	< 0.0005	1.55	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.1	< 0.001	0.078	< 0.001	< 0.0005	0.001	< 0.0001	0.0008	< 0.001	0.016	< 0.01
X10	16-Jul-07	< 0.00025	0.083	< 0.001	0.041	< 0.001	< 0.001	< 0.05	19.3	< 0.0002		< 0.001	< 0.001	0.001	0.28	< 0.00002	< 0.02	0.6	< 0.005	5.03	0.027	< 0.0005	1.8	< 0.001	0.003	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.083	< 0.001	< 0.0005	0.004	< 0.0001	0.0006	< 0.001	0.018	< 0.01
X10	13-Aug-07	< 0.00025	0.011	< 0.001	0.049	< 0.001	< 0.001	< 0.05	31.2	< 0.0002		< 0.001	< 0.001	< 0.001	0.29	< 0.00002	< 0.02	0.8	< 0.005	7.5	0.038	< 0.0005	2.22	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.023	< 0.01
X10	10-Sep-07	< 0.00025	0.008	< 0.001	0.048	< 0.001	< 0.001	< 0.05	25.2	< 0.0002		< 0.001	< 0.001	< 0.001	0.24	< 0.00002	< 0.02	0.6	0.002	5.98	0.031	< 0.0005	1.94	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.097	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.024	< 0.01
X10	23-Oct-07	< 0.00025	0.009	< 0.001	0.055	< 0.001	< 0.001	< 0.05	34.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.3	< 0.00002	< 0.02	0.9	0.003	8.54	0.065	< 0.0005	2.48	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.036	< 0.01
X10	14-Nov-07	< 0.00025	0.03	< 0.001	0.057	< 0.001	< 0.001	< 0.05	35.8	< 0.0002		< 0.001	< 0.001	< 0.001	0.16	< 0.00002	< 0.02	0.9	0.004	8.65	0.057	< 0.0005	2.55	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.1	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.055	< 0.01
X10	10-Dec-07	< 0.00025	0.013	< 0.001	0.061	< 0.001	< 0.001	< 0.05	39.3	< 0.0002		< 0.001	< 0.001	< 0.001	0.19	< 0.00002	< 0.02	1	0.004	8.79	0.054	< 0.0005	2.37	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	0.065	< 0.01
	N	36	36	36	36	36	36	36	36	36	0	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	median	0.000125	0.012	0.0005	0.056	0.0005	0.0005	0.025	36.25	0.0001		0.0005	0.0005	0.0005	0.225	0.00001		1.05	0.004	8.72	0.042	0.00025	2.515	0.0005	0.0005	0.075	0.0005	0.0005	5.2	0.0005	0.15	0.0005	0.00025	0.0005	0.00005	0.00155	0.0005	0.0355	0.005

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 5. Mine Runoff and Effluent Total Metals

Station	Date	AG-T mg/L	AL-T mg/L	AS-T mg/L	BA-T mg/L	BE-T mg/L	BI-T mg/L	B-T mg/L	CA-T mg/L	CD-T mg/L	CN-T mg/L	CO-T mg/L	CR-T mg/L	CU-T mg/L	FE-T mg/L	HG-T mg/L	HG-T µg/L	K-T mg/L	LI-T mg/L	MG-T mg/L	MN-T mg/L	MO-T mg/L	NA-T mg/L	NI-T mg/L	PB-T mg/L	P-T mg/L	SB-T mg/L	SE-T mg/L	SI-T mg/L	SN-T mg/L	SR-T mg/L	TE-T mg/L	TH-T mg/L	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
Benchmark		**0.0001**	**0.1**	**0.005**	**1**	**1.1**	**0.26**			**0.00003**			**0.001**	**0.002**	**0.3**		**0.026**	**53**		**82**	**1**	**0.073**	**200**	**0.065**	**0.002**	**0.03**	**0.02**	**0.001**		**0.35**	**9.3**			**1.83**	**0.0008**	**0.005**	**0.006**	**0.03**	**0.004**
	mean	0.000185	0.031	0.0005	0.058	0.0005	0.0005	0.025	36.41	1.00E-04		0.0005	0.0005	0.0008	0.244	0.00001		1.01	0.004	8.705	0.046	0.00043	2.5033	0.0008	0.0009	0.075	0.0005	0.0005	6.4	0.0005	0.151	0.0005	0.00031	0.0011	0.00005	0.0016	0.0005	0.04028	0.005
	std	0.000363	0.05	8.33E-05	0.018	3.30E-19	3.30E-19	1.06E-17	13.43	6.87E-20		3.30E-19	3.30E-19	0.0005	0.157	6.87E-21		0.34	0.002	3.224	0.023	0.00023	0.8411	0.0005	0.001	2.81E-17	3.30E-19	8.30E-05	3	0.0001	0.057	3.30E-19	0.00038	0.00156	3.44E-20	0.0008	3.30E-19	0.0227	1.76E-18
	minimum	< 0.00025	< 0.005	< 0.001	0.029	< 0.001	< 0.001	< 0.05	11.7	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002		0.5	0.001	2.55	0.009	< 0.0005	0.84	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.5	< 0.001	0.05	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	0.011	< 0.01
	maximum	0.0023	0.25	0.001	0.11	< 0.001	< 0.001	< 0.05	62.6	< 0.0002		< 0.001	< 0.001	0.003	0.81	< 0.00002		1.8	0.009	14.7	0.089	0.001	4.09	0.003	0.005	< 0.15	< 0.001	0.001	12.5	0.001	0.26	< 0.001	0.0025	0.008	< 0.0001	0.0038	< 0.001	0.1	< 0.01
	# < DL	35	5	35	0	36	36	36	0	36	0	36	36	26	2	36	36	0	4	0	0	20	0	25	31	36	36	35	0	34	0	36	35	27	36	2	36	0	36
	% < DL	97%	14%	97%	0%	100%	100%	100%	0%	100%	0%	100%	100%	72%	6%	100%	100%	0%	11%	0%	0%	56%	0%	69%	86%	100%	100%	97%	0%	94%	0%	100%	97%	75%	100%	6%	100%	0%	100%
	# > BM	36	3	0	0	0	0			36			0	1	5		0	0		0	0	0	0	0	4	36	0	0		0	0			0	0	0	0	20	36
	% > BM	100%	8%	0%	0%	0%	0%			100%			0%	3%	14%		0%	0%		0%	0%	0%	0%	0%	11%	100%	0%	0%		0%	0%			0%	0%	0%	0%	56%	100%
	# < DL (DL>BM)	35	0	0	0	0	0			36			0	0	0		0	0		0	0	0	0	0	0	36	0	0		0	0			0	0	0	0	0	36
	% < DL (DL>BM)	97%	0%	0%	0%	0%	0%			100%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0.005	0.001	0	0.001	0.001	0.05	0	0.0002		0.001	0.001	0.001	0.05	0.00002		0	0.005	0	0	0.0005	0	0.001	0.001	0.15	0.001	0.001	0	0.001	0	0.001	0.0005	0.001	0.0001	0.0005	0.001	0	0.01
	95th percentile	0.000125	0.135	0.0005	0.08075	0.0005	0.0005	0.025	53.575	0.0001		0.0005	0.0005	0.002	0.5725	0.00001		1.525	0.00725	12.875	0.0865	0.0008	3.795	0.002	0.003	0.075	0.0005	0.0005	12.025	0.00063	0.23	0.0005	0.00025	0.00425	0.00005	0.00273	0.0005	0.083	0.005
	5th percentile	0.000125	0.0025	0.0005	0.03175	0.0005	0.0005	0.025	16.225	0.0001		0.0005	0.0005	0.0005	0.05125	0.00001		0.575	0.001	3.67	0.014	0.00025	1.2575	0.0005	0.0005	0.075	0.0005	0.0005	3.175	0.0005	0.0655	0.0005	0.00025	0.0005	0.00005	0.00051	0.0005	0.0155	0.005
X13	21-Jan-05	< 0.00025	0.019	0.002	0.085	< 0.001	< 0.001	< 0.05	251	< 0.0002	< 0.005	0.007	< 0.001	0.001	2.02	< 0.00002	< 0.02	4.8	0.009	49.3	10.1	0.0012	32.7	0.014	< 0.001	< 0.15	< 0.001	< 0.001	16	< 0.001	0.64	< 0.001	< 0.0005	0.001	< 0.0001	0.0054	< 0.001	0.007	< 0.01
X13	08-Feb-05	< 0.00025	< 0.005	0.002	0.079	< 0.001	< 0.001	< 0.05	256	0.0003	< 0.005	0.008	< 0.001	0.001	2.16	< 0.00002	< 0.02	5	0.009	52.1	10.6	0.0012	33.8	0.016	< 0.001	< 0.15	< 0.001	< 0.001	15.8	< 0.001	0.66	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0053	< 0.001	0.007	< 0.01
X13	14-Mar-05	< 0.00025	< 0.005	0.001	0.1	< 0.001	< 0.001	< 0.05	237	< 0.0002	< 0.005	0.004	< 0.001	< 0.001	1.64	< 0.00002	< 0.02	4.2	0.007	40.5	8.56	0.0017	30.2	0.015	< 0.001	< 0.15	< 0.001	< 0.001	14	< 0.001	0.61	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0061	< 0.001	0.008	< 0.01
X13	11-Apr-05	< 0.00025	0.009	0.002	0.083	< 0.001	< 0.001	< 0.05	224	< 0.0002	< 0.005	0.004	< 0.001	0.001	1.9	< 0.00002	< 0.02	4.4	0.008	43.4	9.29	0.0011	31.6	0.014	< 0.001	< 0.15	< 0.001	< 0.001	16.3	< 0.001	0.59	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0058	< 0.001	0.005	< 0.01
X13	09-May-05	< 0.00025	0.009	0.003	0.065	< 0.001	< 0.001	< 0.05	229	< 0.0002	< 0.005	0.009	< 0.001	< 0.001	2.24	< 0.00002	< 0.02	4.6	0.008	45.1	11.7	0.0008	29.7	0.016	< 0.001	< 0.15	< 0.001	< 0.001	14.5	< 0.001	0.61	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0042	< 0.001	0.006	< 0.01
X13	21-Jun-05	< 0.00025	0.014	0.002	0.073	< 0.001	< 0.001	< 0.05	231	< 0.0002	< 0.005	0.006	< 0.001	< 0.001	1.95	< 0.00002	< 0.02	4.8	0.011	46.6	9.47	0.0009	30.6	0.014	< 0.001	< 0.15	< 0.001	< 0.001	16.3	< 0.001	0.62	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0048	< 0.001	< 0.005	< 0.01
X13	25-Jul-05	< 0.00025	< 0.005	0.002	0.078	< 0.001	< 0.001	< 0.05	227	< 0.0002	< 0.005	0.006	< 0.001	< 0.001	1.7	< 0.00002	< 0.02	4.7	0.01	46.3	9.4	0.0012	29.4	0.013	< 0.001	< 0.15	< 0.001	< 0.001	15.3	< 0.001	0.6	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0055	< 0.001	0.005	< 0.01
X13	23-Aug-05	< 0.00025	0.006	0.002	0.089	< 0.001	< 0.001	< 0.05	250	0.0006	< 0.005	0.005	< 0.001	< 0.001	1.6	< 0.00002	< 0.02	5.1	0.011	51.9	9.12	0.0017	35.5	0.013	< 0.001	< 0.15	< 0.001	< 0.001	16.1	< 0.001	0.66	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0065	< 0.001	0.007	< 0.01
X13	06-Sep-05	< 0.00025	0.007	0.002	0.067	< 0.001	< 0.001	< 0.05	208	< 0.0002	< 0.005	0.005	< 0.001	< 0.001	1.94	< 0.00002	< 0.02	4.2	0.009	42.4	7.94	0.0015	28.7	0.013	< 0.001	< 0.15	< 0.001	< 0.001	14.9	< 0.001	0.53	< 0.001	0.0024	< 0.001	< 0.0001	0.0055	< 0.001	0.013	< 0.01
X13	11-Oct-05	< 0.00025	< 0.005	0.001	0.079	< 0.001	< 0.001	< 0.05	211	0.0003	< 0.005	0.006	< 0.001	< 0.001	1.6	< 0.00002	< 0.02	4.3	0.009	42.3	8.96	0.0013	29.5	0.013	< 0.001	< 0.15	< 0.001	< 0.001	14.7	< 0.001	0.57	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0051	< 0.001	< 0.005	< 0.01
X13	02-Nov-05	< 0.00025	0.009	< 0.001	0.081	< 0.001	< 0.001	< 0.05	173	< 0.0002	< 0.005	0.002	< 0.001	< 0.001	0.55	< 0.00002	< 0.02	3.7	0.008	35.4	6.01	0.0018	25.4	0.011	< 0.001	< 0.15	< 0.001	< 0.001	13.5	< 0.001	0.44	< 0.001	< 0.0005	< 0.001	< 0.0001	0.005	< 0.001	< 0.005	< 0.01
X13	15-Dec-05	< 0.00025	< 0.005	0.002	0.085	< 0.001	< 0.001	< 0.05	222	< 0.0002	< 0.005	0.004	< 0.001	< 0.001	2.04	< 0.00002	< 0.02	4.5	0.009	44.4	9.11	0.0014	32.4	0.012	< 0.001	< 0.15	< 0.001	< 0.001	7.6	< 0.001	0.59	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0055	< 0.001	0.006	< 0.01
X13	23-Jan-06	< 0.00025	0.01	0.002	0.078	< 0.001	< 0.001	< 0.05	249	< 0.0002	< 0.005	0.006	< 0.001	< 0.001	2.6	< 0.00002	< 0.02	4.8	0.01	50.5	10.5	0.0011	33.3	0.014	< 0.001	< 0.15	< 0.001	< 0.001	7.8	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	< 0.0001	0.005	< 0.001	0.006	< 0.01
X13	14-Feb-06	< 0.00025	0.016	0.003	0.073	< 0.001	< 0.001	< 0.05	254	< 0.0002		0.007	< 0.001	< 0.001	3.26	< 0.00002	< 0.02	5.1	0.01	52.3	10.4	0.0011	35	0.015	< 0.001	< 0.15	< 0.001	0.001	7.9	< 0.001	0.66	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0052	< 0.001	0.006	< 0.01
X13	24-Mar-06	< 0.00025	< 0.005	0.002	0.073	< 0.001	< 0.001	< 0.05	233	0.0002	< 0.005	0.005	< 0.001	< 0.001	2.19	< 0.00002	< 0.02	4.6	0.009	45.6	9.11	0.001	31.2	0.013	< 0.001	< 0.15	< 0.001	< 0.001	7.2	< 0.001	0.59	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0051	< 0.001	< 0.005	< 0.01
X13	25-Apr-06	< 0.00025	< 0.005	0.003	0.057	< 0.001	< 0.001	< 0.05	271	< 0.0002	< 0.005	0.009	< 0.001	< 0.001	2.36	< 0.00002	< 0.02	5	0.011	53.3	11.3	0.0008	32.5	0.015	< 0.001	< 0.15	< 0.001	< 0.001	6.7	< 0.001	0.71	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0042	< 0.001	0.006	< 0.01
X13	18-May-06	< 0.00025	0.01	0.002	0.059	< 0.001	< 0.001	< 0.05	270	< 0.0002	< 0.005	0.008	< 0.001	< 0.001	1.94	< 0.00002	< 0.02	5.3	0.011	52.8	10.4	0.0009	31.7	0.014	< 0.001	< 0.15	< 0.001	< 0.001	7.1	< 0.001	0.69	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0042	< 0.001	< 0.005	< 0.01
X13	19-Jun-06	< 0.00025	0.005	0.002	0.07	< 0.001	< 0.001	< 0.05	243	< 0.0002	< 0.005	0.007	< 0.001	0.001	1.77	< 0.00002	< 0.02	5.3	0.011	55.3	10.3	0.0011	34.1	0.014	< 0.001	< 0.15	< 0.001	< 0.001	6.8	< 0.001	0.72	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0054	< 0.001	0.006	< 0.01
X13	17-Jul-06	< 0.00025	0.031	0.001	0.072	< 0.001	< 0.001	< 0.05	226	< 0.0002	< 0.005	0.005	< 0.001	0.001	1.62	< 0.00002	< 0.02	4.6	0.035	50.6	9.29	0.0015	30.6	0.013	< 0.001	< 0.15	< 0.001	< 0.001	7	< 0.001	0.62	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0047	< 0.001	< 0.005	< 0.01
X13	21-Aug-06	< 0.00025	< 0.005	0.002	0.079	< 0.001	< 0.001	< 0.05	235	< 0.0002	< 0.005	0.005	< 0.001	0.001	2.02	< 0.00002	< 0.02	5.1	0.011	51.9	10.2	0.0017	34.1	0.015	< 0.001	< 0.15	< 0.001	< 0.001	7.4	< 0.001	0.7	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0061	< 0.001	0.008	< 0.01
X13	12-Sep-06	< 0.00025	< 0.005	0.001	0.076	< 0.001	< 0.001	< 0.05	205	< 0.0002	< 0.005	0.003	< 0.001	< 0.001	1.82	< 0.00002	< 0.02	4	0.008	42.4	8.41	0.0017	28.1	0.013	< 0.001	< 0.15	< 0.001	< 0.001	7	< 0.001	0.56	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0053	< 0.001	< 0.005	< 0.01
X13	17-Oct-06	< 0.00025	< 0.005	0.002	0.077	< 0.001	< 0.001	< 0.05	241	< 0.0002	< 0.005	0.005	< 0.001	0.001	2.14	< 0.00002	< 0.02	4.7	0.01	51.6	10.1	0.0019	32.8	0.015	< 0.001	< 0.15	< 0.001	< 0.001	6.7	< 0.001	0.63	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0058	< 0.001	0.009	< 0.01
X13	14-Nov-06	< 0.00025	0.007	0.001	0.079	< 0.001	< 0.001	< 0.05	223	< 0.0002	0.0055	0.004	< 0.001	< 0.001	1.74	< 0.00002	< 0.02	4.2	0.008	47.9	8.78	0.0018	30.2	0.013	< 0.001	< 0.15	< 0.001	0.001	7.1	< 0.001	0.6	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0058	< 0.001	< 0.005	< 0.01
X13	13-Dec-06	< 0.00025	< 0.005	0.002	0.075	< 0.001	< 0.001	< 0.05	293	< 0.0002	< 0.005	0.007	< 0.001	< 0.001	2.61	< 0.00002	< 0.02	5.1	0.011	53.8	11.3	0.0013	32.4	0.015	< 0.001	< 0.15	< 0.001	< 0.001	7.5	< 0.001	0.73	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0064	< 0.001	0.006	< 0.01
X13	16-Jan-07	< 0.00025	< 0.005	0.003	0.057	< 0.001	< 0.001	< 0.05	320	< 0.0002	< 0.005	0.012	< 0.001	0.001	2.91	< 0.00002	< 0.02	5.7	0.013	67.8	14.5	0.0015	35.3	0.019	< 0.001	< 0.15	< 0.001	0.001	7.7	< 0.001	0.84	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0047	< 0.001	0.007	< 0.01
X13	15-Feb-07	< 0.00025	0.005	0.002	0.065	< 0.001	< 0.001	< 0.05	298	< 0.0002	< 0.005	0.007	< 0.001	0.001	2.15	< 0.00002	< 0.02	5.1	0.01	57	11	0.0015	32.8	0.014	< 0.001	< 0.15	< 0.001	< 0.001	7.5	< 0.001	0.74	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0054	< 0.001	< 0.005	< 0.01
X13	12-Mar-07	< 0.00025	< 0.005	0.001	0.08	< 0.001	< 0.001	< 0.05	230	< 0.0002	< 0.005	0.003	< 0.001	0.001	1.12	< 0.00002	< 0.02	4.5	0.009	46	7.71	0.0019	28.7	0.013	< 0.001	< 0.15	< 0.001	< 0.001	6.5	< 0.001	0.6	< 0.001	< 0.0005	< 0.001	< 0.0001	0.006	< 0.001	< 0.005	< 0.01
X13	19-Apr-07	< 0.00025	< 0.005	0.002	0.072	< 0.001	< 0.001	< 0.05	269	< 0.0002	< 0.005	0.004	< 0.001	0.001	2.95	< 0.00002	< 0.02	4.6	0.008	48.6	11.5	0.0016	29.3	0.016	< 0.001	< 0.15	< 0.001	0.001	7.4	< 0.001	0.69	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0056	< 0.001	< 0.005	< 0.01
X13	15-May-07	< 0.00025	0.006	0.002	0.073	< 0.001	< 0.001	< 0.05	298	< 0.0002	< 0.005	0.008	< 0.001	0.002	2.6	< 0.00002	< 0.02	5.4	0.012	63.4	12.8	0.0014	34.2	0.017	< 0.001	< 0.15	< 0.001	0.002	8.1	< 0.001	0.79	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0062	< 0.001	0.008	< 0.01
X13	19-Jun-07	< 0.00025	< 0.005	0.001	0.067	< 0.001	< 0.001	< 0.05	271	< 0.0002	< 0.005	0.006	< 0.001	0.001	1.41	< 0.00002	< 0.02	4.9	0.01	55.6	10.7	0.0019	32.8	0.016	< 0.001	< 0.15	< 0.001	< 0.001	6.1	< 0.001	0.73	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0056	< 0.001	0.01	< 0.01
X13	16-Jul-07	< 0.00025	0.01	0.002	0.069	< 0.001	< 0.001	< 0.05	231	0.0002	< 0.005	0.007	< 0.001	0.001	1.98	< 0.00002	< 0.02	5.1	0.012	58.8	10.9	0.002	33	0.017	< 0.001	< 0.15	< 0.001	< 0.001	7.6	< 0.001	0.81	< 0.001	< 0.0005	< 0.001	0.0001	0.0056	< 0.001	0.015	< 0.01
X13	13-Aug-07	< 0.00025	< 0.005	0.002	0.062	< 0.001	< 0.001	< 0.05	305	< 0.0002	< 0.005	0.009	< 0.001	0.001	1.97	< 0.00002	< 0.02	5.3	0.012	59.3	12.8	0.0021	32.7	0.016	< 0.001	< 0.15	< 0.001	0.001	6.4	< 0.001	0.73	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0056	< 0.001	0.007	< 0.01
X13	10-Sep-07	< 0.00025	0.024	0.002	0.065	< 0.001	< 0.001	< 0.05	253	< 0.0002	< 0.005	0.007	< 0.001	0.001	2.23	< 0.00002	< 0.02	5.2	0.011	58.4	12	0.0021	32.2	0.016	< 0.001	< 0.15	< 0.001	< 0.001	6.7	< 0.001	0.79	< 0.001	< 0.0005	< 0.001	< 0.0001	0.006	< 0.001	0.008	< 0.01
X13	23-Oct-07	< 0.00025	0.006	0.002	0.062	< 0.001	< 0.001	< 0.05	328	< 0.0002	< 0.005	0.01	< 0.001	0.001	2.86	< 0.00002	< 0.02	5.6	0.013	72	14.1	0.0021	36.7	0.018	< 0.001	< 0.15	< 0.001	0.002	7.2	< 0.001	0.87	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0056	< 0.001	0.007	< 0.01
X13	14-Nov-07	< 0.00025	0.028	0.002	0.065	< 0.001	< 0.001	< 0.05	307	< 0.0002	< 0.005	0.008	< 0.001	< 0.001	2.13	< 0.00002	< 0.02	5.5	0.011	64.8	12.4	0.0024	33.9	0.016	< 0.001	< 0.15	< 0.001	0.002	8	< 0.001	0.81	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0053	< 0.001	0.007	< 0.01
X13	10-Dec-07	< 0.00025	0.005	0.002	0.063	< 0.001	< 0.001	< 0.05	277	< 0.0002	< 0.005	0.007	< 0.001	0.001	2.19	< 0.00002	< 0.02	4.8	0.008	52.1	11.9	0.0021	27.4	0.017	< 0.001	< 0.15	< 0.001	< 0.001	6.9	< 0.001	0.74	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0061	< 0.001	0.01	< 0.01
	N	36	36	36	36	36	36	36	36	36	35	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	median	0.000125	0.005	0.002	0.073	0.0005	0.0005	0.025	246	0.0001	0.0025	0.006	0.0005	0.00075	2.02	0.00001	0.01	4.8	0.01	51.75	10.35	0.0015	32.4	0.0145	0.0005	0.075	0.0005	0.0005	7.55	0.0005	0.66	0.0005	0.00025	0.0005	0.00005	0.0055	0.0005	0.006	0.005
	mean	0.00013	0.008	0.002	0.073	0.001	0.001	0.025	251.4	0	0.003	0.006	0.001	0.001	2.053	0.00001	0.01	4.828	0.011	51.431	10.352	0.002	31.792	0.015	0.001	0.075	0.001	0.001	9.6	0.001	0.67	0.001	0.0003	0.001	0	0.005	0.001	0.006	0.005
	std	0	0.007	0.001	0.009	0	0	0	35	0	0.001	0.002	0	0	0.522	0	0	0.463	0.004	7.876	1.774	0	2.496	0.002	0	0	0	0	3.8	0	0.094	0	0.0004	0	0	0.001	0	0.003	0
	minimum	< 0.00025	< 0.005	< 0.001	0.057	< 0.001	< 0.001	< 0.05	173	< 0.0002	< 0.005	0.002	< 0.001	< 0.001	0.55	< 0.00002	< 0.02	3.7	0.007	35.4	6.01	0.0008	25.4	0.011	< 0.001	< 0.15	< 0.001	< 0.001	6.1	< 0.001	0.44	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0042	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.031	0.003	0.1	< 0.001	< 0.001	< 0.05	328	0.0006	0.0055	0.012	< 0.001	0.002	3.26	< 0.00002	< 0.02	5.7	0.035	72	14.5	0.0024	36.7	0.019	< 0.001	< 0.15	< 0.001	0.002	16.3	< 0.001	0.87	< 0.001	0.0024	0.001	0.0001	0.0065	< 0.001	0.015	< 0.01
	# < DL	36	16	1	0	36	36	36	0	31	34	0	36	18	0	36	36	0	0	0	0	0	0	0	36	36	36	28	0	36	0	36	35	35	35	0	36	11	36
	% < DL	100%	44%	3%	0%	100%	100%	100%	0%	86%	97%	0%	100%	50%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	78%	0%	100%	0%	100%	97%	97%	97%	0%	100%	31%	100%
	# > BM	36	0	0	0	0	0			36	35		0	0	36		0	0		0	36	0	0	0	0	36	0	3		0	0			0	0	28	0	0	36
	% > BM	100%	0%	0%	0%	0%	0%			100%	100%		0%	0%	100%		0%	0%		0%	100%	0%	0%	0%	0%	100%	0%	8%		0%	0%			0%	0%	78%	0%	0%	100%
	# < DL (DL>BM)	36	0	0	0	0	0			31	34		0	0	0		0	0		0	0	0	0	0	0	36	0	0		0	0			0	0	0	0	0	36
	% < DL (DL>BM)	100%	0%	0%	0%	0%	0%			86%	97%		0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0.005	0.001		0.001	0.001	0.05		0.0002	0.005		0.001	0.001		0.00002	0.02								0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001	0.005	0.01
	95th percentile	0.000125	0.025	0.003	0.086	0.0005	0.0005	0.025	310.25	0.0003	0.0025	0.00925	0.0005	0.001	2.92	0.00001	0.01	5.525	0.013	65.55	13.125	0.0021	35.35	0.01725	0.0005	0.075	0.0005	0.002	16.15	0.0005	0.8175	0.0005	0.00025	0.0005	0.00005	0.00625	0.0005	0.01075	0.005
	5th percentile	0.000125	0.0025	0.001	0.0585	0.0005	0.0005	0.025	207.25	0.0001	0.0025	0.003	0.0005	0.0005	1.3375	0.00001	0.01	4.15	0.008	41.85	7.8825	0.00088	27.925	0.01275	0.0005	0.075	0.0005	0.0005	6.475	0.0005	0.5525	0.0005	0.00025	0.0005	0.00005	0.0042	0.0005	0.0025	0.005

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, quideline source provided in Appendix C1

Method Detection Limit set to 1/2 method detection limit for statistical calculations

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 6. Mine Runoff and Effluent Dissolved Metals

Station	Date	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																																					
NE1	23-Jun-05	< 0.00025	0.01	< 0.001	0.013	< 0.05	< 0.001	< 0.001	57.8	< 0.0002	< 0.001	< 0.001	0.002	< 0.05		2.2	0.008	18.7	< 0.001	0.0064	3.54	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	8.2	< 0.001	0.27	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.011	< 0.01
NE1	20-Sep-05	< 0.00025	< 0.005	< 0.001	0.018	< 0.05	< 0.001	< 0.001	82	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		2.6	0.012	25.5	< 0.001	0.0042	4.6	0.001	< 0.001	< 0.15	< 0.001	< 0.001	8.9	< 0.001	0.41	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	< 0.005	< 0.01
NE1	07-Jun-06	< 0.00025	< 0.005	< 0.001	0.009	< 0.05	< 0.001	< 0.001	40.3	< 0.0002	< 0.001	< 0.001	0.003	< 0.05		1.9	0.022	13	< 0.001	0.0048	2.81	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.3	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	< 0.005	< 0.01
NE1	19-Sep-06	< 0.00025	0.01	< 0.001	0.017	< 0.05	< 0.001	< 0.001	77.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		2.4	0.009	24.3	< 0.001	0.0051	4.38	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.38	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.007	< 0.01
NE1	12-Jun-07	< 0.00025	0.005	< 0.001	0.011	< 0.05	< 0.001	< 0.001	40.8	< 0.0002	< 0.001	< 0.001	0.003	0.07		1.8	0.006	14	0.002	0.0042	2.95	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.3	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.006	< 0.01
NE1	01-Oct-07	< 0.00025	< 0.005	< 0.001	0.014	< 0.05	< 0.001	< 0.001	65.3	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		2.3	0.01	21.2	< 0.001	0.006	4	< 0.001	< 0.001	< 0.15	< 0.001	0.001	3.6	< 0.001	0.33	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.012	< 0.01
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.00375	0.0005	0.0135	0.025	0.0005	0.0005	61.55	0.0001	0.0005	0.0005	0.0015	0.025		2.25	0.0095	19.95	0.0005	0.00495	3.77	0.00075	0.0005	0.075	0.0005	0.0005	3.85	0.0005	0.3	0.0005	0.00025	0.0005	0.00005	0.0009	0.0005	0.0065	0.005
	mean	0.00013	0.00542	0.0005	0.01367	0.025	0.0005	0.0005	60.6	0.0001	0.0005	0.0005	0.002	0.033		2.2	0.011	19.5	0.001	0.005	3.713	0.001	0.001	0.075	0.001	0.001	5.2	0.001	0.292	0.001	0.0003	0.0005	0.0001	0.001	0.001	0.007	0.005
	std	0	0.00368	0	0.00344	0	0	0	17.7	0	0	0	0.001	0.018		0.3	0.006	5.2	< 0.001	0.001	0.74	0.001	0	0	0	0	2.6	0	0.099	0	0	0	0	0	0	0.004	0
	minimum	< 0.00025	< 0.005	< 0.001	0.009	< 0.05	< 0.001	< 0.001	40.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.8	0.006	13	0.001	0.0042	2.81	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.3	0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.01	< 0.001	0.018	< 0.05	< 0.001	< 0.001	82	< 0.0002	< 0.001	< 0.001	0.003	0.07		2.6	0.022	25.5	0.002	0.0064	4.6	0.002	< 0.001	< 0.15	< 0.001	< 0.001	8.9	0.001	0.41	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.012	< 0.01
	# < DL	6	3	6	0	6	6	6	0	6	6	6	1	5		0	0	0	5	0	0	3	6	6	6	5	0	6	0	6	6	6	6	1	6	2	6
	% < DL	100%	50%	100%	0%	100%	100%	100%	0%	100%	100%	100%	17%	83%		0%	0%	0%	83%	0%	0%	50%	100%	100%	100%	83%	0%	100%	0%	100%	100%	100%	100%	17%	100%	33%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05					0.001			0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001	0.0005	0.001	0.005	0.01
	95th percentile	0.000125	0.01	0.0005	0.01775	0.025	0.0005	0.0005	80.85	0.0001	0.0005	0.0005	0.003	0.05875		2.55	0.0195	25.2	0.001625	0.0063	4.545	0.00175	0.0005	0.075	0.0005	0.000875	8.725	0.0005	0.4025	0.0005	0.00025	0.0005	0.00005	0.001	0.0005	0.01175	0.005
	5th percentile	0.000125	0.0025	0.0005	0.0095	0.025	0.0005	0.0005	40.425	0.0001	0.0005	0.0005	0.000625	0.025		1.825	0.0065	13.25	0.0005	0.0042	2.845	0.0005	0.0005	0.075	0.0005	0.0005	3.3	0.0005	0.175	0.0005	0.00025	0.0005	0.00005	0.000313	0.0005	0.0025	0.005
NE2	23-Jun-05	< 0.00025	0.011	< 0.001	0.032	< 0.05	< 0.001	< 0.001	91.4	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		2.3	0.014	70.2	< 0.001	< 0.0005	5.23	0.004	< 0.001	< 0.15	< 0.001	< 0.001	9.9	< 0.001	0.41	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0048	< 0.001	0.1	< 0.01
NE2	20-Sep-05	< 0.00025	< 0.005	< 0.001	0.034	< 0.05	< 0.001	< 0.001	102	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		2.6	0.016	73.9	0.001	< 0.0005	5.48	0.004	< 0.001	< 0.15	< 0.001	< 0.001	10.9	< 0.001	0.46	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0044	< 0.001	0.077	< 0.01
NE2	07-Jun-06	< 0.00025	< 0.005	< 0.001	0.075	< 0.05	< 0.001	< 0.001	147	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		4	0.063	147	< 0.001	< 0.0005	7.71	0.002	< 0.001	< 0.15	< 0.001	0.004	4.9	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0099	< 0.001	< 0.005	< 0.01
NE2	19-Sep-06	< 0.00025	0.01	< 0.001	0.032	< 0.05	< 0.001	< 0.001	98	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		2.4	0.015	75.8	< 0.001	< 0.0005	5.43	0.004	< 0.001	< 0.15	< 0.001	0.001	5.4	< 0.001	0.45	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0043	< 0.001	0.072	< 0.01
NE2	12-Jun-07	< 0.00025	< 0.005	< 0.001	0.059	< 0.05	< 0.001	< 0.001	119	< 0.0002	< 0.001	< 0.001	0.001	0.12		3	0.014	118	0.001	< 0.0005	6.6	0.001	< 0.001	< 0.15	< 0.001	0.003	3.9	< 0.001	0.61	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0045	< 0.001	< 0.005	< 0.01
NE2	01-Oct-07	< 0.00025	0.005	< 0.001	0.033	< 0.05	< 0.001	< 0.001	102	< 0.0002	< 0.001	< 0.001	0.001	0.06		2.5	0.015	81.3	< 0.001	< 0.0005	5.71	0.004	< 0.001	< 0.15	< 0.001	0.001	4.6	< 0.001	0.48	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0048	< 0.001	0.064	< 0.01
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.00375	0.0005	0.0335	0.025	0.0005	0.0005	102	0.0001	0.0005	0.0005	0.001	0.025		2.55	0.015	78.55	0.0005	0.00025	5.595	0.004	0.0005	0.075	0.0005	0.001	5.15	0.0005	0.47	0.0005	0.00025	0.0005	0.00005	0.00465	0.0005	0.068	0.005
	mean	0.00013	0.00558	0.0005	0.0442	0.025	0.0005	0.0005	109.9	0.0001	0.0005	0.0005	0.001	0.047		2.8	0.023	94.4	0.001	0	6.027	0.003	0.001	0.075	0.001	0.002	6.6	0.001	0.51	0.001	0	0.001	0	0.005	0.001	0.053	0.005
	std	0	0.00394	0	0.0184	0	0	0	20.3	0	0	0	0	0.039		0.64	0.02	31.1	0	0	0.954	0.001	0	0	0	0.001	3	0	0.097	0	0	0	0	0.002	0	0.041	0
	minimum	< 0.00025	< 0.005	< 0.001	0.032	< 0.05	< 0.001	< 0.001	91.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		2.3	0.014	70.2	< 0.001	< 0.0005	5.23	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.41	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0043	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.011	< 0.001	0.075	< 0.05	< 0.001	< 0.001	147	< 0.0002	< 0.001	< 0.001	0.001	0.12		4	0.063	147	0.001	< 0.0005	7.71	0.004	< 0.001	< 0.15	< 0.001	0.004	10.9	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0099	< 0.001	0.1	< 0.01
	# < DL	6	3	6	0	6	6	6	0	6	6	6	1	4		0	0	0	4	6	0	0	6	6	6	2	0	6	0	6	6	6	6	0	6	2	6
	% < DL	100%	50%	100%	0%	100%	100%	100%	0%	100%	100%	100%	17%	67%		0%	0%	0%	67%	100%	0%	0%	100%	100%	100%	33%	0%	100%	0%	100%	100%	100%	100%	0%	100%	33%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05					0.001	0.0005			0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001	0.005	0.01
	95th percentile	0.000125	0.01075	0.0005	0.071	0.025	0.0005	0.0005	140	0.0001	0.0005	0.0005	0.001	0.105		3.75	0.05125	139.75	0.001	0.00025	7.4325	0.004	0.0005	0.075	0.0005	0.00375	10.65	0.0005	0.64	0.0005	0.00025	0.0005	0.00005	0.008625	0.0005	0.09425	0.005
	5th percentile	0.000125	0.0025	0.0005	0.032	0.025	0.0005	0.0005	93.05	0.0001	0.0005	0.0005	0.000625	0.025		2.325	0.014	71.125	0.0005	0.00025	5.28	0.00125	0.0005	0.075	0.0005	0.0005	4.075	0.0005	0.42	0.0005	0.00025	0.0005	0.00005	0.004325	0.0005	0.0025	0.005
X2	21-Jan-05	< 0.00025	0.044	< 0.001	0.066	< 0.05	< 0.001	< 0.001	44.4	< 0.0002	< 0.001	< 0.001	0.002	0.19		0.9	0.007	10.5	0.082	0.0007	3.37	0.001	< 0.001	< 0.15	< 0.001	< 0.001	13.2	< 0.001	0.19	< 0.001	< 0.0005	0.002	< 0.0001	0.0019	< 0.001	0.024	< 0.01
X2	08-Feb-05	< 0.00025	0.005	< 0.001	0.067	< 0.05	< 0.001	< 0.001	44	< 0.0002	< 0.001	< 0.001	< 0.001	0.12		1	0.007	10.4	0.078	0.0007	3.46	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12.6	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.031	< 0.01
X2	15-Mar-05	< 0.00025	0.006	< 0.001	0.066	< 0.05	< 0.001	< 0.001	44.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.3	0.008	10.2	0.077	0.0009	3.37	0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.1	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0025	< 0.001	0.024	< 0.01
X2	11-Apr-05	< 0.00025	0.007	< 0.001	0.063	< 0.05	< 0.001	< 0.001	42.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.007	10.1	0.081	0.0007	3.38	0.001	< 0.001	< 0.15	< 0.001	< 0.001	12.5	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.031	< 0.01
X2	09-May-05	< 0.00025	0.079	< 0.001	0.021	< 0.05	< 0.001	< 0.001	8.55	< 0.0002	< 0.001	< 0.001	0.002	0.16		1	0.001	1.91	0.005	< 0.0005	0.77	0.001	0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.038	< 0.001	< 0.0005	0.001	< 0.0001	< 0.0005	< 0.001	0.03	< 0.01
X2	20-Jun-05	< 0.00025	0.019	< 0.001	0.034	< 0.05	< 0.001	< 0.001	18.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.11		0.4	0.002	4.45	0.016	< 0.0005	1.66	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9	< 0.001	0.073	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	0.011	< 0.01
X2	25-Jul-05	< 0.00025	0.008	< 0.001	0.037	< 0.05	< 0.001	< 0.001	20.1	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.3	0.003	4.16	0.001	< 0.0005	1.54	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.6	< 0.001	0.085	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.006	< 0.01
X2	22-Aug-05	< 0.00025	0.008	< 0.001	0.045	< 0.05	< 0.001	< 0.001	28.5	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.6	0.004	6.77	0.03	< 0.0005	2.5	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.2	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.018	< 0.01
X2	05-Sep-05	< 0.00025	< 0.005	< 0.001	0.042	< 0.05	< 0.001	< 0.001	25.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.6	0.004	5.72	0.043	< 0.0005	2.04	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.7	< 0.001	0.095	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.025	< 0.01
X2	10-Oct-05	< 0.00025	< 0.005	< 0.001	0.042	< 0.05	< 0.001	< 0.001	27.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.6	0.004	6.21	0.043	< 0.0005	2.1	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.5	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.025	< 0.01
X2	01-Nov-05	< 0.00025	0.007	< 0.001	0.056	< 0.05	< 0.001	< 0.001	34.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.005	8.23	0.084	0.0005	2.22	0.001	< 0.001	< 0.15	< 0.001	< 0.001	12	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.03	< 0.01
X2	13-Dec-05	< 0.00025	< 0.005	< 0.001	0.07	< 0.05	< 0.001	< 0.001	44.1	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.007	10.6	0.084	0.0007	3.28	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	6.4	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	0.059	< 0.01
X2	23-Jan-06	< 0.00025	0.006	< 0.001	0.068	< 0.05	< 0.001	< 0.001	42.8	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.008	11	0.1	0.0006	3.15	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.9	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	0.075	< 0.01
X2	14-Feb-06	< 0.00025	0.006	< 0.001	0.068	< 0.05	< 0.001	< 0.001	41.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.008	10.8	0.091	0.0006	3.31	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	6.1	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	0.031	< 0.01
X2	24-Apr-06	< 0.00025	0.005	< 0.001	0.064	< 0.05	< 0.001	< 0.001	43.5	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.2	0.009	11.2	0.14	0.0008	3.58	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.14	< 0.01
X2	17-May-06	< 0.00025	0.075	< 0.001	0.022	< 0.05	< 0.001	< 0.001	9.48	< 0.0002	< 0.001	< 0.001	0.002	0.21		1.4	0.001	2.04	0.01	< 0.0005	0.87	0.002	< 0.001	< 0.15	< 0.001	< 0.001	2.2	< 0.001	0.04	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.034	< 0.01
X2	19-Jun-06	< 0.00025	0.026	< 0.001	0.029	< 0.05	< 0.001	< 0.001	16.4	< 0.0002	< 0.001	< 0.001	< 0.001	0.05		0.5	0.002	3.73	0.011	< 0.0005	1.37	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.061	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	0.012	< 0.01
X2	18-Jul-06	< 0.00025	0.025	< 0.001	0.035	< 0.05	< 0.001	< 0.001	21	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		0.4	0.009	5.12	0.019	< 0.0005	1.58	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.075	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	0.012	< 0.01
X2	21-Aug-06	< 0.00025	0.009	< 0.001	0.042	< 0.05	< 0.001	< 0.001	24.5	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.6	0.003	5.08	0.027	< 0.0005	1.99	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.09	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.02	< 0.01
X2	11-Sep-06	< 0.00025	0.007	< 0.001	0.039	< 0.05	< 0.001	< 0.001	24	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		0.5	0.003	5.49	0.03	< 0.0005	2.07	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.3	< 0.001	0.091	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.019	< 0.01
X2	16-Oct-06	< 0.00025	0.014	< 0.001	0.049	< 0.05	< 0.001	< 0.001	30.1	< 0.0002	< 0.001	< 0.001	< 0.001	0.15		0.7	0.005	8.19	0.18	< 0.0005	2.43	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.054	< 0.01
X2	14-Nov-06	< 0.00025	0.018	< 0.001	0.068	< 0.05	< 0.001	< 0.001	41.1	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.006	10.2	0.1	0.0006	3.08	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.7	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	0.064	< 0.01
X2	18-Apr-07	< 0.00025	0.008	< 0.001	0.067	< 0.05	< 0.001	< 0.001	40.1	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.2	0.009	10.2	0.13	0.0007	3.38	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	0.14	< 0.01
X2	14-May-07	< 0.00025	0.03	< 0.001	0.03	< 0.05	< 0.001	< 0.001	15.8	< 0.0002	< 0.001	< 0.001	0.002	0.2		1.2	< 0.005	3.52	0.033	< 0.0005	1.44	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.3	< 0.001	0.072	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	0.049	< 0.01
X2	18-Jun-07	< 0.00025	0.017	< 0.001	0.031	< 0.05	< 0.001	< 0.001	15.3	< 0.0002	< 0.001	< 0.001	0.001	0.1		0.5	< 0.005	3.69	0.012	< 0.0005	1.39	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.5	< 0.001	0.058	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.018	< 0.01
X2	16-Jul-07	< 0.00025	0.014	< 0.001	0.034	< 0.05	< 0.001	< 0.001	16	< 0.0002	< 0.001	< 0.001	0.001	0.07		0.4	< 0.005	3.92	0.013	< 0.0005	1.55	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.073	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.016	< 0.01
X2	13-Aug-07	< 0.00025	0.005	< 0.001	0.041	< 0.05	< 0.001	< 0.001	24.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	< 0.005	5.89	0.038	0.0006	2.07	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	0.0001	0.0011	< 0.001	0.021	< 0.01
X2	10-Sep-07	< 0.00025	< 0.005	< 0.001	0.043	< 0.05	< 0.001	< 0.001	20.2	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		0.4	0.002	4.68	0.026	< 0.0005	1.73	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.079	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.015	< 0.01
X2	22-Oct-07	< 0.00025	< 0.005	< 0.001	0.049	< 0.05	< 0.001	< 0.001	28.8	< 0.0002	< 0.001	< 0.001	< 0.001	0.13		0.7	0.004	6.85	0.1	0.0006	2.3	< 0.001	0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.024	< 0.01
X2	13-Nov-07	< 0.00025	0.03	< 0.001	0.054	< 0.05	< 0.001	< 0.001	34.3	< 0.0002	< 0.001	< 0.001	0.003	< 0.05		0.8	0.005	8.22	0.088	0.0006	2.65	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.4	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.057	< 0.01
X2	09-Dec-07	< 0.00025	< 0.005	< 0.001	0.056	< 0.05	< 0.001	< 0.001	33.5	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	0.004	7.77	0.085	0.0005	2.3	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.1	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.06	< 0.01

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 6. Mine Runoff and Effluent Dissolved Metals

Station	Date	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																																					
	N	31	31	31	31	31	31	31	31	31	31	31	31	31	0	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
	median	0.000125	0.008	0.0005	0.045	0.025	0.0005	0.0005	28.5	0.0001	0.0005	0.0005	0.0005	0.025		0.7	0.004	6.77	0.043	0.00025	2.22	0.0005	0.0005	0.075	0.0005	0.0005	5.5	0.0005	0.11	0.0005	0.00025	0.0005	0.00005	0.0011	0.0005	0.025	0.005
	mean	0.00013	0.0159	0.0005	0.0483	0.025	0.0005	0.0005	29.3	0.0001	0.0005	0.0005	0.0008	0.0698		0.8	0.0047	6.9948	0.0599	0.0004	2.32	0.0008	0.0005	0.075	0.0005	0.0005	6.8	0.0005	0.1184	0.0005	0.0003	0.0006	0.0001	0.0012	0.0005	0.0379	0.005
	std	0	0.0192	0	0.0153	0	0	0	11.4	0	0	0	0.0007	0.0604		0.3	0.0025	2.9267	0.0451	0.0002	0.83	0.0005	0.0001	0	0	0	3.3	0	0.0488	0	0	0.0003	0	0.0007	0	0.0325	0
	minimum	< 0.00025	< 0.005	< 0.001	0.021	0.05	0.001	0.001	8.55	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.3	0.001	1.91	0.001	< 0.0005	0.77	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.2	< 0.001	0.038	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	0.006	< 0.01
	maximum	< 0.00025	0.079	< 0.001	0.07	0.05	0.001	0.001	44.9	< 0.0002	< 0.001	< 0.001	0.003	0.21		1.4	0.009	11.2	0.18	0.0009	3.58	0.002	0.001	< 0.15	< 0.001	< 0.001	13.2	< 0.001	0.19	< 0.001	< 0.0005	0.002	0.0001	0.0025	< 0.001	0.14	< 0.01
	# < DL	31	6	31	0	31	31	31	0	31	31	31	24	17		0	4	0	0	16	0	18	29	31	31	31	0	31	0	31	31	29	30	4	31	0	31
	% < DL	100%	19%	100%	0%	100%	100%	100%	0%	100%	100%	100%	77%	55%		0%	13%	0%	0%	52%	0%	58%	94%	100%	100%	100%	0%	100%	0%	100%	100%	94%	97%	13%	100%	0%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05			0.005			0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001	0.0005	0.001		0.01
	95th percentile	0.000125	0.0595	0.0005	0.068	0.025	0.0005	0.0005	44.25	0.0001	0.0005	0.0005	0.002	0.195		1.25	0.009	10.9	0.135	0.00075	3.42	0.002	0.00075	0.075	0.0005	0.0005	12.55	0.0005	0.19	0.0005	0.00025	0.00075	0.00005	0.00225	0.0005	0.1075	0.005
	5th percentile	0.000125	0.0025	0.0005	0.0255	0.025	0.0005	0.0005	12.39	0.0001	0.0005	0.0005	0.0005	0.025		0.4	0.0015	2.78	0.0075	0.00025	1.12	0.0005	0.0005	0.075	0.0005	0.0005	3.35	0.0005	0.049	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0115	0.005
X5	08-Mar-05	< 0.00025	< 0.005	< 0.001	0.024	< 0.05	< 0.001	< 0.001	239	< 0.0002	0.013	< 0.001	0.001	0.14		6	0.016	55	11.6	0.0012	31.3	0.023	< 0.001	< 0.15	< 0.001	< 0.001	14.1	< 0.001	0.63	< 0.001	< 0.0005	< 0.001	0.0002	0.0036	< 0.001	0.38	< 0.01
X5	14-Mar-05	< 0.00025	< 0.005	< 0.001	0.026	< 0.05	< 0.001	< 0.001	270	< 0.0002	0.02	< 0.001	0.001	0.16		6	0.013	62.9	19	0.0009	40	0.039	< 0.001		< 0.001	< 0.001	15.6	< 0.001	0.81	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0041	< 0.001	0.34	< 0.01
X5	22-Mar-05	< 0.00025	0.009	< 0.001	0.017	< 0.05	< 0.001	< 0.001	288	< 0.0002	0.017	< 0.001	< 0.001	0.07		5.6	0.014	64.6	16.3	0.0007	36.2	0.032	< 0.001	< 0.15	< 0.001	< 0.001	15.3	< 0.001	0.73	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0046	< 0.001	0.28	< 0.01
X5	10-May-05	< 0.00025	0.007	< 0.001	0.02	< 0.05	< 0.001	< 0.001	187	< 0.0002	0.007	< 0.001	< 0.001	< 0.05		3.8	0.012	36.2	5.73	0.0009	19.3	0.013	< 0.001	< 0.15	< 0.001	< 0.001	7	< 0.001	0.55	< 0.001	< 0.0005	< 0.001	0.0003	0.0021	< 0.001	0.22	< 0.01
X5	11-Jun-05	< 0.00025	< 0.005	< 0.001	0.017	< 0.05	< 0.001	< 0.001	168	< 0.0002	0.003	< 0.001	< 0.001	< 0.05		4.5	0.025	34.7	1.95	0.0012	16.3	0.006	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.55	< 0.001	< 0.0005	< 0.001	0.0003	0.0009	< 0.001	0.055	< 0.01
X5	19-Jun-05	< 0.00025	< 0.005	< 0.001	0.016	< 0.05	< 0.001	< 0.001	192	< 0.0002	0.003	< 0.001	< 0.001	< 0.05		5.7	0.026	38.9	2.03	0.0015	18.3	0.006	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.62	< 0.001	< 0.0005	< 0.001	0.0005	0.0008	< 0.001	0.03	< 0.01
X5	21-Jun-05	< 0.00025	0.009	< 0.001	0.014	< 0.05	< 0.001	< 0.001	166	< 0.0002	0.004	< 0.001	< 0.001	0.12		4.5	0.025	34.7	2.41	0.0012	16.5	0.008	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.55	< 0.001	< 0.0005	< 0.001	0.0004	0.0008	< 0.001	0.15	< 0.01
X5	02-Jul-05	< 0.00025	< 0.005	< 0.001	0.01	< 0.05	< 0.001	< 0.001	155	< 0.0002	0.003	< 0.001	< 0.001	< 0.05		5	0.037	37.8	1.47	0.0011	20.6	0.005	< 0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.51	< 0.001	< 0.0005	< 0.001	0.0004	0.0007	< 0.001	< 0.005	< 0.01
X5	10-Jul-05	< 0.00025	0.006	< 0.001	0.017	< 0.05	< 0.001	< 0.001	156	< 0.0002	0.004	< 0.001	< 0.001	< 0.05		5.3	0.025	35.7	2.13	0.0013	16.5	0.006	< 0.001	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.51	< 0.001	< 0.0005	< 0.001	0.0003	0.0009	< 0.001	0.042	< 0.01
X5	17-Jul-05	< 0.00025	< 0.005	< 0.001	0.02	< 0.05	< 0.001	< 0.001	152	< 0.0002	0.004	< 0.001	< 0.001	< 0.05		5.6	0.026	36.6	2.44	0.0013	17.3	0.007	< 0.001	< 0.15	< 0.001	< 0.001	5.9	< 0.001	0.52	< 0.001	< 0.0005	< 0.001	0.0004	0.001	< 0.001	0.11	< 0.01
X5	24-Jul-05	< 0.00025	< 0.005	< 0.001	0.023	< 0.05	< 0.001	< 0.001	161	< 0.0002	0.004	< 0.001	< 0.001	< 0.05		5.6	0.03	38.5	2.75	0.0014	18.5	0.008	< 0.001	< 0.15	< 0.001	0.001	6.6	< 0.001	0.54	< 0.001	< 0.0005	< 0.001	0.0002	0.0011	< 0.001	0.035	< 0.01
X5	25-Jul-05	< 0.00025	< 0.005	< 0.001	0.017	< 0.05	< 0.001	< 0.001	180	< 0.0002	0.004	< 0.001	0.001	< 0.05		6.4	0.041	40.4	2.24	0.0017	21.1	0.006	< 0.001	< 0.15	< 0.001	< 0.001	5.9	< 0.001	0.61	< 0.001	< 0.0005	< 0.001	0.0004	0.0011	< 0.001	0.053	< 0.01
X5	31-Jul-05	< 0.00025	0.013	< 0.001	0.022	< 0.05	< 0.001	< 0.001	159	< 0.0002	0.004	< 0.001	0.001	< 0.05		5.8	0.029	34.6	2.56	0.0016	17.9	0.007	< 0.001	< 0.15	< 0.001	< 0.001	7.1	< 0.001	0.55	< 0.001	< 0.0005	< 0.001	0.0003	0.0011	< 0.001	0.026	< 0.01
X5	06-Aug-05	0.0008	< 0.005	0.001	0.025	< 0.05	< 0.001	< 0.001	167	0.0005	0.007	< 0.001	0.002	< 0.05		5.4	0.026	38.6	4.97	0.0017	19	0.012	< 0.001	< 0.15	< 0.001	0.002	8.3	< 0.001	0.54	< 0.001	0.0007	< 0.001	0.0005	0.002	< 0.001	0.19	< 0.01
X5	13-Aug-05	< 0.00025	< 0.005	< 0.001	0.021	< 0.05	< 0.001	< 0.001	185	< 0.0002	0.008	< 0.001	< 0.001	< 0.05		6.1	0.028	46.6	5.72	0.0015	23	0.014	< 0.001	< 0.15	< 0.001	< 0.001	7.9	< 0.001	0.61	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	0.21	< 0.01
X5	20-Aug-05	< 0.00025	< 0.005	< 0.001	0.017	< 0.05	< 0.001	< 0.001	155	< 0.0002	0.006	< 0.001	< 0.001	< 0.05		5.2	0.028	38.4	4.04	0.0015	17.7	0.01	< 0.001	< 0.15	< 0.001	< 0.001	5.4	< 0.001	0.49	< 0.001	< 0.0005	< 0.001	0.0002	0.0014	< 0.001	0.17	< 0.01
X5	23-Aug-05	< 0.00025	0.007	< 0.001	0.016	< 0.05	< 0.001	< 0.001	190	< 0.0002	0.007	< 0.001	< 0.001	< 0.05		6.8	0.038	49.7	5.07	0.0018	24.9	0.012	< 0.001	< 0.15	< 0.001	0.001	6.3	< 0.001	0.63	< 0.001	< 0.0005	< 0.001	0.0002	0.0015	< 0.001	0.22	< 0.01
X5	27-Aug-05	< 0.00025	< 0.005	< 0.001	0.015	< 0.05	< 0.001	< 0.001	180	< 0.0002	0.007	< 0.001	< 0.001	< 0.05		6.2	0.03	44.3	5.8	0.0015	22.1	0.013	< 0.001	< 0.15	< 0.001	0.003	5.8	< 0.001	0.59	< 0.001	< 0.0005	< 0.001	0.0002	0.0014	< 0.001	0.21	< 0.01
X5	05-Sep-05	< 0.00025	0.006	< 0.001	0.015	< 0.05	< 0.001	< 0.001	180	< 0.0002	0.005	< 0.001	< 0.001	0.17		6	0.031	42.7	3.99	0.0015	20.4	0.009	0.003	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.62	< 0.001	< 0.0005	< 0.001	0.0003	0.001	< 0.001	0.26	< 0.01
X5	06-Sep-05	< 0.00025	< 0.005	< 0.001	0.013	< 0.05	< 0.001	< 0.001	181	< 0.0002	0.004	< 0.001	0.001	< 0.05		5.8	0.03	41.3	2.75	0.0013	19.5	0.007	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.58	< 0.001	< 0.0005	< 0.001	0.0004	0.0007	< 0.001	0.015	< 0.01
X5	11-Sep-05	< 0.00025	< 0.005	< 0.001	0.016	< 0.05	< 0.001	< 0.001	222	< 0.0002	0.005	< 0.001	< 0.001	< 0.05		6.7	0.033	46.3	4.21	0.0015	22.8	0.01	< 0.001	< 0.15	< 0.001	< 0.001	6.3	< 0.001	0.71	< 0.001	< 0.0005	< 0.001	0.0004	0.0011	< 0.001	0.13	< 0.01
X5	18-Sep-05	< 0.00025	< 0.005	< 0.001	0.012	< 0.05	< 0.001	< 0.001	201	< 0.0002	0.003	< 0.001	< 0.001	< 0.05		5.6	0.028	35.6	2.19	0.0012	20.6	0.007	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.68	< 0.001	< 0.0005	< 0.001	0.0003	0.0007	< 0.001	< 0.005	< 0.01
X5	24-Sep-05	< 0.00025	0.008	< 0.001	0.015	< 0.05	< 0.001	< 0.001	196	< 0.0002	0.003	< 0.001	< 0.001	< 0.05		5.5	0.026	37.2	3.12	0.001	23.7	0.008	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.7	< 0.001	< 0.0005	< 0.001	0.0003	0.0008	< 0.001	0.04	< 0.01
X5	01-Oct-05	< 0.00025	< 0.005	< 0.001	0.017	< 0.05	< 0.001	< 0.001	227	0.0004	0.008	< 0.001	< 0.001	< 0.05		5.2	0.023	43.7	7.45	0.0011	26.6	0.016	< 0.001	< 0.15	< 0.001	< 0.001	8.1	< 0.001	0.71	< 0.001	< 0.0005	< 0.001	0.0003	0.0016	< 0.001	0.37	< 0.01
X5	09-May-06	< 0.00025	< 0.005	< 0.001	0.018	< 0.05	< 0.001	< 0.001	227	< 0.0002	0.009	< 0.001	< 0.001	< 0.05		4.7	0.015	52.6	7.48	0.0007	27.5	0.018	< 0.001	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.81	< 0.001	< 0.0005	< 0.001	0.0003	0.002	< 0.001	0.28	< 0.01
X5	23-May-06	< 0.00025	< 0.005	< 0.001	0.017	< 0.05	< 0.001	< 0.001	211	< 0.0002	0.009	< 0.001	< 0.001	< 0.05		3.3	0.011	36.2	8.38	0.0006	20.3	0.016	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.6	< 0.001	< 0.0005	< 0.001	0.0002	0.0018	< 0.001	0.32	< 0.01
X5	30-May-06	< 0.00025	< 0.005	< 0.001	0.018	< 0.05	< 0.001	< 0.001	212	< 0.0002	0.009	< 0.001	< 0.001	< 0.05		3.2	0.01	34.9	8.99	< 0.0005	19.9	0.018	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.6	< 0.001	< 0.0005	0.001	0.0002	0.0021	< 0.001	0.24	< 0.01
X5	06-Jun-06	< 0.00025	< 0.005	< 0.001	0.018	< 0.05	< 0.001	< 0.001	179	< 0.0002	0.006	< 0.001	< 0.001	< 0.05		3.4	0.01	30.4	5.8	< 0.0005	17.2	0.013	< 0.001	< 0.15	< 0.001	< 0.001	2.9	< 0.001	0.57	< 0.001	< 0.0005	< 0.001	0.0002	0.0014	< 0.001	0.24	< 0.01
X5	19-Jun-06	< 0.00025	0.012	< 0.001	0.018	< 0.05	< 0.001	< 0.001	211	< 0.0002	0.005	< 0.001	< 0.001	0.1		4.8	0.02	36.9	4.39	0.0009	20.2	0.011	< 0.001	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.68	< 0.001	< 0.0005	< 0.001	0.0003	0.001	< 0.001	0.15	< 0.01
X5	20-Jun-06	< 0.00025	< 0.005	< 0.001	0.017	< 0.05	< 0.001	< 0.001	223	< 0.0002	0.007	< 0.001	< 0.001	0.06		4.9	0.02	39.5	5.96	0.0009	21.4	0.014	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.69	< 0.001	< 0.0005	< 0.001	0.0003	0.0013	< 0.001	0.2	< 0.01
X5	11-Jul-06	< 0.00025	< 0.005	< 0.001	0.013	< 0.05	< 0.001	< 0.001	204	< 0.0002	0.004	< 0.001	< 0.001	< 0.05		5.6	0.029	36.6	2.53	0.0011	19.7	0.007	< 0.001	< 0.15	< 0.001	< 0.001	2.5	< 0.001	0.67	< 0.001	< 0.0005	< 0.001	0.0004	0.0007	< 0.001	0.036	< 0.01
X5	17-Jul-06	< 0.00025	0.024	< 0.001	0.011	< 0.05	< 0.001	< 0.001	199	< 0.0002	0.004	< 0.001	0.002	0.07		5.3	0.095	38	3.12	0.0012	20.3	0.009	< 0.001	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	0.0003	0.0006	< 0.001	0.089	< 0.01
X5	18-Jul-06	< 0.00025	0.018	< 0.001	0.012	< 0.05	< 0.001	< 0.001	200	< 0.0002	0.004	< 0.001	< 0.001	0.06		5.4	0.1	38.6	2.53	0.0011	20.3	0.006	< 0.001	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.66	< 0.001	< 0.0005	< 0.001	0.0004	0.0006	< 0.001	0.015	< 0.01
X5	25-Jul-06	< 0.00025	< 0.005	< 0.001	0.012	< 0.05	< 0.001	< 0.001	214	< 0.0002	0.004	< 0.001	< 0.001	< 0.05		5.5	0.028	35.3	3.22	0.001	20.8	0.009	< 0.001	< 0.15	< 0.001	< 0.001	2.3	< 0.001	0.66	< 0.001	< 0.0005	< 0.001	0.0003	0.0007	< 0.001	0.071	< 0.01
X5	01-Aug-06	< 0.00025	0.007	< 0.001	0.013	< 0.05	< 0.001	< 0.001	225	< 0.0002	0.003	< 0.001	< 0.001	< 0.05		6.6	0.032	32.3	2.16	0.0011	21.4	0.004	< 0.001	< 0.15	< 0.001	< 0.001	2.5	< 0.001	0.74	< 0.001	< 0.0005	< 0.001	0.0004	0.0007	< 0.001	0.005	< 0.01
X5	15-Aug-06	< 0.00025	< 0.005	< 0.001	0.013	< 0.05	< 0.001	< 0.001	179	< 0.0002	0.005	< 0.001	< 0.001	0.18		4.9	0.022	34.9	3.87	0.0011	19.4	0.009	< 0.001	< 0.15	< 0.001	< 0.001	2.8	< 0.001	0.64	< 0.001	< 0.0005	< 0.001	0.0003	0.0009	< 0.001	0.11	7
X5	21-Aug-06	< 0.00025	0.009	< 0.001	0.015	< 0.05	< 0.001	< 0.001	204	< 0.0002	0.005	< 0.001	< 0.001	< 0.05		6.3	0.036	33.9	3.45	0.0014	21.3	0.01	< 0.001	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.66	< 0.001	< 0.0005	< 0.001	0.0003	0.0009	< 0.001	0.008	< 0.01
X5	22-Aug-06	< 0.00025	0.008	< 0.001	0.015	< 0.05	< 0.001	< 0.001	197	< 0.0002	0.006	< 0.001	< 0.001	< 0.05		5.7	0.031	35.3	4.52	0.0012	20.6	0.012	< 0.001	< 0.15	< 0.001	< 0.001	2.8	< 0.001	0.62	< 0.001	< 0.0005	< 0.001	0.0003	0.0011	< 0.001	0.13	< 0.01
X5	29-Aug-06	< 0.00025	0.006	< 0.001	0.015	< 0.05	< 0.001	< 0.001	206	< 0.0002	0.006	< 0.001	< 0.001	< 0.05		6.2	0.033	37.6	4.78	0.0014	21.8	0.012	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.66	< 0.001	< 0.0005	< 0.001	0.0003	0.0011	< 0.001	0.15	< 0.01
X5	05-Sep-06	< 0.00025	0.005	< 0.001	0.015	< 0.05	< 0.001	< 0.001	195	< 0.0002	0.007	< 0.001	< 0.001	< 0.05		5.7	0.033	39.7	5.36	0.0014	21.5	0.013	< 0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	0.0003	0.0012	< 0.001	0.18	< 0.01
X5	10-Apr-07	< 0.00025	< 0.005	< 0.001	0.019	< 0.05	< 0.001	< 0.001	341	< 0.0002	0.025	< 0.001	< 0.001	< 0.05		5.6	0.017	68.8	25.6	0.0027	32.7	0.05	< 0.001	< 0.15	< 0.001	0.002	7.6	< 0.001	0.86	< 0.001	< 0.0005	< 0.001	0.0001	0.0052	< 0.001	0.33	< 0.01
X5	14-May-07	< 0.00025	< 0.005	< 0.001	0.047	< 0.05	< 0.001	< 0.001	86.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.16		1.5	< 0.005	9.17	0.81	< 0.0005	5.21	0.002	< 0.001	< 0.15	< 0.001	< 0.001	1.4	< 0.001	0.25	< 0.001	< 0.0005	< 0.001	0.0002	0.0006	< 0.001	0.014	< 0.01
X5	22-May-07	< 0.00025	< 0.005	< 0.001	0.018	< 0.05	< 0.001	< 0.001	199	< 0.0002	0.005	< 0.001	< 0.001	< 0.05		4.4	0.018	31.3	4.52	0.0009	17	0.01	< 0.001	< 0.15	< 0.001	0.001	2.6	< 0.001	0.6	< 0.001	< 0.0005	< 0.001	0.0002	0.0014	< 0.001	0.14	< 0.01
X5	29-May-07	< 0.00025	< 0.005	< 0.001	0.017	< 0.05	< 0.001	< 0.001	179	< 0.0002	0.004	< 0.001	0.001	< 0.05		3.9	0.015	29.4	3.68	0.001	16.1	0.009	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.53	< 0.001	< 0.0005	< 0.001	0.0002	0.0017	< 0.001	0.14	< 0.01
X5	05-Jun-07	< 0.00025	< 0.005	< 0.001	0.018	< 0.05	< 0.001	< 0.001	194	< 0.0002	0.004	< 0.001	0.001	0.07		4.1	0.017	30.8	4.47	0.001	17.2	0.01	< 0.001	< 0.15	< 0.001	< 0.001	3.1	< 0.001	0.58	< 0.001	< 0.0005	< 0.001	0.0002	0.0018	< 0.001	0.15	< 0.01
X5	12-Jun-07	< 0.00025	< 0.005	< 0.001	0.02	< 0.05	< 0.001	< 0.001	210	< 0.0002	0.005	< 0.001	< 0.001	< 0.05		4.3	0.02	32.7	4.8	0.0012	18.4	0.011	< 0.001	< 0.15	< 0.001	< 0.001	3.3	< 0.001	0.64	< 0.001	< 0.0005	< 0.001	0.0002	0.0019	< 0.001	0.076	< 0.01
X5	18-Jun-07	< 0.00025	< 0.005	< 0.001	0.016	< 0.05	< 0.001	< 0.001	184	< 0.0002	0.004	< 0.001	< 0.001	0.08		4	0.017	27.8	4.13	0.0009	16.5	0.009	< 0.001	< 0.15	< 0.001	< 0.001	2.5	< 0.001	0.57	< 0.001	< 0.0005	< 0.001	0.0003	0.0015	< 0.001	0.077	< 0.01
X5	19-Jun-07	< 0.00025	< 0.005	< 0.001	0.016	< 0.05	< 0.001	< 0.001	194	< 0.0002	0.005	< 0.001	< 0.001	0.06		4.3	0.018	30.3	4.92	0.0009	17.7	0.012	< 0.001	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.57	< 0.001	< 0.0005	< 0.001	0.0002	0.0017	< 0.001	0.056	< 0.01
X5	26-Jun-07	< 0.00025	< 0.005	< 0.001	0.017	< 0.05	< 0.001	< 0.001	209	< 0.0002	0.005	< 0.001	< 0.001	0.22		4.7	0.021	31.2	4.43	0.0011	17.2	0.01	< 0.001	< 0.15	< 0.001	< 0.001	2.8	< 0.001	0.63	< 0.001	< 0.0005	< 0.001	0.0002	0.0017	< 0.001	0.055	< 0.01
X5	03-Jul-07	< 0.00025	< 0.005	< 0.001	0.017	< 0.05	< 0.001	< 0.001	195	< 0.0002	0.004	< 0.001	0.001	< 0.05		4.6	0.021	30.3	3.86	0.0011	17.6	0.009	< 0.001	< 0.15	< 0.001	< 0.001	2.5	< 0.001	0.62	< 0.001	< 0.0005	< 0.001	0.0002	0.0015	< 0.001	0.019	< 0.01
X5	10-Jul-07	< 0.00025	< 0.005	< 0.001	0.016	< 0.05	< 0.001	< 0.001	204	< 0.0002	0.005	< 0.001	< 0.001	< 0.05		4.9	0.024	30	4.45	0.0009	17.4	0.011	< 0.001	< 0.15	< 0.001	< 0.001	2.8	< 0.001	0.64	< 0.001	< 0.0005	< 0.001	0.0003	0.0016	< 0.001	0.042	< 0.01
X5	16-Jul-07	< 0.00025	< 0.005	< 0.001	0.016	< 0.05	< 0.001	< 0.001	188	< 0.0002	0.004	< 0.001	< 0.001	0.1		5.1	0.028	32.5	3.63	0.0011	18.2	0.009	< 0.001	< 0.15	< 0.001	< 0.001	2.8	< 0.001	0.64	< 0.001	< 0.0005	< 0.001	0.0002	0.0013	< 0.001	0.051	< 0.01
X5	17-Jul-07	< 0.00025	0.006	< 0.001	0.016	< 0.05	< 0.001	< 0.001	185	< 0.0002	0.004	< 0.001	< 0.001	0.12		5.1	0.025	31.1	3.66	0.001	17.7	0.01	< 0.001	< 0.15	< 0.001	< 0.001	2.6	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	0.0002	0.0013	< 0.001	0.029	< 0.01
X5	24-Jul-07	< 0.00025	< 0.005	< 0.001	0.016	< 0.05	< 0.001	< 0.001	232	< 0.0002	0.006	< 0.001	< 0.001	0.06		6.7	0.034	37.4	4.5	0.0012	21	0.012	< 0.001	< 0.15	< 0.001	0.002	2.8	< 0.001	0.67	< 0.001	< 0.0005	< 0.001	0.0003	0.0014	< 0.001	0.047	< 0.01
X5	31-Jul-07	< 0.00025	< 0.005	< 0.001	0.016	< 0.05	< 0.001	< 0.001	209	< 0.0002	0.005	< 0.001	< 0.001	< 0.05		6.7	0.034	38.1	4.01	0.0013	20.3	0.01	< 0.001	< 0.15	< 0.001	< 0.001	2.6	< 0.001	0.71	< 0.001	< 0.0005	< 0.001	0.0004	0.0014	< 0.001	0.044	< 0.01
X5	07-Aug-07	< 0.00025	< 0.005	< 0.001	0.018	< 0.05	< 0.001	< 0.001	213	0.0004	0.007	< 0.001	0.001	< 0.05		6.1	0.031	39.2	5.39	0.0019	20.6	0.015	< 0.001	< 0.15	< 0.001	0.001	3.3	< 0.001	0.73	< 0.001	< 0.0005	< 0.001	0.00037	0.0021	0.001	0.08	< 0.01
X5	13-Aug-07	< 0.00025	< 0.005	< 0.001	0.016	< 0.05	< 0.001	< 0.001	207	< 0.0002	0.006	< 0.001	0.001	0.12		6.3	0.033	38.4	4.73	0.0012	19.9	0.012	< 0.001	< 0.15	< 0.001	< 0.001	2.3	< 0.001	0.63	< 0.001	< 0.0005	< 0.001	0.0003	0.0015	< 0.001	0.088	< 0.01
X5	14-Aug-07	< 0.00025	0.016	< 0.001	0.018	< 0.05	< 0.001	< 0.001	218	< 0.0002	0.008	< 0.001	0.001	< 0.05		6.3	0.03	44.1	6.63	0.0015	22	0.017	< 0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.7	< 0.001	< 0.0005	< 0.001	0.0003	0.002	< 0.001	0.09	< 0.01

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 6. Mine Runoff and Effluent Dissolved Metals

Station	Date	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																																					
X5	21-Aug-07	< 0.00025	0.011	< 0.001	0.018	< 0.05	< 0.001	< 0.001	181	< 0.0002	0.006	< 0.001	0.001	0.11		5.4	0.03	36.2	5.5	0.0013	19.6	0.013	< 0.001	< 0.15	< 0.001	< 0.001	2.2	< 0.001	0.72	< 0.001	< 0.0005	< 0.001	0.0004	0.002	< 0.001	0.06	< 0.01
X5	28-Aug-07	< 0.00025	< 0.005	< 0.001	0.017	< 0.05	< 0.001	< 0.001	210	< 0.0002	0.007	< 0.001	0.001	< 0.05		6.3	0.032	41.7	6.04	0.0014	20.9	0.014	< 0.001	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.68	< 0.001	< 0.0005	< 0.001	0.0003	0.0018	< 0.001	0.099	< 0.01
X5	04-Sep-07	< 0.00025	< 0.005	< 0.001	0.015	< 0.05	< 0.001	< 0.001	200	< 0.0002	0.007	< 0.001	0.001	0.07		6.1	< 1	42.1	6.03	0.0016	20	0.014	< 0.001	< 0.15	< 0.001	< 0.001	2.8	< 0.001	0.78	< 0.001	< 0.0005	< 0.001	0.0003	0.0016	< 0.001	0.079	< 0.01
X5	10-Sep-07	< 0.00025	< 0.005	< 0.001	0.016	< 0.05	< 0.001	< 0.001	206	< 0.0002	0.008	< 0.001	0.001	0.08		5.8	0.029	45.2	7.24	0.0016	20.8	0.018	< 0.001	< 0.15	< 0.001	< 0.001	3.1	< 0.001	0.67	< 0.001	< 0.0005	< 0.001	0.0003	0.0019	< 0.001	0.13	< 0.01
X5	11-Sep-07	< 0.00025	0.007	< 0.001	0.016	< 0.05	< 0.001	< 0.001	206	< 0.0002	0.007	< 0.001	0.001	0.12		6.4	0.029	48	6.56	0.0017	21.5	0.015	< 0.001	< 0.15	< 0.001	0.001	2.9	< 0.001	0.69	< 0.001	< 0.0005	< 0.001	0.0003	0.0016	< 0.001	0.11	< 0.01
X5	17-Sep-07	< 0.00025	< 0.005	< 0.001	0.016	< 0.05	< 0.001	< 0.001	211	< 0.0002	0.01	< 0.001	0.001	< 0.05		5.7	0.028	47.9	8.91	0.0016	22.2	0.021	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	0.0002	0.0025	< 0.001	0.11	< 0.01
X5	23-Oct-07	< 0.00025	< 0.005	< 0.001	0.02	< 0.05	< 0.001	< 0.001	243	< 0.0002	0.015	< 0.001	0.001	0.05		5.1	0.022	58.2	14.4	0.0019	27	0.032	< 0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.72	< 0.001	< 0.0005	< 0.001	0.0001	0.0031	< 0.001	0.15	< 0.01
X5	29-Oct-07	< 0.00025	< 0.005	< 0.001	0.02	< 0.05	< 0.001	< 0.001	255	< 0.0002	0.016	< 0.001	0.002	< 0.05		5.8	0.022	61.5	15	0.0022	28.3	0.036	< 0.001	< 0.15	< 0.001	0.001	5.2	< 0.001	0.78	< 0.001	< 0.0005	< 0.001	0.0001	0.0031	< 0.001	0.2	< 0.01
	N	66	66	66	66	66	66	66	66	66	66	66	66	66	0	66	66	66	66	66	66	66	66	65	66	66	66	66	66	66	66	66	66	66	66	66	66
	median	0.000125	0.0025	0.0005	0.017	0.025	0.0005	0.0005	199.5	0.0001	0.005	0.0005	0.0005	0.025		5.55	0.027	37.7	4.485	0.0012	20.3	0.011	0.0005	0.075	0.0005	0.0005	3.25	0.0005	0.64	0.0005	0.00025	0.0005	0.0003	0.0014	0.0005	0.1045	0.005
	mean	0.00014	0.0047	0.0005	0.0173	0.025	0.0005	0.0005	200	0.00012	0.00649	0.0005	0.0007	0.055		5.32	0.034	39.41	5.55	0.0012	20.9	0.013	0.0005	0.075	0.001	0.001	4.555	0.001	0.637	0.001	0.0003	0.0005	0.0003	0.002	0.001	0.125	0.111
	std	0.00008	0.0042	0.0001	0.0048	0	0	0	34.4	0.00007	0.00416	0	0.0004	0.048		0.99	0.06	9.58	4.26	0.0004	4.9	0.008	0.0003	0	0	0	2.858	0	0.091	0	0.0001	0.0001	0.0001	0.001	0	0.099	0.861
	minimum	< 0.00025	< 0.005	< 0.001	0.01	< 0.05	< 0.001	< 0.001	86.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.5	0.005	9.17	0.81	0.0005	5.21	0.002	< 0.001	< 0.15	< 0.001	< 0.001	1.4	< 0.001	0.25	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	< 0.005	< 0.01
	maximum	0.0008	0.024	0.001	0.047	< 0.05	< 0.001	< 0.001	341	0.0005	0.025	< 0.001	0.002	0.22		6.8	< 1	68.8	25.6	0.0027	40	0.05	0.003	< 0.15	< 0.001	0.003	15.6	< 0.001	0.86	< 0.001	< 0.0005	< 0.001	0.0005	0.0052	0.001	0.38	7
	# < DL	65	46	65	0	66	66	66	0	63	1	66	45	42		0	2	0	0	3	0	0	65	65	66	56	0	66	0	66	65	65	3	0	65	2	65
	% < DL	98%	70%	98%	0%	100%	100%	100%	0%	95%	2%	100%	68%	64%		0%	3%	0%	0%	5%	0%	0%	98%	100%	100%	85%	0%	100%	0%	100%	98%	98%	5%	0%	98%	3%	98%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05			1			0.0005			0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001	0.005	0.01
	95th percentile	0.000125	0.01275	0.0005	0.02375	0.025	0.0005	0.0005	252	0.0001	0.01575	0.0005	0.001	0.16		6.675	0.04025	60.675	14.85	0.001875	30.55	0.032	0.0005	0.075	0.0005	0.00175	8.25	0.0005	0.78	0.0005	0.00025	0.0005	0.0004	0.003475	0.0005	0.3275	0.005
	5th percentile	0.000125	0.0025	0.0005	0.012	0.025	0.0005	0.0005	155.25	0.0001	0.003	0.0005	0.0005	0.025		3.5	0.01125	30.075	2.055	0.000625	16.5	0.006	0.0005	0.075	0.0005	0.0005	2.35	0.0005	0.5125	0.0005	0.00025	0.0005	0.0001	0.0007	0.0005	0.0095	0.005
X10	21-Jan-05	< 0.00025	0.006	< 0.001	0.063	< 0.05	< 0.001	< 0.001	43.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.1		1	0.005	9.9	0.059	< 0.0005	2.77	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	0.029	< 0.01
X10	08-Feb-05	< 0.00025	0.005	< 0.001	0.066	< 0.05	< 0.001	< 0.001	45.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.15		1.1	0.005	10.4	0.041	0.0005	3.19	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.4	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.03	< 0.01
X10	14-Mar-05	< 0.00025	< 0.005	< 0.001	0.067	< 0.05	< 0.001	< 0.001	46.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.17		1.3	0.005	9.56	0.027	0.0005	3.77	0.001	< 0.001	< 0.15	< 0.001	< 0.001	10	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	0.022	< 0.01
X10	11-Apr-05	< 0.00025	< 0.005	< 0.001	0.062	< 0.05	< 0.001	< 0.001	44	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		1	0.006	10.2	0.012	0.0006	3.16	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.9	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	0.012	< 0.01
X10	09-May-05	< 0.00025	0.055	< 0.001	0.023	< 0.05	< 0.001	< 0.001	10.9	< 0.0002	< 0.001	< 0.001	0.002	0.17		1	< 0.001	2.27	0.018	< 0.0005	0.77	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.046	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.017	< 0.01
X10	21-Jun-05	< 0.00025	0.017	< 0.001	0.034	< 0.05	< 0.001	< 0.001	19.8	< 0.0002	< 0.001	< 0.001	< 0.001	0.16		0.4	0.002	4.63	0.037	< 0.0005	1.43	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	7.9	< 0.001	0.082	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.014	< 0.01
X10	25-Jul-05	< 0.00025	0.009	< 0.001	0.045	< 0.05	< 0.001	< 0.001	26.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	0.003	6.29	0.019	< 0.0005	1.81	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.7	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.016	< 0.01
X10	23-Aug-05	< 0.00025	0.006	< 0.001	0.051	< 0.05	< 0.001	< 0.001	34.3	< 0.0002	< 0.001	< 0.001	< 0.001	0.05		0.7	0.003	8.38	0.068	< 0.0005	2.34	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.3	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.026	< 0.01
X10	06-Sep-05	< 0.00025	< 0.005	< 0.001	0.043	< 0.05	< 0.001	< 0.001	28.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		0.7	0.003	6.92	0.041	< 0.0005	1.99	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	8.2	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.021	< 0.01
X10	11-Oct-05	< 0.00025	< 0.005	< 0.001	0.043	< 0.05	< 0.001	< 0.001	29.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.6	0.003	7.21	0.049	< 0.0005	1.77	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.1	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.022	< 0.01
X10	02-Nov-05	< 0.00025	< 0.005	< 0.001	0.053	< 0.05	< 0.001	< 0.001	34.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.004	8.32	0.082	< 0.0005	1.81	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.1	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.028	< 0.01
X10	15-Dec-05	< 0.00025	< 0.005	< 0.001	0.066	< 0.05	< 0.001	< 0.001	44.8	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.006	10.5	0.066	0.0006	2.96	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0019	< 0.001	0.049	< 0.01
X10	23-Jan-06	< 0.00025	< 0.005	< 0.001	0.062	< 0.05	< 0.001	< 0.001	44.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.006	11.1	0.055	0.0005	3.03	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.4	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	0.068	< 0.01
X10	14-Feb-06	< 0.00025	< 0.005	< 0.001	0.068	< 0.05	< 0.001	< 0.001	45	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.1	0.006	11.6	0.031	0.0006	3.28	< 0.001	< 0.001	< 0.15	< 0.001	0.001	5.7	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.053	< 0.01
X10	24-Mar-06	< 0.00025	< 0.005	< 0.001	0.073	< 0.05	< 0.001	< 0.001	50	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.2	0.008	13.4	0.027	0.0006	3.58	0.001	< 0.001	< 0.15	< 0.001	< 0.001	6.2	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0026	< 0.001	0.073	< 0.01
X10	25-Apr-06	< 0.00025	< 0.005	< 0.001	0.065	< 0.05	< 0.001	< 0.001	44.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.2	0.007	11.4	0.019	0.0006	3.04	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.1	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.056	< 0.01
X10	18-May-06	< 0.00025	0.051	< 0.001	0.026	< 0.05	< 0.001	< 0.001	11.2	< 0.0002	< 0.001	< 0.001	0.002	0.23		1.3	0.001	2.47	0.045	< 0.0005	0.82	0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.2	< 0.001	0.047	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.029	< 0.01
X10	19-Jun-06	< 0.00025	0.05	< 0.001	0.027	< 0.05	< 0.001	< 0.001	16.4	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		0.5	0.001	3.71	0.02	< 0.0005	1.32	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.8	< 0.001	0.066	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	0.011	< 0.01
X10	17-Jul-06	< 0.00025	0.026	< 0.001	0.036	< 0.05	< 0.001	< 0.001	23.1	< 0.0002	< 0.001	< 0.001	< 0.001	0.18		0.5	0.007	5.82	0.029	< 0.0005	1.66	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.089	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.016	< 0.01
X10	21-Aug-06	< 0.00025	< 0.005	< 0.001	0.037	< 0.05	< 0.001	< 0.001	22.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	0.002	4.8	0.024	< 0.0005	1.7	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.089	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.009	< 0.01
X10	12-Sep-06	< 0.00025	< 0.005	< 0.001	0.041	< 0.05	< 0.001	< 0.001	25.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	0.002	5.98	0.029	< 0.0005	1.9	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.016	< 0.01
X10	17-Oct-06	< 0.00025	0.006	< 0.001	0.049	< 0.05	< 0.001	< 0.001	32.1	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		0.7	0.003	7.69	0.061	< 0.0005	2.33	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.024	< 0.01
X10	14-Nov-06	< 0.00025	< 0.005	< 0.001	0.065	< 0.05	< 0.001	< 0.001	40.4	< 0.0002	< 0.001	< 0.001	< 0.001	0.05		0.9	0.004	9.82	0.077	< 0.0005	2.81	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.4	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	0.06	< 0.01
X10	13-Dec-06	< 0.00025	< 0.005	< 0.001	0.094	< 0.05	< 0.001	< 0.001	56.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.5	0.007	12	0.082	< 0.0005	3.48	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	6.7	< 0.001	0.24	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0032	< 0.001	0.087	< 0.01
X10	16-Jan-07	< 0.00025	< 0.005	< 0.001	0.072	< 0.05	< 0.001	< 0.001	47	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.2	0.007	11.9	0.037	0.0006	3.26	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.3	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.065	< 0.01
X10	15-Feb-07	< 0.00025	< 0.005	< 0.001	0.064	< 0.05	< 0.001	< 0.001	45.1	< 0.0002	< 0.001	< 0.001	< 0.001	0.05		1	0.005	11	0.012	0.0008	2.66	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	0.027	< 0.01
X10	12-Mar-07	< 0.00025	< 0.005	< 0.001	0.077	< 0.05	< 0.001	< 0.001	49.8	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.2	0.006	12.5	0.009	0.0008	2.92	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	0.021	< 0.01
X10	19-Apr-07	< 0.00025	< 0.005	< 0.001	0.067	< 0.05	< 0.001	< 0.001	44	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.2	0.006	10.4	0.044	0.0007	2.99	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.054	< 0.01
X10	15-May-07	< 0.00025	0.022	< 0.001	0.03	< 0.05	< 0.001	< 0.001	17.1	< 0.0002	< 0.001	< 0.001	0.002	0.21		1.2	< 0.005	4.06	0.029	< 0.0005	1.29	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.078	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	0.02	< 0.01
X10	19-Jun-07	< 0.00025	0.008	< 0.001	0.031	< 0.05	< 0.001	< 0.001	17.5	< 0.0002	< 0.001	< 0.001	< 0.001	0.11		0.5	< 0.005	4.51	0.02	< 0.0005	1.39	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.1	< 0.001	0.07	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.013	< 0.01
X10	16-Jul-07	< 0.00025	0.012	< 0.001	0.029	< 0.05	< 0.001	< 0.001	16.3	< 0.0002	< 0.001	< 0.001	0.001	0.07		0.4	< 0.005	4.19	0.022	< 0.0005	1.52	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.072	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.012	< 0.01
X10	13-Aug-07	< 0.00025	< 0.005	< 0.001	0.043	< 0.05	< 0.001	< 0.001	28	< 0.0002	< 0.001	< 0.001	< 0.001	0.12		0.6	< 0.005	6.79	0.035	< 0.0005	1.97	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.012	< 0.01
X10	10-Sep-07	< 0.00025	< 0.005	< 0.001	0.046	< 0.05	< 0.001	< 0.001	23.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.14		0.5	0.002	5.7	0.031	< 0.0005	1.84	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.09	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.017	< 0.01
X10	23-Oct-07	< 0.00025	0.006	< 0.001	0.05	< 0.05	< 0.001	< 0.001	31.4	< 0.0002	< 0.001	< 0.001	< 0.001	0.11		0.7	0.003	7.85	0.062	< 0.0005	2.26	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.6	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.017	< 0.01
X10	14-Nov-07	< 0.00025	0.025	< 0.001	0.055	< 0.05	< 0.001	< 0.001	37	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		0.9	0.003	8.64	0.064	< 0.0005	2.55	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.046	< 0.01
X10	10-Dec-07	< 0.00025	< 0.005	< 0.001	0.056	< 0.05	< 0.001	< 0.001	34.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.003	7.85	0.065	0.0005	2.15	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	0.064	< 0.01
	N	36	36	36	36	36	36	36	36	36	36	36	36	36	0	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	median	0.000125	0.0025	0.0005	0.052	0.025	0.0005	0.0005	34.5	0.0001	0.0005	0.0005	0.0005	0.06		0.9	0.003	8.085	0.036	0.00025	2.295	0.0005	0.0005	0.075	0.0005	0.0005	5.15	0.0005	0.14	0.0005	0.00025	0.0005	0.00005	0.00135	0.0005	0.023	0.005
	mean	0.0001	0.0099	0.0005	0.0522	0.025	0.0005	0.0005	33.7	0.0001	0.0005	0.0005	0.0006	0.0793		0.864	0.004	8.049	0.04	0	2.32	0.001	0.001	0.075	0.001	0.001	6.05	0.001	0.139	0.001	0.0003	0.0005	0.0001	0.0015	0.0005	0.0321	0.005
	std	0	0.0144	0	0.0169	0	0	0	12.4685	0	0	0	0.0004	0.0616		0.306	0.002	3.035	0.021	0	0.801	0	0	0	0	0	2.783	0	0.052	0	0	0	0	0.0008	0	0.0213	0
	minimum	< 0.00025	< 0.005	< 0.001	0.023	< 0.05	< 0.001	< 0.001	10.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.4	< 0.001	2.27	0.009	< 0.0005	0.77	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.2	< 0.001	0.046	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.009	< 0.01
	maximum	< 0.00025	0.055	< 0.001	0.094	< 0.05	< 0.001	< 0.001	56.6	< 0.0002	< 0.001	< 0.001	0.002	0.23		1.5	0.008	13.4	0.082	0.0008	3.77	0.002	< 0.001	< 0.15	< 0.001	0.001	12	< 0.001	0.24	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0032	< 0.001	0.087	< 0.01
	# < DL	36	21	36	0	36	36	36	0	36	36	36	32	15	0	0	5	0	0	23	0	26	36	36	36	35	0	36	0	36	36	36	36	3	36	0	36
	% < DL	100%	58%	100%	0%	100%	100%	100%	0%	100%	100%	100%	89%	42%	0%	0%	14%	0%	0%	64%	0%	72%	100%	100%	100%	97%	0%	100%	0%	100%	100%	100%	100%	8%	100%	0%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05			0.005			0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001	0.0005	0.001		0.01
	95th percentile	0.000125	0.05025	0.0005	0.074	0.025	0.0005	0.0005	49.85	0.0001	0.0005	0.0005	0.002	0.1875		1.3	0.007	12.125	0.07825	0.000725	3.505	0.001	0.0005	0.075	0.0005	0.0005	11.525	0.0005	0.2025	0.0005	0.00025	0.0005	0.00005	0.002375	0.0005	0.06925	0.005

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 6. Mine Runoff and Effluent Dissolved Metals

Station	Date	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																																					
	5th percentile	0.000125	0.0025	0.0005	0.02675	0.025	0.0005	0.0005	15.025	0.0001	0.0005	0.0005	0.0005	0.025		0.475	0.001	3.4	0.012	0.00025	1.1725	0.0005	0.0005	0.075	0.0005	0.0005	3.025	0.0005	0.06125	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.01175	0.005
X13	21-Jan-05	< 0.00025	0.007	< 0.001	0.069	< 0.05	< 0.001	< 0.001	205	< 0.0002	0.006	< 0.001	< 0.001	0.13		3.7	0.008	41.2	8.35	0.0012	27.4	0.013	< 0.001	< 0.15	< 0.001	< 0.001	15.1	< 0.001	0.52	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0046	< 0.001	< 0.005	< 0.01
X13	08-Feb-05	< 0.00025	< 0.005	0.002	0.069	< 0.05	< 0.001	< 0.001	223	< 0.0002	0.007	< 0.001	0.001	1.86		4.3	0.008	45.7	9.25	0.001	29.4	0.015	< 0.001	< 0.15	< 0.001	< 0.001	14.2	< 0.001	0.59	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0049	< 0.001	0.006	< 0.01
X13	14-Mar-05	< 0.00025	< 0.005	< 0.001	0.092	< 0.05	< 0.001	< 0.001	186	< 0.0002	0.003	< 0.001	< 0.001	0.17		3.6	0.006	35.6	6.74	0.0016	27.4	0.013	< 0.001	< 0.15	< 0.001	< 0.001	12.3	< 0.001	0.49	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0054	< 0.001	0.005	< 0.01
X13	11-Apr-05	< 0.00025	< 0.005	< 0.001	0.074	< 0.05	< 0.001	< 0.001	200	< 0.0002	0.004	< 0.001	< 0.001	0.08		3.8	0.007	39.2	8.25	0.001	28.8	0.013	< 0.001	< 0.15	< 0.001	< 0.001	15.2	< 0.001	0.53	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0052	< 0.001	< 0.005	< 0.01
X13	09-May-05	< 0.00025	0.009	0.001	0.055	< 0.05	< 0.001	< 0.001	217	< 0.0002	0.009	< 0.001	< 0.001	0.05		4.2	0.008	41.4	10.5	0.0006	26.2	0.014	< 0.001	< 0.15	< 0.001	< 0.001	13.1	< 0.001	0.56	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0038	< 0.001	0.006	< 0.01
X13	21-Jun-05	< 0.00025	0.012	0.002	0.054	< 0.05	< 0.001	< 0.001	202	< 0.0002	0.006	< 0.001	< 0.001	0.12		4	0.009	40.6	8.51	0.0008	25.2	0.012	< 0.001	< 0.15	< 0.001	< 0.001	13.1	< 0.001	0.55	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0036	< 0.001	< 0.005	< 0.01
X13	25-Jul-05	< 0.00025	< 0.005	< 0.001	0.067	< 0.05	< 0.001	< 0.001	208	< 0.0002	0.006	< 0.001	< 0.001	< 0.05		4	0.01	43	8.71	0.001	26.2	0.011	< 0.001	< 0.15	< 0.001	< 0.001	14.2	< 0.001	0.56	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0047	< 0.001	< 0.005	< 0.01
X13	23-Aug-05	< 0.00025	< 0.005	< 0.001	0.075	< 0.05	< 0.001	< 0.001	226	0.0005	0.005	< 0.001	< 0.001	< 0.05		4.4	0.009	46.9	8.56	0.0013	31.6	0.013	< 0.001	< 0.15	< 0.001	< 0.001	14.8	< 0.001	0.6	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0057	< 0.001	0.006	< 0.01
X13	06-Sep-05	< 0.00025	< 0.005	< 0.001	0.065	< 0.05	< 0.001	< 0.001	200	< 0.0002	0.004	< 0.001	< 0.001	< 0.05		4.1	0.008	39.9	7.93	0.001	27.3	0.012	< 0.001	< 0.15	< 0.001	< 0.001	12.8	< 0.001	0.54	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0046	< 0.001	0.006	< 0.01
X13	11-Oct-05	< 0.00025	< 0.005	0.001	0.068	< 0.05	< 0.001	< 0.001	224	< 0.0002	0.004	< 0.001	< 0.001	< 0.05		4.2	0.01	45.4	8.13	0.0012	29.8	0.013	< 0.001	< 0.15	< 0.001	< 0.001	15	< 0.001	0.62	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0047	< 0.001	< 0.005	< 0.01
X13	02-Nov-05	< 0.00025	< 0.005	< 0.001	0.072	< 0.05	< 0.001	< 0.001	148	< 0.0002	0.002	< 0.001	< 0.001	< 0.05		3.2	0.007	30.2	5.06	0.0016	21.8	0.01	< 0.001	< 0.15	< 0.001	< 0.001	11.9	< 0.001	0.39	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0043	< 0.001	< 0.005	< 0.01
X13	15-Dec-05	< 0.00025	< 0.005	0.001	0.074	< 0.05	< 0.001	< 0.001	222	< 0.0002	0.006	< 0.001	< 0.001	< 0.05		4.7	0.01	44.4	10.3	0.0011	32.7	0.013	< 0.001	< 0.15	< 0.001	< 0.001	7.4	< 0.001	0.6	< 0.001	< 0.0005	< 0.001	< 0.0001	0.005	< 0.001	0.008	< 0.01
X13	23-Jan-06	< 0.00025	< 0.005	0.001	0.06	< 0.05	< 0.001	< 0.001	216	< 0.0002	0.006	< 0.001	< 0.001	0.05		3.9	0.009	44.2	9.27	0.0008	28	0.012	< 0.001	< 0.15	< 0.001	< 0.001	6.6	< 0.001	0.56	< 0.001	< 0.0005	< 0.001	< 0.0001	0.004	< 0.001	0.006	< 0.01
X13	14-Feb-06	< 0.00025	< 0.005	< 0.001	0.061	< 0.05	< 0.001	< 0.001	166	< 0.0002	0.003	< 0.001	< 0.001	< 0.05		3.4	0.007	33.3	6.32	0.0009	24.5	0.009	< 0.001	< 0.15	< 0.001	< 0.001	6	< 0.001	0.44	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0043	< 0.001	0.006	< 0.01
X13	24-Mar-06	< 0.00025	< 0.005	< 0.001	0.068	< 0.05	< 0.001	< 0.001	212	< 0.0002	0.004	< 0.001	< 0.001	< 0.05		4	0.008	41.6	8.35	0.0009	28.8	0.011	< 0.001	< 0.15	< 0.001	< 0.001	7.2	< 0.001	0.54	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0048	< 0.001	< 0.005	< 0.01
X13	25-Apr-06	< 0.00025	< 0.005	0.001	0.056	< 0.05	< 0.001	< 0.001	231	< 0.0002	0.007	< 0.001	< 0.001	< 0.05		4.3	0.009	47.8	9.86	0.0009	29.1	0.014	< 0.001	< 0.15	< 0.001	< 0.001	6.4	< 0.001	0.61	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0041	< 0.001	0.006	< 0.01
X13	18-May-06	< 0.00025	< 0.005	< 0.001	0.055	< 0.05	< 0.001	< 0.001	233	< 0.0002	0.006	< 0.001	< 0.001	< 0.05		4.5	0.01	47.1	9.44	0.0008	28.1	0.013	< 0.001	< 0.15	< 0.001	< 0.001	6.8	< 0.001	0.62	< 0.001	< 0.0005	< 0.001	< 0.0001	0.004	< 0.001	< 0.005	< 0.01
X13	19-Jun-06	< 0.00025	< 0.005	< 0.001	0.063	< 0.05	< 0.001	< 0.001	228	< 0.0002	0.007	< 0.001	< 0.001	0.1		5	0.011	52.9	9.89	0.001	32.6	0.014	< 0.001	< 0.15	< 0.001	< 0.001	6.3	< 0.001	0.68	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0048	< 0.001	< 0.005	< 0.01
X13	17-Jul-06	< 0.00025	0.031	< 0.001	0.062	< 0.05	< 0.001	< 0.001	209	< 0.0002	0.004	< 0.001	< 0.001	0.06		4	0.033	47.4	8.71	0.0015	28.7	0.013	< 0.001	< 0.15	< 0.001	< 0.001	7	< 0.001	0.55	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0043	< 0.001	< 0.005	< 0.01
X13	21-Aug-06	< 0.00025	< 0.005	< 0.001	0.064	< 0.05	< 0.001	< 0.001	213	< 0.0002	0.004	< 0.001	< 0.001	< 0.05		3.9	0.01	44.9	8.49	0.0015	27.9	0.012	< 0.001	< 0.15	< 0.001	< 0.001	6.7	< 0.001	0.58	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0047	< 0.001	0.009	< 0.01
X13	12-Sep-06	< 0.00025	< 0.005	0.001	0.07	< 0.05	< 0.001	< 0.001	211	< 0.0002	0.003	< 0.001	< 0.001	< 0.05		4	0.008	43.2	8.41	0.0015	28.3	0.012	< 0.001	< 0.15	< 0.001	< 0.001	7	< 0.001	0.56	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0051	< 0.001	< 0.005	< 0.01
X13	17-Oct-06	< 0.00025	< 0.005	< 0.001	0.071	< 0.05	< 0.001	< 0.001	218	< 0.0002	0.004	< 0.001	< 0.001	0.05		4	0.009	46.7	8.93	0.0016	29.3	0.013	< 0.001	< 0.15	< 0.001	< 0.001	6.2	< 0.001	0.57	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0055	< 0.001	< 0.005	< 0.01
X13	14-Nov-06	< 0.00025	< 0.005	< 0.001	0.07	< 0.05	< 0.001	< 0.001	243	< 0.0002	0.004	< 0.001	< 0.001	< 0.05		4.3	0.009	52.2	8.78	0.0017	31.2	0.014	< 0.001	< 0.15	< 0.001	< 0.001	7	< 0.001	0.6	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0053	< 0.001	< 0.005	< 0.01
X13	13-Dec-06	< 0.00025	< 0.005	< 0.001	0.066	< 0.05	< 0.001	< 0.001	259	< 0.0002	0.007	< 0.001	< 0.001	< 0.05		4.2	0.01	48.7	9.89	0.0013	28.6	0.014	< 0.001	< 0.15	< 0.001	< 0.001	7.1	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0059	< 0.001	< 0.005	< 0.01
X13	16-Jan-07	< 0.00025	< 0.005	< 0.001	0.057	< 0.05	< 0.001	< 0.001	232	< 0.0002	0.004	< 0.001	< 0.001	0.05		4.3	0.009	48.5	9.09	0.0018	29.6	0.014	< 0.001	< 0.15	< 0.001	< 0.001	6.8	< 0.001	0.62	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0047	< 0.001	0.006	< 0.01
X13	15-Feb-07	< 0.00025	< 0.005	0.001	0.06	< 0.05	< 0.001	< 0.001	271	< 0.0002	0.007	< 0.001	< 0.001	0.08		4.4	0.009	51.2	9.95	0.0013	29.7	0.013	< 0.001	< 0.15	< 0.001	< 0.001	7.1	< 0.001	0.66	< 0.001	< 0.0005	< 0.001	< 0.0001	0.005	< 0.001	< 0.005	< 0.01
X13	12-Mar-07	< 0.00025	< 0.005	0.001	0.065	< 0.05	< 0.001	< 0.001	230	< 0.0002	0.003	< 0.001	< 0.001	0.06		4.7	0.01	46	7.71	0.0017	29.6	0.014	< 0.001	< 0.15	< 0.001	< 0.001	6.7	< 0.001	0.6	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0052	< 0.001	< 0.005	< 0.01
X13	19-Apr-07	< 0.00025	< 0.005	0.001	0.07	< 0.05	< 0.001	< 0.001	265	< 0.0002	0.005	< 0.001	< 0.001	< 0.05		4.2	0.008	49	11.2	0.0017	28.5	0.016	< 0.001	< 0.15	< 0.001	0.001	7.6	< 0.001	0.67	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0053	< 0.001	< 0.005	< 0.01
X13	15-May-07	< 0.00025	< 0.005	< 0.001	0.063	< 0.05	< 0.001	< 0.001	249	< 0.0002	0.006	< 0.001	0.001	0.45		4.2	0.01	52.9	10.7	0.0012	30.4	0.015	< 0.001	< 0.15	< 0.001	0.002	7.5	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0058	< 0.001	0.006	< 0.01
X13	19-Jun-07	< 0.00025	< 0.005	< 0.001	0.06	< 0.05	< 0.001	< 0.001	245	< 0.0002	0.006	< 0.001	< 0.001	0.06		4.2	0.01	51.9	9.96	0.0017	29.8	0.013	< 0.001	< 0.15	< 0.001	< 0.001	6.2	< 0.001	0.64	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0053	< 0.001	0.009	< 0.01
X13	16-Jul-07	< 0.00025	< 0.005	0.001	0.055	< 0.05	< 0.001	< 0.001	229	< 0.0002	0.006	< 0.001	< 0.001	0.05		4.1	0.011	50.6	9.57	0.0014	27.1	0.013	< 0.001	< 0.15	< 0.001	< 0.001	6.6	< 0.001	0.7	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0045	< 0.001	< 0.005	< 0.01
X13	13-Aug-07	< 0.00025	< 0.005	< 0.001	0.053	< 0.05	< 0.001	< 0.001	279	< 0.0002	0.008	< 0.001	0.001	0.1		5.2	0.012	59.1	12.5	0.0018	31.6	0.016	< 0.001	< 0.15	< 0.001	< 0.001	5.9	< 0.001	0.72	< 0.001	< 0.0005	< 0.001	< 0.0001	0.005	< 0.001	0.005	< 0.01
X13	10-Sep-07	< 0.00025	< 0.005	< 0.001	0.062	< 0.05	< 0.001	< 0.001	239	< 0.0002	0.005	< 0.001	< 0.001	< 0.05		4.2	0.009	47.4	9.47	0.0021	26.6	0.013	< 0.001	< 0.15	< 0.001	< 0.001	5.9	< 0.001	0.66	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0054	< 0.001	0.006	< 0.01
X13	23-Oct-07	< 0.00025	< 0.005	0.001	0.053	< 0.05	< 0.001	< 0.001	269	< 0.0002	0.009	< 0.001	0.001	0.17		4.9	0.013	65.2	11.9	0.002	34	0.017	< 0.001	< 0.15	< 0.001	< 0.001	7.4	< 0.001	0.78	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0052	< 0.001	0.005	< 0.01
X13	14-Nov-07	< 0.00025	0.023	< 0.001	0.067	< 0.05	< 0.001	< 0.001	263	< 0.0002	0.004	< 0.001	0.001	0.05		4.6	0.009	52	9.42	0.0022	29.9	0.014	< 0.001	< 0.15	< 0.001	0.001	6.9	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0056	< 0.001	0.007	< 0.01
X13	10-Dec-07	< 0.00025	< 0.005	< 0.001	0.057	< 0.05	< 0.001	< 0.001	242	< 0.0002	0.005	< 0.001	< 0.001	0.09		3.9	0.007	45.4	10.2	0.0019	24.1	0.015	< 0.001	< 0.15	< 0.001	< 0.001	6.4	< 0.001	0.64	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0056	< 0.001	0.011	< 0.01
	N	36	36	36	36	36	36	36	36	36	36	36	36	36	0	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	median	0.000125	0.0025	0.0005	0.0645	0.025	0.0005	0.0005	225	0.0001	0.005	0.0005	0.0005	0.05		4.2	0.009	46.35	9.17	0.0013	28.75	0.013	0.0005	0.075	0.0005	0.0005	7.05	0.0005	0.6	0.0005	0.00025	0.0005	0.00005	0.00495	0.0005	0.00375	0.005
	mean	0.00013	0.0044	0.0007	0.0645	0.025	0.0005	0.0005	225.4	0.0001	0.0053	0.0005	0.0006	0.118		4.183	0.01	46.19	9.12	0.0014	28.61	0.0132	0.0005	0.075	0.001	0.001	8.9	0.001	0.597	0.001	0.0003	0.0005	0.0001	0.0049	0.001	0.005	0.005
	std	0	0.006	0.0004	0.008	0	0	0	28	0.0001	0.0017	0	0.0002	0.308		0.412	0.004	6.64	1.44	0.0004	2.49	0.0016	0	0	0	0	3.4	0	0.076	0	0	0	0	0.0006	0	0.002	0
	minimum	< 0.00025	0.005	< 0.001	0.053	< 0.05	< 0.001	< 0.001	148	< 0.0002	0.002	< 0.001	< 0.001	< 0.05		3.2	0.006	30.2	5.06	0.0006	21.8	0.009	< 0.001	< 0.15	< 0.001	< 0.001	5.9	< 0.001	0.39	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0036	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.031	0.002	0.092	< 0.05	< 0.001	< 0.001	279	0.0005	0.009	< 0.001	0.001	1.86		5.2	0.033	65.2	12.5	0.0022	34	0.017	< 0.001	< 0.15	< 0.001	0.002	15.2	0.001	0.78	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0059	< 0.001	0.011	< 0.01
	# < DL	36	31	23	0	36	36	36	0	35	0	36	31	16		0	0	0	0	0	0	0	36	36	36	33	0	36	0	36	36	36	36	0	36	18	36
	% < DL	100%	86%	64%	0%	100%	100%	100%	0%	97%	0%	100%	86%	44%		0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	92%	0%	100%	0%	100%	100%	100%	100%	0%	100%	50%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002		0.001	0.001	0.05									0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001	0.005	0.01
	95th percentile	0.000125	0.01475	0.00125	0.07425	0.025	0.0005	0.0005	269.5	0.0001	0.00825	0.0005	0.001	0.24		4.925	0.01225	54.45	11.375	0.002025	32.625	0.016	0.0005	0.075	0.0005	0.001	15.025	0.0005	0.705	0.0005	0.00025	0.0005	0.00005	0.005725	0.0005	0.009	0.005
	5th percentile	0.000125	0.0025	0.0005	0.05375	0.025	0.0005	0.0005	181	0.0001	0.003	0.0005	0.0005	0.025		3.55	0.007	35.025	6.635	0.0008	24.4	0.01075	0.0005	0.075	0.0005	0.0005	5.975	0.0005	0.4775	0.0005	0.00025	0.0005	0.00005	0.00395	0.0005	0.0025	0.005

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, guideline source provided in Appendix C1

Method Detection Limit set to 1/2 method detection limit for statistical calculations

Appendix C2: 2005 to 2007 Surface Water Quality Data Rose Creek Drainage

Table 7. Receiving Environment Surface Water Physical and Routine Parameters

Station	Date	ACID-T mg/L	ALK-C mg/L	ALK-H mg/L	ALK-T mg/L	Cl mg/L	COLOR CU	COND-L µS/cm	HARD mg/L	HCO3 mg/L	NH3 mg/L	NO2 mg/L	PH-F pH unit	PH-L pH unit	SO4 mg/L	TDS mg/L	TEMP-F °C	TSS mg/L	TURB NTU
Benchmark					12.6						0.25	0.06	6.5 - 9.0	6.5 - 9.0	50	500		29	
R2	29-Mar-05				158		< 5	578	361	193	0.08		7.2		154		1	2	1.8
R2	17-Aug-05				100		5	351	212	123	0.14		7.7		114		12.8	3	1.3
R2	21-Feb-06				165		< 5	667	343	202	0.11		7.6		202		0.8	2	2.7
R2	08-Aug-06				91.9		7	341	158	112	0.09		8		88.2		8.7	< 1	0.74
R2	20-Feb-07				203		< 5	815	425	248	0.19		7.6		288		-0.4	1	2.5
R2	17-Aug-07				109		7	471	207	133	0.19		7.7		150		9.5	2	0.85
	N				6		6	6	6	6	6	0	6	0	6	0	6	6	6
	median				133.5		3.75	524.5	277.5	163	0.125		7.65		152		4.85	2	1.55
	mean				137.8		4.4	537.2	284.3	168.5	0.13		7.6		166		5.4	1.8	1.6
	std				44.2		2.2	186.1	106.1	54	0.05		0.3		71.2		5.6	0.9	0.8
	minimum				91.9		< 5	341	158	112	0.08		7.2		88.2		-0.4	< 1	0.74
	maximum				203		7	815	425	248	0.19		8		288		12.8	3	2.7
	# < DL				0		3	0	0	0	0		0		0		0	1	0
	% < DL				0%		50%	0%	0%	0%	0%		0%		0%		0%	17%	0%
	# > BM				6						0		0		6			0	
	% > BM				100%						0%		0%		100%			0%	
	# < DL (DL>BM)				0						0		0		0			0	
	% < DL (DL>BM)				0%						0%		0%		0%			0%	
	max DL				0		5				0						0	1	0
	95th percentile				193.5		7	778	409	236.5	0.19		7.925		266.5		11.975	2.75	2.65
	5th percentile				93.925		2.5	343.5	170.25	114.75	0.0825		7.3		94.65		-0.1	0.625	0.7675
R3	29-Mar-05				153		< 5	539	334	187	< 0.01		7.4		133		0.3	< 1	0.3
R3	17-Aug-05				101		7	356	188	123	0.08		8		91.3		10.1	2	1.2
R3	21-Feb-06				153		< 5	553	272	187	0.05		7.7		143		-0.2	< 1	0.49
R3	07-Aug-06				93.6		< 5	333	160	114	0.06		7.9		81.3		7.1	2	0.6
R3	20-Feb-07				180		< 5	619	327	220	0.08		8.2		187		-0.3	< 1	0.32
R3	17-Aug-07				109		< 5	406	189	133	0.08		7.9		131		13.9	< 1	0.62
	N				6		6	6	6	6	6	0	6	0	6	0	6	6	6
	median				131		2.5	472.5	230.5	160	0.07		7.9		132		3.7	0.5	0.55
	mean				131.6		3.3	467.7	245	160.7	0.059		7.85		127.8		5.2	1	0.6
	std				35.1		1.8	118.1	76.1	43.1	0.029		0.27		38.1		6.1	0.8	0.3
	minimum				93.6		< 5	333	160	114	< 0.01		7.4		81.3		-0.3	< 1	0.3
	maximum				180		7	619	334	220	0.08		8.2		187		13.9	2	1.2
	# < DL				0		5	0	0	0	1		0		0		0	4	0
	% < DL				0%		83%	0%	0%	0%	17%		0%		0%		0%	67%	0%
	# > BM				6						0		0		6			0	
	% > BM				100%						0%		0%		100%			0%	
	# < DL (DL>BM)				0						0		0		0			0	
	% < DL (DL>BM)				0%						0%		0%		0%			0%	
	max DL				0		5				0.01						0	1	0
	95th percentile				173.25		5.875	602.5	332.25	211.75	0.08		8.15		176		12.95	2	1.055
	5th percentile				95.45		2.5	338.75	167	116.25	0.01625		7.475		83.8		-0.275	0.5	0.305
R4	29-Mar-05				136		< 5	386	258	166	< 0.01		7.6		81.6		0.6	1	0.34
R4	17-Aug-05				101		5	302	184	123	0.02		7.9		77.6		8.2	3	0.67
R4	21-Feb-06				144		< 5	489	250	176	0.01		7.7		127		-0.4	< 1	0.26
R4	07-Aug-06				99		7	330	150	121	0.02		8		74.9		6.7	< 1	0.45
R4	20-Feb-07				163		< 5	514	262	199	0.02		8.4		126		-0.3	< 1	0.19
R4	17-Aug-07				110		< 5	380	180	134	0.04		8		113		10.8	< 1	0.43
	N				6		6	6	6	6	6	0	6	0	6	0	6	6	6
	median				123		2.5	383	217	150	0.02		7.95		97.3		3.65	0.5	0.385
	mean				125.5		3.7	400.2	214	153.2	0.019		7.9		100		4.3	1	0.4
	std				26.082561		1.9	84.9	48.3	31.9	0.012		0.3		24.7		4.9	1	0.2
	minimum				99		< 5	302	150	121	< 0.01		7.6		74.9		-0.4	< 1	0.19
	maximum				163		7	514	262	199	0.04		8.4		127		10.8	3	0.67
	# < DL				0		4	0	0	0	1		0		0		0	4	0
	% < DL				0%		67%	0%	0%	0%	17%		0%		0%		0%	67%	0%
	# > BM				6						0		0		6			0	
	% > BM				100%						0%		0%		100%			0%	
	# < DL (DL>BM)				0						0		0		0			0	
	% < DL (DL>BM)				0%						0%		0%		0%			0%	
	max DL				0		5				0.01						0	1	0
	95th percentile				158.25		6.5	507.75	261	193.25	0.035		8.3		126.75		10.15	2.5	0.615
	5th percentile				99.5		2.5	309	157.5	121.5	0.00625		7.625		75.575		-0.375	0.5	0.2075
R5	29-Mar-05				136		< 5	383	272	165	< 0.01		7.5		80.3		0.5	< 1	0.47
R5	17-Aug-05				117		5	252	159	143	< 0.01		8.3		27.9		8	3	0.46
R5	07-Aug-06				131		< 5	279	141	155	< 0.01		8.1		21.7		5.9	< 1	0.46
R5	17-Aug-07				137		7	270	135	168	< 0.01		8.1		25.2		8.8	< 1	0.4
	N				4		4	4	4	4	4	0	4	0	4	0	4	4	4
	median				133.5		3.75	274.5	150	160	0.005		8.1		26.55		6.95	0.5	0.46
	mean				130.3		4.25	296	176.8	157.8	0.005		8		38.8		5.8	1.1	0.4
	std				9.2		2.2	59.1	64.3	11.3	0		0.35		27.8		3.7	1.3	0
	minimum				117		< 5	252	135	143	< 0.01		7.5		21.7		0.5	< 1	0.4
	maximum				137		7	383	272	168	< 0.01		8.3		80.3		8.8	3	0.47
	# < DL				0		2	0	0	0	4		0		0		0	3	0
	% < DL				0%		50%	0%	0%	0%	100%		0%		0%		0%	75%	0%
	# > BM				4						0		0		1			0	
	% > BM				100%						0%		0%		25%			0%	
	# < DL (DL>BM)				0						0		0		0			0	
	% < DL (DL>BM)				0%						0%		0%		0%			0%	
	max DL				0		5				0.01						0	1	0
	95th percentile				136.85		6.7	367.4	255.05	167.55	0.005		8.27		72.44		8.68	2.625	0.4685
	5th percentile				119.1		2.5	254.7	135.9	144.8	0.005		7.59		22.225		1.31	0.5	0.409
R11	29-Mar-05				137		< 5	383	290	167	< 0.01		7.4		81.9		0.8	< 1	0.27
R11	17-Aug-05				101		5	245	147	123	0.02		7.5		38.6		9.3	4	2.1
R11	21-Feb-06				133		< 5	355	182	162	0.02		7.9		48.7		1	< 1	0.3
R11	07-Aug-06				109		< 5	283	137	133	< 0.01		8		40.7		8	2	1.5
R11	20-Feb-07				151		< 5	337	185	184	0.03		8.2		47.9		-0.2	< 1	0.3
R11	17-Aug-07				116		7	285	135	142	< 0.01		8		50.4		10.7	< 1	0.67
	N				6		6	6	6	6	6	0	6	0	6	0	6	6	6
	median				124.5		2.5	311	164.5	152	0.0125		7.95		48.3		4.5	0.5	0.485
	mean				124.5		3.7	314.7	179.3	151.8	0.014		7.8		51.4		4.9	1.3	0.9
	std				18.9		1.9	52	58.5	23	0.011		0.3		15.7		4.9	1.4	0.8
	minimum				101		< 5	245	135	123	< 0.01		7.4		38.6		-0.2	< 1	0.27
	maximum				151		7	383	290	184	0.03		8.2		81.9		10.7	4	2.1
	# < DL				0		4	0	0	0	3		0		0		0	4	0
	% < DL				0%		67%	0%	0%	0%	50%		0%		0%		0%	67%	0%
	# > BM				6						0		0		2			0	
	% > BM				100%						0%		0%		33%			0%	
	# < DL (DL>BM)				0						0		0		0			0	
	% < DL (DL>BM)				0%						0%		0%		0%			0%	
	max DL				0		5				0.01						0	1	0
	95th percentile				147.5		6.5	376	263.75	179.75	0.0275		8.15		74.025		10.35	3.5	1.95
	5th percentile				103		2.5	254.5	135.5	125.5	0.005		7.425		39.125		0.05	0.5	0.2775
X14	21-Jan-05							598	313		0.1		7.5		182		0.5	1	
X14	08-Feb-05							588	359		0.11		7.7		165		0.5	< 1	
X14	08-Mar-05						< 5	748	639		0.42				409			< 1	2.5
X14	14-Mar-05							1330	717		0.56		7.3		541		3	1	
X14	22-Mar-05						< 5	1220	793		0.54				557			< 1	1.7
X14	11-Apr-05						< 5	562	315		0.04		7.6		145		2.6	< 1	2
X14	10-May-05						75	149	74		0.04		7.5		34.3		3	16	5.9
X14	31-May-05						15	185	94		0.03				40.7			4	0.95
X14	11-Jun-05						10	207	100		0.03				45.2			4	2.1
X14	19-Jun-05						8	267	133		0.01				64.2			1	1.4
X14	21-Jun-05						8	284	140		0.01		7.9		77.1		8.3	1	0.98

Appendix C2: 2005 to 2007 Surface Water Quality Data Rose Creek Drainage

Table 7. Receiving Environment Surface Water Physical and Routine Parameters

Station	Date	ACID-T mg/L	ALK-C mg/L	ALK-H mg/L	ALK-T mg/L	Cl mg/L	COLOR CU	COND-L µS/cm	HARD mg/L	HCO3 mg/L	NH3 mg/L	NO2 mg/L	PH-F pH unit	PH-L pH unit	SO4 mg/L	TDS mg/L	TEMP-F °C	TSS mg/L	TURB NTU
X14	02-Jul-05						8	301	153		0.02		7.9		86.1		10.8	2	0.82
X14	10-Jul-05				85.3		10	325	154	104	0.05		8		89.7		9.6	< 1	1.5
X14	17-Jul-05						8	332	169		0.11		7.7		91.6		10.7	< 1	1.2
X14	24-Jul-05						13	1030	160		0.11		8.2		79.7		8.9	< 1	1.3
X14	25-Jul-05				93.3		8	279	143	114	0.1		8		71.4		9.9	< 1	0.86
X14	31-Jul-05				105		15	270	132	111	0.07		7.8		65.4		8.9	1	1.4
X14	06-Aug-05						7	331	170		0.1		8.1		88.9		10.1	< 1	1.3
X14	13-Aug-05						7	377	206		0.12		8		111		12.8	< 1	1.6
X14	20-Aug-05						5	349	195		0.11		7.9		109		9.1	< 1	1.5
X14	23-Aug-05				100			314	206	123	0.13		8		109		8.9	1	
X14	27-Aug-05						7	286	173		0.12		8		97.7		9.3	< 1	2.2
X14	05-Sep-05				139		6	288	202		0.15		8.2				8.1	< 1	1.4
X14	06-Sep-05				97.1			411	203	118	0.16		8.3		136		8.7	< 1	
X14	11-Sep-05				130		7	340	198		0.15		8				6.7	< 1	1.3
X14	18-Sep-05				123		6	305	187		0.11		8.2				5.9	1	1.1
X14	24-Sep-05				111		7	321	174		0.11		8.2				6.6	1	1.1
X14	01-Oct-05						< 5	296	209		0.11		7.9		129		4	< 1	1.1
X14	11-Oct-05				101		7	192	142	123	0.05		8.4		41.4		1.7	1	1.5
X14	02-Nov-05				121		< 5	252	187	148	0.01		8		67		0.6	< 1	1.9
X14	15-Dec-05				140		< 5	477	250	171	0.04		7.7		111		0.8	< 1	2
X14	23-Jan-06				159		< 5	625	306	194	0.09		7.7		181		1	< 1	3
X14	14-Feb-06				169		< 5	706	361	206	0.11		7.8		254		0.4	2	3.1
X14	24-Mar-06				192		< 5	803	407	234	0.13		7.8		259		1.1	< 1	2
X14	25-Apr-06				170		< 5	714	348	208	0.1		8.2		225		0.6	2	2.8
X14	09-May-06				119		8	895	446	145	0.22		7.9		339		1.2	12	5.9
X14	18-May-06				38.2		117	120	55	46.6	< 0.01		8.3		16.8		0.5	6	3
X14	23-May-06				36.2		90	150	69	44.2	0.03		7.9		34.5		1.2	17	6.7
X14	30-May-06				53.4		45	236	106	65.1	0.04		7.9		56.8		4	8	2.9
X14	06-Jun-06						35	198	89		0.02		8.1		43.6		3.7	7	2.5
X14	19-Jun-06				61		18	253	130	74.4	0.02		7.8		63.5		8.4	2	0.77
X14	20-Jun-06						10	280	144		0.03		8		73.5		7.2	3	0.91
X14	11-Jul-06						10	282	135		0.05		8.2		70.9		12.3	2	0.8
X14	17-Jul-06				84.8		7	367	168	103	0.09		7.9		107		11	2	0.69
X14	18-Jul-06						7	372	174		0.08		8		109		9.2	2	0.74
X14	25-Jul-06						6	428	203		0.14		7.8		137		9.9	3	1.5
X14	01-Aug-06						5	380	187		0.09		7.8		104		10.3	3	0.86
X14	15-Aug-06						8	331	143		0.07		7.7		94.7		7.9	2	0.96
X14	21-Aug-06				90.5		7	328	147	110	0.06		8		82.2		8.3	< 1	0.78
X14	22-Aug-06				87.2		7	326	147	106	0.08		8.2		83.3		10	< 1	0.79
X14	29-Aug-06						7	388	182		0.13		7.8		117		6.4	< 1	0.77
X14	05-Sep-06				92.7		< 5	299	141	113	0.05		8.1		64.9		7.9	2	1.2
X14	12-Sep-06				91.7		8	242	109	112	0.01		8.1		32.8		5.6	< 1	0.61
X14	17-Oct-06				128		< 5	355	172	156	0.05		8		65.4		-0.5	< 1	1.3
X14	14-Nov-06				148		< 5	454	230	174	0.06		7.6		111		0	< 1	1.5
X14	13-Dec-06				175		< 5	592	288	213	0.07		7.7		164		0.2	1	2.2
X14	16-Jan-07				189		< 5	699	354	230	0.14		7.6		225		0	1	2.7
X14	15-Feb-07				196		< 5	801	409	239	0.15		7.6		273		-0.1	1	2.4
X14	12-Mar-07				233		< 5	1030	547	285	0.26		7.5		420		0.2	4	4.6
X14	10-Apr-07				240		< 5	1630	812	293	0.5		7.4		704		3.4	46	17
X14	19-Apr-07				193		< 5	669	363	235	0.12		7.5		216		0.4	< 1	1.8
X14	14-May-07				72.2		70	208	97	88.1	0.04		7.7		31.1		0.5	6	4.5
X14	15-May-07				69.7		70	197	98	85.1	0.01		7.7		29.4		0.9	12	6.7
X14	22-May-07				47.1		110	194	88	57.5	0.05		7.7		46		0.8	14	10
X14	29-May-07				49.6		70	176	84	60.5	0.03		7.5		42.9		4.7	23	8
X14	05-Jun-07				32.5		35	112	54	39.6	0.04		7.4		22.9		5.9	30	13
X14	12-Jun-07				47.6		55	156	75	58.1	0.04		7.5		31.4		7.3	19	10
X14	18-Jun-07				73.4		18	274	99	89.5	0.05		8		66		10.5	4	2
X14	19-Jun-07				79.1		12	315	139	96.6	0.06		8		82.6		9.7	3	1.5
X14	26-Jun-07				73.6		35	239	102	89.8	0.04		7.8		45.6		7.7	< 1	3
X14	03-Jul-07				72.9		18	253	108	88.9	0.06		7.7		53.6		9.5	3	1.2
X14	10-Jul-07				95.6		8	384	165	117	0.18		7.8		99.3		9	4	1.5
X14	16-Jul-07				76.3		< 5	290	134	93.1	0.06		7.5		68		9.8	3	2.1
X14	17-Jul-07				76.2		7	281	112	93	0.06		7.6		135		9.9	3	2.7
X14	24-Jul-07				101		7	402	215	123	0.14		8.1		110		10.8	3	0.86
X14	31-Jul-07				97.4		7	391	191	119	0.11		7.7		111		11.4	2	0.76
X14	07-Aug-07				108		8	391	177	131	0.13		7.8		118		9.3	3	2
X14	13-Aug-07				109		< 5	494	235	133	0.26		7.7		158		8.6	6	2.5
X14	14-Aug-07				104		7	391	191	127	0.14		8		121		8.5	2	1.2
X14	21-Aug-07				112		< 5	502	217	137	0.17		7.9		163		10.8	3	0.91
X14	28-Aug-07				104		7	425	197	127	0.13		7.6		117		5.8	< 1	0.84
X14	04-Sep-07				104		< 5	433	195	127	0.14		7.7		132		6.1	< 1	1.1
X14	10-Sep-07				103		7	402	175	125	0.12		7.7		122		7.6	< 1	0.85
X14	11-Sep-07				81.4		13	286	154	99.3	0.09		7.7		78.4		7	4	3.2
X14	17-Sep-07				88.5		7	318	142	108	0.12		7.7		81.1		5.7	< 1	1
X14	23-Oct-07				131		< 5	647	322	160	0.18		7.7		219		0.5	3	3
X14	29-Oct-07				124		< 5	574	263	151	0.13		7.8		183		2.9	< 1	1.7
X14	14-Nov-07				124		< 5	373	203	151	0.06		7.5		81.5		1.4	< 1	0.85
X14	10-Dec-07				146		< 5	541	246	178	0.08		7.2		135		0.4	1	2.1
	N				62		84	89	89	58	89	0	84	0	85	0	84	89	84
	median				102		7	332	174	121	0.09		7.8		99.3		6.65	1	1.5
	mean				109.6		15.1	424.9	215.1	131.9	0.107		7.8		131.2		5.8	3.7	2.5
	std				45.9		24	267	147.9	57.6	0.103		0.2		119.9		4	6.9	2.8
	minimum				32.5		< 5	112	54	39.6	< 0.01		7.2		16.8		-0.5	< 1	0.61
	maximum				240		117	1630	812	293	0.56		8.4		704		12.8	46	17
	# < DL				0		27	0	0	0	1		0		0		0	34	0
	% < DL				0%		32%	0%	0%	0%	1%		0%		0%		0%	38%	0%
	# > BM				62						6		0		70			2	
	% > BM				100%						7%		0%		82%			2%	
	# < DL (DL>BM)				0						0		0		0			0	
	% < DL (DL>BM)				0%						0%		0%		0%			0%	
	max DL				0		5				0.01						0	1	0
	95th percentile				192.95		70	976	506.6	235.6	0.26		8.2		395		10.8	16.6	7.805
	5th percentile				47.125		2.5	164	78.6	55.865	0.01		7.5		31.68		0.2	0.5	0.77

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, quideline source provided in Appendix C1

Method Detection Limit set to 1/2 method detection limit for statistical calculations

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 8. Receiving Environment Total Metals

Station	Date	AG-T mg/L	AL-T mg/L	AS-T mg/L	BA-T mg/L	BE-T mg/L	BI-T mg/L	B-T mg/L	CA-T mg/L	CD-T mg/L	CN-T mg/L	CO-T mg/L	CR-T mg/L	CU-T mg/L	FE-T mg/L	HG-T mg/L	HG-T µg/L	K-T mg/L	LI-T mg/L	MG-T mg/L	MN-T mg/L	MO-T mg/L	NA-T mg/L	NI-T mg/L	PB-T mg/L	P-T mg/L	SB-T mg/L	SE-T mg/L	SI-T mg/L	SN-T mg/L	SR-T mg/L	TE-T mg/L	TH-T mg/L	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
Benchmark		0.0001	0.1	0.005	1	1.1	0.26			0.00003			0.001	0.002	0.3		0.026	53		82	1	0.073	200	0.065	0.002	0.03	0.02	0.001		0.35	9.3			1.83	0.0008	0.005	0.006	0.03	0.004
R2	29-Mar-05	0.0004	0.015	< 0.001	0.088	< 0.001	< 0.001	< 0.05	107	< 0.0002		0.001	< 0.001	< 0.001	0.36	< 0.00002	< 0.02	2.3	0.008	22.7	1.79	0.0009	10.6	0.002	< 0.001	< 0.15	< 0.001	< 0.001	13.6	< 0.001	0.37	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0033	< 0.001	0.023	< 0.01
R2	17-Aug-05	< 0.00025	0.015	0.001	0.053	< 0.001	< 0.001	< 0.05	60.8	< 0.0002		< 0.001	< 0.001	< 0.001	0.24	< 0.00002	< 0.02	1.7	0.007	14.7	0.76	0.0007	5.3	0.002	< 0.001	< 0.15	< 0.001	0.001	8.8	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	0.045	< 0.01
R2	21-Feb-06	< 0.00025	0.026	0.001	0.072	< 0.001	< 0.001	< 0.05	100	< 0.0002		0.002	< 0.001	< 0.001	0.45	< 0.00002	< 0.02	2.2	0.008	22.4	2.12	0.0008	10.3	0.004	< 0.001	< 0.15	< 0.001	< 0.001	6.2	< 0.001	0.31	< 0.001	< 0.0005	0.001	< 0.0001	0.0031	< 0.001	0.052	< 0.01
R2	08-Aug-06	< 0.00025	0.021	< 0.001	0.04	< 0.001	< 0.001	< 0.05	47.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.24	< 0.00002	< 0.02	1	0.004	9.49	0.51	0.0006	4.03	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.022	< 0.01
R2	20-Feb-07	< 0.00025	0.009	< 0.001	0.073	< 0.001	< 0.001	< 0.05	126	< 0.0002		0.002	< 0.001	0.002	0.37	< 0.00002	< 0.02	2.7	0.009	26.9	3.02	0.0009	12.7	0.006	< 0.001	< 0.15	< 0.001	< 0.001	6.2	< 0.001	0.39	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0033	< 0.001	0.031	< 0.01
R2	17-Aug-07	< 0.00025	0.015	< 0.001	0.053	< 0.001	< 0.001	< 0.05	60.2	< 0.0002		0.001	< 0.001	< 0.001	0.28	< 0.00002	< 0.02	1.8	0.008	13.7	1.14	0.0005	5.49	0.003	< 0.001	< 0.15	< 0.001	< 0.001	3.6	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.033	< 0.01
	N	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.015	0.0005	0.0625	0.0005	0.0005	0.025	80.4	0.0001		0.001	0.0005	0.0005	0.32	0.00001		2	0.008	18.55	1.465	0.00075	7.9	0.0025	0.0005	0.075	0.0005	0.0005	6.2	0.0005	0.27	0.0005	0.00025	0.0005	0.00005	0.00235	0.0005	0.032	0.005
	mean	0.000171	0.0168	0.0007	0.0632	0.0005	0.0005	0.025	83.6	0.0001		0.0012	0.0005	0.0008	0.32	0.00001		1.95	0.007	18.32	1.56	0.00073	8.07	0.0032	0.0005	0.075	0.0005	0.0006	7.1	0.0005	0.28	0.0005	0.00025	0.0006	0.00005	0.0023	0.0005	0.034	0.005
	std	0.000112	0.0059	0.0003	0.0175	0	0	3.80E-18	31.6	0		0.0007	0	0.0006	0.08	0		0.59	0.002	6.66	0.94	0.00016	3.56	0.0016	0	0	0	0.0002	3.7	0	0.09	0	0	0.0002	0	0.001	0	0.012	0
	minimum	< 0.00025	0.009	< 0.001	0.04	< 0.001	< 0.001	< 0.05	47.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.24	< 0.00002		1	0.004	9.49	0.51	0.0005	4.03	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.6	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.022	< 0.01
	maximum	0.0004	0.026	0.001	0.088	< 0.001	< 0.001	< 0.05	126	< 0.0002		0.002	< 0.001	0.002	0.45	< 0.00002		2.7	0.009	26.9	3.02	0.0009	12.7	0.006	< 0.001	< 0.15	< 0.001	0.001	13.6	< 0.001	0.39	< 0.001	< 0.0005	0.001	< 0.0001	0.0033	< 0.001	0.052	< 0.01
	# < DL	5	0	4	0	6	6	6	0	6	0	2	6	5	0	6	6	0	0	0	0	0	0	0	6	6	6	5	0	6	0	6	6	5	6	0	6	0	6
	% < DL	83%	0%	67%	0%	100%	100%	100%	0%	100%	0%	33%	100%	83%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	83%	0%	100%	0%	100%	100%	83%	100%	0%	100%	0%	100%
	# > BM	6	0	0	0	0	0			6			0	0	3		0	0		0	4	0	0	0	0	6	0	0		0	0			0	0	0	0	4	6
	% > BM	100%	0%	0%	0%	0%	0%			100%			0%	0%	14%		0%	0%		0%	67%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	67%	100%
	# < DL (DL>BM)	5	0	0	0	0	0			6			0	0	0		0	0		0	0	0	0	0	0	6	0	0		0	0			0	0	0	0	0	6
	% < DL (DL>BM)	83%	0%	0%	0%	0%	0%			100%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0	0.001	0	0.001	0.001	0.05	0	0.0002		0.001	0.001	0.001	0	0.00002		0	0	0	0	0	0	0	0.001	0.15	0.001	0.001	0	0.001	0	0.001	0.0005	0.001	0.0001	0	0.001	0	0.01
	95th percentile	0.000331	0.02475	0.001	0.08425	0.0005	0.0005	0.025	121.25	0.0001		0.002	0.0005	0.00163	0.43	0.00001		2.6	0.00875	25.85	2.795	0.0009	12.175	0.0055	0.0005	0.075	0.0005	0.000875	12.4	0.0005	0.385	0.0005	0.00025	0.00088	0.00005	0.0033	0.0005	0.05025	0.005
	5th percentile	0.000125	0.0105	0.0005	0.04325	0.0005	0.0005	0.025	50.6	0.0001		0.0005	0.0005	0.0005	0.24	0.00001		1.175	0.00475	10.5425	0.5725	0.000525	4.3475	0.002	0.0005	0.075	0.0005	0.0005	3.75	0.0005	0.1825	0.0005	0.00025	0.0005	0.00005	0.00113	0.0005	0.02225	0.005
R3	29-Mar-05	0.0006	0.007	< 0.001	0.076	< 0.001	< 0.001	< 0.05	99	< 0.0002		< 0.001	< 0.001	< 0.001	0.09	< 0.00002	< 0.02	2.1	0.006	21	0.076	0.0005	8.7	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12.2	< 0.001	0.33	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0028	< 0.001	0.01	< 0.01
R3	17-Aug-05	< 0.00025	0.012	0.001	0.051	< 0.001	< 0.001	< 0.05	54.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.14	< 0.00002	< 0.02	1.5	0.006	12.6	0.54	0.0006	4.4	0.001	< 0.001	< 0.15	< 0.001	0.002	8.6	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.034	< 0.01
R3	21-Feb-06	< 0.00025	< 0.005	< 0.001	0.071	< 0.001	< 0.001	< 0.05	80.2	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.8	0.006	17.5	0.6	0.0006	7.72	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.26	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0025	< 0.001	0.022	< 0.01
R3	07-Aug-06	< 0.00025	0.016	< 0.001	0.043	< 0.001	< 0.001	< 0.05	48.2	< 0.0002		< 0.001	< 0.001	< 0.001	0.17	< 0.00002	< 0.02	1	0.004	9.49	0.35	0.0005	4.02	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.017	< 0.01
R3	20-Feb-07	0.0004	0.006	< 0.001	0.076	< 0.001	< 0.001	< 0.05	96.6	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	2.1	0.006	20.6	1.16	0.0006	8.74	0.003	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.31	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0026	< 0.001	0.017	< 0.01
R3	17-Aug-07	< 0.00025	0.007	< 0.001	0.052	< 0.001	< 0.001	< 0.05	55	< 0.0002		< 0.001	< 0.001	< 0.001	0.15	< 0.00002	< 0.02	1.6	0.006	12.4	0.8	0.0007	5.59	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.5	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	0.019	< 0.01
	N	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.007	0.0005	0.0615	0.0005	0.0005	0.025	67.6	0.0001		0.0005	0.0005	0.0005	0.115	0.00001		1.7	0.006	15.05	0.57	0.0006	6.655	0.0015	0.0005	0.075	0.0005	0.0005	5.65	0.0005	0.235	0.0005	0.00025	0.0005	0.00005	0.002	0.0005	0.018	0.005
	mean	0.00025	0.0084	0.0006	0.0615	0.0005	0.0005	0.025	72.2	0.0001		0.0005	0.0005	0.0005	0.1	0.00001		1.68	0.006	15.6	0.588	0.0006	6.528	0.0016	0.0005	0.075	0.0005	0.00075	6.62	0.0005	0.247	0.0005	0.00025	0.0005	0.00005	0.002	0.0005	0.02	0.005
	std	0.0002	0.0048	0.0002	0.0145	0	0	3.80E-18	22.7	0		0	0	0	0.064	0		0.42	0.001	4.78	0.372	0.0001	2.132	0.0009	0	0	0	0.00061	3.26	0	0.064	0	0	0	0	0.001	0	0.008	0
	minimum	< 0.00025	< 0.005	< 0.001	0.043	< 0.001	< 0.001	< 0.05	48.2	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002		1	0.004	9.49	0.076	0.0005	4.02	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.5	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.01	< 0.01
	maximum	0.0006	0.016	0.001	0.076	< 0.001	< 0.001	< 0.05	99	< 0.0002		< 0.001	< 0.001	< 0.001	0.17	< 0.00002		2.1	0.006	21	1.16	0.0007	8.74	0.003	< 0.001	< 0.15	< 0.001	0.002	12.2	< 0.001	0.33	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0028	< 0.001	0.034	< 0.01
	# < DL	4	1	5	0	6	6	6	0	6	0	6	6	6	2	6	6	0	0	0	0	0	0	1	6	6	6	5	0	6	0	6	6	6	6	0	6	0	6
	% < DL	67%	17%	83%	0%	100%	100%	100%	0%	100%	0%	100%	100%	100%	33%	100%	100%	0%	0%	0%	0%	0%	0%	17%	100%	100%	100%	83%	0%	100%	0%	100%	100%	100%	100%	0%	100%	0%	100%
	# > BM	6	0	0	0	0	0			6			0	0	0		0	0		0	1	0	0	0	0	6	0	1		0	0			0	0	0	0	1	6
	% > BM	100%	0%	0%	0%	0%	0%			100%			0%	0%	0%		0%	0%		0%	17%	0%	0%	0%	0%	100%	0%	17%		0%	0%			0%	0%	0%	0%	17%	100%
	# < DL (DL>BM)	4	0	0	0	0	0			6			0	0	0		0	0		0	0	0	0	0	0	6	0	0		0	0			0	0	0	0	0	6
	% < DL (DL>BM)	67%	0%	0%	0%	0%	0%			100%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0.005	0.001	0	0.001	0.001	0.05	0	0.0002		0.001	0.001	0.001	0.05	0.00002		0	0	0	0	0	0	0.001	0.001	0.15	0.001	0.001	0	0.001	0	0.001	0.0005	0.001	0.0001	0	0.001	0	0.01
	95th percentile	0.00055	0.015	0.000875	0.076	0.0005	0.0005	0.025	98.4	0.0001		0.0005	0.0005	0.0005	0.165	0.00001		2.1	0.006	20.9	1.07	0.000675	8.73	0.00275	0.0005	0.075	0.0005	0.001625	11.3	0.0005	0.325	0.0005	0.00025	0.0005	0.00005	0.00275	0.0005	0.031	0.005
	5th percentile	0.000125	0.00338	0.0005	0.045	0.0005	0.0005	0.025	49.75	0.0001		0.0005	0.0005	0.0005	0.025	0.00001		1.125	0.0045	10.2175	0.1445	0.0005	4.115	0.00063	0.0005	0.075	0.0005	0.0005	3.65	0.0005	0.1775	0.0005	0.00025	0.0005	0.00005	0.0011	0.0005	0.01175	0.005
R4	29-Mar-05	0.0006	0.018	< 0.001	0.1	< 0.001	< 0.001	< 0.05	77.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.1	< 0.00002	< 0.02	1.9	0.004	15.7	0.017	0.0012	5.48	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.9	< 0.001	0.24	< 0.001	< 0.0005	< 0.001	< 0.0001	0.003	< 0.001	< 0.005	< 0.01
R4	17-Aug-05	< 0.00025	0.018	0.001	0.066	< 0.001	< 0.001	< 0.05	53.6	< 0.0002		< 0.001	< 0.001	< 0.001	0.11	0.00002	0.02	1.4	0.005	12.1	0.41	0.0007	3.95	0.001	< 0.001	< 0.15	< 0.001	0.002	8.4	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.025	< 0.01
R4	21-Feb-06	< 0.00025	< 0.005	< 0.001	0.086	< 0.001	< 0.001	< 0.05	73.6	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.7	0.004	15.9	0.03	0.0006	6.16	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.24	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0024	< 0.001	0.005	< 0.01
R4	07-Aug-06	< 0.00025	0.019	< 0.001	0.05	< 0.001	< 0.001	< 0.05	45.2	< 0.0002		< 0.001	< 0.001	< 0.001	0.11	< 0.00002	< 0.02	1.1	0.004	8.94	0.17	0.0005	3.53	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.011	< 0.01
R4	20-Feb-07	< 0.00025	0.006	< 0.001	0.089	< 0.001	< 0.001	< 0.05	77.6	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.8	0.004	16.4	0.026	0.0006	5.91	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.26	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0024	< 0.001	< 0.005	< 0.01
R4	17-Aug-07	< 0.00025	0.008	< 0.001	0.064	< 0.001	< 0.001	< 0.05	52.5	< 0.0002		< 0.001	< 0.001	< 0.001	0.17	< 0.00002	< 0.02	1.6	0.005	12	0.47	0.0005	4.94	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.5	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	0.012	< 0.01
	N	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.013	0.0005	0.076	0.0005	0.0005	0.025	63.6	0.0001		0.0005	0.0005	0.0005	0.105	0.00001		1.65	0.004	13.9	0.1	0.0006	5.21	0.001	0.0005	0.075	0.0005	0.0005	5.2	0.0005	0.22	0.0005	0.00025	0.0005	0.00005	0.00195	0.0005	0.008	0.005
	mean	0.000204	0.012	0.0006	0.076	0.0005	0.0005	0.025	63.3	0.0001		0.0005	0.0005	0.0005	0.09	1.17E-05		1.58	0.004	13.51	0.19	0.0007	4.995	0.001	0.0005	0.075	0.0005	0.0008	6.38	0.0005	0.21	0.0005	0.00025	0.0005	0.00005	0.00193	0.0005	0.01	0.005
	std	0.000194	0.007	0.0002	0.019	0	0	3.80E-18	14.5	0		0	0	0	0.056	4.08E-06		0.29	0.001	2.97	0.2	0.0003	1.065	0.001	0	0	0	0.0006	3.19	0	0.04	0	0	0	0	0.00079	0	0.009	0
	minimum	< 0.00025	< 0.005	< 0.001	0.05	< 0.001	< 0.001	< 0.05	45.2	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002		1.1	0.004	8.94	0.017	0.0005	3.53	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.5	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	< 0.005	< 0.01
	maximum	0.0006	0.019	0.001	0.1	< 0.001	< 0.001	< 0.05	77.6	< 0.0002		< 0.001	< 0.001	< 0.001	0.17	0.00002		1.9	0.005	16.4	0.47	0.0012	6.16	0.002	< 0.001	< 0.15	< 0.001	0.002	11.9	< 0.001	0.26	< 0.001	< 0.0005	< 0.001	< 0.0001	0.003	< 0.001	0.025	< 0.01
	# < DL	5	1	5	0	6	6	6	0	6	0	6	6	6	2	5	5	0	0	0	0	0	0	2	6	6	6	5	0	6	0	6	6	6	6	0	6	2	6
	% < DL	83%	17%	83%	0%	100%	100%	100%	0%	100%	0%	100%	100%	100%	33%	83%	83%	0%	0%	0%	0%	0%	0%	33%	100%	100%	100%	83%	0%	100%	0%	100%	100%	100%	100%	0%	100%	33%	100%
	# > BM	6	0	0	0	0	0			6			0	0	0		0	0		0	0	0	0	0	0	6	0	1		0	0			0	0	0	0	0	6
	% > BM	100%	0%	0%	0%	0%	0%			100%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	17%		0%	0%			0%	0%	0%	0%	0%	100%
	# < DL (DL>BM)	5	0	0	0	0	0			6			0	0	0		0	0		0	0	0	0	0	0	6	0	0		0	0			0	0	0	0	0	6
	% < DL (DL>BM)	83%	0%	0%	0%	0%	0%			100%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0.005	0.001	0	0.001	0.001	0.05	0	0.0002		0.001	0.001	0.001	0.05	0.00002		0	0	0	0	0	0	0.001	0.001	0.15	0.001	0.001	0	0.001	0	0.001	0.0005	0.001	0.0001	0	0.001	0.005	0.01
	95th percentile	0.0004813	0.01875	0.000875	0.09725	0.0005	0.0005	0.025	77.55	0.0001		0.0005	0.0005	0.0005	0.155	0.0000175		1.875	0.005	16.275	0.455	0.001075	6.0975	0.00175	0.0005	0.075	0.0005	0.001625	11.025	0.0005	0.255	0.0005	0.00025	0.0005	0.00005	0.00285	0.0005	0.02175	0.005
	5th percentile	0.000125	0.00338	0.0005	0.0535	0.0005	0.0005	0.025	47.025	0.0001		0.0005	0.0005	0.0005	0.025	0.00001		1.175	0.004	9.705	0.01925	0.0005	3.635	0.0005	0.0005	0.075	0.0005	0.0005	3.65	0.0005	0.16	0.0005	0.00025	0.0005	0.00005	0.00103	0.0005	0.0025	0.005
R5	29-Mar-05	0.0006	0.017	< 0.001	0.1	< 0.001	< 0.001	< 0.05	81.5	< 0.0002		< 0.001	< 0.001	< 0.001	0.11	< 0.00002	< 0.02	2	0.004	16.7	0.019	0.0013	5.75	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12.4	< 0.001	0.26	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0032	< 0.001	0.007	< 0.01
R5	17-Aug-05	< 0.00025	0.03	< 0.001	0.066	< 0.001	< 0.001	< 0.05	44.5	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1	0.002	11.7	0.077	0.0009	1.78	< 0.001	< 0.001	< 0.15	< 0.001	0.001	8.6	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	< 0.005	< 0.01
R5	07-Aug-06	< 0.00025	0.019	< 0.001	0.063	< 0.001	< 0.001	< 0.05	39.3	< 0.0002		< 0.001	< 0.001	< 0.001	0.11	< 0.00002	< 0.02	0.9	0.002	10.5	0.016	0.001	1.67	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	< 0.005	< 0.01
R5	17-Aug-07	< 0.00025	0.017	< 0.001	0.077	< 0.001	< 0.001	< 0.05	36.3	< 0.0002		< 0.001	< 0.001	0.001	0.17	< 0.00002	< 0.02	1	< 0.005	10.8	0.037	0.001	1.87	< 0.001	< 0.001	< 0.15	< 0.001	0.001	3.4	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	< 0.005	< 0.01
	N	4	4	4	4	4	4	4	4	4	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	median	0.000125	0.018	0.0005	0.0715	0.0005	0.0005	0.025	41.9	0.0001		0.0005	0.0005	0.0005	0.11	0.00001		1	0.00225	11.25	0.028	0.001	1.825	0.0005	0.0005	0.075	0.0005	0.00075	6.4	0.0005	0.12	0.0005	0.00025	0.0005	0.00005	0.0017	0.0005	0.0025	0.005
	mean	0.000244	0.02075	0.0005	0.0765	0.0005	0.0005	0.025	50.4	0.0001		0.0005	0.0005	0.0006	0.104	0.00001		1.225	0.00263	12.43	0.0373	0.00105	2.768	0.0005	0.0005	0.075	0.0005	0.00075	7.15	0.0005	0.153	0.0005	0.00025	0.0005	0.00005	0.002	0.0005	0.0036	0.005
	std	0.000238	0.00624	0	0.0168	0	0	0	21	0		0	0	0.0003	0.06	0		0.519	0.00095	2.9	0.0281	0.00017	1.99	0	0	0	0	0.00029	4.18	0	0.072	0	0	0	0	0.0008	0	0.0023	0
	minimum	< 0.00025	0.017	< 0.001	0.063	< 0.001	< 0.001	< 0.05	36.3	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002		0.9	0.002	10.5	0.016	0.0009	1.67	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	< 0.005	< 0.01
	maximum	0.0006	0.03	< 0.001	0.1	< 0.001	< 0.001	< 0.05	81.5	< 0.0002		< 0.001	< 0.001	0.001	0.17	< 0.00002		2	< 0.005	16.7	0.077	0.0013	5.75	< 0.001	< 0.001	< 0.15	< 0.001	0.001	12.4	< 0.001	0.26	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0032	< 0.001	0.007	< 0.01

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 8. Receiving Environment Total Metals

Station	Date	AG-T mg/L	AL-T mg/L	AS-T mg/L	BA-T mg/L	BE-T mg/L	BI-T mg/L	B-T mg/L	CA-T mg/L	CD-T mg/L	CN-T mg/L	CO-T mg/L	CR-T mg/L	CU-T mg/L	FE-T mg/L	HG-T mg/L	HG-T µg/L	K-T mg/L	LI-T mg/L	MG-T mg/L	MN-T mg/L	MO-T mg/L	NA-T mg/L	NI-T mg/L	PB-T mg/L	P-T mg/L	SB-T mg/L	SE-T mg/L	SI-T mg/L	SN-T mg/L	SR-T mg/L	TE-T mg/L	TH-T mg/L	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
Benchmark		0.0001	0.1	0.005	1	1.1	0.26			0.00003			0.001	0.002	0.3		0.026	53		82	1	0.073	200	0.065	0.002	0.03	0.02	0.001		0.35	9.3			1.83	0.0008	0.005	0.006	0.03	0.004
	# < DL	3	0	4	0	4	4	4	0	4	0	4	4	3	1	4	4	0	1	0	0	0	0	4	4	4	4	2	0	4	0	4	4	4	4	0	4	3	4
	% < DL	75%	0%	100%	0%	100%	100%	100%	0%	100%	0%	100%	100%	75%	25%	100%	100%	0%	25%	0%	0%	0%	0%	100%	100%	100%	100%	50%	0%	100%	0%	100%	100%	100%	100%	0%	100%	75%	100%
	# > BM	4	0	0	0	0	0			4			0	0	0		0	0		0	0	0	0	0	0	4	0	0		0	0			0	0	0	0	0	4
	% > BM	100%	0%	0%	0%	0%	0%			100%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	# < DL (DL>BM)	3	0	0	0	0	0			4			0	0	0		0	0		0	0	0	0	0	0	4	0	0		0	0			0	0	0	0	0	4
	% < DL (DL>BM)	75%	0%	0%	0%	0%	0%			100%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0	0.001	0	0.001	0.001	0.05	0	0.0002		0.001	0.001	0.001	0.05	0.00002		0	0.005	0	0	0	0	0.001	0.001	0.15	0.001	0.001	0	0.001	0	0.001	0.0005	0.001	0.0001	0	0.001	0.005	0.01
	95th percentile	0.0005288	0.02835	0.0005	0.09655	0.0005	0.0005	0.025	75.95	0.0001		0.0005	0.0005	0.00093	0.161	0.00001		1.85	0.00378	15.95	0.071	0.001255	5.168	0.0005	0.0005	0.075	0.0005	0.001	11.83	0.0005	0.2405	0.0005	0.00025	0.0005	0.00005	0.00299	0.0005	0.00633	0.005
	5th percentile	0.000125	0.017	0.0005	0.06345	0.0005	0.0005	0.025	36.75	0.0001		0.0005	0.0005	0.0005	0.03775	0.00001		0.915	0.002	10.545	0.01645	0.000915	1.6865	0.0005	0.0005	0.075	0.0005	0.0005	3.52	0.0005	0.11	0.0005	0.00025	0.0005	0.00005	0.00143	0.0005	0.0025	0.005
R11	29-Mar-05	0.0009	0.023	0.001	0.1	< 0.001	< 0.001	< 0.05	85.9	< 0.0002		< 0.001	< 0.001	< 0.001	0.12	< 0.00002	< 0.02	2.3	0.005	18.1	0.02	0.0013	6.34	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	13.8	< 0.001	0.28	< 0.001	< 0.0005	0.001	< 0.0001	0.0032	< 0.001	0.008	< 0.01
R11	17-Aug-05	< 0.00025	0.061	0.001	0.064	< 0.001	< 0.001	< 0.05	42.7	< 0.0002		< 0.001	< 0.001	< 0.001	0.07	< 0.00002	< 0.02	1.2	0.003	9.82	0.059	0.0009	2.33	< 0.001	< 0.001	< 0.15	< 0.001	0.002	7.8	< 0.001	0.14	< 0.001	< 0.0005	0.002	< 0.0001	0.0015	< 0.001	0.006	< 0.01
R11	21-Feb-06	< 0.00025	0.007	< 0.001	0.081	< 0.001	< 0.001	< 0.05	53.6	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.6	0.004	11.7	0.006	0.001	3.86	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	< 0.005	< 0.01
R11	07-Aug-06	< 0.00025	0.038	< 0.001	0.056	< 0.001	< 0.001	< 0.001	40.2	< 0.0002		< 0.001	< 0.001	< 0.001	0.09	< 0.00002	< 0.02	1.2	0.003	8.74	0.019	0.0008	2.64	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.12	< 0.001	< 0.0005	0.001	< 0.0001	0.0012	< 0.001	< 0.005	< 0.01
R11	20-Feb-07	< 0.00025	0.009	< 0.001	0.08	< 0.001	< 0.001	< 0.05	54.6	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.6	0.003	11.7	0.005	0.001	3.69	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	< 0.005	< 0.01
R11	17-Aug-07	< 0.00025	0.019	< 0.001	0.07	< 0.001	< 0.001	< 0.05	38.3	< 0.0002		< 0.001	< 0.001	< 0.001	0.12	< 0.00002	< 0.02	1.3	< 0.005	9.61	0.035	0.0009	2.99	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	< 0.005	< 0.01
	N	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.021	0.0005	0.075	0.0005	0.0005	0.025	48.15	0.0001		0.0005	0.0005	0.0005	0.08	0.00001		1.45	0.003	10.76	0.0195	0.00095	3.34	0.0005	0.0005	0.075	0.0005	0.0005	5.25	0.0005	0.15	0.0005	0.00025	0.0008	0.00005	0.0019	0.0005	0.0025	0.005
	mean	0.000254	0.026	0.0007	0.075	0.0005	0.0005	0.025	52.55	0.0001		0.0005	0.0005	0.0005	0.075	0.00001		1.5	0.003	11.612	0.024	0.00098	3.64	0.0005	0.0005	0.075	0.0005	0.00075	6.58	0.0005	0.17	0.0005	0.00025	0.001	0.00005	0.002	0.0005	0.004	0.005
	std	0.000316	0.02	0.0003	0.015	0	0	3.80E-18	17.72	0		0	0	0	0.043	0		0.4	0.001	3.393	0.02	0.00017	1.45	0	0	0	0	0.00061	3.86	0	0.06	0	0	0.001	0	0.0007	0	0.0024	0
	minimum	< 0.00025	0.007	< 0.001	0.056	< 0.001	< 0.001	< 0.001	38.3	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002		1.2	0.003	8.74	0.005	0.0008	2.33	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	< 0.005	< 0.01
	maximum	0.0009	0.061	0.001	0.1	< 0.001	< 0.001	< 0.001	85.9	< 0.0002		< 0.001	< 0.001	< 0.001	0.12	< 0.00002		2.3	0.005	18.1	0.059	0.0013	6.34	< 0.001	< 0.001	< 0.15	< 0.001	0.002	13.8	< 0.001	0.28	< 0.001	< 0.0005	0.002	< 0.0001	0.0032	< 0.001	0.008	< 0.01
	# < DL	5	0	4	0	6	6	6	0	6	0	6	6	6	2	6	6	0	1	0	0	0	0	6	6	6	6	5	0	6	0	6	6	3	6	0	6	4	6
	% < DL	83%	0%	67%	0%	100%	100%	100%	0%	100%	0%	100%	100%	100%	33%	100%	100%	0%	17%	0%	0%	0%	0%	100%	100%	100%	100%	83%	0%	100%	0%	100%	100%	50%	100%	0%	100%	67%	100%
	# > BM	6	0	0	0	0	0			6			0	0	3		0	0		0	0	0	0	0	0	6	0	1		0	0			0	0	0	0	0	6
	% > BM	100%	0%	0%	0%	0%	0%			100%			0%	0%	14%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	17%		0%	0%			0%	0%	0%	0%	0%	100%
	# < DL (DL>BM)	5	0	0	0	0	0			6			0	0	0		0	0		0	0	0	0	0	0	6	0	0		0	0			0	0	0	0	0	6
	% < DL (DL>BM)	83%	0%	0%	0%	0%	0%			100%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0	0.001	0	0.001	0.001	0.05	0	0.0002		0.001	0.001	0.001	0.05	0.00002		0	0.005	0	0	0	0	0.001	0.001	0.15	0.001	0.001	0	0.001	0	0.001	0.0005	0.001	0.0001	0	0.001	0.005	0.01
	95th percentile	0.000706	0.0553	0.001	0.095	0.0005	0.0005	0.025	78.075	0.0001		0.0005	0.0005	0.0005	1.015	0.00001		2.125	0.00475	16.5	0.053	0.001225	5.72	0.0005	0.0005	0.075	0.0005	0.001625	12.3	0.0005	0.2525	0.0005	0.00025	0.00175	0.00005	0.00298	0.0005	0.0075	0.005
	5th percentile	0.000125	0.0075	0.0005	0.058	0.0005	0.0005	0.025	38.775	0.0001		0.0005	0.0005	0.0005	0.025	0.00001		1.2	0.00263	8.9575	0.00525	0.000825	2.4075	0.0005	0.0005	0.075	0.0005	0.0005	3.45	0.0005	0.1225	0.0005	0.00025	0.0005	0.00005	0.00128	0.0005	0.0025	0.005
X14	21-Jan-05	< 0.00025	0.015	< 0.001	0.075	< 0.001	< 0.001	< 0.05	93	< 0.0002	< 0.005	0.001	< 0.001	< 0.001	0.44	< 0.00002	< 0.02	2	0.007	19.5	1.89	0.0007	9.27	0.004	< 0.001	< 0.15	< 0.001	< 0.001	11.8	< 0.001	0.31	< 0.001	< 0.0005	0.001	< 0.0001	0.0027	< 0.001	0.028	< 0.01
X14	08-Feb-05	< 0.00025	0.009	< 0.001	0.079	< 0.001	< 0.001	< 0.05	106	< 0.0002	< 0.005	0.002	< 0.001	< 0.001	0.41	< 0.00002	< 0.02	2.3	0.008	23	2.17	0.0008	11	0.004	< 0.001	< 0.15	< 0.001	< 0.001	14.4	< 0.001	0.36	< 0.001	< 0.0005	0.001	< 0.0001	0.0032	< 0.001	0.028	< 0.01
X14	01-Mar-05										< 0.005																												
X14	08-Mar-05	0.0012	0.016	< 0.001	0.068	< 0.001	< 0.001	< 0.05	187	< 0.0002	< 0.005	0.007	< 0.001	0.001	0.55	< 0.00002	< 0.02	4.9	0.013	41.7	6.69	0.0012	22.5	0.015	< 0.001	< 0.15	< 0.001	< 0.001	14.4	< 0.001	0.56	< 0.001	< 0.0005	0.001	< 0.0001	0.0041	< 0.001	0.25	< 0.01
X14	14-Mar-05	< 0.00025	0.016	< 0.001	0.052	< 0.001	< 0.001	< 0.05	217	< 0.0002	< 0.005	0.011	< 0.001	0.001	0.61	< 0.00002	< 0.02	3.9	0.01	42.2	11.2	0.0008	24.9	0.022	< 0.001		< 0.001	< 0.001	13.5	< 0.001	0.6	< 0.001	< 0.0005	0.001	< 0.0001	0.0039	< 0.001	0.19	< 0.01
X14	22-Mar-05	< 0.00025	0.009	< 0.001	0.051	< 0.001	< 0.001	< 0.05	236	< 0.0002	< 0.005	0.012	< 0.001	< 0.001	0.57	< 0.00002	< 0.02	4.6	0.012	49.6	10.6	0.0008	27.7	0.022	< 0.001	< 0.15	< 0.001	< 0.001	15.2	< 0.001	0.63	< 0.001	< 0.0005	0.001	< 0.0001	0.0043	< 0.001	0.2	< 0.01
X14	11-Apr-05	< 0.00025	0.008	< 0.001	0.074	< 0.001	< 0.001	< 0.05	93.2	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.28	< 0.00002	< 0.02	2.1	0.007	19.9	1.62	0.0008	9.65	0.004	< 0.001	< 0.15	< 0.001	< 0.001	13.5	< 0.001	0.32	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0031	< 0.001	0.019	< 0.01
X14	10-May-05	< 0.00025	0.31	0.001	0.036	< 0.001	< 0.001	< 0.05	22	< 0.0002	< 0.005	< 0.001	< 0.001	0.003	0.86	< 0.00002	< 0.02	1.3	0.002	4.71	0.41	< 0.0005	2	0.003	0.006	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.078	< 0.001	< 0.0005	0.009	< 0.0001	0.0005	< 0.001	0.035	< 0.01
X14	31-May-05	< 0.00025	0.091	< 0.001	0.026	< 0.001	< 0.001	< 0.05	26.5	< 0.0002	0.0068	< 0.001	< 0.001	0.001	0.24	< 0.00002	< 0.02	0.9	0.002	6.64	0.19	< 0.0005	2.56	0.001	0.001	0.2	< 0.001	< 0.001	9.3	< 0.001	0.094	< 0.001	< 0.0005	0.002	< 0.0001	0.0007	< 0.001	0.019	< 0.01
X14	11-Jun-05	< 0.00025	0.063	< 0.001	0.032	< 0.001	< 0.001	< 0.05	28.9	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.25	< 0.00002	< 0.02	0.8	0.003	6.62	0.23	< 0.0005	3.13	0.001	0.001	< 0.15	< 0.001	< 0.001	8.3	< 0.001	0.11	< 0.001	< 0.0005	0.003	< 0.0001	0.0006	< 0.001	0.017	< 0.01
X14	19-Jun-05	< 0.00025	0.046	< 0.001	0.038	< 0.001	< 0.001	< 0.05	38.8	< 0.0002	0.0057	< 0.001	< 0.001	0.001	0.28	< 0.00002	< 0.02	1	0.004	8.88	0.32	< 0.0005	3.5	0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.5	< 0.001	0.14	< 0.001	< 0.0005	0.001	< 0.0001	0.0009	< 0.001	0.022	< 0.01
X14	21-Jun-05	< 0.00025	0.041	< 0.001	0.04	< 0.001	< 0.001	< 0.05	41	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.34	< 0.00002	< 0.02	1.1	0.005	9.14	0.4	< 0.0005	3.75	0.002	< 0.001	< 0.15	< 0.001	< 0.001	8.9	< 0.001	0.15	< 0.001	< 0.0005	0.001	< 0.0001	0.0009	< 0.001	0.027	< 0.01
X14	02-Jul-05	< 0.00025	0.008	< 0.001	0.039	< 0.001	< 0.001	< 0.05	44.3	0.0003	< 0.005	< 0.001	< 0.001	< 0.001	0.12	< 0.00002	< 0.02	1.3	0.007	10.2	0.3	0.0006	4.71	0.002	< 0.001	< 0.15	< 0.001	< 0.001	10	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.011	< 0.01
X14	10-Jul-05	< 0.00025	0.028	< 0.001	0.04	< 0.001	< 0.001	< 0.05	44.4	< 0.0002	0.0057	< 0.001	< 0.001	0.002	0.28	< 0.00002	< 0.02	1.3	0.005	10.4	0.45	0.0005	4.11	0.002	< 0.001	< 0.15	< 0.001	< 0.001	9.7	< 0.001	0.16	< 0.001	< 0.0005	0.001	< 0.0001	0.001	< 0.001	0.029	< 0.01
X14	17-Jul-05	< 0.00025	0.021	< 0.001	0.046	< 0.001	< 0.001	< 0.05	48.7	< 0.0002	0.0086	< 0.001	< 0.001	< 0.001	0.28	< 0.00002	< 0.02	1.4	0.005	11.4	0.54	0.0005	4.47	0.002	< 0.001	< 0.15	< 0.001	< 0.001	10.3	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.035	< 0.01
X14	24-Jul-05	< 0.00025	0.02	< 0.001	0.045	< 0.001	< 0.001	< 0.05	45.4	< 0.0002	0.0071	< 0.001	< 0.001	< 0.001	0.3	< 0.00002	< 0.02	1.2	0.006	11.3	0.47	0.0005	4.24	0.002	< 0.001	< 0.15	< 0.001	< 0.001	9.8	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.032	< 0.01
X14	25-Jul-05	< 0.00025	0.023	< 0.001	0.046	< 0.001	< 0.001	< 0.05	41.4	< 0.0002	0.006	< 0.001	< 0.001	< 0.001	0.14	< 0.00002	< 0.02	1.2	0.006	9.66	0.36	< 0.0005	3.68	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.8	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.024	< 0.01
X14	31-Jul-05	< 0.00025	0.032	< 0.001	0.042	< 0.001	< 0.001	< 0.05	38.3	< 0.0002	0.0083	< 0.001	< 0.001	0.001	0.23	0.00002	0.02	1.1	0.004	8.81	0.38	< 0.0005	3.43	0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.6	< 0.001	0.15	< 0.001	< 0.0005	0.002	< 0.0001	0.0009	< 0.001	0.029	< 0.01
X14	06-Aug-05	0.0003	0.021	< 0.001	0.05	< 0.001	< 0.001	< 0.05	49.2	< 0.0002	0.0061	< 0.001	< 0.001	0.001	0.28	< 0.00002	< 0.02	1.4	0.006	11.5	0.59	0.0006	4.54	0.002	0.001	< 0.15	< 0.001	0.002	9.8	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.037	< 0.01
X14	13-Aug-05	< 0.00025	0.016	< 0.001	0.053	< 0.001	< 0.001	< 0.05	58.6	< 0.0002	< 0.005	0.001	< 0.001	< 0.001	0.29	< 0.00002	< 0.02	1.6	0.007	14.5	0.92	0.0007	5.75	0.002	< 0.001	< 0.15	< 0.001	< 0.001	10	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.051	< 0.01
X14	20-Aug-05	< 0.00025	0.011	0.001	0.048	< 0.001	< 0.001	< 0.05	56	< 0.0002	< 0.005	0.001	< 0.001	< 0.001	0.22	< 0.00002	< 0.02	1.5	0.006	13.3	0.89	0.0006	4.82	0.002	< 0.001	< 0.15	< 0.001	0.001	8.3	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.051	< 0.01
X14	23-Aug-05	< 0.00025	0.022	< 0.001	0.047	< 0.001	< 0.001	< 0.05	58.5	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.25	< 0.00002	< 0.02	1.7	0.008	14.5	0.8	0.0007	5.96	0.002	< 0.001	< 0.15	< 0.001	< 0.001	9	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	0.05	< 0.01
X14	27-Aug-05	< 0.00025	0.02	< 0.001	0.046	< 0.001	< 0.001	< 0.05	50.3	< 0.0002	< 0.005	< 0.001	< 0.001	0.004	0.25	< 0.00002	< 0.02	1.5	0.006	11.5	0.84	0.0005	4.72	0.003	0.003	< 0.15	< 0.001	0.002	8.1	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.049	< 0.01
X14	05-Sep-05	< 0.00025	0.013	< 0.001	0.043	< 0.001	< 0.001	< 0.05	58.4	< 0.0002	< 0.005	0.001	< 0.001	0.001	0.4	< 0.00002	< 0.02	1.8	0.008	13.6	0.85	0.0009	5.45	0.003	< 0.001	< 0.15	< 0.001	< 0.001	9.3	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.06	< 0.01
X14	06-Sep-05	< 0.00025	0.015	< 0.001	0.042	< 0.001	< 0.001	< 0.05	58.9	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.42	< 0.00002	< 0.02	1.8	0.008	13.6	0.78	0.0014	5.47	0.002	< 0.001	< 0.15	< 0.001	< 0.001	9.4	< 0.001	0.21	< 0.001	0.0016	< 0.001	< 0.0001	0.0015	< 0.001	0.057	< 0.01
X14	11-Sep-05	< 0.00025	0.014	< 0.001	0.046	< 0.001	< 0.001	< 0.05	58.3	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.24	< 0.00002	< 0.02	1.6	0.007	12.8	0.82	0.0006	5.44	0.002	< 0.001	< 0.15	< 0.001	< 0.001	9.5	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.05	< 0.01
X14	18-Sep-05	< 0.00025	0.017	< 0.001	0.042	< 0.001	< 0.001	< 0.05	56	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.19	< 0.00002	< 0.02	1.5	0.006	11.3	0.58	< 0.0005	5.19	0.002	< 0.001	< 0.15	< 0.001	< 0.001	10.5	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.03	< 0.01
X14	24-Sep-05	< 0.00025	0.015	< 0.001	0.046	< 0.001	< 0.001	< 0.05	52.4	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.19	< 0.00002	< 0.02	1.3	0.005	10.6	0.64	< 0.0005	4.68	0.002	< 0.001	< 0.15	< 0.001	< 0.001	8.5	0.005	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.034	< 0.01
X14	01-Oct-05	< 0.00025	0.01	< 0.001	0.053	< 0.001	< 0.001	< 0.05	62	< 0.0002	< 0.005	0.001	< 0.001	< 0.001	0.34	< 0.00002	< 0.02	1.5	0.006	13.1	1.15	< 0.0005	6.11	0.003	0.001	< 0.15	< 0.001	< 0.001	9.7	0.002	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.066	< 0.01
X14	11-Oct-05	< 0.00025	< 0.005	< 0.001	0.051	< 0.001	< 0.001	< 0.05	40.5	< 0.0002		< 0.001	< 0.001	< 0.001	0.24	< 0.00002	< 0.02	1	0.003	9.78	0.33	< 0.0005	3.09	0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.8	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.028	< 0.01
X14	02-Nov-05	< 0.00025	0.018	< 0.001	0.064	< 0.001	< 0.001	< 0.05	53.8	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.29	< 0.00002	< 0.02	1.2	0.005	12.6	0.62	0.0005	4.17	0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.8	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	0.043	< 0.01
X14	15-Dec-05	< 0.00025	0.01	< 0.001	0.073	< 0.001	< 0.001	< 0.05	73.3	< 0.0002	< 0.005	< 0.001	< 0.001	0.002	0.34	< 0.00002	< 0.02	1.6	0.007	16.3	1.23	0.0006	6.67	0.001	< 0.001	< 0.15	< 0.001	< 0.001	6.1	< 0.001	0.25	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.056	< 0.01
X14	23-Jan-06	< 0.00025	0.007	< 0.001	0.072	< 0.001	< 0.001	< 0.05	88.8	< 0.0002	< 0.005	0.001	< 0.001	< 0.001	0.37	< 0.00002	< 0.02	1.7	0.008	20.5	1.89	0.0007	8.78	0.004	< 0.001	< 0.15	< 0.001	< 0.001	6	< 0.001	0.3	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0025	< 0.001	0.062	< 0.01
X14	14-Feb-06	< 0.00025	0.023	< 0.001	0.074	< 0.001	< 0.001	< 0.05	105	< 0.0002	0.0085	0.002	< 0.001	< 0.001	0.41	< 0.00002	< 0.02	2.3	0.008	24	2.34	0.0008	11.3	0.004	< 0.001	< 0.15	< 0.001	0.001	6.3	< 0.001	0.33	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0029	< 0.001	0.04	< 0.01
X14	24-Mar-06	< 0.00025	< 0.005	< 0.001	0.08	< 0.001	< 0.001	< 0.05	119	< 0.0002	< 0.005	0.002	< 0.001	< 0.001	0.29	< 0.00002	< 0.02	2.6	0.01	26.8	2.6	0.0008	12.8	0.005	< 0.001	< 0.15	< 0.001	< 0.001	6.5	< 0.001	0.37	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0033	< 0.001	0.044	< 0.01
X14	25-Apr-06	< 0.00025	0.008	< 0.001	0.07	< 0.001	< 0.001	< 0.05	102	< 0.0002	< 0.005	0.002	< 0.001	< 0.001	0.56	< 0.00002	< 0.02	2.3	0.008	22.8	2.32	0.0008	10.6	0.005	< 0.001	< 0.15	< 0.001	< 0.001	5.7	< 0.001	0.33	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0028	< 0.001	0.045	< 0.01
X14	09-May-06	< 0.00025	0.044	< 0.001	0.045	< 0.001	< 0.001	< 0.05	132	< 0.0002		0.004	< 0.001	0.002	0.57	< 0.00002	< 0.02	3.1	0.009	28.4	3.33	0.0007	13.7	0.009	0.002	< 0.15	< 0.001	< 0.001	5.9	< 0.001	0.43	< 0.001	< 0.0005	0.003	0.0002	0.002	< 0.001	0.17	< 0.01
X14	18-May-06	< 0.00025	0.15	< 0.001	0.028	< 0.001	< 0.001	< 0.05	16.1	< 0.0002	0.0182	< 0.001	< 0.001	0.003	0.58	< 0.00002	< 0.02	1.6	0.002	3.46	0.19	< 0.0005	1.37	0.002	0.003	< 0.15	< 0.001	< 0.001	2.5	< 0.001	0.06	< 0.001	< 0.0005	0.004	< 0.0001	< 0.0005	< 0.001	0.03	< 0.01
X14	23-May-06	< 0.00025	0.26	< 0.001	0.028	< 0.001	< 0.001	< 0.05	21	< 0.0002		< 0.001	< 0.001	0.003	0.71	< 0.00002	< 0.02	1.3	0.002	4.05	0.44	< 0.0005	1.68	< 0.001	0.005	< 0.15	< 0.001	< 0.001	2.2	< 0.001	0.067	< 0.001	< 0.0005	0.008	< 0.0001	0.0005	< 0.001	0.035	< 0.01
X14	30-May-06	< 0.00025	0.13	< 0.001	0.029	< 0.001	< 0.001	< 0.05	32	< 0.0002		< 0.001	< 0.001	0.002	0.41	< 0.00002	< 0.02	1.1	0.002	6.37	0.73	< 0.0005	2.79	0.002	0.002	< 0.15	< 0.001	< 0.001	3.1	< 0.001	0.099	< 0.001	< 0.0005	0.005	< 0.0001	0.0008	< 0.001	0.028	< 0.01
X14	06-Jun-06	< 0.00025	0.17	< 0.001	0.03	< 0.001	< 0.001	< 0.05	26.6	< 0.0002		< 0.001	< 0.001	0.002	0.38	< 0.00002	< 0.02	1	0.002	5.48	0.39	< 0.0005	2.49	0.002	0.002	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.088	< 0.001	< 0.0005	0.005	< 0.0001	0.0006	< 0.001	0.022	< 0.01
X14	19-Jun-06	< 0.00025	0.066	< 0.001	0.034	< 0.001	< 0.001	< 0.05	39.1	< 0.0002		< 0.001	< 0.001	0.001	0.27	< 0.00002	< 0.02	1	0.003	7.87	0.54	< 0.0005	3.44	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.5	< 0.001	0.13	< 0.001	< 0.0005	0.002	< 0.0001	0.0009	< 0.001	0.027	< 0.01
X14	20-Jun-06	< 0.00025	0.048	< 0.001	0.037	< 0.001	< 0.001	< 0.05	43.3	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.27	< 0.00002	< 0.02	1.2	0.004	8.67	0.54	< 0.0005	3.74	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.14	< 0.001	< 0.0005	0.003	< 0.0001	0.0009	< 0.001	0.026	< 0.01

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 8. Receiving Environment Total Metals

Station	Date	AG-T mg/L	AL-T mg/L	AS-T mg/L	BA-T mg/L	BE-T mg/L	BI-T mg/L	B-T mg/L	CA-T mg/L	CD-T mg/L	CN-T mg/L	CO-T mg/L	CR-T mg/L	CU-T mg/L	FE-T mg/L	HG-T mg/L	HG-T µg/L	K-T mg/L	LI-T mg/L	MG-T mg/L	MN-T mg/L	MO-T mg/L	NA-T mg/L	NI-T mg/L	PB-T mg/L	P-T mg/L	SB-T mg/L	SE-T mg/L	SI-T mg/L	SN-T mg/L	SR-T mg/L	TE-T mg/L	TH-T mg/L	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
Benchmark		0.0001	0.1	0.005	1	1.1	0.26			0.00003			0.001	0.002	0.3		0.026	53		82	1	0.073	200	0.065	0.002	0.03	0.02	0.001		0.35	9.3			1.83	0.0008	0.005	0.006	0.03	0.004
X14	11-Jul-06	< 0.00025	0.039	< 0.001	0.035	< 0.001	< 0.001	< 0.05	40.1	< 0.0002		< 0.001	< 0.001	0.001	0.23	< 0.00002	< 0.02	1	0.004	8.42	0.38	< 0.0005	3.53	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.016	< 0.01
X14	17-Jul-06	< 0.00025	0.038	< 0.001	0.038	< 0.001	< 0.001	< 0.05	49.3	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.28	< 0.00002	< 0.02	1.2	0.019	11	0.74	0.0005	4.4	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.023	< 0.01
X14	18-Jul-06	< 0.00025	0.039	< 0.001	0.038	< 0.001	< 0.001	< 0.05	50.6	< 0.0002		< 0.001	< 0.001	0.001	0.3	< 0.00002	< 0.02	1.3	0.018	11.6	0.84	0.0005	4.68	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.17	< 0.001	< 0.0005	0.004	< 0.0001	0.0009	< 0.001	0.033	< 0.01
X14	25-Jul-06	< 0.00025	< 0.005	< 0.001	0.044	< 0.001	< 0.001	< 0.05	61.7	< 0.0002		< 0.001	< 0.001	< 0.001	0.3	< 0.00002	< 0.02	1.5	0.006	11.8	0.7	0.0005	5.23	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.028	< 0.01
X14	01-Aug-06	< 0.00025	0.046	< 0.001	0.049	< 0.001	< 0.001	< 0.05	56.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.37	< 0.00002	< 0.02	1.5	0.006	11.1	0.53	0.0005	4.75	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.2	< 0.001	< 0.0005	0.002	< 0.0001	0.0013	< 0.001	0.023	< 0.01
X14	15-Aug-06	< 0.00025	0.041	< 0.001	0.035	< 0.001	< 0.001	< 0.05	42.1	< 0.0002		< 0.001	< 0.001	< 0.001	0.25	< 0.00002	< 0.02	1.1	0.004	9.16	0.66	< 0.0005	4.18	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.15	< 0.001	< 0.0005	0.001	< 0.0001	0.0007	< 0.001	0.028	< 0.01
X14	21-Aug-06	< 0.00025	0.018	< 0.001	0.04	< 0.001	< 0.001	< 0.05	43.7	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.17	< 0.00002	< 0.02	1.1	0.005	9.09	0.46	< 0.0005	3.95	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.026	< 0.01
X14	22-Aug-06	< 0.00025	0.033	< 0.001	0.04	< 0.001	< 0.001	< 0.05	44	< 0.0002		< 0.001	< 0.001	0.001	0.26	< 0.00002	< 0.02	1.1	0.005	9.11	0.6	< 0.0005	4.13	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.027	< 0.01
X14	29-Aug-06	< 0.00025	0.023	< 0.001	0.041	< 0.001	< 0.001	< 0.05	54.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.26	< 0.00002	< 0.02	1.5	0.007	11.2	0.86	0.0005	5.27	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.039	< 0.01
X14	05-Sep-06	< 0.00025	0.029	< 0.001	0.044	< 0.001	< 0.001	< 0.05	41.6	< 0.0002		< 0.001	< 0.001	< 0.001	0.29	< 0.00002	< 0.02	1.1	0.004	8.93	0.51	< 0.0005	3.64	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.025	< 0.01
X14	12-Sep-06	< 0.00025	0.009	< 0.001	0.045	< 0.001	< 0.001	< 0.05	31.7	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.12	< 0.00002	< 0.02	0.7	0.003	7.21	0.21	< 0.0005	2.62	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.018	< 0.01
X14	17-Oct-06	< 0.00025	0.017	< 0.001	0.054	< 0.001	< 0.001	< 0.05	49.4	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.36	< 0.00002	< 0.02	1.2	0.004	11.7	0.64	0.0005	4.54	0.004	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	0.032	< 0.01
X14	14-Nov-06	< 0.00025	0.031	< 0.001	0.068	< 0.001	< 0.001	< 0.05	66.1	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.3	< 0.00002	< 0.02	1.5	0.005	15.7	1.1	0.0006	6.08	0.003	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.25	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.055	< 0.01
X14	13-Dec-06	< 0.00025	0.015	< 0.001	0.08	< 0.001	< 0.001	< 0.05	85.1	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.32	< 0.00002	< 0.02	1.9	0.007	18.2	1.55	0.0006	7.65	0.003	< 0.001	< 0.15	< 0.001	< 0.001	5.7	< 0.001	0.29	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0034	< 0.001	0.06	< 0.01
X14	16-Jan-07	< 0.00025	0.021	< 0.001	0.074	< 0.001	< 0.001	< 0.05	103	< 0.0002	0.0056	0.002	< 0.001	0.001	0.41	< 0.00002	< 0.02	2.1	0.008	23.4	2.38	0.0008	9.85	0.005	< 0.001	< 0.15	< 0.001	< 0.001	5.7	< 0.001	0.34	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0028	< 0.001	0.053	< 0.01
X14	15-Feb-07	0.0023	0.006	< 0.001	0.07	< 0.001	< 0.001	< 0.05	121	< 0.0002	< 0.005	0.002	< 0.001	0.001	0.36	< 0.00002	< 0.02	2.4	0.008	26	2.8	0.0008	11.7	0.005	< 0.001	< 0.15	< 0.001	< 0.001	6.1	< 0.001	0.37	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0033	< 0.001	0.031	< 0.01
X14	12-Mar-07	< 0.00025	0.046	< 0.001	0.076	< 0.001	< 0.001	< 0.05	162	< 0.0002	< 0.005	0.003	< 0.001	0.001	0.73	< 0.00002	< 0.02	3.3	0.01	34.7	4.45	0.001	16.9	0.007	< 0.001	< 0.15	< 0.001	< 0.001	5.9	< 0.001	0.49	< 0.001	< 0.0005	0.002	< 0.0001	0.0039	< 0.001	0.024	< 0.01
X14	10-Apr-07	< 0.00025	0.58	0.002	0.052	< 0.001	< 0.001	< 0.05	243	< 0.0002		0.015	< 0.001	0.003	1.59	< 0.00002	< 0.02	4.5	0.014	49.8	16	0.002	22.9	0.03	0.008	< 0.15	< 0.001	0.001	7.3	< 0.001	0.63	< 0.001	< 0.0005	0.034	< 0.0001	0.0045	0.001	0.22	< 0.01
X14	19-Apr-07	< 0.00025	0.019	< 0.001	0.075	< 0.001	< 0.001	< 0.05	108	< 0.0002	< 0.005	0.001	< 0.001	< 0.001	0.37	< 0.00002	< 0.02	2.5	0.008	22.6	2.44	0.0009	9.69	0.005	< 0.001	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.35	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0031	< 0.001	0.07	< 0.01
X14	14-May-07	< 0.00025	0.14	< 0.001	0.039	< 0.001	< 0.001	< 0.05	27.9	< 0.0002		< 0.001	0.001	0.003	0.68	< 0.00002	< 0.02	1.6	< 0.005	6.65	0.38	< 0.0005	2.43	0.002	0.003	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.11	< 0.001	< 0.0005	0.005	< 0.0001	0.001	< 0.001	0.043	< 0.01
X14	15-May-07	< 0.00025	0.21	< 0.001	0.041	< 0.001	< 0.001	< 0.05	28.3	< 0.0002	0.0104	< 0.001	< 0.001	0.003	0.91	< 0.00002	< 0.02	1.6	< 0.005	6.52	0.42	0.0005	2.44	0.003	0.004	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.11	< 0.001	< 0.0005	0.008	< 0.0001	0.0009	< 0.001	0.045	< 0.01
X14	22-May-07	< 0.00025	0.4	< 0.001	0.034	< 0.001	< 0.001	< 0.05	26.4	< 0.0002		< 0.001	< 0.001	0.003	0.97	< 0.00002	< 0.02	1.6	< 0.005	5.29	0.45	< 0.0005	2.21	0.003	0.007	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.086	< 0.001	< 0.0005	0.013	< 0.0001	0.0005	0.001	0.034	< 0.01
X14	29-May-07	< 0.00025	0.39	< 0.001	0.032	< 0.001	< 0.001	< 0.05	24.5	< 0.0002		< 0.001	< 0.001	0.003	0.76	< 0.00002	< 0.02	1.4	< 0.005	5.59	0.47	< 0.0005	2.56	0.003	0.004	< 0.15	< 0.001	< 0.001	3.1	< 0.001	0.079	< 0.001	< 0.0005	0.012	< 0.0001	0.0007	< 0.001	0.016	< 0.01
X14	05-Jun-07	< 0.00025	0.53	< 0.001	0.027	< 0.001	< 0.001	< 0.05	16.1	< 0.0002	0.0061	< 0.001	< 0.001	0.002	0.93	< 0.00002	< 0.02	0.9	< 0.005	3.24	0.24	< 0.0005	1.64	0.002	0.003	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.055	< 0.001	< 0.0005	0.019	< 0.0001	0.0006	0.001	0.014	< 0.01
X14	12-Jun-07	< 0.00025	0.36	< 0.001	0.035	< 0.001	< 0.001	< 0.05	22.1	< 0.0002	0.0155	< 0.001	< 0.001	0.002	0.64	< 0.00002	< 0.02	0.9	< 0.005	4.78	0.25	< 0.0005	2.21	0.002	0.004	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.08	< 0.001	< 0.0005	0.014	< 0.0001	0.0006	< 0.001	0.016	< 0.01
X14	18-Jun-07	< 0.00025	0.055	< 0.001	0.028	< 0.001	< 0.001	< 0.05	29.2	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.21	< 0.00002	< 0.02	0.8	< 0.005	6.22	0.4	< 0.0005	2.66	0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.7	< 0.001	0.096	< 0.001	< 0.0005	0.001	< 0.0001	0.0008	< 0.001	0.019	< 0.01
X14	19-Jun-07	< 0.00025	0.061	< 0.001	0.033	< 0.001	< 0.001	< 0.05	41.5	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.27	< 0.00002	< 0.02	1.1	< 0.005	8.61	0.61	< 0.0005	3.71	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.13	< 0.001	< 0.0005	0.002	< 0.0001	0.001	< 0.001	0.019	< 0.01
X14	26-Jun-07	< 0.00025	0.16	< 0.001	0.034	< 0.001	< 0.001	< 0.05	30	< 0.0002	0.0103	< 0.001	< 0.001	0.002	0.31	< 0.00002	< 0.02	0.9	< 0.005	6.48	0.32	< 0.0005	2.69	0.002	0.002	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.1	< 0.001	< 0.0005	0.005	< 0.0001	0.0008	< 0.001	0.02	< 0.01
X14	03-Jul-07	< 0.00025	0.072	< 0.001	0.038	< 0.001	< 0.001	< 0.05	31.4	< 0.0002	0.0076	< 0.001	< 0.001	0.001	0.22	< 0.00002	< 0.02	0.9	< 0.005	7.12	0.36	< 0.0005	2.79	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.12	< 0.001	< 0.0005	0.002	< 0.0001	0.0008	< 0.001	0.019	< 0.01
X14	10-Jul-07	< 0.00025	0.15	< 0.001	0.044	< 0.001	< 0.001	< 0.05	49.8	0.0003	0.0069	< 0.001	0.001	0.012	0.41	< 0.00002	< 0.02	1.4	< 0.005	9.82	0.75	0.0008	4.19	0.005	0.002	< 0.15	< 0.001	< 0.001	3.8	0.002	0.18	< 0.001	< 0.0005	0.003	< 0.0001	0.0011	< 0.001	0.066	< 0.01
X14	16-Jul-07	< 0.00025	0.067	< 0.001	0.042	< 0.001	< 0.001	< 0.05	39.4	< 0.0002	0.0068	< 0.001	< 0.001	0.001	0.28	< 0.00002	< 0.02	1.1	< 0.005	8.55	0.55	0.0005	3.71	0.002	0.003	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.16	< 0.001	< 0.0005	0.002	< 0.0001	0.0009	< 0.001	0.025	< 0.01
X14	17-Jul-07	< 0.00025	0.063	< 0.001	0.036	< 0.001	< 0.001	< 0.05	32.9	< 0.0002	0.0082	< 0.001	< 0.001	0.003	0.25	< 0.00002	< 0.02	1.1	< 0.005	7.31	0.43	< 0.0005	3.67	0.002	0.002	< 0.15	< 0.001	< 0.001	4	< 0.001	0.13	< 0.001	< 0.0005	0.002	< 0.0001	0.0007	< 0.001	0.023	< 0.01
X14	24-Jul-07	0.0007	0.039	< 0.001	0.047	< 0.001	< 0.001	< 0.05	64.6	< 0.0002	< 0.005	0.001	< 0.001	0.001	0.38	< 0.00002	< 0.02	1.6	0.007	12.9	1.01	0.0005	5.38	0.003	< 0.001	< 0.15	< 0.001	0.001	4.1	< 0.001	0.21	< 0.001	< 0.0005	0.002	< 0.0001	0.0012	< 0.001	0.031	< 0.01
X14	31-Jul-07	< 0.00025	0.028	< 0.001	0.043	< 0.001	< 0.001	< 0.05	56	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.26	< 0.00002	< 0.02	1.6	0.007	12.3	0.8	0.0007	5.08	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.2	< 0.001	< 0.0005	0.001	< 0.0001	0.0013	< 0.001	0.022	< 0.01
X14	07-Aug-07	< 0.00025	0.024	< 0.001	0.046	< 0.001	< 0.001	< 0.05	52	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.54	< 0.00002	< 0.02	1.3	0.005	11.5	0.97	0.0006	4.83	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.026	< 0.01
X14	13-Aug-07	< 0.00025	0.081	< 0.001	0.043	< 0.001	< 0.001	< 0.05	69.3	< 0.0002	0.0062	0.001	< 0.001	0.001	0.47	< 0.00002	< 0.02	1.9	0.009	15	1.21	0.0007	6.52	0.003	< 0.001	< 0.15	< 0.001	< 0.001	3.6	< 0.001	0.25	< 0.001	< 0.0005	0.003	< 0.0001	0.0014	< 0.001	0.033	< 0.01
X14	14-Aug-07	< 0.00025	0.024	< 0.001	0.047	< 0.001	< 0.001	< 0.05	55.7	< 0.0002	0.0074	< 0.001	< 0.001	< 0.001	0.19	< 0.00002	< 0.02	1.5	0.006	12.6	0.93	0.0006	5.15	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.032	< 0.01
X14	21-Aug-07	< 0.00025	0.042	< 0.001	0.052	< 0.001	< 0.001	< 0.05	63	< 0.0002	< 0.005	0.002	< 0.001	< 0.001	0.37	< 0.00002	< 0.02	1.8	0.008	14.3	1.37	0.0006	7.4	0.003	< 0.001	< 0.15	< 0.001	0.001	3.3	< 0.001	0.24	< 0.001	< 0.0005	0.001	< 0.0001	0.0013	< 0.001	0.037	< 0.01
X14	28-Aug-07	< 0.00025	0.005	< 0.001	0.046	< 0.001	< 0.001	< 0.05	58	< 0.0002	< 0.005	0.001	< 0.001	0.002	0.29	< 0.00002	< 0.02	1.6	0.006	12.6	1.08	0.0005	5.2	0.003	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.034	< 0.01
X14	04-Sep-07	< 0.00025	0.013	< 0.001	0.042	< 0.001	< 0.001	< 0.05	56.5	0.0002	< 0.005	0.001	< 0.001	0.001	0.3	< 0.00002	< 0.02	1.7	< 1	13.1	1.17	0.0009	6.26	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	0.0002	0.0018	< 0.001	0.038	< 0.01
X14	10-Sep-07	< 0.00025	0.023	< 0.001	0.045	< 0.001	< 0.001	< 0.05	50.5	< 0.0002	< 0.005	0.001	< 0.001	< 0.001	0.26	< 0.00002	< 0.02	1.4	0.005	12	1.2	0.0007	4.79	0.003	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.038	< 0.01
X14	11-Sep-07	< 0.00025	0.066	< 0.001	0.045	< 0.001	< 0.001	< 0.05	43.7	< 0.0002	0.0071	< 0.001	< 0.001	0.002	0.41	< 0.00002	< 0.02	1.4	0.004	10.8	0.84	0.0006	4.55	0.003	0.002	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.17	< 0.001	< 0.0005	0.002	< 0.0001	0.0011	< 0.001	0.033	< 0.01
X14	17-Sep-07	< 0.00025	0.021	< 0.001	0.038	< 0.001	< 0.001	< 0.05	40.9	< 0.0002	0.0072	< 0.001	< 0.001	< 0.001	0.26	< 0.00002	< 0.02	1.1	0.004	9.55	0.91	< 0.0005	4.02	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.027	< 0.01
X14	23-Oct-07	< 0.00025	0.056	< 0.001	0.051	< 0.001	< 0.001	< 0.05	93.5	< 0.0002	0.0054	0.003	< 0.001	0.001	0.52	< 0.00002	< 0.02	2.1	0.007	21.5	3.26	0.0009	8.97	0.008	0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.3	< 0.001	< 0.0005	0.002	< 0.0001	0.002	< 0.001	0.07	< 0.01
X14	29-Oct-07	< 0.00025	0.017	< 0.001	0.047	< 0.001	< 0.001	< 0.05	75.9	< 0.0002	< 0.005	0.003	< 0.001	< 0.001	0.32	< 0.00002	< 0.02	1.8	0.006	17.8	2.71	0.0008	7.24	0.006	0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.26	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.069	< 0.01
X14	14-Nov-07	< 0.00025	0.04	< 0.001	0.058	< 0.001	< 0.001	< 0.05	59.5	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.23	< 0.00002	< 0.02	1.4	0.004	13.2	0.83	0.0007	4.87	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.3	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	0.051	< 0.01
X14	10-Dec-07	< 0.00025	0.017	< 0.001	0.062	< 0.001	< 0.001	< 0.05	72.8	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.31	< 0.00002	< 0.02	1.5	0.005	15.5	1.49	0.0007	5.92	0.003	< 0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.25	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	0.052	< 0.01
	N	89	89	89	89	89	89	89	89	89	72	89	89	89	89	89	89	89	89	89	89	89	89	89	89	88	89	89	89	89	89	89	89	89	89	89	89	89	89
	median	0.000125	0.024	0.0005	0.045	0.0005	0.0005	0.025	50.6	0.0001	0.0025	0.0005	0.0005	0.001	0.3	0.00001		1.5	0.006	11.5	0.75	0.0005	4.71	0.002	0.0005	0.075	0.0005	0.0005	5	0.0005	0.18	0.0005	0.00025	0.0005	0.00005	0.0011	0.0005	0.032	0.005
	mean	0.00017	0.068	0.0005	0.0476	0.0005	0.0005	0.025	63.23	0.0001	0.0043	0.0013	0.0005	0.0012	0.3838	0		1.62	0.0114	13.85	1.4363	0.0005	6.159	0.0035	0.0012	0.0764	0.0005	0.0006	6.34	0.0006	0.2127	0.0005	0.0003	0.0025	0.0001	0.0015	0.0005	0.0446	0.005
	std	0.000263	0.111	0.0002	0.014	0	0	0	44.095	0	0.0031	0.0024	0.0001	0.0014	0.2226	0		0.79	0.0525	9.22	2.3694	0.0003	4.941	0.0045	0.0015	0.0133	3.27E-19	0.0002	3.2	0.0005	0.1206	0	0.0001	0.0047	0	0.001	0.0001	0.0426	0
	minimum	< 0.00025	< 0.005	< 0.001	0.026	< 0.001	< 0.001	< 0.05	16.1	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.12	< 0.00002		0.7	0.002	3.24	0.19	< 0.0005	1.37	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.2	< 0.001	0.055	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.011	< 0.01
	maximum	0.0023	0.58	0.002	0.08	< 0.001	< 0.001	< 0.05	243	0.0003	0.0182	0.015	0.001	0.012	1.59	< 0.00002		4.9	< 1	49.8	16	0.002	27.7	0.03	0.008	0.2	< 0.001	0.002	15.2	0.005	0.63	< 0.001	0.0016	0.034	0.0002	0.0045	0.001	0.25	< 0.01
	# < DL	85	3	86	0	89	89	89	0	86	48	62	87	42	0	88	88	0	14	0	0	34	0	4	64	87	89	82	0	86	0	89	88	46	87	1	86	0	89
	% < DL	96%	3%	97%	0%	100%	100%	100%	0%	97%	67%	70%	98%	47%	0%	99%	99%	0%	16%	0%	0%	38%	0%	4%	72%	99%	100%	92%	0%	97%	0%	100%	99%	52%	98%	1%	97%	0%	100%
	# > BM	89	14	0	0	0	0			89			0	11	43		0	0		0	29	0	0	0	12	88	0	2		0	0			0	0	0	0	49	89
	% > BM	100%	16%	0%	0%	0%	0%			100%			0%	12%	48%		0%	0%		0%	33%	0%	0%	0%	13%	100%	0%	2%		0%	0%			0%	0%	0%	0%	55%	100%
	# < DL (DL>BM)	85	0	0	0	0	0			86			0	0	0		0	0		0	0	0	0	0	0	87	0	0		0	0			0	0	0	0	0	89
	% < DL (DL>BM)	96%	0%	0%	0%	0%	0%			97%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	99%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0.005	0.001	0	0.001	0.001	0.05	0	0.0002	0.005	0.001	0.001	0.001	0	0.00002		0	1	0	0	0.0005	0	0.001	0.001	0.15	0.001	0.001	0	0.001	0	0.001	0.0005	0.001	0.0001	0.0005	0.001	0	0.01
	95th percentile	0.000125	0.34	0.0005	0.075	0.0005	0.0005	0.025	150	0.0001	0.00937	0.0036	0.0005	0.003	0.82	0.00001		3.22	0.0126	32.18	4.002	0.0009	15.62	0.0086	0.004	0.075	0.0005	0.001	12.82	0.0005	0.466	0.0005	0.00025	0.0108	0.00005	0.0037	0.0005	0.13	0.005
	5th percentile	0.000125	0.0064	0.0005	0.0284	0.0005	0.0005	0.025	23.06	0.0001	0.0025	0.0005	0.0005	0.0005	0.19	0.00001		0.9	0.002	4.984	0.244	0.00025	2.21	0.001	0.0005	0.075	0.0005	0.0005	2.86	0.0005	0.0794	0.0005	0.00025	0.0005	0.00005	0.0006	0.0005	0.0164	0.005

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, quideline source provided in Appendix C1

Method Detection Limit set to 1/2 method detection limit for statistical calculations

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 9. Receiving Environment Dissolved Metals

Station	Date	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																																					
R2	29-Mar-05	< 0.00025	0.006	< 0.001	0.084	< 0.05	< 0.001	< 0.001	104	< 0.0002	0.001	< 0.001	< 0.001	< 0.05		2.1	0.008	21.9	1.7	0.0009	10.1	0.002	< 0.001	< 0.15	< 0.001	< 0.001	13.2	< 0.001	0.36	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0032	< 0.001	0.01	< 0.01
R2	17-Aug-05	< 0.00025	< 0.005	< 0.001	0.04	< 0.05	< 0.001	< 0.001	47.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.1	0.006	11.6	0.6	0.0006	4.1	< 0.001	< 0.001	< 0.15	< 0.001	0.001	8.3	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.019	< 0.01
R2	21-Feb-06	< 0.00025	< 0.005	< 0.001	0.063	< 0.05	< 0.001	< 0.001	85.3	< 0.0002	0.001	< 0.001	< 0.001	< 0.05		1.8	0.007	19.4	1.83	0.0007	8.97	0.004	< 0.001	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0026	< 0.001	0.037	< 0.01
R2	08-Aug-06	< 0.00025	< 0.005	< 0.001	0.038	< 0.05	< 0.001	< 0.001	44.1	< 0.0002	< 0.001	< 0.001	< 0.001	0.06		1	0.004	8.88	0.48	< 0.0005	3.78	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.02	< 0.01
R2	20-Feb-07	< 0.00025	0.006	< 0.001	0.07	< 0.05	< 0.001	< 0.001	118	< 0.0002	0.002	< 0.001	0.001	< 0.05		2.4	0.009	26	2.88	0.0009	12.1	0.006	< 0.001	< 0.15	< 0.001	< 0.001	6	< 0.001	0.37	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0031	< 0.001	0.025	< 0.01
R2	17-Aug-07	< 0.00025	< 0.005	< 0.001	0.048	< 0.05	< 0.001	< 0.001	57.2	< 0.0002	0.001	< 0.001	< 0.001	0.07		1.7	0.007	13.4	1.05	0.0006	5.05	0.003	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.015	< 0.01
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.0025	0.0005	0.0555	0.025	0.0005	0.0005	71.25	0.0001	0.001	0.0005	0.0005	0.025		1.75	0.007	16.4	1.375	0.00065	7.01	0.0025	0.0005	0.075	0.0005	0.0005	5.9	0.0005	0.245	0.0005	0.00025	0.0005	0.00005	0.0021	0.0005	0.0195	0.005
	mean	0.000125	0.003667	0.0005	0.057167	0.025	0.0005	0.0005	76.05	0.0001	0.001	0.0005	0.000583	0.038333		1.683333	0.006833	16.86333	1.423333	0.000658	7.35	0.00275	0.0005	0.075	0.0005	0.000583	6.783333	0.0005	0.258333	0.0005	0.00025	0.0005	0.00005	0.0021	0.0005	0.021	0.005
	std	0	0.001807	0	0.018247	4.17E-10	0	0	31.00456	0	0.000548	0	0.000204	0.020897		0.549242	0.001722	6.613809	0.902323	0.000242	3.502765	0.002043	0	0	0	0.000204	3.584643	0	0.093256	0	0	0	0	0.000996	0	0.009317	0
	minimum	0.00025	0.005	0.001	0.038	0.05	0.001	0.001	44.1	0.0002	0.001	0.001	0.001	0.05	0	1	0.004	8.88	0.48	0.0005	3.78	0.001	0.001	0.15	0.001	0.001	3.4	0.001	0.15	0.001	0.0005	0.001	0.0001	0.0009	0.001	0.01	0.01
	maximum	0.00025	0.006	0.001	0.084	0.05	0.001	0.001	118	0.0002	0.002	0.001	0.001	0.07	0	2.4	0.009	26	2.88	0.0009	12.1	0.006	0.001	0.15	0.001	0.001	13.2	0.001	0.37	0.001	0.0005	0.001	0.0001	0.0032	0.001	0.037	0.01
	# < DL	0	2	0	6	0	0	0	6	0	4	0	1	2	0	6	6	6	6	5	6	5	0	0	0	1	6	0	6	0	0	0	0	6	0	6	0
	% < DL	0	0.333333	0	1	0	0	0	1	0	0.666667	0	0.166667	0.333333	0	1	1	1	1	0.833333	1	0.833333	0	0	0	0.166667	1	0	1	0	0	0	0	1	0	1	0
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05						0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001		0.01
	95th percentile	0.000125	0.006	0.0005	0.0805	0.025	0.0005	0.0005	114.5	0.0001	0.00175	0.0005	0.000875	0.0675		2.325	0.00875	24.975	2.6175	0.0009	11.6	0.0055	0.0005	0.075	0.0005	0.000875	11.975	0.0005	0.3675	0.0005	0.00025	0.0005	0.00005	0.003175	0.0005	0.034	0.005
	5th percentile	0.000125	0.0025	0.0005	0.0385	0.025	0.0005	0.0005	45	0.0001	0.0005	0.0005	0.0005	0.025		1.025	0.0045	9.56	0.51	0.000338	3.86	0.000625	0.0005	0.075	0.0005	0.0005	3.55	0.0005	0.1575	0.0005	0.00025	0.0005	0.00005	0.000975	0.0005	0.01125	0.005
R3	29-Mar-05	< 0.00025	< 0.005	< 0.001	0.063	< 0.05	< 0.001	< 0.001	86.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.7	0.005	18.3	0.001	< 0.0005	7.57	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11	< 0.001	0.29	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0025	< 0.001	< 0.005	< 0.01
R3	17-Aug-05	< 0.00025	< 0.005	< 0.001	0.037	< 0.05	< 0.001	< 0.001	41.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.004	9.72	0.41	< 0.0005	3.28	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	7.8	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.011	< 0.01
R3	21-Feb-06	< 0.00025	< 0.005	< 0.001	0.063	< 0.05	< 0.001	< 0.001	70	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.5	0.005	15.4	0.49	0.0005	6.71	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.4	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0021	< 0.001	0.015	< 0.01
R3	07-Aug-06	< 0.00025	< 0.005	< 0.001	0.041	< 0.05	< 0.001	< 0.001	45	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.004	8.93	0.32	< 0.0005	3.69	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.01	< 0.01
R3	20-Feb-07	< 0.00025	< 0.005	< 0.001	0.069	< 0.05	< 0.001	< 0.001	90.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.8	0.006	19.1	1.04	0.0005	8.16	0.003	< 0.001	< 0.15	< 0.001	< 0.001	5.7	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0024	< 0.001	0.014	< 0.01
R3	17-Aug-07	< 0.00025	< 0.005	< 0.001	0.049	< 0.05	< 0.001	< 0.001	53.5	< 0.0002	< 0.001	< 0.001	< 0.001	0.06		1.5	0.006	12.3	0.76	0.0006	5.4	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	0.008	< 0.01
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.0025	0.0005	0.056	0.025	0.0005	0.0005	61.75	0.0001	0.0005	0.0005	0.0005	0.025	#NUM!	1.5	0.005	13.85	0.45	0.000375	6.055	0.0015	0.0005	0.075	0.0005	0.0005	5.55	0.0005	0.215	0.0005	0.00025	0.0005	0.00005	0.0018	0.0005	0.0105	0.005
	mean	0.000125	0.0025	0.0005	0.053667	0.025	0.0005	0.0005	64.53333	0.0001	0.0005	0.0005	0.0005	0.030833	#DIV/0!	1.4	0.005	13.95833	0.5035	0.000392	5.801667	0.0015	0.0005	0.075	0.0005	0.0005	6.2	0.0005	0.216667	0.0005	0.00025	0.0005	0.00005	0.00175	0.0005	0.010083	0.005
	std	0	0	0	0.013186	4.17E-10	0	0	20.93396	0	0	0	0	0.014289	#DIV/0!	0.368782	0.000894	4.321178	0.360202	0.000159	2.024504	0.001	0	0	0	0	2.81496	0	0.06121	0	0	0	0	0.00068	0	0.004521	0
	minimum	0.00025	0.005	0.001	0.037	0.05	0.001	0.001	41.9	0.0002	0.001	0.001	0.001	0.05	0	0.9	0.004	8.93	0.001	0.0005	3.28	0.001	0.001	0.15	0.001	0.001	3.4	0.001	0.15	0.001	0.0005	0.001	0.0001	0.0009	0.001	0.005	0.01
	maximum	0.00025	0.005	0.001	0.069	0.05	0.001	0.001	90.2	0.0002	0.001	0.001	0.001	0.06	0	1.8	0.006	19.1	1.04	0.0006	8.16	0.003	0.001	0.15	0.001	0.001	11	0.001	0.29	0.001	0.0005	0.001	0.0001	0.0025	0.001	0.015	0.01
	# < DL	0	0	0	6	0	0	0	6	0	0	0	0	1	0	6	6	6	6	3	6	4	0	0	0	0	6	0	6	0	0	0	0	6	0	5	0
	% < DL	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	17%	#DIV/0!	100%	100%	100%	100%	50%	100%	67%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%	100%	0%	83%	0%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05						0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001	0.005	0.01
	95th percentile	0.000125	0.0025	0.0005	0.0675	0.025	0.0005	0.0005	89.3	0.0001	0.0005	0.0005	0.0005	0.05125	#NUM!	1.775	0.006	18.9	0.97	0.000575	8.0125	0.00275	0.0005	0.075	0.0005	0.0005	10.2	0.0005	0.2875	0.0005	0.00025	0.0005	0.00005	0.002475	0.0005	0.01475	0.005
	5th percentile	0.000125	0.0025	0.0005	0.038	0.025	0.0005	0.0005	42.675	0.0001	0.0005	0.0005	0.0005	0.025	#NUM!	0.925	0.004	9.1275	0.08075	0.00025	3.3825	0.0005	0.0005	0.075	0.0005	0.0005	3.525	0.0005	0.15	0.0005	0.00025	0.0005	0.00005	0.00095	0.0005	0.003875	0.005
R4	29-Mar-05	< 0.00025	< 0.005	< 0.001	0.081	< 0.05	< 0.001	< 0.001	65.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.5	0.003	13.6	< 0.001	0.001	4.64	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.3	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0026	< 0.001	< 0.005	< 0.01
R4	17-Aug-05	< 0.00025	< 0.005	< 0.001	0.049	< 0.05	< 0.001	< 0.001	40.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.003	9.18	0.3	0.0005	2.84	< 0.001	< 0.001	< 0.15	< 0.001	0.002	7	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.014	< 0.01
R4	21-Feb-06	< 0.00025	< 0.005	< 0.001	0.076	< 0.05	< 0.001	< 0.001	63.8	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.4	0.004	13.8	0.023	0.0005	5.32	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0021	< 0.001	< 0.005	< 0.01
R4	07-Aug-06	< 0.00025	0.01	< 0.001	0.045	< 0.05	< 0.001	< 0.001	41.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.003	8.31	0.14	0.0005	3.24	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.007	< 0.01
R4	20-Feb-07	< 0.00025	0.005	< 0.001	0.083	< 0.05	< 0.001	< 0.001	71.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.5	0.004	14.8	0.014	0.0005	5.31	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	< 0.005	< 0.01
R4	17-Aug-07	< 0.00025	< 0.005	< 0.001	0.063	< 0.05	< 0.001	< 0.001	52	< 0.0002	< 0.001	< 0.001	< 0.001	0.06		1.5	0.005	12	0.45	0.0005	4.89	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	< 0.005	< 0.01
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.0025	0.0005	0.0695	0.025	0.0005	0.0005	57.9	0.0001	0.0005	0.0005	0.0005	0.025		1.45	0.0035	12.8	0.0815	0.0005	4.765	0.0005	0.0005	0.075	0.0005	0.0005	5	0.0005	0.19	0.0005	0.00025	0.0005	0.00005	0.00175	0.0005	0.0025	0.005
	mean	0.000125	0.0042	0.0005	0.066	0.025	0.0005	0.0005	55.8	0.0001	0.0005	0.0005	0.0005	0.03		1.3	0.0037	11.9	0.1546	0.0006	4.3733	0.0008	0.0005	0.075	0.0005	0.0008	5.7	0.0005	0.18	0.0005	0.00025	0.0005	0.00005	0.0017	0.0005	0.005	0.005
	std	0	0.003	0	0.016	0	0	0	13.1	0	0	0	0	0.01		0.3	0.0008	2.7	0.1841	0.0002	1.0721	0.0006	0	0	0	0.0006	2.6	0	0.03	0	0	0	0	0.0007	0	0.005	0
	minimum	< 0.00025	< 0.005	< 0.001	0.045	< 0.05	< 0.001	< 0.001	40.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.003	8.31	0.001	0.0005	2.84	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.01	< 0.001	0.083	< 0.05	< 0.001	< 0.001	71.3	< 0.0002	< 0.001	< 0.001	< 0.001	0.06		1.5	0.005	14.8	0.45	0.001	5.32	0.002	< 0.001	< 0.15	< 0.001	0.002	10.3	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0026	< 0.001	0.014	< 0.01
	# < DL	6	4	6	0	6	6	6	0	6	6	6	6	5	0	0	0	0	1	0	0	4	6	6	6	5	0	6	0	6	6	6	6	0	6	4	6
	% < DL	100%	67%	100%	0%	100%	100%	100%	0%	100%	100%	100%	100%	83%	0%	0%	0%	0%	17%	0%	0%	67%	100%	100%	100%	83%	0%	100%	0%	100%	100%	100%	100%	0%	100%	67%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05					0.001			0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001	0.005	0.01
	95th percentile	0.000125	0.00875	0.0005	0.0825	0.025	0.0005	0.0005	69.875	0.0001	0.0005	0.0005	0.0005	0.05125		1.5	0.00475	14.55	0.4125	0.000875	5.3175	0.00175	0.0005	0.075	0.0005	0.001625	9.475	0.0005	0.2225	0.0005	0.00025	0.0005	0.00005	0.0025	0.0005	0.01225	0.005
	5th percentile	0.000125	0.0025	0.0005	0.046	0.025	0.0005	0.0005	40.7	0.0001	0.0005	0.0005	0.0005	0.025		0.925	0.003	8.5275	0.003875	0.0005	2.94	0.0005	0.0005	0.075	0.0005	0.0005	3.475	0.0005	0.1425	0.0005	0.00025	0.0005	0.00005	0.00085	0.0005	0.0025	0.005
R5	29-Mar-05	< 0.00025	< 0.005	< 0.001	0.089	< 0.05	< 0.001	< 0.001	71.2	< 0.0002	< 0.001	< 0.001	< 0.001	0.05		1.6	0.004	14.7	0.001	0.001	4.95	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.3	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0027	< 0.001	< 0.005	< 0.01
R5	17-Aug-05	< 0.00025	< 0.005	< 0.001	0.051	< 0.05	< 0.001	< 0.001	34.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	0.001	8.91	0.052	0.0008	1.27	< 0.001	< 0.001	< 0.15	< 0.001	0.001	7.3	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	< 0.005	< 0.01
R5	07-Aug-06	< 0.00025	0.009	< 0.001	0.056	< 0.05	< 0.001	< 0.001	36.5	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	0.002	9.82	0.01	0.0009	1.56	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.098	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	< 0.005	< 0.01
R5	17-Aug-07	< 0.00025	< 0.005	< 0.001	0.071	< 0.05	< 0.001	< 0.001	34.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.08		0.9	< 0.005	10.6	0.034	0.001	1.83	< 0.001	< 0.001	< 0.15	< 0.001	0.001	3.3	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	< 0.005	< 0.01
R11	29-Mar-05	< 0.00025	< 0.005	< 0.001	0.087	< 0.05	< 0.001	< 0.001	72.8	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.7	0.004	15.3	0.004	0.0011	5.33	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	12	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0027	< 0.001	< 0.005	< 0.01
R11	17-Aug-05	< 0.00025	< 0.005	< 0.001	0.049	< 0.05	< 0.001	< 0.001	34.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.002	8.07	0.038	0.0007	1.84	< 0.001	< 0.001	< 0.15	< 0.001	0.001	6.6	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	< 0.005	< 0.01
R11	21-Feb-06	< 0.00025	< 0.005	< 0.001	0.069	< 0.05	< 0.001	< 0.001	47.8	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.4	0.003	10.5	0.002	0.0009	3.41	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	< 0.005	< 0.01
R11	07-Aug-06	< 0.00025	0.006	< 0.001	0.053	< 0.05	< 0.001	< 0.001	38.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.003	8.14	0.006	0.0007	2.48	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	< 0.005	< 0.01
R11	20-Feb-07	< 0.00025	< 0.005	< 0.001	0.074	< 0.05	< 0.001	< 0.001	49.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.4	0.003	10.7	0.001	0.001	3.36	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0021	< 0.001	< 0.005	< 0.01

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 9. Receiving Environment Dissolved Metals

Station	Date	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																																					
R11	17-Aug-07	< 0.00025	< 0.005	< 0.001	0.064	< 0.05	< 0.001	< 0.001	37.2	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		1.2	< 0.005	9.35	0.026	0.0008	2.81	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.1	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	< 0.005	< 0.01
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	median	0.000125	0.0025	0.0005	0.0665	0.025	0.0005	0.0005	43.05	0.0001	0.0005	0.0005	0.0005	0.025		1.3	0.003	9.925	0.005	0.00085	3.085	0.0005	0.0005	0.075	0.0005	0.0005	5	0.0005	0.135	0.0005	0.00025	0.0005	0.00005	0.00175	0.0005	0.0025	0.005
	mean	0.000125	0.0031	0.0005	0.066	0.025	0.0005	0.0005	46.8	0.0001	0.0005	0.0005	0.0005	0.0325		1.267	0.003	10.34	0.013	0.001	3.21	0.0005	0.0005	0.075	0.0005	0.0006	6	0.0005	0.15	0.0005	0.00025	0.0005	0.00005	0.0018	0.0005	0.0025	0.005
	std	0	0.0014	0	0.014	3.80E-18	0	0	14.1	0	0	0	0	0.018		0.294	0.001	2.67	0.015	0	1.19	0	0	0	0	0.0002	3.2	0	0.04	0	0	0	0	0.0006	0	0	0
	minimum	< 0.00025	< 0.005	< 0.001	0.049	< 0.05	< 0.001	< 0.001	34.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.002	8.07	0.001	0.0007	1.84	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.1	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.006	< 0.001	0.087	< 0.05	< 0.001	< 0.001	72.8	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		1.7	< 0.005	15.3	0.038	0.0011	5.33	< 0.001	< 0.001	< 0.15	< 0.001	0.001	12	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0027	< 0.001	< 0.005	< 0.01
	# < DL	6	5	6	0	6	6	6	0	6	6	6	6	5	0	0	1	0	0	0	0	6	6	6	6	5	0	6	0	6	6	6	6	0	6	6	6
	% < DL	100%	83%	100%	0%	100%	100%	100%	0%	100%	100%	100%	100%	83%	0%	0%	17%	0%	0%	0%	0%	100%	100%	100%	100%	83%	0%	100%	0%	100%	100%	100%	100%	0%	100%	100%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05			0.005					0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001	0.005	0.01
	95th percentile	0.000125	0.005125	0.0005	0.08375	0.025	0.0005	0.0005	67.025	0.0001	0.0005	0.0005	0.0005	0.05875		1.625	0.00375	14.15	0.035	0.001075	4.85	0.0005	0.0005	0.075	0.0005	0.000875	10.65	0.0005	0.21	0.0005	0.00025	0.0005	0.00005	0.00255	0.0005	0.0025	0.005
	5th percentile	0.000125	0.0025	0.0005	0.05	0.025	0.0005	0.0005	35.475	0.0001	0.0005	0.0005	0.0005	0.025		0.925	0.002125	8.0875	0.00125	0.0007	2	0.0005	0.0005	0.075	0.0005	0.0005	3.325	0.0005	0.1125	0.0005	0.00025	0.0005	0.00005	0.001125	0.0005	0.0025	0.005
X14	21-Jan-05	< 0.00025	< 0.005	< 0.001	0.064	< 0.05	< 0.001	< 0.001	81.6	< 0.0002	0.001	< 0.001	< 0.001	0.1		1.7	0.006	17.5	1.67	0.0006	8.13	0.003	< 0.001	< 0.15	< 0.001	< 0.001	11.2	< 0.001	0.27	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	0.02	< 0.01
X14	08-Feb-05	< 0.00025	< 0.005	< 0.001	0.065	< 0.05	< 0.001	< 0.001	84.3	< 0.0002	0.001	< 0.001	< 0.001	0.31		1.9	0.006	18.3	1.76	0.0006	8.78	0.004	< 0.001	< 0.15	< 0.001	< 0.001	11.5	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0025	< 0.001	0.023	< 0.01
X14	08-Mar-05	< 0.00025	< 0.005	< 0.001	0.049	< 0.05	< 0.001	< 0.001	147	< 0.0002	0.005	< 0.001	< 0.001	0.14		3.6	0.01	32.9	5.19	0.0009	18.3	0.012	< 0.001	< 0.15	< 0.001	< 0.001	13.5	< 0.001	0.43	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0031	< 0.001	0.12	< 0.01
X14	14-Mar-05	< 0.00025	< 0.005	< 0.001	0.048	< 0.05	< 0.001	< 0.001	208	< 0.0002	0.011	< 0.001	< 0.001	0.24		4.3	0.01	42.2	9.45	0.0007	24.7	0.022	< 0.001		< 0.001	< 0.001	14.4	< 0.001	0.56	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0033	< 0.001	0.15	< 0.01
X14	22-Mar-05	< 0.00025	< 0.005	< 0.001	0.038	< 0.05	< 0.001	< 0.001	213	< 0.0002	0.01	< 0.001	< 0.001	0.09		4	0.011	45.8	9.4	0.0008	24.6	0.02	< 0.001	< 0.15	< 0.001	< 0.001	14.4	< 0.001	0.56	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0036	< 0.001	0.15	< 0.01
X14	11-Apr-05	< 0.00025	< 0.005	< 0.001	0.063	< 0.05	< 0.001	< 0.001	79.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.05		1.6	0.006	17.4	1.4	0.0007	8.29	0.003	< 0.001	< 0.15	< 0.001	< 0.001	11.9	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0026	< 0.001	0.021	< 0.01
X14	10-May-05	< 0.00025	0.054	< 0.001	0.023	< 0.05	< 0.001	< 0.001	19.7	< 0.0002	< 0.001	< 0.001	0.002	0.2		1.1	0.002	4.18	0.3	< 0.0005	1.73	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.07	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.021	< 0.01
X14	31-May-05	< 0.00025	0.022	< 0.001	0.023	< 0.05	< 0.001	< 0.001	20.3	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		0.7	0.002	5.03	0.17	< 0.0005	1.92	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	7.1	< 0.001	0.08	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	0.014	< 0.01
X14	11-Jun-05	< 0.00025	0.014	< 0.001	0.025	< 0.05	< 0.001	< 0.001	25.4	< 0.0002	< 0.001	< 0.001	< 0.001	0.08		0.7	0.003	5.88	0.19	< 0.0005	2.7	0.001	< 0.001	< 0.15	< 0.001	< 0.001	7.9	< 0.001	0.094	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	0.008	< 0.01
X14	19-Jun-05	< 0.00025	0.007	< 0.001	0.032	< 0.05	< 0.001	< 0.001	33.1	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.004	7.29	0.25	< 0.0005	2.95	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	7.2	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.015	< 0.01
X14	21-Jun-05	< 0.00025	0.014	< 0.001	0.032	< 0.05	< 0.001	< 0.001	34.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.19		0.9	0.004	7.6	0.34	< 0.0005	3.08	0.001	< 0.001	< 0.15	< 0.001	< 0.001	7.7	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.019	< 0.01
X14	02-Jul-05	< 0.00025	0.008	< 0.001	0.031	< 0.05	< 0.001	< 0.001	38.5	< 0.0002	< 0.001	< 0.001	< 0.001	0.08		1.2	0.005	10.2	0.27	0.0005	4.05	0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.3	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.014	< 0.01
X14	10-Jul-05	< 0.00025	0.009	< 0.001	0.034	< 0.05	< 0.001	< 0.001	40.5	< 0.0002	< 0.001	< 0.001	< 0.001	0.12		1.1	0.005	9.38	0.4	0.0005	3.71	0.002	< 0.001	< 0.15	< 0.001	< 0.001	8.4	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.016	< 0.01
X14	17-Jul-05	< 0.00025	0.01	< 0.001	0.041	< 0.05	< 0.001	< 0.001	42.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		1.2	0.005	10	0.45	< 0.0005	4.19	0.002	< 0.001	< 0.15	< 0.001	< 0.001	8.8	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.025	< 0.01
X14	24-Jul-05	< 0.00025	0.007	< 0.001	0.041	< 0.05	< 0.001	< 0.001	43.1	< 0.0002	< 0.001	< 0.001	< 0.001	0.13		1.1	0.005	10.3	0.44	< 0.0005	4.02	0.002	< 0.001	< 0.15	< 0.001	< 0.001	9	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.017	< 0.01
X14	25-Jul-05	< 0.00025	0.006	< 0.001	0.039	< 0.05	< 0.001	< 0.001	37.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.005	8.7	0.2	< 0.0005	3.22	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.5	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.007	< 0.01
X14	31-Jul-05	< 0.00025	0.009	< 0.001	0.04	< 0.05	< 0.001	< 0.001	37.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.11		0.9	0.004	8.58	0.36	< 0.0005	3.42	0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.5	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.012	< 0.01
X14	06-Aug-05	< 0.00025	< 0.005	< 0.001	0.046	< 0.05	< 0.001	< 0.001	48.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.3	0.006	11.1	0.57	0.0006	4.33	0.002	< 0.001	< 0.15	< 0.001	< 0.001	9.5	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.02	< 0.01
X14	13-Aug-05	< 0.00025	0.005	< 0.001	0.043	< 0.05	< 0.001	< 0.001	50.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.3	0.006	12.5	0.78	0.0005	4.92	0.002	< 0.001	< 0.15	< 0.001	< 0.001	8.7	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.021	< 0.01
X14	20-Aug-05	< 0.00025	< 0.005	< 0.001	0.039	< 0.05	< 0.001	< 0.001	47.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.1	0.005	11.2	0.75	0.0005	3.98	0.001	< 0.001	< 0.15	< 0.001	0.001	7.6	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.027	< 0.01
X14	23-Aug-05	< 0.00025	< 0.005	< 0.001	0.043	< 0.05	< 0.001	< 0.001	53	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.4	0.007	13.1	0.71	0.0005	5.12	0.002	< 0.001	< 0.15	< 0.001	< 0.001	7.8	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.028	< 0.01
X14	27-Aug-05	< 0.00025	< 0.005	< 0.001	0.041	< 0.05	< 0.001	< 0.001	47	< 0.0002	< 0.001	< 0.001	0.002	< 0.05		1.3	0.005	11	0.77	0.0005	4.44	0.002	< 0.001	< 0.15	< 0.001	0.002	7.5	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.024	< 0.01
X14	05-Sep-05	< 0.00025	< 0.005	< 0.001	0.042	< 0.05	< 0.001	< 0.001	54.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.5	0.007	12.8	0.78	< 0.0005	5.29	0.002	< 0.001	< 0.15	< 0.001	< 0.001	8	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.045	< 0.01
X14	06-Sep-05	< 0.00025	< 0.005	< 0.001	0.043	< 0.05	< 0.001	< 0.001	56	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.5	0.007	12.8	0.72	< 0.0005	5.19	0.002	< 0.001	< 0.15	< 0.001	< 0.001	8	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.034	< 0.01
X14	11-Sep-05	< 0.00025	< 0.005	< 0.001	0.047	< 0.05	< 0.001	< 0.001	61.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		1.7	0.007	13.5	0.87	0.0006	5.81	0.002	< 0.001	< 0.15	< 0.001	< 0.001	10.1	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.046	< 0.01
X14	18-Sep-05	< 0.00025	< 0.005	< 0.001	0.039	< 0.05	< 0.001	< 0.001	50.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.3	0.006	10.6	0.51	< 0.0005	4.67	0.002	< 0.001	< 0.15	< 0.001	< 0.001	8.2	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.014	< 0.01
X14	24-Sep-05	< 0.00025	< 0.005	< 0.001	0.044	< 0.05	< 0.001	< 0.001	48.8	< 0.0002	< 0.001	< 0.001	< 0.001	0.11		1.3	0.005	10.6	0.57	< 0.0005	4.85	0.002	< 0.001	< 0.15	< 0.001	< 0.001	8.2	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.021	< 0.01
X14	01-Oct-05	< 0.00025	< 0.005	< 0.001	0.046	< 0.05	< 0.001	< 0.001	57.6	< 0.0002	0.001	< 0.001	< 0.001	0.1		1.3	0.005	12.6	1.09	< 0.0005	5.64	0.003	< 0.001	< 0.15	< 0.001	< 0.001	9.6	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.057	< 0.01
X14	11-Oct-05	< 0.00025	< 0.005	< 0.001	0.044	< 0.05	< 0.001	< 0.001	36.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.003	8.63	0.28	< 0.0005	2.69	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.6	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.018	< 0.01
X14	02-Nov-05	< 0.00025	< 0.005	< 0.001	0.056	< 0.05	< 0.001	< 0.001	48.5	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.1	0.004	11.1	0.56	< 0.0005	3.61	0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.5	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.029	< 0.01
X14	15-Dec-05	< 0.00025	< 0.005	< 0.001	0.063	< 0.05	< 0.001	< 0.001	67	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.5	0.006	14.9	1.11	0.0006	6.1	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0021	< 0.001	0.049	< 0.01
X14	23-Jan-06	< 0.00025	< 0.005	< 0.001	0.064	< 0.05	< 0.001	< 0.001	81.9	< 0.0002	0.001	< 0.001	< 0.001	< 0.05		1.5	0.007	18.8	1.75	0.0006	8.05	0.003	< 0.001	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.27	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0023	< 0.001	0.049	< 0.01
X14	14-Feb-06	< 0.00025	< 0.005	< 0.001	0.064	< 0.05	< 0.001	< 0.001	91.8	< 0.0002	0.001	< 0.001	< 0.001	< 0.05		1.9	0.007	20.7	2.06	0.0006	9.81	0.003	< 0.001	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.27	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0025	< 0.001	0.03	< 0.01
X14	24-Mar-06	< 0.00025	< 0.005	< 0.001	0.068	< 0.05	< 0.001	< 0.001	100	< 0.0002	0.001	< 0.001	< 0.001	< 0.05		2	0.008	22.4	2.18	0.0007	10.6	0.004	< 0.001	< 0.15	< 0.001	< 0.001	6	< 0.001	0.3	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0029	< 0.001	0.045	< 0.01
X14	25-Apr-06	< 0.00025	< 0.005	< 0.001	0.066	< 0.05	< 0.001	< 0.001	96.6	< 0.0002	0.001	< 0.001	< 0.001	< 0.05		2.1	0.008	22	2.18	0.0007	9.91	0.005	< 0.001	< 0.15	< 0.001	< 0.001	5.4	< 0.001	0.31	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0026	< 0.001	0.037	< 0.01
X14	09-May-06	< 0.00025	< 0.005	< 0.001	0.039	< 0.05	< 0.001	< 0.001	118	< 0.0002	0.003	< 0.001	0.001	< 0.05		2.8	0.008	25	2.95	0.0007	12.4	0.008	< 0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.4	< 0.001	< 0.0005	< 0.001	0.0002	0.0018	< 0.001	0.17	< 0.01
X14	18-May-06	< 0.00025	0.042	< 0.001	0.025	< 0.05	< 0.001	< 0.001	15.9	< 0.0002	< 0.001	< 0.001	0.002	0.22		1.4	0.001	3.39	0.098	< 0.0005	1.34	0.002	< 0.001	< 0.15	< 0.001	< 0.001	2.4	< 0.001	0.057	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.021	< 0.01
X14	23-May-06	< 0.00025	0.034	< 0.001	0.021	< 0.05	< 0.001	< 0.001	19.6	< 0.0002	< 0.001	< 0.001	0.002	0.1		1.1	0.001	3.71	0.26	< 0.0005	1.57	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	1.9	< 0.001	0.063	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.024	< 0.01
X14	30-May-06	< 0.00025	0.015	< 0.001	0.025	< 0.05	< 0.001	< 0.001	30.1	< 0.0002	< 0.001	< 0.001	0.001	0.15		1	0.002	5.9	0.69	< 0.0005	2.58	0.002	< 0.001	< 0.15	< 0.001	< 0.001	2.9	< 0.001	0.089	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.026	< 0.01
X14	06-Jun-06	< 0.00025	0.007	< 0.001	0.025	< 0.05	< 0.001	< 0.001	25.8	< 0.0002	< 0.001	< 0.001	0.001	0.11		0.9	0.002	5.21	0.29	< 0.0005	2.39	0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.8	< 0.001	0.085	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	0.018	< 0.01
X14	19-Jun-06	< 0.00025	0.012	< 0.001	0.03	< 0.05	< 0.001	< 0.001	33.8	< 0.0002	< 0.001	< 0.001	< 0.001	0.11		0.9	0.003	6.81	0.46	< 0.0005	3.03	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.1	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.019	< 0.01
X14	20-Jun-06	< 0.00025	0.013	< 0.001	0.034	< 0.05	< 0.001	< 0.001	38.5	< 0.0002	< 0.001	< 0.001	< 0.001	0.12		1	0.003	7.67	0.47	< 0.0005	3.33	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.1	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.022	< 0.01
X14	11-Jul-06	< 0.00025	0.011	< 0.001	0.037	< 0.05	< 0.001	< 0.001	43.2	< 0.0002	< 0.001	< 0.001	< 0.001	0.14		1.1	0.005	9.09	0.4	< 0.0005	3.9	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.015	< 0.01
X14	17-Jul-06	< 0.00025	0.024	< 0.001	0.033	< 0.05	< 0.001	< 0.001	45.2	< 0.0002	< 0.001	< 0.001	< 0.001	0.13		1	0.016	10.3	0.52	< 0.0005	4.13	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.023	< 0.01
X14	18-Jul-06	< 0.00025	0.015	< 0.001	0.034	< 0.05	< 0.001	< 0.001	45.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.15		1.1	0.018	10.3	0.48	< 0.0005	4.12	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.015	< 0.01
X14	25-Jul-06	< 0.00025	< 0.005	< 0.001	0.038	< 0.05	< 0.001	< 0.001	58.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		1.5	0.006	12.1	0.67	0.0005	5.41	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.025	< 0.01
X14	01-Aug-06	< 0.00025	0.009	< 0.001	0.042	< 0.05	< 0.001	< 0.001	52.1	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.3	0.006	10.1	0.46	< 0.0005	4.4	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.008	< 0.01
X14	15-Aug-06	< 0.00025	0.019	< 0.001	0.032	< 0.05	< 0.001	< 0.001	39.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.26		1	0.004	8.64	0.64	< 0.0005	3.91	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.031	< 0.01
X14	21-Aug-06	< 0.00025	0.015	< 0.001	0.035	< 0.05	< 0.001	< 0.001	40.1	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.005	8.21	0.45	< 0.0005	3.63	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.024	< 0.01
X14	22-Aug-06	< 0.00025	0.011	< 0.001	0.037	< 0.05	< 0.001	< 0.001	42.2	< 0.0002	< 0.001	< 0.001	< 0.001	0.11		1.1	0.005	8.87	0.58	< 0.0005	3.92	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.023	< 0.01
X14	29-Aug-06	< 0.00025	0.023	< 0.001	0.037	< 0.05	< 0.001	< 0.001	51.5	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.4	0.006	10.3	0.79	0.0005	4.96	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.032	< 0.01
X14	05-Sep-06	< 0.00025	0.013	< 0.001	0.042	< 0.05	< 0.001	< 0.001	40.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		1	0.004	8.7	0.48	< 0.0005	3.52	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.019	< 0.01
X14	12-Sep-06	< 0.00025	0.007	< 0.001	0.04	< 0.05	< 0.001	< 0.001	31.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	0.003	7.17	0.21	< 0.0005	2.6	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.016	< 0.01
X14	17-Oct-06	< 0.00025	< 0.005	< 0.001	0.049	< 0.05	< 0.001	< 0.001	45.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.06		1	0.004	10.8	0.6	< 0.0005	4.15	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.02	< 0.01
X14	14-Nov-06	< 0.00025	0.006	< 0.001	0.065	< 0.05	< 0.001	< 0.001	62.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.3	0.005	14.8	1.05	0.0006	5.74	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.3	< 0.001	0.24	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	0.049	< 0.01
X14	13-Dec-06	< 0.00025	< 0.005	< 0.001	0.07	< 0.05	< 0.001	< 0.001	77	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.6	0.006	15.8	1.36	0.0006	6.72	0.003	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.26	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0031	< 0.001	0.04	< 0.01
X14	16-Jan-07	< 0.00025	< 0.005	< 0.001	0.074	< 0.05	< 0.001	< 0.001	101	< 0.0002	0.002	< 0.001	< 0.001	< 0.05		2	0.008	22.9	2.34	0.0008	9.64	0.004	< 0.001	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.34	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0029	< 0.001	0.042	< 0.01

Appendix C2: 2005 to 2007 Surface Water Quality Data, Rose Creek Drainage

Table 9. Receiving Environment Dissolved Metals

Station	Date	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																																					
X14	15-Feb-07	< 0.00025	< 0.005	< 0.001	0.065	< 0.05	< 0.001	< 0.001	110	< 0.0002	0.002	< 0.001	< 0.001	0.06		2.1	0.008	24.2	2.57	0.0007	10.7	0.004	< 0.001	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.35	< 0.001	< 0.0005	< 0.001	< 0.0001	0.003	< 0.001	0.024	< 0.01
X14	12-Mar-07	< 0.00025	< 0.005	< 0.001	0.073	< 0.05	< 0.001	< 0.001	158	< 0.0002	0.003	< 0.001	< 0.001	< 0.05		3.1	0.01	34.6	4.33	0.001	16.5	0.007	< 0.001	< 0.15	< 0.001	0.001	5.6	< 0.001	0.47	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0037	< 0.001	0.012	< 0.01
X14	10-Apr-07	< 0.00025	0.007	< 0.001	0.042	< 0.05	< 0.001	< 0.001	238	< 0.0002	0.014	< 0.001	0.001	0.06		4.5	0.013	48.6	15.9	0.0019	22.2	0.029	< 0.001	< 0.15	< 0.001	0.001	6.3	< 0.001	0.62	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0045	< 0.001	0.19	< 0.01
X14	19-Apr-07	< 0.00025	< 0.005	< 0.001	0.068	< 0.05	< 0.001	< 0.001	97.5	< 0.0002	0.001	< 0.001	< 0.001	< 0.05		2	0.008	20.3	2.25	0.0008	8.71	0.004	< 0.001	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.32	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0028	< 0.001	0.049	< 0.01
X14	14-May-07	< 0.00025	0.025	< 0.001	0.033	< 0.05	< 0.001	< 0.001	25.5	< 0.0002	< 0.001	< 0.001	0.002	0.28		1.4	< 0.005	6.1	0.32	< 0.0005	2.21	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.6	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.031	< 0.01
X14	15-May-07	< 0.00025	0.022	< 0.001	0.03	< 0.05	< 0.001	< 0.001	24.4	< 0.0002	< 0.001	< 0.001	0.002	0.21		1.2	< 0.005	5.61	0.27	0.0006	2.11	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.3	< 0.001	0.096	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.021	< 0.01
X14	22-May-07	< 0.00025	0.051	< 0.001	0.026	< 0.05	< 0.001	< 0.001	26.8	< 0.0002	< 0.001	< 0.001	0.002	0.23		1.5	< 0.005	5.27	0.38	< 0.0005	2.23	0.002	0.001	< 0.15	< 0.001	< 0.001	2.3	< 0.001	0.087	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.022	< 0.01
X14	29-May-07	< 0.00024	0.038	< 0.001	0.024	< 0.05	< 0.001	< 0.001	22.3	< 0.0002	< 0.001	< 0.001	0.002	0.16		1.2	< 0.005	5.15	0.4	< 0.0005	2.43	0.002	0.001	< 0.15	< 0.001	< 0.001	2.6	< 0.001	0.071	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	0.01	< 0.01
X14	05-Jun-07	< 0.00025	0.024	< 0.001	0.019	< 0.05	< 0.001	< 0.001	15	< 0.0002	< 0.001	< 0.001	< 0.001	0.14		0.8	< 0.005	2.96	0.15	< 0.0005	1.56	0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.1	< 0.001	0.051	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.01	< 0.01
X14	12-Jun-07	< 0.00025	0.04	< 0.001	0.027	< 0.05	< 0.001	< 0.001	21.3	< 0.0002	< 0.001	< 0.001	0.002	0.12		0.7	< 0.005	4.52	0.22	< 0.0005	2.18	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.077	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.012	< 0.01
X14	18-Jun-07	< 0.00025	0.009	< 0.001	0.029	< 0.05	< 0.001	< 0.001	34.5	< 0.0002	< 0.001	< 0.001	< 0.001	0.13		0.9	< 0.005	7.4	0.4	< 0.0005	3.07	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.01	< 0.01
X14	19-Jun-07	< 0.00025	0.009	< 0.001	0.033	< 0.05	< 0.001	< 0.001	39	< 0.0002	< 0.001	< 0.001	0.001	0.12		1	< 0.005	8.13	0.56	< 0.0005	3.5	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.3	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.009	< 0.01
X14	26-Jun-07	< 0.00025	0.011	< 0.001	0.029	< 0.05	< 0.001	< 0.001	27.5	< 0.0002	< 0.001	< 0.001	0.001	0.09		0.8	< 0.005	5.94	0.29	< 0.0005	2.35	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.093	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	0.013	< 0.01
X14	03-Jul-07	< 0.00025	0.014	< 0.001	0.031	< 0.05	< 0.001	< 0.001	28.8	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		0.7	< 0.005	6.29	0.31	< 0.0005	2.61	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.3	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	0.017	< 0.01
X14	10-Jul-07	< 0.00025	< 0.005	< 0.001	0.036	< 0.05	< 0.001	< 0.001	43.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	< 0.005	8.69	0.67	< 0.0005	3.52	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.5	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.014	< 0.01
X14	16-Jul-07	< 0.00025	0.012	< 0.001	0.035	< 0.05	< 0.001	< 0.001	34.3	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		0.9	< 0.005	7.56	0.47	< 0.0005	3.2	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.011	< 0.01
X14	17-Jul-07	< 0.00025	0.021	< 0.001	0.035	< 0.05	< 0.001	< 0.001	32.9	< 0.0002	< 0.001	< 0.001	0.002	0.08		1	< 0.005	7.15	0.41	< 0.0005	3.63	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.012	< 0.01
X14	24-Jul-07	< 0.00025	< 0.005	< 0.001	0.046	< 0.05	< 0.001	< 0.001	60	< 0.0002	< 0.001	< 0.001	< 0.001	0.1		1.5	0.006	12	0.93	< 0.0005	4.94	0.002	< 0.001	< 0.15	< 0.001	0.001	3.8	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.022	< 0.01
X14	31-Jul-07	< 0.00025	< 0.005	< 0.001	0.043	< 0.05	< 0.001	< 0.001	52.4	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		1.5	0.006	11.6	0.77	0.0006	4.84	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.017	< 0.01
X14	07-Aug-07	< 0.00025	< 0.005	< 0.001	0.044	< 0.05	< 0.001	< 0.001	53.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.13		1.4	0.005	11.8	0.99	0.0007	4.95	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.021	< 0.01
X14	13-Aug-07	< 0.00025	< 0.005	< 0.001	0.038	< 0.05	< 0.001	< 0.001	63.7	< 0.0002	0.001	< 0.001	< 0.001	< 0.05		1.7	0.008	14	1.11	0.0006	6	0.003	< 0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.017	< 0.01
X14	14-Aug-07	< 0.00025	0.01	< 0.001	0.041	< 0.05	< 0.001	< 0.001	54.1	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.4	0.006	12.2	0.89	0.0005	5.04	0.003	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.017	< 0.01
X14	21-Aug-07	< 0.00025	0.035	< 0.001	0.046	< 0.05	< 0.001	< 0.001	57.7	< 0.0002	0.001	< 0.001	< 0.001	0.27		1.6	0.007	13	1.2	0.0006	6.81	0.003	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.02	< 0.01
X14	28-Aug-07	< 0.00025	< 0.005	< 0.001	0.045	< 0.05	< 0.001	< 0.001	56	< 0.0002	0.001	< 0.001	< 0.001	0.13		1.5	0.006	12.2	1.06	0.0005	5.07	0.003	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.03	< 0.01
X14	04-Sep-07	< 0.00025	< 0.005	< 0.001	0.041	< 0.05	< 0.001	< 0.001	50.7	< 0.0002	0.001	< 0.001	0.001	0.07		1.4	< 1	11.6	1.04	0.0008	5.17	0.003	< 0.001	< 0.15	< 0.001	< 0.001	3.6	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	0.0001	0.0012	< 0.001	0.021	< 0.01
X14	10-Sep-07	< 0.00025	< 0.005	< 0.001	0.044	< 0.05	< 0.001	< 0.001	48.7	< 0.0002	0.001	< 0.001	< 0.001	0.07		1.2	0.005	11.5	1.16	0.0006	4.63	0.003	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.018	< 0.01
X14	11-Sep-07	< 0.00025	0.009	< 0.001	0.034	< 0.05	< 0.001	< 0.001	37.4	< 0.0002	< 0.001	< 0.001	< 0.001	0.13		1.1	0.003	9.15	0.69	0.0005	3.81	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.021	< 0.01
X14	17-Sep-07	< 0.00025	< 0.005	< 0.001	0.035	< 0.05	< 0.001	< 0.001	39.3	< 0.0002	< 0.001	< 0.001	< 0.001	0.13		1	0.004	9.24	0.87	< 0.0005	3.76	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.013	< 0.01
X14	23-Oct-07	< 0.00025	< 0.005	< 0.001	0.044	< 0.05	< 0.001	< 0.001	83.2	< 0.0002	0.003	< 0.001	< 0.001	< 0.05		1.8	0.007	19.7	2.91	0.0008	8.23	0.007	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	0.036	< 0.01
X14	29-Oct-07	< 0.00025	< 0.005	< 0.001	0.046	< 0.05	< 0.001	< 0.001	76.9	< 0.0002	0.003	< 0.001	0.001	0.07		1.7	0.007	18.1	2.73	0.0007	7.37	0.007	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.26	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.064	< 0.01
X14	14-Nov-07	< 0.00025	0.027	< 0.001	0.055	< 0.05	< 0.001	< 0.001	54.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.2	0.004	12.4	0.76	0.0006	4.51	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.034	< 0.01
X14	10-Dec-07	< 0.00025	< 0.005	< 0.001	0.057	< 0.05	< 0.001	< 0.001	67	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.3	0.004	14	1.39	0.0006	5.26	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0021	< 0.001	0.036	< 0.01
	N	89	89	89	89	89	89	89	89	89	89	89	89	89	0	89	89	89	89	89	89	89	89	88	89	89	89	89	89	89	89	89	89	89	89	89	89
	median	0.000125	0.006	0.0005	0.041	0.025	0.0005	0.0005	48.2	0.0001	0.0005	0.0005	0.0005	0.08		1.3	0.005	10.6	0.67	0.00025	4.33	0.002	0.0005	0.075	0.0005	0.0005	4.7	0.0005	0.17	0.0005	0.00025	0.0005	0.00005	0.001	0.0005	0.021	0.005
	mean	0.00012	0.01025	0.0005	0.04207	0.025	0.0005	0.0005	58.2	0.0001	0.0011	0.0005	0.0007	0.0889		1.427	0.0109	12.7899	1.2936	0.0004	5.6549	0.0031	0.0005	0.075	0.001	0.001	5.856	0.001	0.194	0.001	0	0.001	5.00E-05	1.00E-03	5.00E-04	3.00E-02	5.00E-03
	std	0	0.01156	0	0.01314	0	0	0	40.5	0	0.0021	0	0.0005	0.0698		0.7247	0.0525	8.5644	2.1988	0.0003	4.527	0.0043	0.0001	0	0	0	2.945	0	0.11	0	0	0	2.00E-05	9.00E-04	3.00E-19	3.00E-02	3.00E-18
	minimum	< 0.00025	< 0.005	< 0.001	0.019	< 0.05	< 0.001	< 0.001	15	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	0.001	2.96	0.098	< 0.0005	1.34	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	1.9	< 0.001	0.051	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	0.007	< 0.01
	maximum	< 0.00025	0.054	< 0.001	0.074	< 0.05	< 0.001	< 0.001	238	< 0.0002	0.014	< 0.001	0.002	0.31		4.5	< 1	48.6	15.9	0.0019	24.7	0.029	0.001	< 0.15	< 0.001	0.002	14.4	< 0.001	0.62	< 0.001	< 0.0005	< 0.001	0.0002	0.0045	< 0.001	0.19	< 0.01
	# < DL	89	43	89	0	89	89	89	0	89	66	89	70	34	0	0	14	0	0	46	0	7	87	88	89	84	0	89	0	89	89	89	87	6	89	0	89
	% < DL	100%	48%	100%	0%	100%	100%	100%	0%	100%	74%	100%	79%	38%	0%	0%	16%	0%	0%	52%	0%	8%	98%	100%	100%	94%	0%	100%	0%	100%	100%	100%	98%	7%	100%	0%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05			1			0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001	0.0005	0.001		0.01
	95th percentile	0.000125	0.0368	0.0005	0.0672	0.025	0.0005	0.0005	135.4	0.0001	0.003	0.0005	0.002	0.236		2.98	0.0106	29.74	3.778	0.0008	14.86	0.0076	0.0005	0.075	0.0005	0.0008	11.38	0.0005	0.418	0.0005	0.00025	0.0005	0.00005	0.0031	0.0005	0.0976	0.005
	5th percentile	0.000125	0.0025	0.0005	0.0244	0.025	0.0005	0.0005	20.7	0.0001	0.0005	0.0005	0.0005	0.025		0.74	0.002	4.724	0.204	0.00025	1.996	0.0005	0.0005	0.075	0.0005	0.0005	2.68	0.0005	0.0734	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.01	0.005

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, quideline source provided in Appendix C1

Method Detection Limit set to 1/2 method detection limit for statistical calculations

Appendix C3
2005 to 2007 Surface Water Quality Data
Vangorda Creek Drainage

Table 1. Reference Site Data Physical and Routine Parameters

STATION	DATE	ALK-C mg/L	ALK-H mg/L	ALK-T mg/L	COLOR CU	COND-L µS/cm	HARD mg/L	HCO3 mg/L	NH3 mg/L	PH-F pH unit	SO4 mg/L	TEMP-F °C	TSS mg/L	TURB NTU
Benchmark				12.6					0.25	6.5 - 9.0	50		29	
V1	07-Mar-05				< 5	95	56		< 0.01		10.7		< 1	0.1
V1	07-Jun-05	< 0.5	< 0.5	18.8	7	42	18	23	0.03	7	4.6	4	1	0.35
V1	12-Sep-05				5	67	29		< 0.01	8	10.5	7.1	< 1	0.26
V1	01-Dec-05	< 0.5	< 0.5	35.5	< 5	104	47	43.3	< 0.01	8.1	10.8	-0.6	< 1	0.18
V1	20-Mar-06	< 0.5	< 0.5	45.4	< 5	121	59	55.4	< 0.01	8.1	10.8	0.8	< 1	0.16
V1	05-Jun-06	< 0.5	< 0.5	14.8	20	35	13	18.1	< 0.01	8.3	3.62	1.2	3	0.77
V1	09-Jun-06	< 0.5	< 0.5	26.2	< 5	73	29	32	< 0.01	8.1	9.71	4.1	< 1	0.2
V1	06-Sep-06	< 0.5	< 0.5	26.2	< 5	73	29	32	< 0.01	8.1	9.71	4.1	< 1	0.2
V1	18-Jun-07	< 0.5	< 0.5	21.4	8	48	21	26.1	< 0.01	7.5	5.31	4.2	< 1	0.27
V1	24-Sep-07	< 0.5	< 0.5	25.8	< 5	71	26	31.5	< 0.01	7.2	9.75	0.9	< 1	0.16
V1	10-Dec-07	< 0.5	< 0.5	40.3	< 5	106	42	49.2	< 0.01	7.6	11.3	2.6	< 1	0.11
	N	9	9	9	11	11	11	9	11	10	11	10	11	11
	median	0.25	0.25	26.2	2.5	73	29	32	0.005	8.05	9.75	3.3	0.5	0.2
	mean	0.3	0.3	28.3	5.2	75.9	33.5	34.5	0.007	7.8	8.8	2.8	0.8	0.3
	std	0	0	10.1	5.3	28	15.3	12.4	0.008	0.4	2.8	2.3	0.8	0.2
	minimum	< 0.5	< 0.5	14.8	< 5	35	13	18.1	< 0.01	7	3.62	-0.6	< 1	0.1
	maximum	< 0.5	< 0.5	45.4	20	121	59	55.4	0.03	8.3	11.3	7.1	3	0.77
	# < DL	9	9	0	7	0	0	0	10	0	0	0	9	0
	% < DL	100%	100%	0%	64%	0%	0%	0%	91%	0%	0%	0%	82%	0%
	# > BM			9					0	0	0		0	
	% > BM			100%					0%	0%	0%		0%	
	# < DL (DL>BM)			0					0	0	0		0	
	% < DL (DL>BM)			0%					0%	0%	0%		0%	
	max DL	0.5	0.5		5				0.01				1	
	95th percentile	0.25	0.25	43.36	14	113.5	57.5	52.92	0.0175	8.21	11.05	5.795	2	0.56
	5th percentile	0.25	0.25	16.4	2.5	38.5	15.5	20.06	0.005	7.09	4.11	0.03	0.5	0.105

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, quideline source provided in Appendix X

Method Detection Limit set to 1/2 method detection limit for statistical calculations

Appendix C3
2005 to 2007 Surface Water Quality Data
Vangorda Creek Drainage

Table 2. Reference Site Data 2005-2007 Total Metals

STATION	DATE	AG-T mg/L	AL-T mg/L	AS-T mg/L	BA-T mg/L	BE-T mg/L	BI-T mg/L	B-T mg/L	CA-T mg/L	CD-T mg/L	CO-T mg/L
Benchmark		0.0001	0.1	0.005	1	1.1	0.26			0.00003	
V1	07-Mar-05	< 0.00025	0.012	< 0.001	0.037	< 0.001	< 0.001	< 0.05	17.9	< 0.0002	< 0.001
V1	07-Jun-05	< 0.00025	0.043	0.002	0.016	< 0.001	< 0.001	0.07	6.03	< 0.0002	< 0.001
V1	12-Sep-05	< 0.00025	0.013	< 0.001	0.025	< 0.001	< 0.001	< 0.05	9.61	< 0.0002	< 0.001
V1	01-Dec-05	< 0.00025	0.006	< 0.001	0.037	< 0.001	< 0.001	< 0.05	14.7	< 0.0002	< 0.001
V1	20-Mar-06	< 0.00025	0.99	0.001	0.12	< 0.001	< 0.001	0.12	18.7	< 0.0002	< 0.001
V1	05-Jun-06	< 0.00025	0.099	< 0.001	0.013	< 0.001	< 0.001	< 0.05	4.31	< 0.0002	< 0.001
V1	09-Jun-06	< 0.00025	0.024	< 0.001	0.025	< 0.001	< 0.001	< 0.05	9.48	< 0.0002	< 0.001
V1	06-Sep-06	< 0.00025	0.024	< 0.001	0.025	< 0.001	< 0.001	< 0.05	9.48	< 0.0002	< 0.001
V1	18-Jun-07	< 0.00025	0.033	< 0.001	0.014	< 0.001	< 0.001	< 0.05	6.62	< 0.0002	< 0.001
V1	24-Sep-07	< 0.00025	0.012	< 0.001	0.022	< 0.001	< 0.001	< 0.05	7.73	< 0.0002	< 0.001
V1	10-Dec-07	< 0.00025	0.006	< 0.001	0.032	< 0.001	< 0.001	< 0.05	13.3	< 0.0002	< 0.001
	N	11	11	11	11	11	11	11	11	11	11
	median	0.000125	0.024	0.0005	0.025	0.0005	0.0005	0.025	9.48	0.0001	0.0005
	mean	0.00013	0.11473	0.00068	0.03327	0.0005	0.0005	0.03773	10.7	0.0001	0.0005
	std	0	0.2915	0.00046	0.02994	0	0	0.03044	4.8	0	0
	minimum	< 0.00025	0.006	< 0.001	0.013	< 0.001	< 0.001	< 0.05	4.31	< 0.0002	< 0.001
	maximum	< 0.00025	0.99	0.002	0.12	< 0.001	< 0.001	0.12	18.7	< 0.0002	< 0.001
	# < DL	11	0	9	0	11	11	9	0	11	11
	% < DL	100%	0%	82%	0%	100%	100%	82%	0%	100%	100%
	# > BM	11	1	0	0	0	0			11	
	% > BM	100%	9%	0%	0%	0%	0%			100%	
	# < DL (DL>BM)	11	0	0	0	0	0			11	
	% < DL (DL>BM)	100%	0%	0%	0%	0%	0%			100%	
	max DL	0.00025		0.001		0.001	0.001	0.05		0.0002	0.001
	95th percentile	0.000125	0.5445	0.0015	0.0785	0.0005	0.0005	0.095	18.3	0.0001	0.0005
	5th percentile	0.000125	0.006	0.0005	0.0135	0.0005	0.0005	0.025	5.17	0.0001	0.0005

STATION	DATE	CR-T mg/L	CU-T mg/L	FE-T mg/L	HG-T mg/L	HG-T µg/L	K-T mg/L	LI-T mg/L	MG-T mg/L	MN-T mg/L	MO-T mg/L
Benchmark		0.001	0.002	0.3		0.026	53		82	1	0.073
V1	07-Mar-05	< 0.001	< 0.001	0.08	< 0.00002	< 0.02	1.4	0.001	2.87	< 0.001	0.0006
V1	07-Jun-05	0.001	0.002	0.09	< 0.00002	< 0.02	0.8	< 0.001	0.75	0.002	< 0.0005
V1	12-Sep-05	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.3	< 0.001	1.3	0.001	< 0.0005
V1	01-Dec-05	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.6	< 0.001	2.46	< 0.001	0.0005
V1	20-Mar-06	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.6	0.002	2.89	< 0.001	0.0007
V1	05-Jun-06	< 0.001	< 0.001	0.14	< 0.00002	< 0.02	0.4	< 0.001	0.64	0.005	< 0.0005
V1	09-Jun-06	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.3	< 0.001	1.4	< 0.001	< 0.0005
V1	06-Sep-06	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.3	< 0.001	1.4	< 0.001	< 0.0005
V1	18-Jun-07	< 0.001	< 0.001	0.07	< 0.00002	< 0.02	0.4	< 0.005	0.97	0.014	< 0.0005
V1	24-Sep-07	< 0.001	< 0.001	< 0.05			0.3	< 0.001	1.11	0.002	< 0.0005
V1	10-Dec-07	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.6	0.001	2.22	0.002	0.0005
	N	11	11	11	10	10	11	11	11	11	11
	median	0.0005	0.0005	0.025	0.00001	0.01	0.4	0.0005	1.4	0.001	0.00025
	mean	0.00055	0.00064	0.0505	0.00001	0.01	0.5455	0.0009	1.6373	0.0026	0.0004
	std	0.00015	0.00045	0.0392	0	0	0.3297	0.0007	0.8269	0.004	0.0002
	minimum	< 0.001	< 0.001	0.05	< 0.00002	< 0.02	0.3	< 0.001	0.64	< 0.001	< 0.0005
	maximum	0.001	0.002	0.14	< 0.00002	< 0.02	1.4	< 0.005	2.89	0.014	0.0007
	# < DL	10	10	7	10	10	0	8	0	5	7
	% < DL	91%	91%	64%	100%	100%	0%	73%	0%	45%	64%
	# > BM	0	0	0		0	0		0	0	0
	% > BM	0%	0%	0%		0%	0%		0%	0%	0%
	# < DL (DL>BM)	0	0	0		0	0		0	0	0
	% < DL (DL>BM)	0%	0%	0%		0%	0%		0%	0%	0%
	max DL	0.001	0.001	0.05	0.00002	0.02		0.005		0.001	0.0005
	95th percentile	0.00075	0.00125	0.115	0.00001	0.01	1.1	0.00225	2.88	0.0095	0.00065
	5th percentile	0.0005	0.0005	0.025	0.00001	0.01	0.3	0.0005	0.695	0.0005	0.00025

STATION	DATE	NA-T mg/L	NI-T mg/L	PB-T mg/L	P-T mg/L	SB-T mg/L	SE-T mg/L	SI-T mg/L	SN-T mg/L	SR-T mg/L
Benchmark		200	0.065	0.002	0.03	0.02	0.001		0.35	9.3
V1	07-Mar-05	2.71	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.7	< 0.001	0.08
V1	07-Jun-05	1.61	< 0.001	< 0.001	< 0.15	< 0.001	0.011	8.2	< 0.001	0.03
V1	12-Sep-05	1.7	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	7	0.002	0.044
V1	01-Dec-05	1.89	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.068
V1	20-Mar-06	2.27	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.11
V1	05-Jun-06	0.87	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.4	< 0.001	0.022
V1	09-Jun-06	1.79	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.052
V1	06-Sep-06	1.79	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.052
V1	18-Jun-07	1.89	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.9	< 0.001	0.03
V1	24-Sep-07	1.64	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.5	< 0.001	0.042
V1	10-Dec-07	2.27	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.065
	N	11	11	11	11	11	11	11	11	11
	median	1.79	0.0005	0.0005	0.075	0.0005	0.0005	4.5	0.0005	0.052
	mean	1.8573	0.0005	0.0005	0.075	0.0005	0.0015	5.2364	0.0006	0.0541
	std	0.4676	0	0	0	0	0.0032	2.4728	0.0005	0.0256
	minimum	0.87	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.4	< 0.001	0.022
	maximum	2.71	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.7	0.002	0.11
	# < DL	0	11	11	11	11	10	0	10	0
	% < DL	0%	100%	100%	100%	100%	91%	0%	91%	0%
	# > BM	0	0	0	11	0	1		0	0
	% > BM	0%	0%	0%	100%	0%	9%		0%	0%
	# < DL (DL>BM)	0	0	0	11	0	0		0	0
	% < DL (DL>BM)	0%	0%	0%	100%	0%	0%		0%	0%
	max DL		0.001	0.001	0.15	0.001	0.001		0.001	
	95th percentile	2.49	0.0005	0.0005	0.075	0.0005	0.00575	9.45	0.00125	0.095
	5th percentile	1.24	0.0005	0.0005	0.075	0.0005	0.0005	2.65	0.0005	0.026

STATION	DATE	TE-T mg/L	TH-T mg/L	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
Benchmark				1.83	0.0008	0.005	0.006	0.03	0.004
V1	07-Mar-05	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.011	< 0.01
V1	07-Jun-05	< 0.001	< 0.0005	0.001	< 0.0001	< 0.0005	< 0.001	0.006	< 0.01
V1	12-Sep-05	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	01-Dec-05	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	< 0.005	< 0.01
V1	20-Mar-06	< 0.001	< 0.0005	0.001	< 0.0001	0.0012	< 0.001	0.038	< 0.01
V1	05-Jun-06	< 0.001	< 0.0005	0.003	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	09-Jun-06	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	06-Sep-06	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	18-Jun-07	< 0.001	< 0.0005	0.002	0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	24-Sep-07	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.006	< 0.01
V1	10-Dec-07	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	< 0.005	< 0.01
	N	11	11	11	11	11	11	11	11
	median	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0025	0.005
	mean	0.0005	0.0003	0.001	0.0001	0.00052	0.0005	0.00714	0.005
	std	0	0	0.0008	0	0.00043	1.14E-19	0.01059	9.10E-19
	minimum	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
	maximum	< 0.001	< 0.0005	0.003	0.0001	0.0014	< 0.001	0.038	< 0.01
	# < DL	11	11	7	10	7	11	7	11
	% < DL	100%	100%	64%	91%	64%	100%	64%	100%
	# > BM			0	0	0	0	1	11
	% > BM			0%	0%	0%	0%	9%	100%
	# < DL (DL>BM)			0	0	0	0	0	11
	% < DL (DL>BM)			0%	0%	0%	0%	0%	100%
	max DL	0.001	0.0005	0.001	0.0001	0.0005	0.001	0.005	0.01
	95th percentile	0.0005	0.00025	0.0025	7.5E-05	0.0013	0.0005	0.0245	0.005
	5th percentile	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0025	0.005

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, quideline source provided in Appendix X

Method Detection Limit set to 1/2 method detection limit for statistical calculations

Appendix C3
2005 to 2007 Surface Water Quality Data
Vangorda Creek Drainage

Table 3. Reference Site Data 2005-2007 Dissolved Metals

STATION	DATE	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L
Benchmark															
V1	07-Mar-05	< 0.00025	0.012	< 0.001	0.036	< 0.05	< 0.001	< 0.001	17.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.05	
V1	07-Jun-05	< 0.00025	0.022	0.002	0.014	0.07	< 0.001	< 0.001	5.72	< 0.0002	< 0.001	< 0.001	0.002	0.06	
V1	12-Sep-05	< 0.00025	0.008	< 0.001	0.024	< 0.05	< 0.001	< 0.001	9.29	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	
V1	01-Dec-05	< 0.00025	< 0.005	< 0.001	0.035	< 0.05	< 0.001	< 0.001	15.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	
V1	20-Mar-06	< 0.00025	0.97	0.001	0.11	0.12	< 0.001	< 0.001	16	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	
V1	05-Jun-06	< 0.00025	0.036	< 0.001	0.012	< 0.05	< 0.001	< 0.001	3.94	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	
V1	09-Jun-06	< 0.00025	0.02	< 0.001	0.022	< 0.05	< 0.001	< 0.001	8.55	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	
V1	06-Sep-06	< 0.00025	0.02	< 0.001	0.022	< 0.05	< 0.001	< 0.001	8.55	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	
V1	18-Jun-07	< 0.00025	0.017	< 0.001	0.013	< 0.05	< 0.001	< 0.001	5.41	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	
V1	24-Sep-07	< 0.00025	0.061	< 0.001	0.023	< 0.05	< 0.001	< 0.001	9.41	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	
V1	10-Dec-07	< 0.00025	0.006	< 0.001	0.031	< 0.05	< 0.001	< 0.001	13.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	
	N	11	11	11	11	11	11	11	11	11	11	11	11	11	0
	median	0.000125	0.02	0.0005	0.023	0.025	0.0005	0.0005	9.29	0.0001	0.0005	0.0005	0.0005	0.025	
	mean	0.00013	0.1068	0.0007	0.0311	0.0377	0.0005	0.0005	10.3	0.0001	0.0005	0.0005	0.0006	0.0305	
	std	0	0.2868	0.0005	0.0274	0.0304	0	0	4.6	0	0	0	0.0005	0.0123	
	minimum	< 0.00025	< 0.005	< 0.001	0.012	< 0.05	< 0.001	< 0.001	3.94	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	
	maximum	< 0.00025	0.97	0.002	0.11	0.12	< 0.001	< 0.001	17.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	
	# < DL	11	1	9	0	9	11	11	0	11	11	11	10	9	
	% < DL	100%	9%	82%	0%	82%	100%	100%	0%	100%	100%	100%	91%	82%	
	# > BM														
	% > BM														
	# < DL (DL>BM)														
	% < DL (DL>BM)														
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05	
	95th percentile	0.000125	0.5155	0.0015	0.073	0.095	0.0005	0.0005	16.85	0.0001	0.0005	0.0005	0.00125	0.055	
	5th percentile	0.000125	0.00425	0.0005	0.0125	0.025	0.0005	0.0005	4.675	0.0001	0.0005	0.0005	0.0005	0.025	

STATION	DATE	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																							
V1	07-Mar-05	0.6	0.001	2.78	< 0.001	0.0006	2	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.9	< 0.001	0.077	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	< 0.005	< 0.01
V1	07-Jun-05	0.8	< 0.001	0.74	0.001	< 0.0005	1.59	< 0.001	< 0.001	< 0.15	< 0.001	0.009	7.7	< 0.001	0.028	< 0.001	< 0.0005	0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	12-Sep-05	0.4	< 0.001	1.31	0.001	< 0.0005	1.9	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	7.1	< 0.001	0.046	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	01-Dec-05	0.5	< 0.001	2.14	< 0.001	< 0.0005	2.27	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.067	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	< 0.005	< 0.01
V1	20-Mar-06	0.5	0.002	2.37	< 0.001	0.0006	2	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.047	< 0.01
V1	05-Jun-06	0.4	< 0.001	0.7	< 0.001	< 0.0005	0.76	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2	< 0.001	0.02	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	09-Jun-06	0.3	< 0.001	1.28	< 0.001	< 0.0005	1.62	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.046	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	06-Sep-06	0.3	< 0.001	1.28	< 0.001	< 0.0005	1.62	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.046	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	18-Jun-07	0.3	< 0.005	0.77	0.003	< 0.0005	1.19	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.9	< 0.001	0.026	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	24-Sep-07	0.3	< 0.001	1.13	0.004	< 0.0005	1.71	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.6	< 0.001	0.044	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.011	< 0.01
V1	10-Dec-07	0.5	< 0.001	2.09	< 0.001	< 0.0005	1.84	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.063	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	0.006	< 0.01
	N	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
	median	0.4	0.0005	1.28	0.0005	0.00025	1.71	0.0005	0.0005	0.075	0.0005	0.0005	4.7	0.0005	0.046	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0025	0.005
	mean	0.4455	0.0009	1.5082	0.0011	0.0003	1.6818	0.0005	0.0005	0.075	0.0005	0.0013	5.1091	0.0005	0.0512	0.0005	0.0003	0.0005	0.0001	0.0004	0.0005	0.0076	0.005
	std	0.1572	0.0007	0.7192	0.0012	0.0001	0.4159	0	0	0	0	0.0026	2.2958	0	0.0239	0	0	0.0002	0	0.0003	0	0.0133	0
	minimum	0.3	< 0.001	0.7	< 0.001	< 0.0005	0.76	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2	< 0.001	0.02	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
	maximum	0.8	< 0.005	2.78	0.004	0.0006	2.27	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.9	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.047	< 0.01
	# < DL	0	9	0	7	9	0	11	11	11	11	10	0	11	0	11	11	10	11	7	11	8	11
	% < DL	0%	82%	0%	64%	82%	0%	100%	100%	100%	100%	91%	0%	100%	0%	100%	100%	91%	100%	64%	100%	73%	100%
	# > BM																						
	% > BM																						
	# < DL (DL>BM)																						
	% < DL (DL>BM)																						
	max DL		0.005		0.001	0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001	0.0005	0.001	0.005	0.01
	95th percentile	0.7	0.00225	2.575	0.0035	0.0006	2.135	0.0005	0.0005	0.075	0.0005	0.00475	8.8	0.0005	0.0885	0.0005	0.00025	0.00075	0.00005	0.00105	0.0005	0.029	0.005
	5th percentile	0.3	0.0005	0.72	0.0005	0.00025	0.975	0.0005	0.0005	0.075	0.0005	0.0005	2.45	0.0005	0.023	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0025	0.005

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, quideline source provided in Appendix X

Method Detection Limit set to 1/2 method detection limit for statistical calculations

Appendix C3
2005 to 2007 Surface Water Quality Data
Vangorda Creek Drainage

Table 4. Mine Runoff and Effluent Surface Water Physical and Routine Parameters

		ACID-T	ALK-C	ALK-H	ALK-T	Cl	COLOR	COND-L	HARD	HCO3	NH3	PH-F	SO4	TEMP-F	TSS	TURB
STATION	DATE	mg/L	mg/L	mg/L	mg/L	mg/L	CU	µS/cm	mg/L	mg/L	mg/L	pH unit	mg/L	°C	mg/L	NTU
Benchmark					12.6	250					0.25	6.5 - 9.0	50		29	
V2	21-Jan-05		< 0.5	< 0.5	333		< 5	1850	1230	406	< 0.01	7.6	941	-0.3	18	1.6
V2	8-Feb-05		< 0.5	< 0.5	350			1960	1330	426	0.01	8.2	816	0	7	
V2	14-Mar-05		< 0.5	< 0.5	321			1990	1230	392	0.03	7.9	909	1.1	2	
V2	11-Apr-05		< 0.5	< 0.5	315		< 5	1840	1070	384	< 0.01	7.9	788	2	< 1	0.35
V2	9-May-05		< 0.5	< 0.5	257		< 5	1580	892	312	< 0.01	7.9	718	1.8	2	1.5
V2	7-Jun-05											8.1		4.6		
V2	21-Jun-05		< 0.5	< 0.5	332		< 5	2140	1220	405	0.03	8.1	1000	4.5	< 1	0.23
V2	25-Jul-05		< 0.5	< 0.5	343		< 5	1780	1160	418	0.02	8	1010	6.2	< 1	0.25
V2	22-Aug-05		< 0.5	< 0.5	331		< 5	1660	1440	403	< 0.01	7.9	1000	6.4	< 1	0.33
V2	6-Sep-05		< 0.5	< 0.5	313		< 5	1420	1180	382	< 0.01	8.1	1020	6	< 1	0.33
V2	21-Sep-05		< 0.5	< 0.5	310		< 5	1480	1220	378	0.03	8	974	4.8	5	0.2
V2	11-Oct-05		< 0.5	< 0.5	307		< 5	1720	1240	375	0.03	8.3	918	2.9	< 1	0.35
V2	25-Oct-05	13	0.93		306		< 5	1770	1270		< 0.01	8.2	1010	2.1	2	0.37
V2	1-Nov-05	11	< 0.5	< 0.5	311		< 5	1650	1240	380	< 0.01	8.3	1000	2.1	< 1	0.26
V2	15-Nov-05	12			309	< 1	< 5	2250	1230				1020		< 1	0.33
V2	14-Dec-05	17	< 0.5	< 0.5	334		< 5	2410	1460	408	< 0.01	8.1	1160	0.9	1	1.1
V2	23-Jan-06							2300	1410		0.01	7.6	1110	1.2	1	
V2	7-Feb-06	9			279	< 1	< 5	1270	719			8	554	0.4	< 1	0.15
V2	17-May-06							1900	1010		< 0.01	8.3	939	1.2	4	
V2	5-Jun-06	11			292	< 1	< 5	1910	1020			8.1	860	3	< 1	0.22
V2	19-Jun-06	7	< 0.5	< 0.5	284		< 5	1900	1110	346	< 0.01	8	850	3.7	< 1	0.2
V2	10-Jul-06	6			321	1.28	< 5	2150	1190			8	1000	5.7	< 1	0.16
V2	18-Jul-06	8	< 0.5	< 0.5	321		< 5	2070	1210	392	< 0.01	8		5.6	< 1	0.2
V2	8-Aug-06	13			341	1.36	< 5	2100	1300			8	1060	8	< 1	0.14
V2	22-Aug-06	24	< 0.5	< 0.5	344		< 5	2220	1290	420	< 0.01	8.2	1040	5	< 1	0.16
V2	11-Sep-06	6	< 0.5	< 0.5	345		< 5	2120	1250	420	0.01	8.1	1020	4.6	< 1	0.2
V2	26-Sep-06	7			343	< 2	< 5	2170	1210			8	980	2.6	< 1	0.13
V2	16-Oct-06	14	< 0.5	< 0.5	354		< 5	1930	1250	432	0.04	8.1	902	1.6	< 1	0.16
V2	23-Oct-06	15			356	1.66	< 5	2170	1190			8.2	978	1.6	< 1	0.13
V2	13-Nov-06	11	< 0.5	< 0.5	344		< 5	1840	1150	344	< 0.01	8	923	0.6	2	0.51
V2	21-Nov-06	14			356	1.01	< 5	1860	1120			8	948	0.7	2	0.47
V2	5-Dec-06	18			364	< 1	< 5	1980	1240			8.3	1000	3	3	0.17
V2	14-Dec-06	10	< 0.5	< 0.5	359		< 5	1910	1230	439	< 0.01	8.2	953	0.2	< 1	4
V2	8-Jan-07	14			364	1.39	< 5	2280	1260			8.3	1040	-0.3	1	0.51
V2	1-May-07	13	< 0.5	< 0.5	344	< 2	8	2310	1280	420		8.1	1000	0.7	3	0.91
V2	14-May-07	18	< 0.5	< 0.5	318		< 5	2120	1270	388	0.02	8	850	2.2	3	1.5
V2	7-Jun-07	60	< 0.5	< 0.5	293	< 1	8	1710	921	357		8	732	2	< 1	0.21
V2	18-Jun-07	< 0.5	< 0.5	< 0.5	277		< 5	1690	874	338	0.01	8.1	647	3.2	< 1	0.15
V2	3-Jul-07	8	< 0.5	< 0.5	302	< 1	< 5	1800	933	369		8	766	3.3	< 1	0.12
V2	16-Jul-07	< 0.5	< 0.5	< 0.5	316		< 5	2020	1070	385	0.02	7.8	880	4.1	< 1	0.26
V2	2-Aug-07	9	< 0.5	< 0.5	333	< 1	< 5	2120	1210	406		8	996	4.3	< 1	0.15
V2	14-Aug-07	10	< 0.5	< 0.5	352		< 5	1920	1250	430	0.02	8.1	944	5.4	< 1	0.37
V2	11-Sep-07	< 0.5	< 0.5	< 0.5	311		< 5	1660	914	379	0.03	8.2	699	3.4	< 1	0.25
V2	25-Sep-07	10	< 0.5	< 0.5	297	< 1	< 5	1400	838	363		7.9	637	1.9	3	0.16
V2	10-Oct-07	8	< 0.5	< 0.5	285	< 1	< 5	1570	922	348		8	643	1.8	< 1	0.16
V2	22-Oct-07	5	< 0.5	< 0.5	269		< 5	1770	907	328	< 0.01	7.9	668	1.1	< 1	0.15
V2	13-Nov-07	1	< 0.5	< 0.5	284		< 5	1770	937	346	< 0.01	7.9	712	1.1	2	0.55
V2	26-Nov-07	10	< 0.5	< 0.5	279	< 1	< 5	1660	928	340		7.8	696	0.2	< 1	0.3
V2	10-Dec-07	10	< 0.5	< 0.5	294		< 5	1750	925	359	< 0.01	7.5	761	0.4	5	0.46
V2	11-Dec-07											7.5		1.5		
V2	17-Dec-07	7	< 0.5	< 0.5	288	0.82	< 5	1720	1020	351		7.7	751	0.8	1	0.3
	N	36	37	36	47	18	45	49	49	36	31	50	48	50	49	45
	median	10	0.25	0.25	318	0.5	2.5	1900	1210	383	0.005	8	940	2.05	0.5	0.25
	mean	11.4	0.3	0.3	318.7	0.8	2.7	1889	1138	382.5	0.013	8	892.1	2.6	1.7	0.5
	std	9.8	0.1	0	28	0.4	1.1	259	169.8	33	0.011	0.2	144.2	2	2.8	0.7
	minimum	< 0.5	< 0.5	< 0.5	257	0.82	< 5	1270	719	312	< 0.01	7.5	554	-0.3	< 1	0.12
	maximum	60	0.93	< 0.5	364	2	8	2410	1460	439	0.04	8.3	1160	8	18	4
	# < DL	3	36	36	0	12	43	0	0	0	17	0	0	0	30	0
	% < DL	8%	97%	100%	0%	67%	96%	0%	0%	0%	55%	0%	0%	0%	61%	0%
	# > BM				47	0					0	0	48		0	
	% > BM				100%	0%					0%	0%	100%		0%	
	# < DL (DL>BM)				0	0					0	0	0		0	
	% < DL (DL>BM)				0%	0%					0%	0%	0%		0%	
	max DL	0.5	0.5	0.5		2	5				0.01				1	
	95th percentile	19.5	0.25	0.25	358.1	1.4305	2.5	2292	1378	430.5	0.03	8.3	1053	6.11	5	1.5
	5th percentile	0.25	0.25	0.25	277.6	0.5	2.5	1444	881.2	335.5	0.005	7.6	644.4	0.09	0.5	0.132
V6A	7-Mar-05						< 5	218	182		< 0.01		52.1		< 1	0.31
V6A	7-Jun-05		< 0.5	< 0.5	49.5		18	140	77	60.4	0.04	7.9	21.3	6	< 1	0.44
V6A	12-Sep-05						7	164	93		0.01	8.1	27.3	6.6	< 1	0.51
V6A	1-Dec-05		< 0.5	< 0.5	96.8		< 5	315	158	118	0.02	8.3	53.5	-0.5	1	0.69
V6A	5-Jun-06		< 0.5	< 0.5	33.8		45	99	47	41.3	< 0.01	8.1	13.6	3.8	7	1.1
V6A	9-Jun-06		< 0.5	< 0.5	64.3		7	168	75	78.4	< 0.01	8.1	20.1	4.5	1	0.52
V6A	6-Sep-06		< 0.5	< 0.5	64.3		7	168	75	78.4	< 0.01	8.1	20.1	4.5	1	0.52
V6A	18-Jun-07		< 0.5	< 0.5	45.4		35	114	54	55.4	0.01	8	13.6	5.2	11	2
V6A	24-Sep-07		< 0.5	< 0.5	67.5		7	183	81.6	82.4	0.32	7.7	28	0.8	< 1	0.31
V6A	9-Dec-07		< 0.5	< 0.5	98.2		< 5	294	134	120	0.04	7.4	49.1	0.8	4	2.1
	N	0	8	8	8	0	10	10	10	8	10	9	10	9	10	10
	median		0.25	0.25	64.3		7	168	79.3	78.4	0.01	8.1	24.3	4.5	1	0.52
	mean		0.25	0.25	65		13.4	186.3	97.7	79.3	0.05	7.97	29.9	3.5	2.7	0.85
	std		0	0	23		14.9	71	45.1	28.1	0.1	0.27	15.7	2.5	3.61	0.67
	minimum		< 0.5	< 0.5	33.8		< 5	99	47	41.3	< 0.01	7.4	13.6	-0.5	< 1	0.31
	maximum		< 0.5	< 0.5	98.2		45	315	182	120	0.32	8.3	53.5	6.6	11	2.1
	# < DL		8	8	0		3	0	0	0	4	0	0	0	4	0
	% < DL		100%	100%	0%		30%	0%	0%	0%	40%	0%	0%	0%	40%	0%
	# > BM				8						1	0	2		0	
	% > BM				100%						10%	0%	20%		0%	
	# < DL (DL>BM)				0						0	0	0		0	
	% < DL (DL>BM)				0%						0%	0%	0%		0%	
	max DL		0.5	0.5			5				0.01				1	
	95th percentile		0.25	0.25	97.71		40.5	305.6	171.2	119.3	0.194	8.22	52.87	6.36	9.2	2.055
	5th percentile		0.25	0.25	37.86		2.5	105.8	50.15	46.235	0.005	7.52	13.6	0.02	0.5	0.31
V25BSP	21-Jan-05		< 0.5	< 0.5	44.6		< 5	749	439	54.4	< 0.01	7.5	413	-0.3	< 1	0.1
V25BSP	8-Feb-05		< 0.5	< 0.5	46.3		< 5	718	395	56.5	< 0.01	8	345	0.9	< 1	0.11
V25BSP	14-Mar-05		< 0.5	< 0.5	42.9		< 5	721	452	52.3	0.04	7	387	1.6	< 1	0.19
V25BSP	11-Apr-05		< 0.5	< 0.5	38.6		< 5	701	373	47.1	< 0.01	7.4	74.5	2.8	< 1	0.72
V25BSP	10-May-05		< 0.5	< 0.5	35.1		45	119	63	42.9	0.03	7.6	27.8	3.2	34	32
V25BSP	7-Jun-05											7.9		11.2		
V25BSP	19-Jun-05						< 5	1310	830		0.12		749		1	0.65
V25BSP	20-Jun-05		< 0.5	< 0.5	54.5		< 5	1350	873	66.5	0.25	7.8	735	12.3	< 1	0.45
V25BSP	2-Jul-05						< 5	1810	1290		0.21	7.9	1160	14.4	< 1	0.41
V25BSP	10-Jul-05		< 0.5	< 0.5	63.7		< 5	2150	1130	77.7	0.3	8	1220	13.7	< 1	0.69

Appendix C3
2005 to 2007 Surface Water Quality Data
Vangorda Creek Drainage

Table 4. Mine Runoff and Effluent Surface Water Physical and Routine Parameters

STATION	DATE	ACID-T mg/L	ALK-C mg/L	ALK-H mg/L	ALK-T mg/L	Cl mg/L	COLOR CU	COND-L µS/cm	HARD mg/L	HCO3 mg/L	NH3 mg/L	PH-F pH unit	SO4 mg/L	TEMP-F °C	TSS mg/L	TURB NTU
Benchmark					12.6	250					0.25	6.5 - 9.0	50		29	
V25BSP	16-Jul-05		< 0.5	< 0.5	70.6		< 5	2040	1170	86.1	0.37	7.9	1260	13.6	< 1	0.67
V25BSP	24-Jul-05						< 5	1690	1180		0.41	8.1	1180	13.7	< 1	0.75
V25BSP	25-Jul-05		< 0.5	< 0.5	73.5		< 5	1690	1130	89.7	0.43	7.8	1340	12.1	< 1	0.52
V25BSP	31-Jul-05		< 0.5	< 0.5	71.4		< 5	1800	1240	87.2	0.44	8	1280	11	< 1	1.1
V25BSP	6-Aug-05						< 5	1870	1220		0.41	8	1290	12.1	< 1	0.55
V25BSP	13-Aug-05						< 5	2190	1280		0.42	8.1	1270	15.2	< 1	0.57
V25BSP	20-Aug-05						< 5	1780	1220		0.41	8	1270	12.4	< 1	0.41
V25BSP	22-Aug-05		< 0.5	< 0.5	78.8		< 5	1670	1300	96.1	0.46	8	1340	12.2	< 1	0.3
V25BSP	6-Sep-05		< 0.5	< 0.5	50.4			1190	891	61.4	< 0.01	7.8	976	8.7	< 1	
V25BSP	11-Oct-05		< 0.5	< 0.5	62.1			1120	969	75.7	0.04	8.3	903	2.5	< 1	
V25BSP	1-Nov-05		< 0.5	< 0.5	55.9		< 5	904	700	68.2	< 0.01	7.5	692	2.4	< 1	0.2
V25BSP	17-May-06		< 0.5	< 0.5	48.2		7	328	155	58.8	< 0.01	8.3	128	1.9	11	19
V25BSP	19-Jun-06		< 0.5	< 0.5	63.1		13	334	171	77	< 0.01	8	111	15.1	< 1	1.4
V25BSP	17-Jul-06		< 0.5	< 0.5	72.2		7	430	221	88.1	< 0.01	7.9		15.1	2	1.1
V25BSP	22-Aug-06		< 0.5	< 0.5	80.5		< 5	640	339	98.2	< 0.01	7.9	278	10.4	< 1	0.19
V25BSP	11-Sep-06		< 0.5	< 0.5	85.2		< 5	719	363	104	0.03	8	316	7.3	< 1	0.23
V25BSP	16-Oct-06		< 0.5	< 0.5	83.5		< 5	765	400	102	< 0.01	7.9	346	0	< 1	0.24
V25BSP	14-May-07		< 0.5	< 0.5	47.6		< 5	296	142	58.1	< 0.01	7.6	87.3	1.7	1	2.5
V25BSP	18-Jun-07		< 0.5	< 0.5	60.7		18	241	109	74.1	0.02	7.5	56.7	14.6	1	1.8
V25BSP	16-Jul-07		< 0.5	< 0.5	70.5		7	298	114	86	0.01	7.4	71.8	15.7	1	1.5
V25BSP	14-Aug-07		< 0.5	< 0.5	79.8		< 5	382	202	97.4	< 0.01	7.2	139	12.9	< 1	0.27
V25BSP	11-Sep-07		< 0.5	< 0.5	68.8		< 5	506	234	84	0.02	7.9	207	7.8	< 1	0.14
V25BSP	23-Oct-07		< 0.5	< 0.5	79.9		< 5	489	242	97.4	< 0.01	7.7	177	0.4	< 1	0.16
V25BSP	13-Nov-07		< 0.5	< 0.5	63.1		< 5	533	288	77	< 0.01	7.6	235	1.7	< 1	< 0.1
V25BSP	10-Dec-07		< 0.5	< 0.5	75.6		< 5	548	250	92.3	< 0.01	7.1	209	0.6	< 1	0.1
V25BSP	11-Dec-07											7.3		3.2		
	N	0	28	28	28	0	32	34	34	28	34	35	33	35	34	32
	median		0.25	0.25	63.4		2.5	735	419.5	77.35	0.02	7.9	387	10.4	0.5	0.485
	mean		0.25	0.25	63.1		5.1	1002.4	628.7	77	0.1	7.8	614.4	8.1	1.9	2.2
	std		0	0	14.6		8	642.1	447.5	17.8	0.2	0.3	493.9	5.7	6	6.4
	minimum		< 0.5	< 0.5	35.1		< 5	119	63	42.9	< 0.01	7	27.8	-0.3	< 1	0.1
	maximum		< 0.5	< 0.5	85.2		45	2190	1300	104	0.46	8.3	1340	15.7	34	32
	# < DL		28	28	0		26	0	0	0	15	0	0	0	27	1
	% < DL		100%	100%	0%		81%	0%	0%	0%	44%	0%	0%	0%	79%	3%
	# > BM				28						9	0	32		1	
	% > BM				100%						26%	0%	97%		3%	
	# < DL (DL>BM)				0						0	0	0		0	
	% < DL (DL>BM)				0%						0%	0%	0%		0%	
	max DL		0.5	0.5			5				0.01				1	0.1
	95th percentile		0.25	0.25	82.45		15.25	2078.5	1283.5	100.67	0.4335	8.16	1310	15.13	5.15	9.925
	5th percentile		0.25	0.25	40.105		2.5	276.75	112.25	48.92	0.005	7.17	65.76	0.28	0.5	0.1

Appendix C3
2005 to 2007 Surface Water Quality Data
Vangorda Creek Drainage

Table 5. Mine Runoff and Effluent Surface Water Total Metal Parameters

STATION	DATE	AG-T mg/L	AL-T mg/L	AS-T mg/L	BA-T mg/L	BE-T mg/L	BI-T mg/L	B-T mg/L	CA-T mg/L	CD-T mg/L	CN-T mg/L	CO-T mg/L	CR-T mg/L	CU-T mg/L	FE-T mg/L	HG-T mg/L	K-T mg/L	LI-T mg/L	MG-T mg/L	MN-T mg/L	MO-T mg/L	NA-T mg/L	NI-T mg/L	PB-T mg/L	P-T mg/L	SB-T mg/L	SE-T mg/L	SI-T mg/L	SN-T mg/L	SR-T mg/L	TE-T mg/L	TH-T mg/L	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
Benchmark		0.0001	0.1	0.005	1	1.1	0.26			0.00003			0.001	0.002	0.3		53		82	1	0.073	200	0.065	0.002	0.03	0.02	0.001		0.35	9.3			1.83	0.0008	0.005	0.006	0.03	0.004
V2	21-Jan-05	0.0007	0.13	0.001	0.099	< 0.001	< 0.001	< 0.05	276	< 0.0002	< 0.005	< 0.001	< 0.001	0.002	0.38	< 0.00002	2.7	0.005	132	0.011	0.0014	9.92	0.003	0.005	< 0.15	< 0.001	< 0.001	13.3	< 0.001	0.87	< 0.001	< 0.0005	0.004	< 0.0001	0.022	< 0.001	0.022	< 0.01
V2	08-Feb-05	< 0.00025	0.057	0.001	0.1	< 0.001	< 0.001	< 0.05	270	< 0.0002	< 0.005	< 0.001	< 0.001	0.002	0.1	< 0.00002	2.9	0.005	159	0.008	0.0015	11.6	0.003	0.003	< 0.15	< 0.001	< 0.001	14.6	< 0.001	1.04	< 0.001	< 0.0005	0.003	< 0.0001	0.027	< 0.001	0.024	< 0.01
V2	14-Mar-05	< 0.00025	0.028	< 0.001	0.089	< 0.001	< 0.001	< 0.05	284	< 0.0002	< 0.005	< 0.001	< 0.001	0.003	0.25	< 0.00002	2.5	0.004	126	0.003	0.0014	10.1	0.003	0.001	< 0.15	< 0.001	< 0.001	12.2	< 0.001	0.92	< 0.001	< 0.0005	0.001	< 0.0001	0.024	< 0.001	0.011	< 0.01
V2	11-Apr-05	< 0.00025	0.022	< 0.001	0.091	< 0.001	< 0.001	< 0.05	243	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.15	< 0.00002	2.2	0.004	112	0.001	0.0013	9.41	0.002	< 0.001	< 0.15	< 0.001	< 0.001	12.4	< 0.001	0.79	< 0.001	< 0.0005	0.001	< 0.0001	0.021	< 0.001	0.01	< 0.01
V2	09-May-05	< 0.00025	0.053	0.001	0.067	< 0.001	< 0.001	< 0.05	199	< 0.0002	< 0.005	< 0.001	< 0.001	0.002	0.11	< 0.00002	2.3	0.004	96.2	0.006	0.0012	6.95	0.003	0.001	< 0.15	< 0.001	0.002	10.3	< 0.001	0.64	< 0.001	< 0.0005	0.001	< 0.0001	0.013	< 0.001	0.048	< 0.01
V2	21-Jun-05	< 0.00025	0.014	< 0.001	0.085	< 0.001	< 0.001	< 0.05	263	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.1	< 0.00002	2.6	0.008	137	< 0.001	0.0012	9.52	0.003	< 0.001	< 0.15	< 0.001	< 0.001	13.2	< 0.001	0.82	< 0.001	< 0.0005	< 0.001	< 0.0001	0.02	< 0.001	0.008	< 0.01
V2	25-Jul-05	< 0.00025	0.012	< 0.001	0.096	< 0.001	< 0.001	< 0.05	242	< 0.0002	< 0.005	< 0.001	< 0.001	0.004	< 0.05	< 0.00002	2.5	0.007	135	0.006	0.0012	8.89	0.004	< 0.001	< 0.15	< 0.001	< 0.001	12.4	< 0.001	0.83	< 0.001	< 0.0005	< 0.001	< 0.0001	0.021	< 0.001	0.036	< 0.01
V2	22-Aug-05	< 0.00025	0.015	0.001	0.093	< 0.001	< 0.001	< 0.05	307	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	< 0.05	< 0.00002	3	0.008	163	0.005	0.0013	10.7	0.003	< 0.001	< 0.15	< 0.001	0.002	12.7	< 0.001	1.01	< 0.001	< 0.0005	< 0.001	< 0.0001	0.026	< 0.001	0.031	< 0.01
V2	06-Sep-05	< 0.00025	0.01	0.001	0.085	< 0.001	< 0.001	< 0.05	240	< 0.0002	< 0.005	0.001	< 0.001	0.002	0.63	< 0.00002	2.5	0.006	141	0.036	< 0.0005	9.41	0.005	< 0.001	< 0.15	< 0.001	0.002	13.2	< 0.001	0.81	< 0.001	0.0009	< 0.001	< 0.0001	0.022	< 0.001	0.01	< 0.01
V2	21-Sep-05	< 0.00025	0.022	< 0.001	0.11	< 0.001	< 0.001	< 0.05	270	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	2.6	0.005	132	0.001	0.0013	9.65	0.003	< 0.001	< 0.15	< 0.001	< 0.001	13.4	0.006	0.88	< 0.001	< 0.0005	< 0.001	< 0.0001	0.02	< 0.001	0.014	< 0.01
V2	11-Oct-05	< 0.00025	< 0.005	< 0.001	0.11	< 0.001	< 0.001	< 0.05	265	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	2.6	0.005	140	0.009	0.0013	9.93	0.003	< 0.001	< 0.15	< 0.001	< 0.001	13.4	< 0.001	0.89	< 0.001	< 0.0005	< 0.001	< 0.0001	0.019	< 0.001	0.036	< 0.01
V2	25-Oct-05	< 0.00025	0.018	0.001	0.11	< 0.001	< 0.001	< 0.05	262	< 0.0002		< 0.001	< 0.001	0.001	0.05	< 0.00002	2.7	0.006	148	0.002	0.0014	10.6	0.001	< 0.001	< 0.15	< 0.001	0.001	12.8	< 0.001	0.92	< 0.001	< 0.0005	< 0.001	< 0.0001	0.022	< 0.001	0.009	< 0.01
V2	01-Nov-05	< 0.00025	0.01	< 0.001	0.11	< 0.001	< 0.001	< 0.05	260	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	< 0.05	< 0.00002	2.6	0.006	143	0.004	0.0013	9.82	0.004	< 0.001	< 0.15	< 0.001	< 0.001	13	< 0.001	0.9	< 0.001	< 0.0005	< 0.001	< 0.0001	0.022	< 0.001	0.028	< 0.01
V2	15-Nov-05	< 0.01	0.11	< 0.03	0.095	< 0.003		< 0.01	219	< 0.01		< 0.02	< 0.01	< 0.02	0.04	< 0.00002	2.7		149	< 0.003	< 0.02	10.9	< 0.02	< 0.03	< 0.15	< 0.05		5.98	< 0.03	0.88			< 0.005			< 0.01	0.009	< 0.02
V2	14-Dec-05	< 0.00025	0.064	0.001	0.097	< 0.001	< 0.001	< 0.05	311	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.2	< 0.00002	2.7	0.007	165	0.011	0.0014	10.7	0.002	0.004	< 0.15	< 0.001	< 0.001	6.2	< 0.001	0.97	< 0.001	< 0.0005	0.003	< 0.0001	0.022	< 0.001	0.033	< 0.01
V2	23-Jan-06	< 0.00025	0.036	0.001	0.097	< 0.001	< 0.001	< 0.05	291	< 0.0002		< 0.001	< 0.001	0.002	0.16	< 0.00002	2.5	0.006	166	0.005	0.0015	11.1	0.002	0.002	< 0.15	< 0.001	< 0.001	7.4	< 0.001	1.09	< 0.001	< 0.0005	< 0.001	< 0.0001	0.024	< 0.001	0.014	< 0.01
V2	07-Feb-06	< 0.00025	0.006	< 0.001	0.081	< 0.001		< 0.05	170	< 0.0002		< 0.001	< 0.001	0.001	< 0.05	< 0.00002	1.9		71.6	< 0.001	0.0019	7.13	0.002	< 0.001	< 0.15	< 0.001		5.2	< 0.001	0.62			< 0.001			< 0.001	< 0.005	< 0.01
V2	17-May-06	< 0.00025	0.035	0.001	0.065	< 0.001	< 0.001	< 0.05	208	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.11	< 0.00002	2.9	0.005	120	0.011	0.0014	7.41	0.004	0.002	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.71	< 0.001	< 0.0005	0.001	< 0.0001	0.017	< 0.001	0.025	< 0.01
V2	05-Jun-06	< 0.01	0.1	< 0.03	0.054	< 0.003		< 0.01	219	< 0.01		< 0.02	< 0.01	< 0.02	0.01		2.3		114	< 0.003	< 0.02	8.4	< 0.02	< 0.03	< 0.15	< 0.05		4.94	0.04	0.63			< 0.005			< 0.01	0.014	< 0.02
V2	19-Jun-06	< 0.00025	0.011	< 0.001	0.093	< 0.001	< 0.001	< 0.05	242	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.19	< 0.00002	2.5	0.005	122	0.001	0.0015	9.15	0.003	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.79	< 0.001	< 0.0005	< 0.001	< 0.0001	0.019	< 0.001	0.013	< 0.01
V2	10-Jul-06	< 0.01	0.09	< 0.03	0.081	< 0.003		< 0.01	271	< 0.01		< 0.02	< 0.01	< 0.02	0.02		2.3		125	< 0.003	< 0.02	8.3	0.02	< 0.03	< 0.15	< 0.05		5.04	< 0.03	0.74			< 0.005			< 0.01	0.018	< 0.02
V2	18-Jul-06	< 0.00025	0.015	< 0.001	0.088	< 0.001	< 0.001	< 0.05	249	< 0.0002		< 0.001	< 0.001	0.001	0.09	< 0.00002	2.5	0.019	142	0.003	0.0016	9.56	0.005	< 0.001	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.86	< 0.001	< 0.0005	< 0.001	< 0.0001	0.019	< 0.001	0.027	< 0.01
V2	08-Aug-06	< 0.01	0.1	< 0.03	0.085	< 0.003		< 0.01	277	< 0.01		< 0.02	< 0.01	< 0.02	0.03		2.3		147	< 0.003	< 0.02	8.8	< 0.02	< 0.03	< 0.15	< 0.05		4.93	< 0.03	0.82			< 0.005			< 0.01	0.023	< 0.02
V2	22-Aug-06	< 0.00025	0.013	< 0.001	0.09	< 0.001	< 0.001	< 0.05	263	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.08	< 0.00002	2.6	0.005	153	0.001	0.0015	10.2	0.005	< 0.001	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.9	< 0.001	< 0.0005	< 0.001	< 0.0001	0.02	< 0.001	0.018	< 0.01
V2	11-Sep-06	< 0.00025	0.022	< 0.001	0.092	< 0.001	< 0.001	< 0.05	245	< 0.0002		< 0.001	< 0.001	< 0.001	0.09	< 0.00002	2.4	0.006	156	< 0.001	0.0013	10	0.005	< 0.001	< 0.15	< 0.001	< 0.001	6.1	< 0.001	0.88	< 0.001	< 0.0005	< 0.001	< 0.0001	0.021	< 0.001	0.022	< 0.01
V2	26-Sep-06	< 0.00025	< 0.005	< 0.001	0.094	< 0.001		< 0.05	259	< 0.0002		< 0.001	< 0.001	0.001	< 0.05		2.7		143	< 0.001	0.0011	9.89	0.002	< 0.001	< 0.15	< 0.001		5.8	< 0.001	0.88			< 0.001			0.024	0.022	< 0.01
V2	16-Oct-06	< 0.00025	0.011	< 0.001	0.098	< 0.001	< 0.001	< 0.05	267	< 0.0002	0.0056	< 0.001	< 0.001	0.001	0.08	< 0.00002	2.6	0.005	142	0.001	0.0014	10.1	0.004	< 0.001	< 0.15	< 0.001	0.001	4.9	< 0.001	0.86	< 0.001	< 0.0005	< 0.001	< 0.0001	0.023	< 0.001	0.021	< 0.01
V2	23-Oct-06	< 0.01	0.12	< 0.03	0.093	< 0.003		< 0.01	249	< 0.01		< 0.02	< 0.01	< 0.02	< 0.01		2.5		136	< 0.003	< 0.02	9.5	< 0.02	< 0.03	< 0.15	< 0.05		4.43	< 0.03	0.76			< 0.005			< 0.01	0.018	< 0.02
V2	13-Nov-06	< 0.00025	0.026	< 0.001	0.097	< 0.001	< 0.001	< 0.05	245	< 0.0002		< 0.001	< 0.001	0.001	0.17	< 0.00002	2	0.003	131	0.019	0.0016	10	0.002	< 0.001	< 0.15	< 0.001	0.001	5.5	< 0.001	0.83	< 0.001	< 0.0005	< 0.001	< 0.0001	0.021	< 0.001	0.074	< 0.01
V2	21-Nov-06	< 0.01	< 0.05	< 0.03	0.1	< 0.003		< 0.01	245	< 0.01	< 0.005	< 0.02	< 0.01	< 0.02	0.04		4.3		123	< 0.003	< 0.02	11.4	< 0.02	< 0.03	< 0.15	< 0.05		4.5	< 0.03	0.79			< 0.005			< 0.01	0.01	< 0.02
V2	05-Dec-06	< 0.01	< 0.05	< 0.03	0.097	< 0.003		< 0.01	267	< 0.01		< 0.02	< 0.01	< 0.02	0.07		2.3		140	< 0.003	< 0.02	10.2	< 0.02	< 0.03	< 0.15	< 0.05		4.78	< 0.03	0.85			< 0.005			< 0.01	0.013	< 0.02
V2	14-Dec-06	< 0.00025	0.078	< 0.001	0.096	< 0.001	< 0.001	< 0.05	285	< 0.0002	0.0084	< 0.001	< 0.001	0.003	0.27	< 0.00002	2.3	0.003	126	0.033	0.0015	9.9	0.003	0.003	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.84	< 0.001	< 0.0005	0.003	< 0.0001	0.025	< 0.001	0.013	< 0.01
V2	08-Jan-07	< 0.01	< 0.05	< 0.03	0.098	< 0.003		< 0.01	266	< 0.01		< 0.02	< 0.01	< 0.02	0.04		2.7		142	< 0.003	< 0.02	9.7	< 0.02	< 0.03	< 0.15	< 0.05		4.58	< 0.03	0.86			< 0.005			< 0.01	0.017	< 0.02
V2	01-May-07	< 0.00025	0.044	0.002	0.064	< 0.001	< 0.001	< 0.05	240	0.0003		< 0.001	< 0.001	0.002	0.11	< 0.00002	3.4	0.007	165	0.006	0.0019	11.4	< 0.001	0.002	< 0.15	< 0.001	0.002	5.3	< 0.001	0.83	< 0.001	< 0.0005	0.002	0.0001	0.021	< 0.001	0.031	< 0.01
V2	14-May-07	< 0.00025	0.037	0.001	0.062	< 0.001	< 0.001	< 0.05	247	< 0.0002	0.0066	< 0.001	< 0.001	0.002	0.55	< 0.00002	3.2	0.006	158	0.034	0.0022	9.14	0.006	0.001	< 0.15	< 0.001	0.002	5.8	< 0.001	0.79	< 0.001	< 0.0005	0.001	< 0.0001	0.02	< 0.001	0.028	< 0.01
V2	07-Jun-07	< 0.00025	0.015	0.001	0.062	< 0.001	< 0.001	< 0.05	199	< 0.0002		< 0.001	< 0.001	0.002	0.46	< 0.00002	2.2	< 0.005	103	0.001	0.0015	7.6	0.003	< 0.001	< 0.15	< 0.001	0.002	5.1	< 0.001	0.62	< 0.001	< 0.0005	0.001	< 0.0001	0.016	< 0.001	0.018	< 0.01
V2	18-Jun-07	< 0.00025	0.011	< 0.001	0.061	< 0.001	< 0.001	< 0.05	190	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.1	< 0.00002	2.1	< 0.005	97	0.012	0.0015	8.21	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.61	< 0.001	< 0.0005	< 0.001	< 0.0001	0.014	< 0.001	0.053	< 0.01
V2	03-Jul-07	< 0.00025	0.012	0.001	0.069	< 0.001	< 0.001	< 0.05	194	< 0.0002		< 0.001	< 0.001	0.001	< 0.05	< 0.00002	2.1	< 0.005	109	0.002	0.0014	8.15	0.003	< 0.001	< 0.15	< 0.001	0.001	4.5	< 0.001	0.68	< 0.001	< 0.0005	< 0.001	< 0.0001	0.018	< 0.001	0.026	< 0.01
V2	16-Jul-07	< 0.00025	0.012	< 0.001	0.069	< 0.001	< 0.001	< 0.05	223	< 0.0002	0.0051	< 0.001	< 0.001	0.001	0.15	< 0.00002	2.4	0.005	124	0.004	0.0016	8.66	0.004	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.78	< 0.001	< 0.0005	< 0.001	< 0.0001	0.018	< 0.001	0.034	< 0.01
V2	02-Aug-07	< 0.00025	0.006	0.001	0.07	< 0.001	< 0.001	< 0.05	245	0.0003		< 0.001	< 0.001	0.001	0.08	< 0.00002	2.6	< 0.005	144	0.002	0.0016	9.61	0.005	< 0.001	< 0.15	< 0.001	0.002	5.2	< 0.001	0.86	< 0.001	< 0.0005	< 0.001	< 0.0001	0.02	< 0.001	0.028	< 0.01
V2	14-Aug-07	< 0.00025	0.031	< 0.001	0.072	< 0.001	< 0.001	< 0.05	254	< 0.0002	< 0.005	< 0.001	< 0.001	0.002	< 0.05	< 0.00002	2.7	0.005	150	0.002	0.0015	10	0.005	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.85	< 0.001	< 0.0005	< 0.001	< 0.0001	0.024	< 0.001	0.024	< 0.01
V2	11-Sep-07	< 0.00025	0.014	< 0.001	0.075	< 0.001	< 0.001	< 0.05	205	< 0.0002	< 0.005	< 0.001	< 0.001	0.002	0.62	< 0.00002	2	0.004	97.7	0.001	0.0016	8.37	0.002	< 0.001	< 0.15	< 0.001	0.001	5.8	< 0.001	0.64	< 0.001	< 0.0005	< 0.001	< 0.0001	0.018	< 0.001	0.016	< 0.01
V2	25-Sep-07	< 0.00005	0.004	0.0008	0.09	< 0.0002	< 0.0002	< 0.01	196	0.00008		< 0.0002	0.0002	0.0013	0.07	< 0.00002	1.97	0.0031	84.8	0.0006	0.0015	8.26	0.0015	0.0003	< 0.03	< 0.0002	0.001	5.55	< 0.0002	0.637	< 0.0002	< 0.0001	0.0004	< 0.00002	0.012	< 0.0002	0.005	< 0.002
V2	10-Oct-07	< 0.00025	0.013	< 0.001	0.092	< 0.001	< 0.001	< 0.05	219	< 0.0002		< 0.001	< 0.001	0.002	0.12	< 0.00002	2.1	0.003	91.1	< 0.001	0.0015	9.18	0.001	< 0.001	< 0.15	< 0.001	0.002	5.3	< 0.001	0.69	< 0.001	< 0.0005	< 0.001	< 0.0001	0.017	< 0.001	0.008	< 0.01
V2	22-Oct-07	< 0.00025	0.013	< 0.001	0.084	< 0.001	< 0.001	< 0.05	207	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.09	< 0.00002	2	0.003	94.7	0.003	0.0015	9.57	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.1	< 0.001	0.68	< 0.001	< 0.0005	< 0.001	< 0.0001	0.016	< 0.001	0.013	< 0.01
V2	13-Nov-07	< 0.00025	0.019	0.001	0.084	< 0.001	< 0.001	< 0.05	212	< 0.0002	0.0063	< 0.001	< 0.001	0.001	0.11	< 0.00002	2	0.003	98.7	0.005	0.0016	9.53	0.001	< 0.001	< 0.15	< 0.001	0.002	5.4	< 0.001	0.72	< 0.001	< 0.0005	< 0.001	< 0.0001	0.016	< 0.001	0.017	< 0.01
V2	26-Nov-07	< 0.00025	0.011	< 0.001	0.085	< 0.001	< 0.001	< 0.05	219	< 0.0002		< 0.001	< 0.001	0.001	0.08	< 0.00002	2	0.003	92.7	< 0.001	0.0013	8.88	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.72	< 0.001	< 0.0005	< 0.001	< 0.0001	0.017	< 0.001	0.007	< 0.01
V2	10-Dec-07	< 0.00025	0.048	0.001	0.077	< 0.001	< 0.001	< 0.05	221	< 0.0002	< 0.005	< 0.001	< 0.001	0.002	0.2	< 0.00002	2	< 0.001	90.3	0.007	0.0014	7.83	0.002	0.002	< 0.15	< 0.001	0.001	4.9	< 0.001	0.74	< 0.001	< 0.0005	0.001	< 0.0001	0.02	< 0.001	0.016	< 0.01
V2	17-Dec-07	< 0.00025	< 0.005	0.001	0.076	< 0.001	< 0.001	< 0.05	230	< 0.0002		< 0.001	< 0.001	0.001	0.05	< 0.00002	2.1	0.004	107	0.001	0.0018	10.8	0.002	< 0.001	< 0.15	< 0.001	0.002	5.1	< 0.001	0.74	< 0.001	< 0.0005	< 0.001	< 0.0001	0.019	< 0.001	0.009	< 0.01
	N	49	49	49	49	49	39	49	49	49	26	49	49	49	49	41	49	39	49	49	49	49	49	49	49	49	39	49	49	49	39	39	49	39	39	49	49	49
	median	0.000125	0.019	0.001	0.09	0.0005	0.0005	0.025	245	0.0001	0.0025	0.0005	0.0005	0.001	0.09	0.00001	2.5	0.005	132	0.002	0.0015	9.57	0.003	0.0005	0.075	0.0005	0.0005	5.5	0.0005	0.82	0.0005	0.00025	0.0005	0.00005	0.02	0.0005	0.018	0.005
	mean	0.0009	0.0327	0.0031	0.0863	0.0007	0.0005	0.0213	243.47	0.0009	0.0033	0.0021	0.0012	0.0028	0.13	0.00001	2.48	0	128.26	0.0056	0.0028	9.47	0.0043	0.0033	0.0738	0.0045	0.001	7.3	0.003	0.81	0.0005	0.0003	0.0012	0.0001	0.0199	0.0017	0.0209	0.01
	std	0.0018	0.0332	0.0053	0.0143	0.0004	0.0001	0.0078	31.61	0.0018	0.0016	0.0035	0.0017	0.0033	0.15	0	0.42	0	24.29	0.0084	0.0032	1.11	0.0036	0.0053	0.0086	0.0092	0.001	3.44	0.007	0.11	0.0001	0.0001	0.001	0	0.0034	0.0037	0.0132	0
	minimum	< 0.00005	0.004	0.0008	0.054	< 0.0002	< 0.0002	< 0.01	170	0.00008	< 0.005	< 0.0002	0.0002	0.001	< 0.01	< 0.00002	1.9	< 0.001	71.6	0.0006	< 0.0005	6.95	< 0.001	0.0003	< 0.03	< 0.0002	< 0.001	4.43	< 0.0002	0.61	< 0.0002	< 0.0001	0.0004	< 0.00002	0.012	< 0.0002	< 0.005	< 0.002
	maximum	< 0.01	0.13	< 0.03	0.11	< 0.003	< 0.001	< 0.05	311	< 0.01	0.0084	< 0.02	< 0.01	0.02	0.63	< 0.00002	4.3	0.019	166	0.036	< 0.02	11.6	< 0.02	< 0.03	< 0.15	< 0.05	0.002	14.6	0.04	1.09	< 0.001	0.0009	< 0.005	< 0.0001	0.027	0.024	0.074	< 0.02
	# < DL	48	6	31	0	49	39	49	0	46	21	48	48	11	10	41	0	5	0	14	9	0	8	37	49	49	22	0	47	0	39	38	36	38	0	48	1	49
	% < DL	98%	12%	63%	0%	100%	100%	100%	0%	94%	81%	98%	98%	22%	20%	100%	0%	13%	0%	29%	18%	0%	16%	76%	100%	100%	56%	0%	96%	0%	100%	97%	73%	97%	0%	98%	2%	100%
	# > BM	48	3	8	0	0	0			49			8	11	5		0		48	0	0	0	0	12	48	8	10		0	0			0	0	39	1	9	48
	% > BM	98%	6%	16%	0%	0%	0%			100%			16%	22%	10%		0%		98%	0%	0%	0%	0%	24%	98%	16%	26%		0%	0%			0%	0%	100%	2%	18%	98%
	# < DL (DL>BM)	47	0	8	0	0	0			46			8	8	0		0		0	0	0	0	0	8	48	8	0		0	0			0	0	0	8	0	48
	% < DL (DL>BM)	96%	0%	16%	0%	0%	0%			94%			16%	16%	0%		0%		0%	0%	0%	0%	0%	16%	98%	16%	0%		0%	0%			0%	0%	0%	16%	0%	98%
	max DL	0.01	0.05	0.03		0.003	0.001	0.05		0.01	0.005	0.02	0.01	0.02	0.05	0.00002		0.005		0.003	0.02		0.02	0.03	0.15	0.05	0.001		0.03		0.001	0.0005	0.005	0.0001		0.01	0.005	0.02
	95th percentile	0.005	0.106	0.015	0.11	0.0015	0.0005	0.025	288.6	0.005	0.006525	0.01	0.005	0.01	0.514	0.00001	3.12	0.008	164.2	0.0274	0.01	11.28	0.01	0.015	0.075	0.025	0.002	13.36	0.015	0.994	0.0005	0.00025	0.003	0.00005	0.0251	0.005	0.0432	0.01
	5th percentile	0.000125	0.0031	0.0005	0.062	0.0005	0.0005	0.005	194.8	0.0001	0.0025	0.0005	0.0005	0.0007	0.022	0.00001	2	0.0025	90.62	0.0005	0.0012	7.486	0.001	0.0005	0.075	0.0005	0.0005	4.5	0.0005	0.624	0.0005	0.00025	0.0005	0.00005	0.0139	0.0005	0.0074	0.005
V6A	07-Mar-05	< 0.00025	0.021	0.001	0.046	< 0.001	< 0.001	< 0.05	54.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.08	< 0.00002	0.8	0.001	11.2	0.004	< 0.0005	2.41	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.4	0.004	0.24	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0051	< 0.001	0.022	< 0.01
V6A	07-Jun-05	< 0.00025	0.046	0.003	0.029	< 0.001	< 0.001	0.05	23.3	< 0.0002		< 0.001	0.001	0.002	0.16	< 0.00002	0.9	< 0.001	4.47	0.007	< 0.0005	1.98	< 0.001	< 0.001	< 0.15	< 0.001	0.015	11.4	< 0.001	0.098	< 0.001	< 0.0005	0.002	< 0.0001	0.0012	< 0.001	0.029	< 0.01
V6A	12-Sep-05	< 0.00025	0.1	0.001	0.029	< 0.001	< 0.001	< 0.05	27.2	< 0.0002		< 0.001	< 0.001	< 0.001	0.19	< 0.00002	0.4	< 0.001	6.12	0.008	< 0.0005	1.73	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	8.2	< 0.001	0.1	< 0.001	< 0.0005	0.009	< 0.0001	0.0013	< 0.001	0.014	< 0.01
V6A	01-Dec-05	< 0.00025	0.03	0.001	0.043	< 0.001	< 0.001	< 0.05	45	< 0.0002		< 0.001	< 0.001	< 0.001	0.1	< 0.00002	0.5	0.002	11.1	0.027	< 0.0005	2.05	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.18	< 0.001	< 0.0005	0.002	< 0.0001	0.0026	< 0.001	0.031	< 0.01
V6A	05-Jun-06	< 0.00025	0.19	0.001	0.02	< 0.001	< 0.001	< 0.05	14	< 0.0002		< 0.001	< 0.001	0.001	0.26	< 0.00002	0.4	< 0.001	2.94	0.015	< 0.0005	1.25	< 0.001	0.001	< 0.15	< 0.001	< 0.001	3.5	< 0.001	0.053	< 0.001	< 0.0005	0.003	< 0.0001	0.001	< 0.001	0.026	< 0.01
V6A	09-Jun-06	< 0.00025	0.042	< 0.001	0.025	< 0.001	< 0.001	< 0.05	22.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.14	< 0.00002	0.3	< 0.001	4.59	0.007	< 0.0005	1.68	< 0.001	0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.097	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.013	< 0.01
V6A	06-Sep-06	< 0.00025	0.042	< 0.001	0.025	< 0.001	< 0.001	< 0.05	22.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.14	< 0.00002	0.3	< 0.001	4.59	0.007	< 0.0005	1.68	< 0.001	0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.097	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.013	< 0.01
V6A	18-Jun-07	< 0.00025	0.76	0.002	0.03	< 0.001	< 0.001	< 0.05	16.1	< 0.0002		< 0.001	< 0.001	0.003	0.61	< 0.00002	0.4	< 0.005	3.34	0.016	< 0.0005	1.44	0.001	0.002	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.066	< 0.001	< 0.0005	0.017	< 0.0001	0.0024	< 0.001	0.029	< 0.01
V6A	24-Sep-07	< 0.00025	0.028	< 0.001	0.025	< 0.001	< 0.001	< 0.05	24.2	< 0.0002		< 0.001	< 0.001	< 0.001	0.11		0.4	< 0.001	5.34	0.006	< 0.0005	1.66	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.098	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.014	< 0.01
V6A	09-Dec-07	< 0.00025	0.058	0.001	0.04	< 0.001	< 0.001	< 0.05	40.3	< 0.0002		< 0.001	< 0.001	< 0.001	0.25	< 0.00002	0.5	< 0.001	8.14	0.02	< 0.0005	1.71	< 0.001	0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.17	< 0.001	< 0.0005	0.002	< 0.0001	0.0032	< 0.001	0.025	< 0.01
	N	10	10	10	10	10	10	10	10	10	0	10	10	10	10	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	median	0.000125	0.044	0.001	0.029	0.0005	0.0005	0.025	23.75	0.0001		0.0005	0.0005	0.0005	0.15	0.00001	0.4	0.0005	4.965	0.0075	0.00025	1.695	0.0005	0.00075	0.075	0.0005	0.0005	4.8	0.0005	0.098	0.0005	0.00025	0.002	0.00005	0.0015	0.0005	0.0235	0.005
	mean	0.00013	0.1317	0.00115	0.0312	0.0005	0.0005	0.0275	28.93	0.0001		0.0005	0.00055	0.00095	0.204	0.00001	0.49	0.0009	6.183	0.0117	0.00025	1.759	0.00055	0.00085	0.075	0.0005	0.00195	6.31	0.00085	0.1199	0.0005	0.00025	0.0037	0.00005	0.00212	0.0005	0.0216	0.005
	std	0	0.22642	0.00078	0.00874	0	0	0.00791	13.19133	0		0	0.00016	0.00086	0.15472	0	0.20248	0.00074	2.99075	0.00748	0	0.32381	0.00016	0.00047	0	0	0.00459	2.95765	0.00111	0.05805	0	0	0.00532	0	0.00127	0	0.0074	0
	minimum	< 0.00025	0.021	< 0.001	0.02	< 0.001	< 0.001	< 0.05	14	< 0.0002		< 0.001	< 0.001	< 0.001	0.08	< 0.00002	0.3	0.001	2.94	0.004	< 0.0005	1.25	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.5	< 0.001	0.053	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.013	< 0.01
	maximum	< 0.00025	0.76	0.003	0.046	< 0.001	< 0.001	0.05	54.4	< 0.0002		< 0.001	0.001	1.42	0.61	< 0.00002	0.9	0.005	11.2	6.67	< 0.0005	3.7	0.001	0.107	< 0.15	< 0.001	0.015	11.4	0.004	0.24	< 0.001	< 0.0005	0.017	< 0.0001	0.0051	< 0.001	86.5	< 0.01
	# < DL	10	0	3	0	10	10	9	0	10		10	9	7	0	9	0	8	0	0	10	0	9	5	10	10	9	0	9	0	10	10	4	10	0	10	0	10
	% < DL	100%	0%	30%	0%	100%	100%	90%	0%	100%		100%	90%	70%	0%	100%	0%	80%	0%	0%	100%	0%	90%	50%	100%	100%	90%	0%	90%	0%	100%	100%	40%	100%	0%	100%	0%	100%

Appendix C3
2005 to 2007 Surface Water Quality Data
Vangorda Creek Drainage

Table 5. Mine Runoff and Effluent Surface Water Total Metal Parameters

STATION	DATE	AG-T mg/L	AL-T mg/L	AS-T mg/L	BA-T mg/L	BE-T mg/L	BI-T mg/L	B-T mg/L	CA-T mg/L	CD-T mg/L	CN-T mg/L	CO-T mg/L	CR-T mg/L	CU-T mg/L	FE-T mg/L	HG-T mg/L	K-T mg/L	LI-T mg/L	MG-T mg/L	MN-T mg/L	MO-T mg/L	NA-T mg/L	NI-T mg/L	PB-T mg/L	P-T mg/L	SB-T mg/L	SE-T mg/L	SI-T mg/L	SN-T mg/L	SR-T mg/L	TE-T mg/L	TH-T mg/L	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
Benchmark		0.0001	0.1	0.005	1	1.1	0.26			0.00003			0.001	0.002	0.3		53		82	1	0.073	200	0.065	0.002	0.03	0.02	0.001		0.35	9.3			1.83	0.0008	0.005	0.006	0.03	0.004
	# > BM	10	2	0	0	0	0			10			0	1	1		0		0	0	0	0	0	0	10	0	1		0	0			0	0	1	0	1	10
	% > BM	100%	20%	0%	0%	0%	0%			100%			0%	10%	10%		0%		0%	0%	0%	0%	0%	0%	100%	0%	10%		0%	0%			0%	0%	10%	0%	10%	100%
	# < DL (DL>BM)	10	0	0	0	0	0			10			0	0	0		0		0	0	0	0	0	0	10	0	0		0	0			0	0	0	0	0	10
	% < DL (DL>BM)	100%	0%	0%	0%	0%	0%			100%			0%	0%	0%		0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025		0.001		0.001	0.001	0.05		0.0002		0.001	0.001	0.001		0.00002		0.005			0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001		0.01
	95th percentile	0.000125	0.5035	0.00255	0.04465	0.0005	0.0005	0.03875	50.17	0.0001		0.0005	0.000775	0.00255	0.4525	0.00001	0.855	0.002275	11.155	0.02385	0.00025	2.248	0.000775	0.00155	0.075	0.0005	0.008475	11.4	0.002425	0.213	0.0005	0.00025	0.0134	0.00005	0.004245	0.0005	0.0301	0.005
	5th percentile	0.000125	0.02415	0.0005	0.02225	0.0005	0.0005	0.025	14.945	0.0001		0.0005	0.0005	0.0005	0.089	0.00001	0.3	0.0005	3.12	0.0049	0.00025	1.3355	0.0005	0.0005	0.075	0.0005	0.0005	3.815	0.0005	0.05885	0.0005	0.00025	0.0005	0.00005	0.00109	0.0005	0.013	0.005
V25BSP	21-Jan-05	< 0.00025	0.017	< 0.001	0.03	< 0.001	< 0.001	< 0.05	133	0.0004	< 0.005	< 0.001	< 0.001	0.005	0.1	< 0.00002	1.6	0.008	26.2	< 0.001	< 0.0005	5.26	0.003	< 0.001	< 0.15	< 0.001	< 0.001	12.4	0.003	0.47	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	0.18	< 0.01
V25BSP	08-Feb-05	< 0.00025	< 0.005	< 0.001	0.025	< 0.001	< 0.001	< 0.05	119	0.0005	< 0.005	< 0.001	< 0.001	0.002	< 0.05	< 0.00002	1.5	0.007	23.6	0.001	< 0.0005	5.2	0.002	< 0.001	< 0.15	< 0.001	< 0.001	11.3	< 0.001	0.43	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	0.17	< 0.01
V25BSP	14-Mar-05	0.0005	0.008	< 0.001	0.032	< 0.001	< 0.001	< 0.05	140	0.0006	< 0.005	< 0.001	< 0.001	0.004	0.17	< 0.00002	1.7	0.007	24.8	0.001	< 0.0005	5.43	0.004	< 0.001	< 0.15	< 0.001	< 0.001	12.1	< 0.001	0.49	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	0.24	< 0.01
V25BSP	11-Apr-05	< 0.00025	0.031	< 0.001	0.03	< 0.001	< 0.001	< 0.05	112	0.0008	< 0.005	< 0.001	< 0.001	0.005	0.09	< 0.00002	1.7	0.006	22.4	0.01	< 0.0005	4.97	0.004	0.004	< 0.15	< 0.001	< 0.001	11.9	< 0.001	0.41	< 0.001	< 0.0005	0.008	< 0.0001	< 0.0005	< 0.001	0.26	< 0.01
V25BSP	10-May-05	< 0.00025	1.55	0.002	0.036	< 0.001	< 0.001	< 0.05	18.6	0.0004	0.0087	0.003	0.002	0.008	2.12	< 0.00002	1.2	0.003	4.08	0.26	< 0.0005	1.27	0.005	0.008	0.2	< 0.001	< 0.001	11.2	< 0.001	0.074	< 0.001	0.0005	0.038	< 0.0001	0.0006	0.003	0.14	< 0.01
V25BSP	19-Jun-05	< 0.00025	0.024	< 0.001	0.054	< 0.001	< 0.001	< 0.05	245	0.0013		0.003	< 0.001	0.002	0.11	< 0.00002	2.5	0.023	52.5	1.98	< 0.0005	5.56	0.004	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.99	< 0.001	< 0.0005	< 0.001	0.0007	< 0.0005	< 0.001	0.077	< 0.01
V25BSP	20-Jun-05	< 0.00025	0.035	< 0.001	0.052	< 0.001	< 0.001	< 0.05	253	0.0016	< 0.005	0.003	< 0.001	0.002	0.22	< 0.00002	2.6	0.031	58	2.81	< 0.0005	4.61	0.004	0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	1.05	< 0.001	< 0.0005	< 0.001	0.0008	< 0.0005	< 0.001	0.075	< 0.01
V25BSP	26-Jun-05										0.005																											
V25BSP	02-Jul-05	< 0.00025	0.007	< 0.001	0.02	< 0.001	< 0.001	< 0.05	357	0.0028	< 0.005	0.005	< 0.001	< 0.001	0.13	< 0.00002	3.9	0.064	95.8	11	< 0.0005	7.49	0.003	< 0.001	< 0.15	< 0.001	< 0.001	1	< 0.001	1.38	< 0.001	< 0.0005	< 0.001	0.0012	< 0.0005	< 0.001	0.2	< 0.01
V25BSP	10-Jul-05	< 0.00025	0.024	< 0.001	0.029	< 0.001	< 0.001	< 0.05	332	0.0012	< 0.005	0.003	< 0.001	0.002	0.11	< 0.00002	3.2	0.037	73.3	6.49	< 0.0005	5.12	0.003	< 0.001	< 0.15	< 0.001	0.002	1.9	< 0.001	1.29	< 0.001	< 0.0005	< 0.001	0.0012	< 0.0005	< 0.001	0.047	< 0.01
V25BSP	16-Jul-05	< 0.00025	0.027	< 0.001	0.031	< 0.001	< 0.001	< 0.05	340	0.0017	< 0.005	0.004	< 0.001	0.003	< 0.05	< 0.00002	3.3	0.037	76.9	8.32	< 0.0005	5.34	0.002	< 0.001	< 0.15	< 0.001	< 0.001	1.7	< 0.001	1.42	< 0.001	< 0.0005	< 0.001	0.0013	< 0.0005	< 0.001	0.046	< 0.01
V25BSP	24-Jul-05	< 0.00025	0.015	< 0.001	0.028	< 0.001	< 0.001	< 0.05	348	0.0022	< 0.005	0.004	< 0.001	0.002	0.14	< 0.00002	3.1	0.037	74.8	8.98	< 0.0005	5.27	0.003	< 0.001	< 0.15	< 0.001	0.002	2	< 0.001	1.31	< 0.001	< 0.0005	< 0.001	0.001	< 0.0005	< 0.001	0.049	< 0.01
V25BSP	25-Jul-05	< 0.00025	0.023	< 0.001	0.029	< 0.001	< 0.001	< 0.05	329	0.0022	< 0.005	0.004	< 0.001	0.001	< 0.05	< 0.00002	3	0.042	74.3	8.59	< 0.0005	5.08	0.002	< 0.001	< 0.15	< 0.001	< 0.001	2	0.001	1.3	< 0.001	< 0.0005	< 0.001	0.0013	< 0.0005	< 0.001	0.044	< 0.01
V25BSP	31-Jul-05	< 0.00025	0.022	< 0.001	0.025	< 0.001	< 0.001	< 0.05	366	0.0026	< 0.005	0.005	< 0.001	0.001	0.07	0.00002	3.2	0.039	79.1	9.3	< 0.0005	5.34	0.002	< 0.001	< 0.15	< 0.001	< 0.001	1.9	< 0.001	1.37	< 0.001	< 0.0005	0.001	0.0012	< 0.0005	< 0.001	0.049	< 0.01
V25BSP	06-Aug-05	< 0.00025	0.019	< 0.001	0.026	< 0.001	< 0.001	< 0.05	345	0.0038	< 0.005	0.006	< 0.001	0.001	0.07	< 0.00002	3.5	0.044	87.2	11.1	< 0.0005	5.79	0.003	< 0.001	< 0.15	< 0.001	0.002	2	0.001	1.53	< 0.001	< 0.0005	< 0.001	0.0014	< 0.0005	< 0.001	0.057	< 0.01
V25BSP	13-Aug-05	< 0.00025	0.011	< 0.001	0.027	< 0.001	< 0.001	< 0.05	352	0.0048	< 0.005	0.006	< 0.001	0.001	< 0.05	< 0.00002	3.7	0.045	96.6	11.8	< 0.0005	6.39	0.002	< 0.001	< 0.15	< 0.001	< 0.001	1.9	< 0.001	1.71	< 0.001	< 0.0005	< 0.001	0.0016	< 0.0005	< 0.001	0.06	< 0.01
V25BSP	20-Aug-05	< 0.00025	0.014	< 0.001	0.019	< 0.001	< 0.001	< 0.05	360	0.0037	< 0.005	0.005	< 0.001	< 0.001	< 0.05	< 0.00002	3.2	0.043	78.7	11.4	< 0.0005	4.78	0.001	< 0.001	< 0.15	< 0.001	0.002	1	< 0.001	1.36	< 0.001	< 0.0005	< 0.001	0.0013	< 0.0005	< 0.001	0.05	< 0.01
V25BSP	22-Aug-05	< 0.00025	< 0.005	0.001	0.018	< 0.001	< 0.001	< 0.05	384	0.0042	< 0.005	0.006	< 0.001	< 0.001	< 0.05	< 0.00002	3.2	0.047	83.6	13.1	< 0.0005	5.38	0.002	< 0.001	< 0.15	< 0.001	0.003	1.3	< 0.001	1.46	< 0.001	< 0.0005	< 0.001	0.0015	< 0.0005	< 0.001	0.05	< 0.01
V25BSP	06-Sep-05	< 0.00025	0.064	< 0.001	0.019	< 0.001	< 0.001	< 0.05	263	0.0011	< 0.005	0.014	< 0.001	0.008	0.48	< 0.00002	2.8	0.023	56.4	0.96	0.0024	4.98	0.005	0.001	< 0.15	< 0.001	0.001	6.9	< 0.001	1.01	0.001	0.0007	< 0.001	0.0004	0.0006	0.001	0.16	< 0.01
V25BSP	11-Oct-05	< 0.00025	0.083	< 0.001	0.023	< 0.001	< 0.001	< 0.05	280	0.0014	< 0.005	0.025	< 0.001	0.014	< 0.05	< 0.00002	2.5	0.024	65.4	1.53	< 0.0005	6.29	0.006	0.002	< 0.15	< 0.001	< 0.001	7.9	0.001	1.02	< 0.001	< 0.0005	< 0.001	0.0002	0.0007	< 0.001	0.24	< 0.01
V25BSP	01-Nov-05	< 0.00025	0.075	< 0.001	0.017	< 0.001	< 0.001	< 0.05	209	0.0009	< 0.005	0.035	< 0.001	0.018	< 0.05	< 0.00002	2.1	0.016	42.8	0.32	< 0.0005	5.76	0.005	0.001	< 0.15	< 0.001	< 0.001	11.2	< 0.001	0.73	< 0.001	< 0.0005	< 0.001	0.0001	0.0012	< 0.001	0.26	< 0.01
V25BSP	17-May-06	< 0.00025	0.47	< 0.001	0.022	< 0.001	< 0.001	< 0.05	46.1	0.0003	< 0.005	0.004	< 0.001	0.007	0.73	< 0.00002	1.8	0.003	9.74	0.11	< 0.0005	1.8	0.003	0.004	< 0.15	< 0.001	< 0.001	2.6	< 0.001	0.15	< 0.001	< 0.0005	0.014	< 0.0001	0.0019	< 0.001	0.076	< 0.01
V25BSP	19-Jun-06	< 0.00025	0.079	< 0.001	0.016	< 0.001	< 0.001	< 0.05	51.5	< 0.0002	0.005	0.002	0.001	0.004	0.19	< 0.00002	1.1	0.003	10.1	0.049	< 0.0005	2.74	0.001	0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.17	< 0.001	< 0.0005	0.002	0.0001	0.0008	< 0.001	0.031	< 0.01
V25BSP	17-Jul-06	< 0.00025	0.095	< 0.001	0.019	< 0.001	< 0.001	< 0.05	64.6	0.0002	< 0.005	0.004	< 0.001	0.006	0.15	< 0.00002	1.1	0.016	14.6	0.061	< 0.0005	3.5	0.002	0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.23	< 0.001	< 0.0005	0.004	0.0001	0.0007	< 0.001	0.046	< 0.01
V25BSP	22-Aug-06	< 0.00025	0.039	< 0.001	0.024	< 0.001	< 0.001	< 0.05	102	0.0003	< 0.005	0.006	< 0.001	0.008	< 0.05	< 0.00002	1.4	0.006	20.6	0.058	0.0007	4.67	0.002	0.001	< 0.15	< 0.001	< 0.001	5.1	< 0.001	0.37	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.078	< 0.01
V25BSP	11-Sep-06	< 0.00025	0.046	< 0.001	0.022	< 0.001	< 0.001	< 0.05	105	0.0003	< 0.005	0.007	< 0.001	0.006	0.06	< 0.00002	1.2	0.006	24.2	0.069	0.0006	4.9	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.3	< 0.001	0.4	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.085	< 0.01
V25BSP	16-Oct-06	< 0.00025	0.048	< 0.001	0.022	< 0.001	< 0.001	< 0.05	117	0.0004	0.006	0.012	< 0.001	0.009	0.07	< 0.00002	1.3	0.005	26.1	0.093	0.0006	5.52	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.41	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0019	< 0.001	0.14	< 0.01
V25BSP	14-May-07	< 0.00025	0.12	< 0.001	0.013	< 0.001	< 0.001	< 0.05	42.6	0.0002	0.005	0.004	0.001	0.01	0.21	< 0.00002	1.5	< 0.005	8.68	0.068	0.0009	2.14	0.002	0.002	< 0.15	< 0.001	< 0.001	2.9	< 0.001	0.15	< 0.001	< 0.0005	0.002	< 0.0001	0.0011	< 0.001	0.095	< 0.01
V25BSP	18-Jun-07	< 0.00025	0.084	< 0.001	0.015	< 0.001	< 0.001	< 0.05	33.1	< 0.0002	< 0.005	0.001	< 0.001	0.005	0.17	< 0.00002	1.1	< 0.005	6.48	0.026	< 0.0005	2.17	0.002	0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.11	< 0.001	< 0.0005	0.002	< 0.0001	0.0006	< 0.001	0.042	< 0.01
V25BSP	16-Jul-07	< 0.00025	0.05	< 0.001	0.02	< 0.001	< 0.001	< 0.05	35.5	< 0.0002	0.0069	0.001	< 0.001	0.004	0.08	< 0.00002	0.8	< 0.005	7.26	0.026	< 0.0005	2.3	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.15	< 0.001	< 0.0005	0.001	< 0.0001	< 0.0005	< 0.001	0.026	< 0.01
V25BSP	14-Aug-07	< 0.00025	0.026	< 0.001	0.022	< 0.001	< 0.001	< 0.05	60.2	< 0.0002	< 0.005	0.002	< 0.001	0.006	< 0.05	< 0.00002	1.1	< 0.005	12.4	0.031	0.0007	3.72	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.1	< 0.001	0.24	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.054	< 0.01
V25BSP	11-Sep-07	< 0.00025	< 0.005	< 0.001	0.023	< 0.001	< 0.001	< 0.05	69.5	< 0.0002	< 0.005	< 0.001	< 0.001	0.002	0.07	< 0.00002	1.1	0.002	14.6	0.013	< 0.0005	3.93	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.6	< 0.001	0.3	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.05	< 0.01
V25BSP	23-Oct-07	< 0.00025	0.027	< 0.001	0.019	< 0.001	< 0.001	< 0.05	71.7	0.0002	< 0.005	0.004	< 0.001	0.005	0.08	< 0.00002	1.1	0.003	15.2	0.029	0.0008	4.62	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.26	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.077	< 0.01
V25BSP	13-Nov-07	< 0.00025	< 0.005	< 0.001	0.023	< 0.001	< 0.001	< 0.05	86.7	< 0.0002	< 0.005	< 0.001	< 0.001	0.002	0.06	< 0.00002	1.2	0.003	17.2	0.015	< 0.0005	4.59	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.1	< 0.001	0.31	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.049	< 0.01
V25BSP	10-Dec-07	< 0.00025	0.025	< 0.001	0.02	< 0.001	< 0.001	< 0.05	76.1	< 0.0002	< 0.005	< 0.001	< 0.001	0.002	0.09	< 0.00002	1.1	< 0.001	14.6	0.007	< 0.0005	4.16	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.26	< 0.001	< 0.0005	< 0.001	< 0.0001	0.002	< 0.001	0.078	< 0.01
	N	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
	median	0.000125	0.0265	0.0005	0.023	0.0005	0.0005	0.025	126	0.00055	0.0025	0.004	0.0005	0.004	0.08	0.00001	1.7	0.0075	25.45	0.1015	0.00025	4.975	0.002	0.0005	0.075	0.0005	0.0005	4.5	0.0005	0.45	0.0005	0.00025	0.0005	0.000075	0.00055	0.0005	0.0755	0.005
	mean	0.00014	0.0932	0.0006	0.025	0.0005	0.0005	0.025	183.7	0.0012	0.0031	0.0053	0.0006	0.0046	0.18	0.00001	2.07	0.02	41.12	3.19	0.0004	4.59	0.003	0.001	0.079	0.001	0.001	5.02	0.001	0.72	0.0005	0.0003	0.0025	0.0005	0.0007	0.0006	0.0994	0.01
	std	0.00006	0.2696	0.0003	0.0088	0	0	0	128.3	0.0013	0.0015	0.0071	0.0003	0.004	0.37	0	0.96	0.02	30.95	4.62	0.0004	1.41	0.001	0.001	0.021	0	0.001	3.54	0	0.53	0.0001	0.0001	0.0068	0.0006	0.0005	0.0004	0.0714	0
	minimum	< 0.00025	< 0.005	< 0.001	0.013	< 0.001	< 0.001	< 0.05	18.6	0.0002	< 0.005	< 0.001	< 0.001	0.001	< 0.05	< 0.00002	0.8	< 0.001	4.08	< 0.001	< 0.0005	1.27	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	1	< 0.001	0.074	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.026	< 0.01
	maximum	0.0005	1.55	0.002	0.054	< 0.001	< 0.001	< 0.05	384	0.0048	0.0087	0.035	0.002	0.018	2.12	0.00002	3.9	0.064	96.6	13.1	0.0024	7.49	0.006	0.008	0.2	< 0.001	0.003	12.4	0.003	1.71	0.001	0.0007	0.038	0.0016	0.002	0.003	0.26	< 0.01
	# < DL	33	4	32	0	34	34	34	0	7	28	7	31	3	10	33	0	5	0	1	27	0	4	22	33	34	28	0	30	0	33	32	25	17	14	32	0	34
	% < DL	97%	12%	94%	0%	100%	100%	100%	0%	21%	82%	21%	91%	9%	29%	97%	0%	15%	0%	3%	79%	0%	12%	65%	97%	100%	82%	0%	88%	0%	97%	94%	74%	50%	41%	94%	0%	100%
	# > BM	34	3	0	0	0	0			34	34		1	19	3		0		4	13	0	0	0	3	34	0	5		0	0			0	10	0	0	33	34
	% > BM	100%	9%	0%	0%	0%	0%			100%	100%		3%	56%	9%		0%		12%	38%	0%	0%	0%	9%	100%	0%	15%		0%	0%			0%	29%	0%	0%	97%	100%
	# < DL (DL>BM)	33	0	0	0	0	0			7	28		0	0	0		0		0	0	0	0	0	0	33	0	0		0	0			0	0	0	0	0	34
	% < DL (DL>BM)	97%	0%	0%	0%	0%	0%			21%	82%		0%	0%	0%		0%		0%	0%	0%	0%	0%	0%	97%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0.005	0.001		0.001	0.001	0.05		0.0002	0.005	0.001	0.001	0.001	0.05	0.00002		0.005		0.001	0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001	0.0005	0.001		0.01
	95th percentile	0.000125	0.2425	0.000675	0.0416	0.0005	0.0005	0.025	362.1	0.00394	0.006315	0.01785	0.001	0.0114	0.5675	0.00001	3.57	0.0457	90.21	11.54	0.000835	6.325	0.005	0.004	0.075	0.0005	0.002	11.97	0.001	1.4845	0.0005	0.000338	0.0101	0.001435	0.0019	0.000675	0.247	0.005
	5th percentile	0.000125	0.0025	0.0005	0.01565	0.0005	0.0005	0.025	34.66	0.0001	0.0025	0.0005	0.0005	0.0005	0.025	0.00001	1.1	0.002325	6.987	0.001	0.00025	2.021	0.0005	0.0005	0.075	0.0005	0.0005	1.195	0.0005	0.136	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.03815	0.005

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, quideline source provided in Appendix X

Method Detection Limit set to 1/2 method detection limit for statistical calculations

Appendix C3
2005 to 2007 Surface Water Quality Data
Vangorda Creek Drainage

Table 6. Mine Runoff and Effluent Surface Water Dissolved Metal Parameters

STATION	DATE	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																																					
V2	21-Jan-05	< 0.00025	< 0.005	< 0.001	0.091	< 0.05	< 0.001	< 0.001	268	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		2.4	0.005	132	0.003	0.0013	9.61	0.003	< 0.001	< 0.15	< 0.001	< 0.001	12.4	< 0.001	0.85	< 0.001	< 0.0005	< 0.001	< 0.0001	0.021	< 0.001	0.015	< 0.01
V2	08-Feb-05	< 0.00025	0.031	< 0.001	0.079	< 0.05	< 0.001	< 0.001	249	< 0.0002	< 0.001	< 0.001	0.001	0.06		2.2	0.004	121	0.007	0.0012	9.07	0.002	0.003	< 0.15	< 0.001	< 0.001	11.7	< 0.001	0.82	< 0.001	< 0.0005	0.002	< 0.0001	0.021	< 0.001	0.021	< 0.01
V2	14-Mar-05	< 0.00025	< 0.005	< 0.001	0.076	< 0.05	< 0.001	< 0.001	242	< 0.0002	< 0.001	< 0.001	0.002	0.17		2.1	0.003	108	< 0.001	0.0012	8.9	0.003	< 0.001	< 0.15	< 0.001	< 0.001	10.2	< 0.001	0.77	< 0.001	< 0.0005	< 0.001	< 0.0001	0.02	< 0.001	0.007	< 0.01
V2	11-Apr-05	< 0.00025	< 0.005	< 0.001	0.084	< 0.05	< 0.001	< 0.001	227	< 0.0002	< 0.001	< 0.001	< 0.001	0.08		2	0.003	105	< 0.001	0.0012	8.87	0.002	< 0.001	< 0.15	< 0.001	< 0.001	11.7	< 0.001	0.74	< 0.001	< 0.0005	< 0.001	< 0.0001	0.02	< 0.001	0.006	< 0.01
V2	09-May-05	< 0.00025	0.013	< 0.001	0.062	< 0.05	< 0.001	< 0.001	182	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		1.9	0.004	87.2	0.006	0.0012	6.39	0.002	< 0.001	< 0.15	< 0.001	0.001	9.9	< 0.001	0.6	< 0.001	< 0.0005	< 0.001	< 0.0001	0.012	< 0.001	0.039	< 0.01
V2	21-Jun-05	< 0.00025	0.006	< 0.001	0.072	< 0.05	< 0.001	< 0.001	215	< 0.0002	< 0.001	< 0.001	< 0.001	0.06		2.1	0.007	120	< 0.001	0.0011	7.92	0.003	< 0.001	< 0.15	< 0.001	< 0.001	12.3	< 0.001	0.71	< 0.001	< 0.0005	< 0.001	< 0.0001	0.017	< 0.001	0.008	< 0.01
V2	25-Jul-05	< 0.00025	< 0.005	< 0.001	0.093	< 0.05	< 0.001	< 0.001	247	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		2.5	0.007	145	0.006	0.0012	9.29	0.004	< 0.001	< 0.15	< 0.001	< 0.001	13.6	< 0.001	0.86	< 0.001	< 0.0005	< 0.001	< 0.0001	0.022	< 0.001	0.036	< 0.01
V2	22-Aug-05	< 0.00025	< 0.005	0.001	0.085	< 0.05	< 0.001	< 0.001	274	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		2.6	0.007	145	0.004	0.0012	9.42	0.003	< 0.001	< 0.15	< 0.001	0.002	11.7	< 0.001	0.92	< 0.001	< 0.0005	< 0.001	< 0.0001	0.024	< 0.001	0.015	< 0.01
V2	06-Sep-05	< 0.00025	< 0.005	0.001	0.088	< 0.05	< 0.001	< 0.001	226	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		2.3	0.005	119	0.005	< 0.0005	8.48	0.003	< 0.001	< 0.15	< 0.001	0.002	10.8	< 0.001	0.81	< 0.001	< 0.0005	< 0.001	< 0.0001	0.018	< 0.001	0.01	< 0.01
V2	21-Sep-05	< 0.00025	0.014	< 0.001	0.11	< 0.05	< 0.001	< 0.001	230	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		2.4	0.005	120	< 0.001	0.0011	8.44	0.004	< 0.001	< 0.15	< 0.001	< 0.001	10.9	< 0.001	0.83	< 0.001	< 0.0005	< 0.001	< 0.0001	0.016	< 0.001	0.01	< 0.01
V2	11-Oct-05	< 0.00025	< 0.005	< 0.001	0.095	< 0.05	< 0.001	< 0.001	225	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		2.1	0.005	120	0.004	0.0012	8.35	0.003	< 0.001	< 0.15	< 0.001	< 0.001	12	< 0.001	0.76	< 0.001	< 0.0005	< 0.001	< 0.0001	0.017	< 0.001	0.024	< 0.01
V2	25-Oct-05	< 0.00025	0.022	< 0.001	0.11	< 0.05	< 0.001	< 0.001	239	< 0.0002	< 0.001	< 0.001	0.001	0.05		2.5	0.006	143	0.001	0.0014	10	0.001	< 0.001	< 0.15	< 0.001	< 0.001	13.1	< 0.001	0.9	< 0.001	< 0.0005	< 0.001	< 0.0001	0.021	< 0.001	0.008	< 0.01
V2	01-Nov-05	< 0.00025	< 0.005	< 0.001	0.1	< 0.05	< 0.001	< 0.001	234	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		2.5	0.006	138	0.004	0.0013	9.6	0.004	< 0.001	< 0.15	< 0.001	< 0.001	12.8	< 0.001	0.88	< 0.001	< 0.0005	< 0.001	< 0.0001	0.021	< 0.001	0.018	< 0.01
V2	15-Nov-05	< 0.01	0.09	< 0.03	0.084	< 0.01	< 0.003		245	< 0.01	< 0.02	< 0.01	< 0.02	< 0.01		2.9		149	< 0.003	< 0.02	11.5	< 0.02	< 0.03	< 0.15	< 0.05		5.85	< 0.03	0.77			< 0.005			< 0.01	< 0.005	< 0.02
V2	14-Dec-05	< 0.00025	< 0.005	< 0.001	0.1	< 0.05	< 0.001	< 0.001	292	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		2.9	0.006	174	0.012	0.0015	10.7	0.002	< 0.001	< 0.15	< 0.001	< 0.001	6.4	0.002	1.03	< 0.001	< 0.0005	< 0.001	< 0.0001	0.024	< 0.001	0.033	< 0.01
V2	23-Jan-06	< 0.00025	0.007	< 0.001	0.091	< 0.05	< 0.001	< 0.001	250	< 0.0002	< 0.001	< 0.001	0.001	0.08		2.3	0.005	156	0.005	0.0015	10.4	0.003	< 0.001	< 0.15	< 0.001	< 0.001	7.2	< 0.001	0.93	< 0.001	< 0.0005	< 0.001	< 0.0001	0.023	< 0.001	0.014	< 0.01
V2	07-Feb-06	< 0.00025	0.007	< 0.001	0.071	< 0.05	< 0.001		152	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		1.6		64.8	< 0.001	0.0018	6.44	0.002	< 0.001	< 0.15	< 0.001		4.8	< 0.001	0.56			< 0.001			< 0.001	< 0.005	< 0.01
V2	17-May-06	< 0.00025	< 0.005	< 0.001	0.057	< 0.05	< 0.001	< 0.001	186	< 0.0002	< 0.001	< 0.001	0.001	0.1		2.5	0.005	108	0.011	0.0013	6.79	0.004	< 0.001	< 0.15	< 0.001	< 0.001	4.6	< 0.001	0.62	< 0.001	< 0.0005	< 0.001	< 0.0001	0.015	< 0.001	0.025	< 0.01
V2	05-Jun-06	< 0.01	0.07	< 0.03	0.052	< 0.01	< 0.003		218	< 0.01	< 0.02	< 0.01	< 0.02	< 0.01				110	< 0.003	< 0.02	8	< 0.02	< 0.03	< 0.15	< 0.05		4.78	< 0.03	0.63			< 0.005			< 0.01	0.012	< 0.02
V2	19-Jun-06	< 0.00025	< 0.005	< 0.001	0.085	< 0.05	< 0.001	< 0.001	227	< 0.0002	< 0.001	< 0.001	0.001	0.14		2.3	0.005	115	0.001	0.0014	8.71	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.73	< 0.001	< 0.0005	< 0.001	< 0.0001	0.018	< 0.001	0.013	< 0.01
V2	10-Jul-06	< 0.01	0.1	< 0.03	0.082	< 0.01	< 0.003		257	< 0.01	< 0.02	< 0.01	< 0.02	< 0.01		2.3		127	< 0.003	< 0.02	8.6	< 0.02	< 0.03	< 0.15	< 0.05		5.08	< 0.03	0.74			< 0.005			< 0.01	0.019	< 0.02
V2	18-Jul-06	< 0.00025	0.013	< 0.001	0.079	< 0.05	< 0.001	< 0.001	225	< 0.0002	< 0.001	< 0.001	0.001	0.09		2.2	0.018	128	0.003	0.0014	8.49	0.007	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.75	< 0.001	< 0.0005	< 0.001	< 0.0001	0.017	< 0.001	0.027	< 0.01
V2	08-Aug-06	< 0.01	0.08	< 0.03	0.077	< 0.01	< 0.003		246	< 0.01	< 0.02	< 0.01	< 0.02	0.02		2.1		138	< 0.003	< 0.02	8.9	< 0.02	< 0.03	< 0.15	< 0.05		4.77	< 0.03	0.74			< 0.005			< 0.01	0.013	< 0.02
V2	22-Aug-06	< 0.00025	0.011	< 0.001	0.088	< 0.05	< 0.001	< 0.001	247	< 0.0002	0.001	< 0.001	0.001	0.08		2.5	0.006	147	0.001	0.0014	9.8	0.005	< 0.001	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.87	< 0.001	< 0.0005	< 0.001	< 0.0001	0.02	< 0.001	0.018	< 0.01
V2	11-Sep-06	< 0.00025	0.01	< 0.001	0.089	< 0.05	< 0.001	< 0.001	261	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		2.4	0.006	166	< 0.001	0.0013	10.4	0.004	< 0.001	< 0.15	< 0.001	< 0.001	6.5	< 0.001	0.88	< 0.001	< 0.0005	< 0.001	< 0.0001	0.022	0.001	0.021	< 0.01
V2	26-Sep-06	< 0.00025	< 0.005	< 0.001	0.089	< 0.05	< 0.001		242	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		2.4		135	< 0.001	0.001	9.22	0.001	< 0.001	< 0.15	< 0.001		5.7	< 0.001	0.83			< 0.001			< 0.001	0.016	< 0.01
V2	16-Oct-06	< 0.00025	< 0.005	< 0.001	0.093	< 0.05	< 0.001	< 0.001	241	< 0.0002	< 0.001	< 0.001	0.001	0.06		2.3	0.005	135	0.001	0.0014	9.39	0.004	< 0.001	< 0.15	< 0.001	0.001	4.7	< 0.001	0.79	< 0.001	< 0.0005	< 0.001	< 0.0001	0.022	< 0.001	0.036	< 0.01
V2	23-Oct-06	< 0.01	0.11	< 0.03	0.091	< 0.01	< 0.003		228	< 0.01	< 0.02	< 0.01	< 0.02	< 0.01		1.8		128	< 0.003	< 0.02	9	< 0.02	< 0.03	< 0.15	< 0.05		4.38	< 0.03	0.75			< 0.005			< 0.01	0.01	< 0.02
V2	13-Nov-06	< 0.00025	< 0.005	< 0.001	0.09	< 0.05	< 0.001	< 0.001	238	< 0.0002	< 0.001	< 0.001	< 0.001	0.1		1.9	0.003	128	0.01	0.0016	9.73	0.002	< 0.001	< 0.15	< 0.001	0.001	5.4	< 0.001	0.81	< 0.001	< 0.0005	< 0.001	< 0.0001	0.02	< 0.001	0.043	< 0.01
V2	21-Nov-06	< 0.01	< 0.05	< 0.03	0.093	< 0.01	< 0.003		223	< 0.01	< 0.02	< 0.01	< 0.02	< 0.01		1.9		113	< 0.003	< 0.02	8.4	< 0.02	< 0.03	< 0.15	< 0.05		4.4	< 0.03	0.73			< 0.005			< 0.01	0.008	< 0.02
V2	05-Dec-06	< 0.01	< 0.05	< 0.03	0.099	< 0.01	< 0.003		282	< 0.01	< 0.02	< 0.01	< 0.02	< 0.01		2.1		140	< 0.003	< 0.02	11.8	< 0.02	< 0.03	< 0.15	< 0.05		4.81	< 0.03	0.85			< 0.005			< 0.01	0.013	< 0.02
V2	14-Dec-06	< 0.00025	< 0.005	< 0.001	0.085	< 0.05	< 0.001	< 0.001	238	< 0.0002	< 0.001	< 0.001	< 0.001	0.11		2	0.003	115	0.012	0.0014	9.14	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.4	< 0.001	0.75	< 0.001	< 0.0005	< 0.001	< 0.0001	0.022	< 0.001	< 0.001	< 0.01
V2	08-Jan-07	< 0.01	< 0.05	< 0.03	0.095	< 0.01	< 0.003		272	< 0.01	< 0.02	< 0.01	< 0.02	< 0.01		2.6		140	< 0.003	< 0.02	9.3	< 0.02	< 0.03	< 0.15	< 0.05		4.51	< 0.03	0.85			< 0.005			< 0.01	0.01	< 0.02
V2	01-May-07	< 0.00025	0.005	0.001	0.058	< 0.05	< 0.001	< 0.001	239	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		3.1	0.006	160	0.003	0.0018	9.1	< 0.001	< 0.001	< 0.15	< 0.001	0.002	5.3	< 0.001	0.84	< 0.001	< 0.0005	< 0.001	< 0.0001	0.022	< 0.001	0.029	< 0.01
V2	14-May-07	< 0.00025	< 0.005	0.001	0.052	< 0.05	< 0.001	< 0.001	209	< 0.0002	0.001	< 0.001	0.002	0.43		2.5	0.006	139	0.034	0.0019	7.95	0.006	< 0.001	< 0.15	< 0.001	0.002	5.4	< 0.001	0.68	< 0.001	< 0.0005	< 0.001	< 0.0001	0.018	< 0.001	0.027	< 0.01
V2	07-Jun-07	< 0.00025	< 0.005	< 0.001	0.06	< 0.05	< 0.001	< 0.001	191	< 0.0002	< 0.001	< 0.001	0.001	0.41		2.1	< 0.005	104	< 0.001	0.0015	7.46	0.003	< 0.001	< 0.15	< 0.001	0.002	5.1	< 0.001	0.6	< 0.001	< 0.0005	< 0.001	< 0.0001	0.015	< 0.001	0.018	< 0.01
V2	18-Jun-07	< 0.00025	< 0.005	< 0.001	0.065	< 0.05	< 0.001	< 0.001	197	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		2	< 0.005	99.5	0.001	0.0015	8.25	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.64	< 0.001	< 0.0005	< 0.001	< 0.0001	0.015	< 0.001	0.008	< 0.01
V2	03-Jul-07	< 0.00025	< 0.005	< 0.001	0.065	< 0.05	< 0.001	< 0.001	195	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		1.8	< 0.005	103	0.002	0.0013	7.52	0.003	< 0.001	< 0.15	< 0.001	0.001	4.5	< 0.001	0.67	< 0.001	< 0.0005	< 0.001	< 0.0001	0.018	< 0.001	0.009	< 0.01
V2	16-Jul-07	< 0.00025	0.006	< 0.001	0.068	< 0.05	< 0.001	< 0.001	209	< 0.0002	< 0.001	< 0.001	0.001	0.14		2.1	0.005	119	< 0.001	0.0015	8.19	0.004	< 0.001	< 0.15	< 0.001	< 0.001	5.3	< 0.001	0.74	< 0.001	< 0.0005	< 0.001	< 0.0001	0.018	< 0.001	0.023	< 0.01
V2	02-Aug-07	< 0.00025	< 0.005	0.001	0.07	< 0.05	< 0.001	< 0.001	242	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		2.6	< 0.005	143	< 0.001	0.0015	9.51	0.004	< 0.001	< 0.15	< 0.001	0.001	5.2	< 0.001	0.84	< 0.001	< 0.0005	< 0.001	< 0.0001	0.02	< 0.001	0.022	< 0.01
V2	14-Aug-07	< 0.00025	0.025	< 0.001	0.068	< 0.05	< 0.001	< 0.001	233	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		2.4	< 0.005	134	< 0.001	0.0015	8.99	0.005	< 0.001	< 0.15	< 0.001	< 0.001	5.1	< 0.001	0.79	< 0.001	< 0.0005	< 0.001	< 0.0001	0.022	< 0.001	0.011	< 0.01
V2	11-Sep-07	< 0.00025	0.006	0.001	0.069	< 0.05	< 0.001	< 0.001	192	< 0.0002	< 0.001	< 0.001	0.001	0.62		1.8	0.004	91.4	0.003	0.0016	8.23	0.002	< 0.001	< 0.15	< 0.001	0.002	6	< 0.001	0.61	< 0.001	< 0.0005	< 0.001	< 0.0001	0.017	< 0.001	0.021	< 0.01
V2	25-Sep-07	< 0.00005	0.003	0.0008	0.088	< 0.01	< 0.0002	< 0.0002	192	0.00008	< 0.0002	0.0002	0.0011	0.05		1.92	0.0032	83.4	0.0004	0.0016	8.25	0.0015	< 0.0002	< 0.03	< 0.0002	0.0011	5.67	< 0.0002	0.632	< 0.0002	< 0.0001	0.0002	< 0.00002	0.012	< 0.0002	0.005	< 0.002
V2	10-Oct-07	< 0.00025	0.008	< 0.001	0.084	< 0.05	< 0.001	< 0.001	205	< 0.0002	< 0.001	< 0.001	0.002	< 0.05		1.9	0.003	83.7	< 0.001	0.0015	8.32	0.001	< 0.001	< 0.15	< 0.001	0.001	5	< 0.001	0.65	< 0.001	< 0.0005	< 0.001	< 0.0001	0.016	< 0.001	0.008	< 0.01
V2	22-Oct-07	< 0.00025	0.005	< 0.001	0.078	< 0.05	< 0.001	< 0.001	189	< 0.0002	< 0.001	< 0.001	0.001	0.07		1.7	0.003	89.2	0.013	0.0015	9.05	0.002	< 0.001	< 0.15	< 0.001	0.001	5.1	< 0.001	0.64	< 0.001	< 0.0005	< 0.001	< 0.0001	0.015	< 0.001	0.04	< 0.01
V2	13-Nov-07	< 0.00025	< 0.005	< 0.001	0.077	< 0.05	< 0.001	< 0.001	204	< 0.0002	< 0.001	< 0.001	0.001	0.06		1.8	0.003	93.5	< 0.001	0.0017	9.12	0.001	< 0.001	< 0.15	< 0.001	0.001	5	< 0.001	0.68	< 0.001	< 0.0005	< 0.001	< 0.0001	0.016	< 0.001	0.011	< 0.01
V2	26-Nov-07	< 0.00025	< 0.005	< 0.001	0.089	< 0.05	< 0.001	< 0.001	235	< 0.0002	< 0.001	< 0.001	0.003	0.05		2.2	0.003	101	< 0.001	0.0016	9.61	0.001	< 0.001	< 0.15	< 0.001	0.001	5.4	< 0.001	0.78	< 0.001	< 0.0005	< 0.001	< 0.0001	0.019	< 0.001	0.007	< 0.01
V2	10-Dec-07	< 0.00025	< 0.005	< 0.001	0.069	< 0.05	< 0.001	< 0.001	202	< 0.0002	< 0.001	< 0.001	0.001	0.08		1.7	0.001	82.9	0.037	0.0017	7.14	0.002	< 0.001	< 0.15	< 0.001	0.001	4.7	< 0.001	0.68	< 0.001	< 0.0005	< 0.001	< 0.0001	0.019	< 0.001	0.11	< 0.01
V2	17-Dec-07	< 0.00025	< 0.005	< 0.001	0.078	< 0.05	< 0.001	< 0.001	231	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		2.1	0.003	108	< 0.001	0.0017	11.1	0.002	< 0.001	< 0.15	< 0.001	0.002	5	< 0.001	0.75	< 0.001	< 0.0005	< 0.001	< 0.0001	0.019	< 0.001	< 0.005	< 0.01
	N	49	49	49	49	49	49	39	49	49	49	49	49	49	0	48	39	49	49	49	49	49	49	49	49	39	49	49	49	39	39	49	39	39	49	49	49
	median	0.000125	0.003	0.0005	0.084	0.025	0.0005	0.0005	231	0.0001	0.0005	0.0005	0.001	0.05		2.2	0.005	120	0.0015	0.0015	8.99	0.003	0.0005	0.075	0.0005	0.0005	5.4	0.0005	0.75	0.0005	0.00025	0.0005	0.00005	0.019	0.0005	0.014	0.005
	mean	0.00092	0.0159	0.0029	0.0811	0.0213	0.0007	0.0005	228.4	0.0009	0.0021	0.0012	0.002	0.077		2.2	0.005	121.5	0.004	0.003	8.92	0.004	0.003	0.074	0.004	0.001	7	0.003	0.761	0.0005	0.0002	0.0009	0	0.0188	0.0012	0.018	0.006
	std	0.00182	0.0268	0.0054	0.014	0.0078	0.0004	0.0001	28.2	0.0018	0.0035	0.0017	0.003	0.115		0.3	0.003	23.9	0.007	0.003	1.15	0.003	0.005	0.009	0.009	0.001	3	0.005	0.102	0.0001	0	0.0008	0	0.003	0.0017	0.017	0.002
	minimum	< 0.00005	0.003	0.0008	0.052	< 0.01	< 0.0002	< 0.0002	152	0.00008	< 0.0002	0.0002	< 0.001	< 0.01		1.6	0.001	64.8	0.0004	0.0005	6.39	< 0.001	< 0.0002	< 0.03	< 0.0002	< 0.001	4.38	< 0.0002	0.56	< 0.0002	< 0.0001	0.0002	0.00002	0.012	< 0.0002	< 0.001	< 0.002
	maximum	< 0.01	0.11	< 0.03	0.11	< 0.05	< 0.003	< 0.001	292	< 0.01	< 0.02	< 0.01	< 0.02	0.62		3.1	0.018	174	0.037	< 0.02	11.8	< 0.02	< 0.03	< 0.15	< 0.05	0.002	13.6	< 0.03	1.03	< 0.001	< 0.0005	< 0.005	< 0.0001	0.024	< 0.001	0.11	< 0.02
	# < DL	49	27	42	0	49	49	39	0	48	47	48	21	23		0	5	0	23	9	0	9	48	49	49	21	0	48	0	39	39	47	39	0	48	4	49
	% < DL	100%	55%	86%	0%	100%	100%	100%	0%	98%	96%	98%	43%	47%		0%	13%	0%	47%	18%	0%	18%	98%	100%	100%	54%	0%	98%	0%	100%	100%	96%	100%	0%	98%	8%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.01	0.05	0.03		0.05	0.003	0.001		0.01	0.02	0.01	0.02	0.05			0.005		0.003	0.02		0.02	0.03	0.15	0.05	0.001		0.03		0.001	0.0005	0.005	0.0001		0.01	0.005	0.02
	95th percentile	0.005	0.086	0.015	0.1	0.025	0.0015	0.0005	273.2	0.005	0.01	0.005	0.01	0.314		2.795	0.007	158.4	0.0126	0.01	10.94	0.01	0.015	0.075	0.025	0.002	12.64	0.015	0.912	0.0005	0.00025	0.0025	0.00005	0.0231	0.005	0.0396	0.01
	5th percentile	0.000125	0.0025	0.0005	0.0574	0.005	0.0005	0.0005	187.2	0.0001	0.0005	0.0005	0.0005	0.005		1.735	0.0025	83.52	0.0005	0.0011	6.93	0.001	0.0005	0.075	0.0005	0.0005	4.504	0.0005	0.604	0.0005	0.00025	0.0005	0.00005	0.0147	0.0005	0.0025	0.005
V6A	07-Mar-05	< 0.00025	0.009	< 0.001	0.04	< 0.05	< 0.001	< 0.001	49.8	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		0.5	0.001	10.8	0.001	< 0.0005	1.98	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.1	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.004	< 0.001	0.019	< 0.01
V6A	07-Jun-05	< 0.00025	0.02	0.004	0.022	0.06	< 0.001	< 0.001	19.1	< 0.0002	< 0.001	< 0.001	0.002	0.11		0.8	< 0.001	3.69	0.004	< 0.0005	1.77	< 0.001	< 0.001	< 0.15	< 0.001	0.011	9.7	< 0.001	0.08	< 0.001	< 0.0005	0.001	< 0.0001	0.0009	< 0.001	0.021	< 0.01
V6A	12-Sep-05	< 0.00025	0.006	< 0.001	0.027	< 0.05	< 0.001	< 0.001	26.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	< 0.001	5.87	0.002	< 0.0005	1.73	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	8	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.012	< 0.01
V6A	01-Dec-05	< 0.00025	0.005	0.001	0.045	< 0.05	< 0.001	< 0.001	48.2	< 0.0002	< 0.001	< 0.001	< 0.001	0.05		0.6	0.001	11.2	0.015	< 0.0005	1.92	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0024	< 0.001	0.018	< 0.01
V6A	05-Jun-06	< 0.00025	0.038	< 0.001	0.017	< 0.05	< 0.001	< 0.001	12.4	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		0.4	< 0.001	2.63	0.006	< 0.0005	1.13	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.049	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.024	< 0.01
V6A	09-Jun-06	< 0.00025	0.029	< 0.001	0.024	< 0.05	< 0.001	< 0.001	21.3	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		0.3	< 0.001	4.4	0.004	< 0.0005	1.59	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.093	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.013	< 0.01
V6A	06-Sep-06	< 0.00025	0.029	< 0.001	0.024	< 0.05	< 0.001	< 0.001	21.3	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		0.3	< 0.001	4.4	0.004	< 0.0005	1.59	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.093	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.013	< 0.01
V6A	18-Jun-07	< 0.00025	0.033	0.001	0.019	< 0.05	< 0.001	< 0.001	13.9	< 0.0002	< 0.001	< 0.001	0.001	0.11		0.3	< 0.005	2.5	0.007	< 0.0005	1.27	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.6	< 0.001	0.057	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.029	< 0.01
V6A	24-Sep-07	< 0.00025	0.013	< 0.001	0.025	< 0.05	< 0.001	< 0.001	23.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.06		0.3	< 0.001	5.32	< 0.001	< 0.0005	1.66	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.097	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.011	< 0.01
V6A	09-Dec-07	< 0.00025	< 0.005	< 0.001	0.036	< 0.05	< 0.001	< 0.001	37.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.06		0.4	< 0.001	7.79	0.004	< 0.0005	1.59	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.003	< 0.001	0.029	< 0.01
	N	10	10	10	10	10	10	10	10	10	10	10	10	10	0	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	median	0.000125	0.0165	0.0005	0.0245	0.025	0.0005	0.0005	22.45	0.0001	0.0005	0.0005	0.0005	0.07		0.4	0.0005	4.86	0.004	0.00025	1.625	0.0005	0.0005	0.075	0.0005	0.0005	4.7	0.0005	0.095	0.0005	0.00025	0.0005	0.00005	0.0012	0.0005	0.0185	0.005
	mean	0.00013	0.018	0.001	0.028	0.029	0.001	0.001	27.4	0.0001	0.001	0.001	0.0007	0.07		0.44	0.0008	5.86	0.005	0.0003	1.623	0.0005	0.0005	0.075	0.001	0.002	5.8	0.001	0.113	0.0005	0.0003	0.0006	0.0001	0.002	0.001	0.019	0.005

Appendix C3
2005 to 2007 Surface Water Quality Data
Vangorda Creek Drainage

Table 6. Mine Runoff and Effluent Surface Water Dissolved Metal Parameters

STATION	DATE	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																																					
	std	0	0.013	0.001	0.009	0.011	0	0	13.4	0	0	0	0.0005	0.025		0.1647	0.0006	3.12	0.004	0	0.263	0	0	0	0	0.003	2.5	0	0.055	0	0	0.0002	0	0.001	0	0.007	0
	minimum	< 0.00025	0.005	< 0.001	0.017	< 0.05	< 0.001	< 0.001	12.4	< 0.0002	< 0.001	< 0.001	< 0.001	0.05		0.3	< 0.001	2.5	< 0.001	< 0.0005	1.13	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.049	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.011	< 0.01
	maximum	< 0.00025	0.038	0.004	0.045	< 0.05	< 0.001	< 0.001	49.8	< 0.0002	< 0.001	< 0.001	0.002	0.11		0.8	0.005	11.2	0.015	< 0.0005	1.98	< 0.001	< 0.001	< 0.15	< 0.001	0.011	10.1	< 0.001	0.21	< 0.001	< 0.0005	0.001	< 0.0001	0.004	< 0.001	0.029	< 0.01
	# < DL	10	1	7	0	9	10	10	0	10	10	10	8	1		0	8	0	1	10	0	10	10	10	10	9	0	10	0	10	10	9	10	0	10	0	10
	% < DL	100%	10%	70%	0%	90%	100%	100%	0%	100%	100%	100%	80%	10%		0%	80%	0%	10%	100%	0%	100%	100%	100%	100%	90%	0%	100%	0%	100%	100%	90%	100%	0%	100%	0%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05			0.005		0.001	0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001		0.01
	95th percentile	0.000125	0.03575	0.00265	0.04275	0.04425	0.0005	0.0005	49.08	0.0001	0.0005	0.0005	0.00155	0.11		0.71	0.001825	11.02	0.0114	0.00025	1.953	0.0005	0.0005	0.075	0.0005	0.006275	9.92	0.0005	0.201	0.0005	0.00025	0.000775	0.00005	0.00355	0.0005	0.029	0.005
	5th percentile	0.000125	0.003625	0.0005	0.0179	0.025	0.0005	0.0005	13.075	0.0001	0.0005	0.0005	0.0005	0.03625		0.3	0.0005	2.5585	0.000725	0.00025	1.193	0.0005	0.0005	0.075	0.0005	0.0005	3.27	0.0005	0.0526	0.0005	0.00025	0.0005	0.00005	0.000845	0.0005	0.01145	0.005
V25BSP	21-Jan-05	< 0.00025	< 0.005	< 0.001	0.028	< 0.05	< 0.001	< 0.001	126	0.0004	< 0.001	< 0.001	0.002	0.06		1.6	0.007	24.5	< 0.001	< 0.0005	4.97	0.002	< 0.001	< 0.15	< 0.001	< 0.001	10.7	< 0.001	0.45	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.17	< 0.01
V25BSP	08-Feb-05	< 0.00025	< 0.005	< 0.001	0.025	< 0.05	< 0.001	< 0.001	115	0.0004	< 0.001	< 0.001	0.002	< 0.05		1.3	0.007	23	0.001	< 0.0005	4.76	0.002	< 0.001	< 0.15	< 0.001	< 0.001	11.3	< 0.001	0.4	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0005	< 0.001	0.17	< 0.01
V25BSP	14-Mar-05	< 0.00025	< 0.005	< 0.001	0.028	< 0.05	< 0.001	< 0.001	119	0.0005	< 0.001	< 0.001	0.003	0.14		1.5	0.006	21.2	0.001	< 0.0005	4.89	0.003	< 0.001	< 0.15	< 0.001	< 0.001	10.4	< 0.001	0.41	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.21	< 0.01
V25BSP	11-Apr-05	< 0.00025	0.006	< 0.001	0.028	< 0.05	< 0.001	< 0.001	106	0.0008	< 0.001	< 0.001	0.003	< 0.05		1.6	0.006	21.2	0.01	< 0.0005	4.68	0.003	< 0.001	< 0.15	< 0.001	< 0.001	10.4	< 0.001	0.39	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.27	< 0.01
V25BSP	10-May-05	< 0.00025	0.11	< 0.001	0.016	< 0.05	< 0.001	< 0.001	15.9	< 0.0002	< 0.001	< 0.001	0.004	0.14		0.8	< 0.001	3.01	0.055	< 0.0005	1.05	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.062	< 0.001	< 0.0005	0.002	< 0.0001	< 0.0005	< 0.001	0.038	< 0.01
V25BSP	19-Jun-05	< 0.00025	< 0.005	< 0.001	0.049	< 0.05	< 0.001	< 0.001	216	0.0012	0.002	< 0.001	0.001	< 0.05		2.2	0.02	46.4	1.71	< 0.0005	4.21	0.003	< 0.001	< 0.15	< 0.001	< 0.001	2.5	< 0.001	0.89	< 0.001	< 0.0005	< 0.001	0.0005	< 0.0005	< 0.001	0.054	< 0.01
V25BSP	20-Jun-05	< 0.00025	0.018	< 0.001	0.048	< 0.05	< 0.001	< 0.001	253	0.0014	0.003	< 0.001	0.001	0.16		2.3	0.028	53	2.57	< 0.0005	4.16	0.003	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.96	< 0.001	< 0.0005	< 0.001	0.0006	< 0.0005	< 0.001	0.058	< 0.01
V25BSP	02-Jul-05	< 0.00025	0.006	< 0.001	0.017	< 0.05	< 0.001	< 0.001	308	0.0006	0.004	< 0.001	< 0.001	0.05		3.2	0.06	84.9	8.37	< 0.0005	6.49	0.002	< 0.001	< 0.15	< 0.001	0.002	1	< 0.001	1.24	< 0.001	< 0.0005	< 0.001	0.0013	< 0.0005	< 0.001	< 0.005	< 0.01
V25BSP	10-Jul-05	< 0.00025	< 0.005	< 0.001	0.026	< 0.05	< 0.001	< 0.001	311	0.0011	0.003	< 0.001	< 0.001	0.05		2.8	0.033	65.6	5.73	< 0.0005	4.5	0.002	< 0.001	< 0.15	< 0.001	< 0.001	1.7	< 0.001	1.17	< 0.001	< 0.0005	< 0.001	0.0009	< 0.0005	< 0.001	0.018	< 0.01
V25BSP	16-Jul-05	< 0.00025	< 0.005	< 0.001	0.031	< 0.05	< 0.001	< 0.001	286	0.0016	0.003	< 0.001	0.001	< 0.05		3	0.034	73.6	7.78	< 0.0005	5.29	0.002	< 0.001	< 0.15	< 0.001	< 0.001	1.6	< 0.001	1.33	< 0.001	< 0.0005	< 0.001	0.0011	< 0.0005	< 0.001	0.022	< 0.01
V25BSP	24-Jul-05	< 0.00025	< 0.005	< 0.001	0.025	< 0.05	< 0.001	< 0.001	317	0.0019	0.004	< 0.001	< 0.001	0.06		2.8	0.035	69.1	8.09	< 0.0005	4.92	0.003	< 0.001	< 0.15	< 0.001	0.002	1.8	< 0.001	1.21	< 0.001	< 0.0005	< 0.001	0.001	< 0.0005	< 0.001	0.028	< 0.01
V25BSP	25-Jul-05	< 0.00025	< 0.005	< 0.001	0.027	< 0.05	< 0.001	< 0.001	287	0.002	0.004	< 0.001	< 0.001	< 0.05		2.7	0.04	72	8.13	< 0.0005	4.85	0.002	< 0.001	< 0.15	< 0.001	< 0.001	2	< 0.001	1.25	< 0.001	< 0.0005	< 0.001	0.001	< 0.0005	< 0.001	0.015	< 0.01
V25BSP	31-Jul-05	< 0.00025	< 0.005	< 0.001	0.022	< 0.05	< 0.001	< 0.001	286	0.0022	0.004	< 0.001	< 0.001	< 0.05		2.5	0.033	65.1	7.63	< 0.0005	4.5	0.002	< 0.001	< 0.15	< 0.001	< 0.001	1.7	< 0.001	1.15	< 0.001	< 0.0005	< 0.001	0.0009	< 0.0005	< 0.001	0.012	< 0.01
V25BSP	06-Aug-05	< 0.00025	< 0.005	< 0.001	0.023	< 0.05	< 0.001	< 0.001	329	0.0032	0.005	< 0.001	< 0.001	< 0.05		3	0.039	76.5	10.5	< 0.0005	5.16	0.002	< 0.001	< 0.15	< 0.001	0.002	1.7	< 0.001	1.35	< 0.001	< 0.0005	< 0.001	0.0012	< 0.0005	< 0.001	0.016	< 0.01
V25BSP	13-Aug-05	< 0.00025	< 0.005	< 0.001	0.021	< 0.05	< 0.001	< 0.001	338	0.0037	0.005	< 0.001	< 0.001	< 0.05		3	0.034	76.1	11.5	< 0.0005	5.06	0.002	< 0.001	< 0.15	< 0.001	< 0.001	1.6	< 0.001	1.35	< 0.001	< 0.0005	< 0.001	0.0012	< 0.0005	< 0.001	0.015	< 0.01
V25BSP	20-Aug-05	< 0.00025	< 0.005	< 0.001	0.018	< 0.05	< 0.001	< 0.001	320	0.0037	0.005	< 0.001	< 0.001	< 0.05		2.8	0.04	76.6	10.1	< 0.0005	4.51	0.001	< 0.001	< 0.15	< 0.001	0.002	1	< 0.001	1.33	< 0.001	< 0.0005	< 0.001	0.0012	< 0.0005	< 0.001	0.022	< 0.01
V25BSP	22-Aug-05	< 0.00025	< 0.005	< 0.001	0.019	< 0.05	< 0.001	< 0.001	410	0.0045	0.006	< 0.001	< 0.001	< 0.05		3.3	0.05	90.6	11.5	< 0.0005	5.8	0.002	< 0.001	< 0.15	< 0.001	0.003	1.4	< 0.001	1.57	< 0.001	< 0.0005	< 0.001	0.0014	< 0.0005	< 0.001	0.042	< 0.01
V25BSP	06-Sep-05	< 0.00025	0.014	< 0.001	0.018	< 0.05	< 0.001	< 0.001	235	0.001	0.009	< 0.001	0.003	< 0.05		2.2	0.021	51.4	0.74	< 0.0005	4.78	0.004	< 0.001	< 0.15	< 0.001	0.001	5.6	< 0.001	0.88	< 0.001	< 0.0005	< 0.001	0.0003	< 0.0005	< 0.001	0.13	< 0.01
V25BSP	11-Oct-05	< 0.00025	0.03	< 0.001	0.021	< 0.05	< 0.001	< 0.001	246	0.0014	0.022	< 0.001	0.01	< 0.05		2.1	0.02	56.8	1.37	< 0.0005	5.46	0.006	< 0.001	< 0.15	< 0.001	< 0.001	7.3	< 0.001	0.92	< 0.001	< 0.0005	< 0.001	0.0001	0.0007	< 0.001	0.23	< 0.01
V25BSP	01-Nov-05	< 0.00025	0.014	< 0.001	0.016	< 0.05	< 0.001	< 0.001	195	0.0007	0.025	< 0.001	0.011	< 0.05		1.9	0.015	40.4	0.23	< 0.0005	5.32	0.004	< 0.001	< 0.15	< 0.001	< 0.001	10.2	< 0.001	0.67	< 0.001	< 0.0005	< 0.001	0.0001	0.0011	< 0.001	0.2	< 0.01
V25BSP	17-May-06	< 0.00025	0.02	< 0.001	0.016	< 0.05	< 0.001	< 0.001	43	< 0.0002	< 0.001	< 0.001	0.003	< 0.05		1.5	0.002	9.3	0.009	< 0.0005	1.66	0.001	< 0.001	< 0.15	< 0.001	< 0.001	1.9	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	0.031	< 0.01
V25BSP	19-Jun-06	< 0.00025	0.012	< 0.001	0.013	< 0.05	< 0.001	< 0.001	46.8	< 0.0002	0.001	< 0.001	0.003	0.09		1	0.003	9.61	0.028	< 0.0005	2.42	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.017	< 0.01
V25BSP	17-Jul-06	< 0.00025	0.033	< 0.001	0.015	< 0.05	< 0.001	< 0.001	55.9	< 0.0002	0.003	< 0.001	0.005	0.07		0.9	0.013	13.6	0.04	< 0.0005	3.06	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0006	< 0.001	0.031	< 0.01
V25BSP	22-Aug-06	< 0.00025	0.021	< 0.001	0.021	< 0.05	< 0.001	< 0.001	89.9	0.0003	0.005	< 0.001	0.006	< 0.05		1.2	0.005	19.2	0.046	0.0006	4	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.32	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.065	< 0.01
V25BSP	11-Sep-06	< 0.00025	0.024	< 0.001	0.022	< 0.05	< 0.001	< 0.001	99.7	0.0003	0.007	< 0.001	0.004	0.07		1.1	0.006	24.3	0.058	0.0005	4.69	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.38	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.08	< 0.01
V25BSP	16-Oct-06	< 0.00025	0.032	< 0.001	0.019	< 0.05	< 0.001	< 0.001	102	0.0004	0.01	< 0.001	0.006	0.06		1.1	0.005	23.4	0.077	0.0006	4.82	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.6	< 0.001	0.36	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	0.12	< 0.01
V25BSP	14-May-07	< 0.00025	0.01	< 0.001	0.01	< 0.05	< 0.001	< 0.001	37.3	< 0.0002	< 0.001	< 0.001	0.004	0.09		1.3	< 0.005	8	0.008	0.0007	1.74	0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.5	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.079	< 0.01
V25BSP	18-Jun-07	< 0.00025	0.011	< 0.001	0.014	< 0.05	< 0.001	< 0.001	31.6	< 0.0002	< 0.001	< 0.001	0.003	< 0.05	< 0.00002	1	< 0.005	6.27	0.008	< 0.0005	2.09	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.019	< 0.01
V25BSP	16-Jul-07	< 0.00025	0.011	< 0.001	0.019	< 0.05	< 0.001	< 0.001	34.3	< 0.0002	< 0.001	< 0.001	0.003	0.07		0.8	< 0.005	6.85	0.009	< 0.0005	2.29	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.017	< 0.01
V25BSP	14-Aug-07	< 0.00025	0.009	< 0.001	0.02	< 0.05	< 0.001	< 0.001	56.7	< 0.0002	0.002	< 0.001	0.005	< 0.05		1	< 0.005	11.9	0.022	0.0006	3.44	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.043	< 0.01
V25BSP	11-Sep-07	< 0.00025	< 0.005	< 0.001	0.021	< 0.05	< 0.001	< 0.001	68.4	< 0.0002	< 0.001	< 0.001	0.002	0.08		1.1	0.002	14.7	0.011	< 0.0005	3.76	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.6	< 0.001	0.27	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.045	< 0.01
V25BSP	23-Oct-07	< 0.00025	0.007	< 0.001	0.016	< 0.05	< 0.001	< 0.001	66.8	< 0.0002	0.003	< 0.001	0.003	0.06		1	0.002	13.9	0.021	0.0007	4.12	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	0.044	< 0.01
V25BSP	13-Nov-07	< 0.00025	< 0.005	< 0.001	0.021	< 0.05	< 0.001	< 0.001	83	< 0.0002	< 0.001	< 0.001	0.002	0.05		1.1	0.003	16.8	0.013	< 0.0005	4.39	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.29	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	0.05	< 0.01
V25BSP	10-Dec-07	< 0.00025	< 0.005	< 0.001	0.019	< 0.05	< 0.001	< 0.001	72.3	< 0.0002	< 0.001	< 0.001	0.002	0.08		1	< 0.001	14.1	0.007	< 0.0005	3.92	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.25	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	0.071	< 0.01
	N	34	34	34	34	34	34	34	34	34	34	34	34	34	1	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
	median	0.000125	0.006	0.0005	0.021	0.025	0.0005	0.0005	117	0.00045	0.003	0.0005	0.0025	0.0375	0.00001	1.55	0.007	23.85	0.0565	0.00025	4.505	0.002	0.0005	0.075	0.0005	0.0005	4.5	0.0005	0.405	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.0435	0.005
	mean	0.00013	0.013	0.0005	0.0221	0.025	0.0005	0.0005	167.8	0.001	0.0041	0.0005	0.0028	0.0531	0	1.81	0.0171	37.73	2.83	0.0003	4.17	0.002	0.0005	0.075	0.001	0.001	4.5	0.001	0.652	0.0005	0.0003	0.0005	0.0004	0.0006	0.001	0.072	0.005
	std	0	0.02	0	0.0082	0	0	0	117.6	0.0012	0.0055	0	0.0025	0.037		0.83	0.0169	28.06	4.15	0.0001	1.27	0.0012	0	0	0	0.001	3	0	0.484	0	0	0.0003	0.0005	0.0005	0	0.072	0
	minimum	< 0.00025	< 0.005	< 0.001	0.01	< 0.05	< 0.001	< 0.001	15.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	0.8	< 0.001	3.01	< 0.001	< 0.0005	1.05	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	1	< 0.001	0.062	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.11	< 0.001	0.049	< 0.05	< 0.001	< 0.001	410	0.0045	0.025	< 0.001	0.011	0.16	< 0.00002	3.3	0.06	90.6	11.5	0.0007	6.49	0.006	< 0.001	< 0.15	< 0.001	0.003	11.3	< 0.001	1.57	< 0.001	< 0.0005	0.002	0.0014	0.0018	< 0.001	0.27	< 0.01
	# < DL	34	16	34	0	34	34	34	0	12	12	34	9	17	1	0	6	0	1	28	0	3	34	34	34	28	0	34	0	34	34	33	19	19	34	1	34
	% < DL	100%	47%	100%	0%	100%	100%	100%	0%	35%	35%	100%	26%	50%	100%	0%	18%	0%	3%	82%	0%	9%	100%	100%	100%	82%	0%	100%	0%	100%	100%	97%	56%	56%	100%	3%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05	0.00002		0.005		0.001	0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001	0.0005	0.001	0.005	0.01
	95th percentile	0.000125	0.03235	0.0005	0.03695	0.025	0.0005	0.0005	332.15	0.0037	0.0142	0.0005	0.0074	0.14	0.00001	3.07	0.0435	79.505	10.85	0.000635	5.579	0.004	0.0005	0.075	0.0005	0.002	10.505	0.0005	1.35	0.0005	0.00025	0.0005	0.001235	0.0017	0.0005	0.217	0.005
	5th percentile	0.000125	0.0025	0.0005	0.01365	0.025	0.0005	0.0005	33.355	0.0001	0.0005	0.0005	0.0005	0.025	0.00001	0.865	0.001475	6.647	0.001	0.00025	1.712	0.0005	0.0005	0.075	0.0005	0.0005	1.26	0.0005	0.1295	0.0005	0.00025	0.0005	0.00005	0.00025	0.0005	0.01395	0.005

Appendix C3
2005 to 2007 Surface Water Quality Data
Vangorda Creek Drainage

Table 7. Receiving Environment Surface Water Physical and Routine Parameters

STATION	DATE	ALK-C mg/L	ALK-H mg/L	ALK-T mg/L	COLOR CU	COND-L µS/cm	HARD mg/L	HCO3 mg/L	NH3 mg/L	NO2 mg/L	PH-F pH unit	PH-L pH unit	SO4 mg/L	TDS mg/L	TEMP-F °C	TSS mg/L	TURB NTU
Benchmark				12.6					0.25	0.06	6.5 - 9.0	6.5 - 9.0	50	500		29	
V5	21-Jan-05	< 0.5	< 0.5	270	< 5	676	410	330	< 0.01		7.5		148		-0.2	3	1.2
V5	11-Apr-05	< 0.5	< 0.5	271	< 5	706	404	330	< 0.01		8		167		0.7	2	1.1
V5	09-May-05	< 0.5	< 0.5	83.7	100	172	126	102	0.02		7.9		28		2.5	126	54
V5	20-Jun-05	< 0.5	< 0.5	153	8	347	203	187	0.11		8.3		53.1		7.8	7	2.7
V5	25-Jul-05	< 0.5	< 0.5	187	13	372	228	228	0.02		8.1		69.5		7.3	55	35
V5	22-Aug-05	4.3	< 0.5	199	7	373	270	234	< 0.01		8.2		75.3		6.9	9	5
V5	05-Sep-05	0.8	< 0.5	184		286	248	223	< 0.01		8.4		78		6.2	4	
V5	10-Oct-05	4.7	< 0.5	178		256	272	207	0.02		8.4		73.9		3.8	5	
V5	01-Nov-05	3.3	< 0.5	202	5	306	292	240	< 0.01		8.4		87.5		1.2	4	3
V5	24-Jan-06	< 0.5	< 0.5	257	< 5	737	403	313	< 0.01		8.2		153		-0.6	2	1.6
V5	13-Feb-06	< 0.5	< 0.5	267	< 5	754	416	326	0.01		8		174		0.7	2	0.9
V5	17-May-06	< 0.5	< 0.5	89.5	117	245	136	109	< 0.01		8.4		35.7		0.6	169	90
V5	19-Jun-06	< 0.5	< 0.5	97.6	45	258	150	119	< 0.01		8.1		35.4		4.6	63	32
V5	17-Jul-06	2.2	< 0.5	142	25	337	190	169	< 0.01		8.1				6.7	47	34
V5	21-Aug-06	3.6	< 0.5	177	25	428	252	209	< 0.01		7.9		62.9		4.6	249	205
V5	11-Sep-06	4.8	< 0.5	182	8	453	220	212	< 0.01		8.3		65.9		4.5	19	19
V5	16-Oct-06	8.6	< 0.5	233	< 5	554	304	267	< 0.01		8.3		92.4		-0.1	5	3
V5	14-Nov-06	7.2	< 0.5	275	< 5	641	352	321	< 0.01		7.9		115		-0.1	7	3.1
V5	13-Dec-06	< 0.5	< 0.5	285	< 5	718	372	347	< 0.01		8.3		136		-0.2	2	3.3
V5	15-Jan-07	< 0.5	< 0.5	< 0.5	< 5	793	436	385	0.01		7.8		167		0	3	2
V5	14-May-07	< 0.5	< 0.5	139	70	348	178	169	0.01		8.1		47.3		0.6	18	12
V5	18-Jun-07	< 0.5	< 0.5	125	45	305	167	153	0.01		8.2		39.1		4.4	46	22
V5	16-Jul-07	< 0.5	< 0.5	160	8	388	196	195	0.01		8		55.7		7	208	155
V5	13-Aug-07	1.7	< 0.5	204	< 5	484	259	246	0.03		8.3		77.5		4.8	13	7.3
V5	10-Sep-07	< 0.5	< 0.5	215	< 5	494	246	262	0.03		8		84		5.9	6	3.2
V5	23-Oct-07	4.36	< 0.5	197	7	533	287	232	< 0.01		8.1		93.6		0.2	8	8.1
V5	13-Nov-07	< 0.5	< 0.5	177	< 5	539	320	262	0.02		7.6		103		0.2	17	9.4
V5	09-Dec-07	< 0.5	< 0.5	232	< 5	640	321	283	0.03		7.4		120		0.5	23	10
	N	28	28	28	26	28	28	28	28	0	28	0	27	0	28	28	26
	median	0.25	0.25	185.5	6	440.5	264.5	233	0.005		8.1		78		1.85	8.5	7.7
	mean	1.8	0.25	185.1	19.7	469.4	273.5	237.9	0.014		8.1		90.3		2.9	40.1	27.8
	std	2.4	0	67.1	31.2	181	90.7	74.1	0.021		0.3		43.6		2.9	66.1	49.7
	minimum	< 0.5	< 0.5	0.5	< 5	172	126	102	< 0.01		7.4		28		-0.6	2	0.9
	maximum	8.6	< 0.5	285	117	793	436	385	0.11		8.4		174		7.8	249	205
	# < DL	17	28	1	12	0	0	0	15		0		0		0	0	0
	% < DL	61%	100%	4%	46%	0%	0%	0%	54%		0%		0%		0%	0%	0%
	# > BM			27					0		0		22			8	
	% > BM			96%					0%		0%		81%			29%	
	# < DL (DL>BM)			0					0		0		0			0	
	% < DL (DL>BM)			0%					0%		0%		0%			0%	
	max DL	0.5	0.5	0.5	5				0.01						0	0	0
	95th percentile	6.36	0.25	273.6	92.5	748.1	413.9	341.1	0.03		8.4		167		7.195	194.4	138.8
	5th percentile	0.25	0.25	85.73	2.5	248.9	140.9	112.5	0.005		7.535		35.49		-0.2	2	1.125
V8	21-Jan-05	< 0.5	< 0.5	225	< 5	628	373	274	< 0.01		7.3		159		1.3	2	0.49
V8	08-Feb-05	< 0.5	< 0.5	241	< 5	632	374	294	0.01		8.3		155		0.6	< 1	0.27
V8	15-Mar-05	< 0.5	< 0.5	231	< 5	661	395	282	0.04		8.3		176		1.8	< 1	0.35
V8	11-Apr-05	< 0.5	< 0.5	236	< 5	662	382	245	< 0.01		8		175		1	< 1	0.43
V8	09-May-05	< 0.5	< 0.5	78.6	75	174	116	95.9	0.04		8.1		33.3		2.7	67	30
V8	20-Jun-05	< 0.5	< 0.5	96.7	7	390	214	118	0.13		8.1		133		8.9	2	0.56
V8	25-Jul-05	< 0.5	< 0.5	121	6	581	321	147	0.03		8		238		8.3	10	7.4
V8	22-Aug-05	< 0.5	< 0.5	133	< 5	716	449	162	< 0.01		8.1		312		8.4	1	1.3
V8	05-Sep-05	< 0.5	< 0.5	134		267	210	164	< 0.01		8.3		102		6.8	< 1	
V8	10-Oct-05	< 0.5	< 0.5	137		237	237	168	0.06		8.5		82.1		4.1	< 1	
V8	01-Nov-05	< 0.5	< 0.5	168	< 5	302	275	205	< 0.01		8.3		112		2.3	< 1	0.54
V8	14-Dec-05	< 0.5	< 0.5	192	< 5	614	328	234	< 0.01		8.1		139		0.8	< 1	0.71
V8	24-Jan-06	< 0.5	< 0.5	207	< 5	673	384	253	< 0.01		8.1		166		-0.1	< 1	0.42
V8	13-Feb-06	< 0.5	< 0.5	214	< 5	694	381	262	< 0.01		8		191		1	< 1	0.49
V8	24-Mar-06	< 0.5	< 0.5	231	< 5	781	402	282	< 0.01		7.8		204		1.3	< 1	0.34
V8	24-Apr-06	< 0.5	< 0.5	222	< 5	737	356	271	< 0.01		8.2		184		2.1	< 1	0.36
V8	17-May-06	< 0.5	< 0.5	89.1	83	272	143	109	< 0.01		8.5		51.9		0.8	54	30
V8	19-Jun-06	< 0.5	< 0.5	76.6	25	220	118	93.4	< 0.01		8		35		5.5	24	12
V8	17-Jul-06	< 0.5	< 0.5	101	8	271	143	123	< 0.01		8.1				7.7	12	8.9
V8	21-Aug-06	< 0.5	< 0.5	214	7	580	309	151	< 0.01	< 0.005	8.1	8.1	85	396	5.5	< 5	< 1
V8	11-Sep-06	< 0.5	< 0.5	119	8	339	166	145	< 0.01		8.4		58.7		5.2	4	4
V8	16-Oct-06	3.9	< 0.5	160	< 5	434	230	188	< 0.01		8		84		-0.3	11	7
V8	14-Nov-06	21.6	< 0.5	212	< 5	585	312	215	< 0.01		8		130		-1	1	0.43
V8	13-Dec-06	< 0.5	< 0.5	222	< 5	633	328	271	< 0.01		8.2		144		-0.5	< 1	0.47
V8	15-Jan-07	< 0.5	< 0.5	238	< 5	673	362	290	0.01		8		165		-0.3	< 1	0.47
V8	13-Feb-07	< 0.5	< 0.5	237	< 5	695	369	289	0.02		8.1		163		-0.1	< 1	0.27
V8	11-Mar-07	< 0.5	< 0.5	255	< 5	715	410	311	0.02		7.8		201		-0.3	< 1	0.24
V8	18-Apr-07	< 0.5	< 0.5	242	< 5	729	371	295	0.01		8		185		0.2	< 1	0.65
V8	14-May-07	< 0.5	< 0.5	129	70	361	197	157	0.02		8.1		61.2		1	7	5.5
V8	18-Jun-07	< 0.5	< 0.5	84.7	18	232	112	103	< 0.01		8		35.8		5.3	13	7.1
V8	16-Jul-07	< 0.5	< 0.5	107	8	288	133	131	< 0.01		7.9		48.4		8.4	52	44
V8	13-Aug-07	< 0.5	< 0.5	148	< 5	363	202	181	0.02		8.2		73		5.8	2	1.5
V8	10-Sep-07	< 0.5	< 0.5	150	< 5	361	180	183	0.02		7.9		74		6.9	< 1	0.6
V8	23-Oct-07	< 0.5	< 0.5	183	< 5	476	260	223	< 0.01		8.1		99.8		0.5	< 1	1.7
V8	13-Nov-07	< 0.5	< 0.5	177	< 5	514	282	216	0.02		7.8		111		1.5	2	2.1
V8	09-Dec-07	< 0.5	< 0.5	193	< 5	588	293	235	< 0.01		7.4		129		0.3	2	2.5
	N	36	36	36	34	36	36	36	36	1	36	1	35	1	36	36	34
	median	0.94444	0.25	172.353	10.9559	502.167	281.028	204.619	0.01556	0.0025	8.05833	8.1	128.463	396	2.87222	7.70833	5.10559
	mean	0.94	0.25	172.4	11	502.2	281	204.6	0.0155	0.0025	8.1	8.1	128.5	396	2.9	7.7	5.1
	std	3.59	0	56.4	21.1	187.4	100	67.3	0.0234		0.2		64		3.1	16.2	10
	minimum	< 0.5	< 0.5	76.6	< 5	174	112	93.4	< 0.01	< 0.005	7.3	8.1	33.3	396	-1	< 1	0.24
	maximum	21.6	< 0.5	255	83	781	449	311	0.13	< 0.005	8.5	8.1	312	396	8.9	67	44
	# < DL	34	36	0	23	0	0	0	22	1	0	0	0	0	0	19	1
	% < DL	94%	100%	0%	68%	0%	0%	0%	61%	100%	0%	0%	0%	0%	0%	53%	3%
	# > BM			36					0	0	0	0	31	0		3	
	% > BM			100%					0%	0%	0%	0%	89%	0%		8%	
	# < DL (DL>BM)			0					0	0	0	0	0	0		0	
	% < DL (DL>BM)			0%					0%	0%	0%	0%	0%	0%		0%	
	max DL	0.5	0.5	0	5				0.01	0.005					0	5	1
	95th percentile	1.163	0.25	241.25	71.75	731	404	294.3	0.045	0.0025	8.425	8.1	214.2	396	8.4	52.5	30
	5th percentile	0.25	0.25	83.175	2.5	229	117.5	101.2	0.005	0.0025	7.7	8.1	35.56	396	-0.35	0.5	0.27
V27	26-May-05					185	57		< 0.01				28.5			3	

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Table 7. Receiving Environment Surface Water Physical and Routine Parameters

STATION	DATE	ALK-C mg/L	ALK-H mg/L	ALK-T mg/L	COLOR CU	COND-L µS/cm	HARD mg/L	HCO3 mg/L	NH3 mg/L	NO2 mg/L	PH-F pH unit	PH-L pH unit	SO4 mg/L	TDS mg/L	TEMP-F °C	TSS mg/L	TURB NTU
Benchmark				12.6					0.25	0.06	6.5 - 9.0	6.5 - 9.0	50	500		29	
V27	21-Sep-05			48.5	< 5	152	84		< 0.01				48.5			2	0.33
V27	29-May-06				35	129	55		0.02		8.2		25.3		3.2	3	1.5
V27	01-Aug-06				< 5	235	110		< 0.01		7.9		56.4		9.4	< 1	0.24
V27	26-Sep-06				< 5	221	94		< 0.01		7.9		52		9.4	< 1	0.16
V27	04-Jun-07				28	47	17		0.03		7.5		8.46		4.5	6	3.3
V27	25-Jul-07				6	204	100		< 0.01		7.8		47.5		10.1	< 1	0.65
V27	10-Oct-07				< 5	239	108		< 0.01		7.7		64.1		1.3	< 1	0.25
	N	0	0	1	7	8	8	0	8	0	6	0	8	0	6	8	7
	median			48.5	2.5	194.5	89		0.005		7.85		48		6.95	1.25	0.33
	mean			48.5	11.3	176.5	78.1		0.01		7.8		41.3		6.3	2	0.9
	std				14	65.2	32.5		0.01		0.2		18.7		3.8	2	1.1
	minimum			48.5	< 5	47	17		< 0.01		7.5		8.46		1.3	< 1	0.16
	maximum			48.5	35	239	110		0.03		8.2		64.1		10.1	6	3.3
	# < DL			0	4	0	0		6		0		0		0	4	0
	% < DL			0%	57%	0%	0%		75%		0%		0%		0%	50%	0%
	# > BM			1					0		0		3			0	
	% > BM			100%					0%		0%		38%			0%	
	# < DL (DL>BM)			0					0		0		0			0	
	% < DL (DL>BM)			0%					0%		0%		0%			0%	
	max DL			0	5				0.01						0	1	0
	95th percentile			48.5	32.9	237.6	109.3		0.0265		8.125		61.41		9.925	4.95	2.76
	5th percentile			48.5	2.5	75.7	30.3		0.005		7.55		14.35		1.775	0.5	0.184
VGMAIN	21-Jan-05	< 0.5	< 0.5	188	< 5	580	323	230	< 0.01		7.5		158		0.2	< 1	0.28
VGMAIN	08-Feb-05	< 0.5	< 0.5	203	< 5	583	402	248	0.02		8.3		142		0.2	< 1	0.18
VGMAIN	15-Mar-05	< 0.5	< 0.5	205	< 5	612	336	250	0.02		8.3		174		1.7	< 1	0.21
VGMAIN	11-Apr-05	< 0.5	< 0.5	201	< 5	618	348	245	< 0.01		7.9		175		0.9	3	1.7
VGMAIN	09-May-05	< 0.5	< 0.5	73.2	45	170	107	89.2	0.01		7.8		36		2.9	23	12
VGMAIN	20-Jun-05	< 0.5	< 0.5	78.9	7	401	241	96.2	0.11		8		157		19.1	1	0.53
VGMAIN	25-Jul-05	< 0.5	< 0.5	93.4	< 5	631	357	114	0.05		8		296		8.2	< 1	0.47
VGMAIN	22-Aug-05	< 0.5	< 0.5	102	< 5	804	526	124	< 0.01		8.1		399		8.2	< 1	0.27
VGMAIN	06-Sep-05	< 0.5	< 0.5	103		251	190	125	< 0.01		8.3		108		6.7	< 1	
VGMAIN	10-Oct-05	< 0.5	< 0.5	108		222	206	132	0.04		8.3		83.8		4.3	< 1	
VGMAIN	01-Nov-05	< 0.5	< 0.5	139	< 5	280	249	169	< 0.01		8.4		119		1.8	< 1	0.24
VGMAIN	14-Dec-05	< 0.5	< 0.5	161	< 5	575	348	197	< 0.01		8.2		152		0.3	< 1	0.31
VGMAIN	13-Feb-06	< 0.5	< 0.5	178	< 5	637	339	217	0.01		8.1		193		0.9	< 1	0.19
VGMAIN	24-Mar-06	< 0.5	< 0.5	181	< 5	684	342	220	< 0.01		7.9		190		1.5	< 1	0.28
VGMAIN	24-Apr-06	< 0.5	< 0.5	181	< 5	683	328	221	< 0.01		8.3		202		1.3	< 1	0.37
VGMAIN	17-May-06	< 0.5	< 0.5	85.4	63	279	142	104	< 0.01		8.5		60.8		0.5	10	4.5
VGMAIN	19-Jun-06	< 0.5	< 0.5	62.2	13	192	109	75.9	< 0.01		7.9		32.9		5.5	3	0.55
VGMAIN	18-Jul-06	< 0.5	< 0.5	80.4	7	233	119	98.1	< 0.01		8.2				9.4	1	0.36
VGMAIN	21-Aug-06	< 0.5	< 0.5	94.6	< 5	289	151	115	< 0.01		7.8		58.2		5.7	< 1	0.25
VGMAIN	11-Sep-06	< 0.5	< 0.5	88.8	< 5	277	124	108	< 0.01		8.4		53.5		5.1	< 1	0.27
VGMAIN	16-Oct-06	< 0.5	< 0.5	131	< 5	389	197	159	< 0.01		8.2		83.8		-0.3	< 1	0.25
VGMAIN	14-Nov-06	15.1	< 0.5	172	< 5	533	284	178	< 0.01		8		132		-0.4	< 1	0.2
VGMAIN	13-Dec-06	< 0.5	< 0.5	180	< 5	572	286	220	< 0.01		8.3		143		-0.1	< 1	0.19
VGMAIN	15-Jan-07	< 0.5	< 0.5	188	< 5	601	315	230	< 0.01		8		161		-0.1	< 1	0.14
VGMAIN	13-Feb-07	< 0.5	< 0.5	191	< 5	622	333	234	0.02		8.1		162		0	< 1	0.1
VGMAIN	11-Mar-07	< 0.5	< 0.5	204	< 5	617	350	249	0.02		7.8		186		0	< 1	0.17
VGMAIN	18-Apr-07	< 0.5	< 0.5	197	< 5	672	342	240	0.02		8		190		0.1	< 1	0.5
VGMAIN	14-May-07	< 0.5	< 0.5	115	70	355	193	140	< 0.01		8.1		67.9		0.7	< 1	1
VGMAIN	18-Jun-07	< 0.5	< 0.5	65.7	12	191	86	80.2	< 0.01		8		33.2		5.4	2	0.6
VGMAIN	16-Jul-07	< 0.5	< 0.5	86.3	7	250	105	105	< 0.01		7.8		44.3		8.4	< 1	0.4
VGMAIN	13-Aug-07	< 0.5	< 0.5	113	< 5	310	165	138	0.03		8		68.1		5.9	< 1	0.3
VGMAIN	10-Sep-07	< 0.5	< 0.5	113	< 5	304	143	138	0.01		7.9		66.6		6.8	< 1	0.15
VGMAIN	23-Oct-07	< 0.5	< 0.5	132	< 5	433	218	161	< 0.01		8		97.7		0.3	< 1	0.17
VGMAIN	13-Nov-07	< 0.5	< 0.5	146	< 5	438	241	178	0.02		7.7		108		0.9	< 1	0.2
VGMAIN	10-Dec-07	< 0.5	< 0.5	154	< 5	522	253	188	0.02		7.5		126		0.2	< 1	0.2
	N	35	35	35	33	35	35	35	35	0	35	0	34	0	35	35	33
	median	0.67	0.25	136.997	8.68	451.7	251.4	166.2	0.01443		8.05		131.171		3.21	1.63	0.83
	mean	0.67	0.25	137	8.7	451.7	251.4	166.2	0.014		8		131.2		3.2	1.6	0.8
	std	2.51	0	47.4	16.8	181.9	104.5	57.5	0.02		0.2		77.2		4.1	4.1	2.2
	minimum	< 0.5	< 0.5	62.2	< 5	170	86	75.9	< 0.01		7.5		32.9		-0.4	< 1	0.1
	maximum	15.1	< 0.5	205	70	804	526	250	0.11		8.5		399		19.1	23	12
	# < DL	34	35	0	25	0	0	0	21		0		0		0	28	0
	% < DL	97%	100%	0%	76%	0%	0%	0%	60%		0%		0%		0%	80%	0%
	# > BM			35					0		0		30			0	
	% > BM			100%					0%		0%		88%			0%	
	# < DL (DL>BM)			0					0		0		0			0	
	% < DL (DL>BM)			0%					0%		0%		0%			0%	
	max DL	0.5	0.5	0	5				0.01						0	1	0
	95th percentile	0.25	0.25	203.3	52.2	683.3	370.5	248.3	0.043		8.4		234.9		8.7	5.1	2.82
	5th percentile	0.25	0.25	70.95	2.5	191.7	106.4	86.5	0.005		7.64		35.02		-0.16	0.5	0.146

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, quideline source provided in Appendix X

Method Detection Limit set to 1/2 method detection limit for statistical calculations

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Table 8. Receiving Environment Total Metals

STATION	DATE	AG-T mg/L	AL-T mg/L	AS-T mg/L	BA-T mg/L	BE-T mg/L	BI-T mg/L	B-T mg/L	CA-T mg/L	CD-T mg/L	CN-T mg/L	CO-T mg/L	CR-T mg/L	CU-T mg/L	FE-T mg/L	HG-T mg/L	HG-T µg/L	K-T mg/L	LI-T mg/L	MG-T mg/L	MN-T mg/L	MO-T mg/L	NA-T mg/L	NI-T mg/L	PB-T mg/L	P-T mg/L	SB-T mg/L	SE-T mg/L	SI-T mg/L	SN-T mg/L	SR-T mg/L	TE-T mg/L	TH-T mg/L	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
Benchmark		0.0001	0.1	0.005	1	1.1	0.26			0.00003			0.001	0.002	0.3		0.026	53		82	1	0.073	200	0.065	0.002	0.03	0.02	0.001		0.35	9.3			1.83	0.0008	0.005	0.006	0.03	0.004
V5	21-Jan-05	< 0.00025	0.029	< 0.001	0.082	< 0.001	< 0.001	< 0.05	95.7	< 0.0002		< 0.001	0.002	0.001	0.22	< 0.00002	< 0.02	1.4	0.005	41.5	0.011	0.0018	4.92	0.002	< 0.001	< 0.15	< 0.001	0.003	10.8	< 0.001	0.37	< 0.001	< 0.0005	0.001	< 0.0001	0.0054	< 0.001	< 0.005	< 0.01
V5	11-Apr-05	0.0004	0.025	< 0.001	0.072	< 0.001	< 0.001	< 0.05	92.8	< 0.0002		< 0.001	< 0.001	0.001	0.11	< 0.00002	< 0.02	1.4	0.005	41.6	0.007	0.0022	5.37	0.002	< 0.001	< 0.15	< 0.001	0.003	11	< 0.001	0.36	< 0.001	< 0.0005	0.001	< 0.0001	0.0054	< 0.001	0.011	< 0.01
V5	09-May-05	< 0.00025	2.05	0.003	0.096	< 0.001	< 0.001	< 0.05	30.8	0.0002		0.002	0.006	0.008	3.54	< 0.00002	< 0.02	1.4	0.004	11.8	0.15	0.0006	1.53	0.012	0.005	0.6	< 0.001	< 0.001	13.5	< 0.001	0.12	< 0.001	< 0.0005	0.048	< 0.0001	0.0011	0.005	0.03	< 0.01
V5	20-Jun-05	< 0.00025	0.13	< 0.001	0.059	< 0.001	< 0.001	< 0.05	49.1	< 0.0002		< 0.001	< 0.001	0.001	0.37	< 0.00002	< 0.02	0.9	0.004	19.6	0.019	0.0009	3.24	0.002	< 0.001	< 0.15	< 0.001	< 0.001	11.1	< 0.001	0.21	< 0.001	< 0.0005	0.009	< 0.0001	0.0024	< 0.001	< 0.005	< 0.01
V5	25-Jul-05	< 0.00025	1.27	0.002	0.1	< 0.001	< 0.001	< 0.05	54.3	< 0.0002		< 0.001	0.004	0.004	1.9	< 0.00002	< 0.02	1.1	0.006	22.4	0.058	0.0011	3.19	0.005	0.002	0.2	< 0.001	< 0.001	15	0.001	0.23	< 0.001	< 0.0005	0.032	< 0.0001	0.0028	0.003	0.011	< 0.01
V5	22-Aug-05	< 0.00025	0.14	0.001	0.067	< 0.001	< 0.001	< 0.05	65.1	< 0.0002		< 0.001	< 0.001	< 0.001	0.2	< 0.00002	< 0.02	1	0.005	26.2	0.028	0.0011	3.54	0.002	< 0.001	< 0.15	< 0.001	0.003	9.6	< 0.001	0.27	< 0.001	< 0.0005	0.003	< 0.0001	0.0034	< 0.001	< 0.005	< 0.01
V5	05-Sep-05	< 0.00025	0.093	< 0.001	0.064	< 0.001	< 0.001	< 0.05	59.3	< 0.0002		< 0.001	0.002	0.002	0.33	< 0.00002	< 0.02	1.1	0.004	24.3	0.031	0.0024	3.35	0.002	< 0.001	< 0.15	< 0.001	0.001	11.3	< 0.001	0.25	< 0.001	< 0.0005	0.002	< 0.0001	0.0032	< 0.001	0.014	< 0.01
V5	10-Oct-05	< 0.00025	0.11	< 0.001	0.067	< 0.001	< 0.001	< 0.05	63.5	< 0.0002		< 0.001	< 0.001	< 0.001	0.19	< 0.00002	< 0.02	1	0.004	27.5	0.026	0.0011	3.62	0.002	< 0.001	< 0.15	< 0.001	< 0.001	12	< 0.001	0.25	< 0.001	< 0.0005	0.002	< 0.0001	0.0026	< 0.001	< 0.005	< 0.01
V5	01-Nov-05	< 0.00025	0.059	< 0.001	0.07	< 0.001	< 0.001	< 0.05	69.6	< 0.0002		< 0.001	< 0.001	< 0.001	0.15	< 0.00002	< 0.02	1	0.004	28.7	0.016	0.0012	3.42	0.002	< 0.001	< 0.15	< 0.001	< 0.001	11	< 0.001	0.29	< 0.001	< 0.0005	0.002	< 0.0001	0.0039	< 0.001	< 0.005	< 0.01
V5	24-Jan-06	< 0.00025	0.024	< 0.001	0.079	< 0.001	< 0.001	< 0.05	92	< 0.0002		< 0.001	< 0.001	< 0.001	0.13	< 0.00002	< 0.02	1.1	0.006	42	0.013	0.0018	4.92	0.001	< 0.001	< 0.15	< 0.001	0.001	5.6	< 0.001	0.36	< 0.001	< 0.0005	< 0.001	< 0.0001	0.005	< 0.001	0.011	< 0.01
V5	13-Feb-06	< 0.00025	0.04	< 0.001	0.088	< 0.001	< 0.001	< 0.05	94.9	< 0.0002		< 0.001	< 0.001	< 0.001	0.12	< 0.00002	< 0.02	1.4	0.006	43.4	0.018	0.002	5.2	0.001	< 0.001	< 0.15	< 0.001	0.003	5.7	< 0.001	0.38	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0052	< 0.001	0.013	< 0.01
V5	17-May-06	< 0.00025	2.69	0.003	0.12	< 0.001	< 0.001	< 0.05	32.6	0.0002		0.002	0.007	0.01	4.47	< 0.00002	< 0.02	2	0.006	13.3	0.16	0.0006	1.63	0.012	0.007	< 0.15	< 0.001	< 0.001	6.7	< 0.001	0.13	< 0.001	0.001	0.06	< 0.0001	0.0014	0.006	0.032	< 0.01
V5	19-Jun-06	< 0.00025	1.18	0.002	0.07	< 0.001	< 0.001	< 0.05	37.2	< 0.0002		0.001	0.004	0.005	1.98	< 0.00002	< 0.02	0.9	0.004	13.8	0.059	0.0008	2.36	0.005	0.003	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.13	< 0.001	0.0005	0.03	< 0.0001	0.0018	0.003	0.011	< 0.01
V5	17-Jul-06	< 0.00025	1.45	0.002	0.074	< 0.001	< 0.001	< 0.05	45	< 0.0002		0.001	0.003	0.004	2.29	< 0.00002	< 0.02	1	0.017	18.8	0.06	0.0009	2.88	0.005	0.002	< 0.15	< 0.001	< 0.001	6.7	< 0.001	0.17	< 0.001	< 0.0005	0.032	< 0.0001	0.0019	0.003	0.012	< 0.01
V5	21-Aug-06	< 0.00025	6.95	0.005	0.19	< 0.001	< 0.001	< 0.05	58	0.0003		0.005	0.016	0.018	11	< 0.00002	< 0.02	2.2	0.015	26	0.19	0.0012	3.4	0.02	0.01	0.2	< 0.001	< 0.001	14.8	< 0.001	0.24	< 0.001	0.0029	0.16	0.0001	0.0032	0.015	0.046	< 0.01
V5	11-Sep-06	< 0.00025	0.57	0.001	0.064	< 0.001	< 0.001	< 0.05	50.9	< 0.0002		< 0.001	0.001	< 0.001	0.96	< 0.00002	< 0.02	0.8	0.004	22.4	0.029	0.0009	3.06	0.003	< 0.001	< 0.15	< 0.001	< 0.001	5.8	< 0.001	0.2	< 0.001	< 0.0005	0.013	< 0.0001	0.0024	0.001	0.007	< 0.01
V5	16-Oct-06	< 0.00025	0.1	< 0.001	0.071	< 0.001	< 0.001	< 0.05	70.5	< 0.0002		< 0.001	< 0.001	< 0.001	0.23	< 0.00002	< 0.02	1	0.005	30.9	0.013	0.0013	3.9	0.001	< 0.001	< 0.15	< 0.001	0.002	4.5	< 0.001	0.28	< 0.001	< 0.0005	0.003	< 0.0001	0.004	< 0.001	< 0.005	< 0.01
V5	14-Nov-06	< 0.00025	0.12	< 0.001	0.08	< 0.001	< 0.001	< 0.05	81.3	< 0.0002		< 0.001	< 0.001	< 0.001	0.28	< 0.00002	< 0.02	1	0.004	36.2	0.018	0.0017	4.39	0.002	< 0.001	< 0.15	< 0.001	0.002	5.4	< 0.001	0.33	< 0.001	< 0.0005	0.003	< 0.0001	0.0047	< 0.001	0.009	< 0.01
V5	13-Dec-06	< 0.00025	0.062	< 0.001	0.085	< 0.001	< 0.001	< 0.05	87.7	< 0.0002		< 0.001	< 0.001	0.001	0.15	< 0.00002	< 0.02	1.3	0.005	37.2	0.014	0.0016	4.53	0.002	< 0.001	< 0.15	< 0.001	0.001	5.5	< 0.001	0.34	< 0.001	< 0.0005	0.002	< 0.0001	0.0059	< 0.001	< 0.005	< 0.01
V5	15-Jan-07	< 0.00025	0.057	< 0.001	0.089	< 0.001	< 0.001	< 0.05	101	< 0.0002		< 0.001	< 0.001	< 0.001	0.09	< 0.00002	< 0.02	1.4	0.006	44.5	0.011	0.0021	4.86	0.002	< 0.001	< 0.15	< 0.001	0.003	5.1	< 0.001	0.4	< 0.001	< 0.0005	0.001	< 0.0001	0.0062	< 0.001	0.009	< 0.01
V5	14-May-07	< 0.00025	0.37	0.001	0.058	< 0.001	< 0.001	< 0.05	43.1	< 0.0002		< 0.001	0.002	0.004	0.76	< 0.00002	< 0.02	1.5	< 0.005	17	0.042	0.0014	2.42	0.003	0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.18	< 0.001	< 0.0005	0.01	< 0.0001	0.0023	0.001	0.02	< 0.01
V5	18-Jun-07	< 0.00025	0.89	0.001	0.064	< 0.001	< 0.001	< 0.05	39.7	< 0.0002		< 0.001	0.002	0.004	1.46	< 0.00002	< 0.02	0.9	< 0.005	16.5	0.041	0.0009	2.69	0.004	0.002	< 0.15	< 0.001	< 0.001	5.1	< 0.001	0.15	< 0.001	< 0.0005	0.022	< 0.0001	0.002	0.002	0.035	< 0.01
V5	16-Jul-07	< 0.00025	4.58	0.005	0.18	< 0.001	< 0.001	< 0.05	46	0.0002		0.004	0.01	0.014	7.35	< 0.00002	< 0.02	1.6	0.011	19.8	0.14	0.0009	2.73	0.016	0.009	0.2	< 0.001	< 0.001	11.6	< 0.001	0.21	< 0.001	0.002	0.12	< 0.0001	0.0026	0.01	0.035	< 0.01
V5	13-Aug-07	< 0.00025	0.18	< 0.001	0.072	< 0.001	< 0.001	< 0.05	61.6	< 0.0002		< 0.001	< 0.001	0.001	0.36	< 0.00002	< 0.02	1	< 0.005	25.4	0.026	0.0012	3.39	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.25	< 0.001	< 0.0005	0.004	< 0.0001	0.0036	< 0.001	0.009	< 0.01
V5	10-Sep-07	< 0.00025	0.08	< 0.001	0.073	< 0.001	< 0.001	< 0.05	58.3	< 0.0002		< 0.001	< 0.001	< 0.001	0.2	< 0.00002	< 0.02	1	0.003	24.4	0.012	0.0015	3.37	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.28	< 0.001	< 0.0005	0.003	< 0.0001	0.0039	< 0.001	< 0.005	< 0.01
V5	23-Oct-07	< 0.00025	0.22	< 0.001	0.068	< 0.001	< 0.001	< 0.05	66.9	< 0.0002		< 0.001	< 0.001	0.001	0.42	< 0.00002	< 0.02	1.1	0.004	29.1	0.015	0.0014	3.99	0.002	< 0.001	< 0.15	< 0.001	0.001	4.7	< 0.001	0.28	< 0.001	< 0.0005	0.005	< 0.0001	0.0035	< 0.001	0.007	< 0.01
V5	13-Nov-07	< 0.00025	0.33	< 0.001	0.077	< 0.001	< 0.001	< 0.05	77.6	< 0.0002		< 0.001	< 0.001	0.001	0.63	< 0.00002	< 0.02	1.2	0.004	30.6	0.027	0.0014	3.91	0.002	< 0.001	< 0.15	< 0.001	0.001	5.3	< 0.001	0.29	< 0.001	< 0.0005	0.008	< 0.0001	0.0037	0.001	0.009	< 0.01
V5	09-Dec-07	< 0.00025	0.16	< 0.001	0.072	< 0.001	< 0.001	< 0.05	75.6	< 0.0002		< 0.001	< 0.001	0.001	0.41	< 0.00002	< 0.02	1.2	0.002	32.1	0.024	0.0015	3.86	0.002	< 0.001	< 0.15	< 0.001	0.001	4.7	< 0.001	0.29	< 0.001	< 0.0005	0.005	< 0.0001	0.0048	< 0.001	0.007	< 0.01
	N	28	28	28	28	28	28	28	28	28	0	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
	median	0.000125	0.15	0.0005	0.0725	0.0005	0.0005	0.025	62.55	0.0001		0.0005	0.0005	0.001	0.365	0.00001		1.1	0.004	26.1	0.026	0.00125	3.41	0.002	0.0005	0.075	0.0005	0.0005	5.8	0.0005	0.26	0.0005	0.00025	0.0045	0.00005	0.00345	0.0005	0.009	0.005
	mean	0.00013	0.86	0.0012	0.084	0.0005	0.0005	0.025	64.29	0.0001		0.0009	0.0024	0.003	1.439	0.00001		1.2	0.005	27.4	0.045	0.0013	3.56	0.0042	0.0018	0.107	0.0005	0.0012	7.9	0.0005	0.259	0.0005	0.00044	0.0208	5.18E-05	0.00351	0.0021	0.013	0.005
	std	0.00005	1.57	0.0013	0.0315	0	0	0	20.46	0		0.0011	0.0036	0.004	2.49	1.73E-21		0.3	0.003	9.6	0.051	0.0005	0.99	0.0048	0.0027	0.104	3.31E-19	0.001	3.5	0.0001	0.08	3.31E-19	0.0006	0.0374	9.45E-06	0.0014	0.0033	0.012	1.77E-18
	minimum	< 0.00025	0.024	< 0.001	0.058	< 0.001	< 0.001	< 0.05	30.8	< 0.0002		< 0.001	< 0.001	< 0.001	0.09	< 0.00002		0.8	0.002	11.8	0.007	0.0006	1.53	0.001	< 0.001	< 0.15	0.001	< 0.001	4.1	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	< 0.005	< 0.01
	maximum	0.0004	6.95	0.005	0.19	< 0.001	< 0.001	< 0.05	101	0.0003		0.005	0.016	0.018	11	< 0.00002		2.2	0.017	44.5	0.19	0.0024	5.37	0.02	0.01	0.6	0.001	0.003	15	0.001	0.4	< 0.001	0.0029	0.16	0.0001	0.0062	0.015	0.046	< 0.01
	# < DL	27	0	17	0	28	28	28	0	24	0	22	16	10	0	28	28	0	3	0	0	0	0	0	19	24	28	15	0	27	0	28	24	2	27	0	17	8	28
	% < DL	96%	0%	61%	0%	100%	100%	100%	0%	86%	0%	79%	57%	36%	0%	100%	100%	0%	11%	0%	0%	0%	0%	0%	68%	86%	100%	54%	0%	96%	0%	100%	86%	7%	96%	0%	61%	29%	100%
	# > BM	28	18	0	0	0	0			28			11	9	16		0	0		0	0	0	0	0	5	28	0	7		0	0			0	0	5	2	4	28
	% > BM	100%	64%	0%	0%	0%	0%			100%			39%	32%	57%		0%	0%		0%	0%	0%	0%	0%	18%	100%	0%	25%		0%	0%			0%	0%	18%	7%	14%	100%
	# < DL (DL>BM)	27	0	1	0	0	0			24			0	0	0		0	0		0	0	0	0	0	0	24	0	0		0	0			0	0	0	0	0	28
	% < DL (DL>BM)	96%	0%	4%	0%	0%	0%			86%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	86%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0	0.001	0	0.001	0.001	0.05	0	0.0002		0.001	0.001	0.001	0	0.00002		0	0.005	0	0	0	0	0	0.001	0.15	0.001	0.001	0	0.001	0	0.001	0.0005	0.001	0.0001	0	0.001	0.005	0.01
	95th percentile	0.000125	3.9185	0.0043	0.159	0.0005	0.0005	0.025	95.42	0.0002		0.0033	0.00895	0.0126	6.342	0.00001		1.86	0.0136	42.91	0.1565	0.002165	5.102	0.0146	0.0083	0.2	0.0005	0.003	14.345	0.0005	0.3765	0.0005	0.00165	0.099	0.00005	0.005725	0.0086	0.035	0.005
	5th percentile	0.000125	0.0264	0.0005	0.06075	0.0005	0.0005	0.025	34.21	0.0001		0.0005	0.0005	0.0005	0.1135	0.00001		0.9	0.0025	13.475	0.011	0.00067	1.8855	0.001	0.0005	0.075	0.0005	0.0005	4.5	0.0005	0.13	0.0005	0.00025	0.000675	0.00005	0.00154	0.0005	0.0025	0.005
V8	21-Jan-05	< 0.00025	0.012	< 0.001	0.077	< 0.001	< 0.001	< 0.05	87.5	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.18	< 0.00002	< 0.02	1.3	0.005	37.5	0.035	0.0011	4.55	0.002	< 0.001	< 0.15	< 0.001	0.002	10.3	< 0.001	0.36	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0071	< 0.001	0.012	< 0.01
V8	08-Feb-05	< 0.00025	0.009	< 0.001	0.073	< 0.001	< 0.001	< 0.05	87.1	< 0.0002	< 0.05	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.3	0.005	37.8	0.034	0.0011	4.71	0.002	< 0.001	< 0.15	< 0.001	< 0.001	9.5	< 0.001	0.35	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0074	< 0.001	0.014	< 0.01
V8	15-Mar-05	< 0.00025	0.007	< 0.001	0.081	< 0.001	< 0.001	< 0.05	97	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.26	< 0.00002	< 0.02	1.3	0.005	36.9	0.037	0.0013	5.31	0.003	< 0.001	< 0.15	< 0.001	< 0.001	9.5	< 0.001	0.39	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0082	< 0.001	0.009	< 0.01
V8	11-Apr-05	< 0.00025	0.011	< 0.001	0.072	< 0.001	< 0.001	< 0.05	88.1	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.13	< 0.00002	< 0.02	1.4	0.006	39.4	0.033	0.0013	5.04	0.002	< 0.001	< 0.15	< 0.001	< 0.001	10.1	< 0.001	0.37	< 0.001	< 0.0005	< 0.001	< 0.0001	0.008	< 0.001	0.011	< 0.01
V8	09-May-05	< 0.00025	1.05	0.002	0.065	< 0.001	< 0.001	< 0.05	28.8	< 0.0002	0.015	0.001	0.003	0.006	1.92	< 0.00002	< 0.02	1.2	0.003	10.7	0.094	< 0.0005	1.5	0.007	0.007	0.3	< 0.001	< 0.001	10.6	< 0.001	0.11	< 0.001	< 0.0005	0.025	< 0.0001	0.0014	0.002	0.037	< 0.01
V8	20-Jun-05	< 0.00025	0.078	< 0.001	0.056	< 0.001	< 0.001	< 0.05	55.4	< 0.0002	< 0.005	< 0.001	< 0.001	0.002	0.27	< 0.00002	< 0.02	0.9	0.005	18.4	0.047	< 0.0005	2.64	0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.4	< 0.001	0.24	< 0.001	< 0.0005	0.001	< 0.0001	0.0021	< 0.001	0.022	< 0.01
V8	25-Jul-05	< 0.00025	0.28	< 0.001	0.083	< 0.001	< 0.001	< 0.05	84.4	< 0.0002	< 0.005	< 0.001	0.003	0.002	0.44	< 0.00002	< 0.02	1.1	0.008	26.8	0.32	0.0005	3.2	0.002	< 0.001	< 0.15	< 0.001	< 0.001	10.4	< 0.001	0.36	< 0.001	< 0.0005	0.007	< 0.0001	0.0028	< 0.001	0.024	< 0.01
V8	22-Aug-05	< 0.00025	0.048	< 0.001	0.074	< 0.001	< 0.001	< 0.05	120	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.3	0.01	36.3	0.38	0.0005	3.73	< 0.001	< 0.001	< 0.15	< 0.001	0.002	7.9	< 0.001	0.48	< 0.001	< 0.0005	0.001	< 0.0001	0.0034	< 0.001	0.015	< 0.01
V8	05-Sep-05	< 0.00025	0.04	< 0.001	0.044	< 0.001	< 0.001	< 0.05	51.8	< 0.0002	< 0.005	< 0.001	0.002	0.001	0.19	< 0.00002	< 0.02	0.9	0.004	19.6	0.016	0.0015	2.87	0.002	< 0.001	< 0.15	< 0.001	0.002	9.6	< 0.001	0.21	< 0.001	< 0.0005	0.002	< 0.0001	0.0031	< 0.001	0.026	< 0.01
V8	10-Oct-05	< 0.00025	0.024	< 0.001	0.053	< 0.001	< 0.001	< 0.05	55.8	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.9	0.004	23.7	0.015	0.0007	3.25	0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.1	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.003	< 0.001	0.007	< 0.01
V8	01-Nov-05	< 0.00025	0.018	< 0.001	0.058	< 0.001	< 0.001	< 0.05	65.4	< 0.0002	< 0.005	< 0.001	< 0.001	0.045	0.05	< 0.00002	< 0.02	0.9	0.005	27	0.015	0.0008	3.2	0.001	0.007	< 0.15	< 0.001	< 0.001	10.2	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0047	< 0.001	0.031	< 0.01
V8	14-Dec-05	< 0.00025	0.019	< 0.001	0.07	< 0.001	< 0.001	< 0.05	77.4	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.13	< 0.00002	< 0.02	1.1	0.005	32.6	0.028	0.0009	4.15	< 0.001	< 0.001	< 0.15	< 0.001	0.001	4.9	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0052	< 0.001	0.022	< 0.01
V8	24-Jan-06	< 0.00025	0.012	< 0.001	0.073	< 0.001	< 0.001	< 0.05	87.6	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.14	< 0.00002	< 0.02	1.1	0.006	39.9	0.029	0.0011	4.89	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.6	< 0.001	0.36	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0067	< 0.001	0.015	< 0.01
V8	13-Feb-06	< 0.00025	0.017	< 0.001	0.078	< 0.001	< 0.001	< 0.05	87.2	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.07	< 0.00002	< 0.02	1.4	0.006	39.5	0.028	0.0011	5.01	0.002	< 0.001	< 0.15	< 0.001	0.002	5.4	< 0.001	0.36	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0071	< 0.001	0.017	< 0.01
V8	24-Mar-06	< 0.00025	< 0.005	< 0.001	0.082	< 0.001	< 0.001	< 0.05	91.6	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.4	0.006	42	0.035	0.0012	5.16	0.002	< 0.001	< 0.15	< 0.001	0.001	5	< 0.001	0.37	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0081	< 0.001	0.019	< 0.01
V8	24-Apr-06	< 0.00025	< 0.005	< 0.001	0.065	< 0.001	< 0.001	< 0.05	82.1	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.3	0.005	36.6	0.029	0.0012	4.45	0.003	< 0.001	< 0.15	< 0.001	0.001	4.1	< 0.001	0.35	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0067	< 0.001	0.013	< 0.01
V8	17-May-06	< 0.00025	0.9	0.002	0.067	< 0.001	< 0.001	< 0.05	34.8	< 0.0002	0.0162	0.001	0.002	0.006	1.71	< 0.00002	< 0.02	1.6	0.003	13.7	0.098	0.0006	1.67	0.006	0.005	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.13	< 0.001	< 0.0005	0.022	< 0.0001	0.002	0.002	0.022	< 0.01
V8	19-Jun-06	< 0.00025	0.5	< 0.001	0.045	< 0.001	< 0.001	< 0.05	29.9	< 0.0002		< 0.001	0.002	0.003	0.82	< 0.00002	< 0.02	0.8	0.003	10.6	0.03	< 0.0005	1.97	0.002	0.002	< 0.15	< 0.001	< 0.001	4.6	< 0.001	0.11	< 0.001	< 0.0005	0.014	< 0.0001	0.0018	0.001	0.011	< 0.01
V8	17-Jul-06	< 0.00025	0.39	< 0.001	0.042	< 0.001	< 0.001	< 0.05	34.7	< 0.0002	< 0.005	< 0.001	< 0.001	0.002	0.64	< 0.00002	< 0.02	0.7	0.01	13.8	0.018	0.0005	2.34	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.13	< 0.001	< 0.0005	0.008	< 0.0001	0.0017	< 0.001	0.01	< 0.01
V8	21-Aug-06	< 0.00025	0.1	< 0.05	0.084	< 0.001	< 0.001	< 0.001	76.1	< 0.002	< 0.005	0.007	< 0.005	0.006	0.049	< 0.00002	< 0.02	0.8	0.004	36.6	0.014	0.02	4.3	< 0.02	0.04	0.07	0.05	< 0.05	4.5	0.02	0.328	< 0.001	< 0.0005	< 0.002	< 0.0001	0.0022	< 0.005	0.028	< 0.01
V8	11-Sep-06	< 0.00025	0.13	< 0.001	0.042	< 0.001	< 0.001	< 0.05	38.8	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.25	< 0.00002	< 0.02	0.6	0.003	16.8	0.011	0.0005	2.7	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.15	< 0.001	< 0.0005	0.003	< 0.0001	0.0021	< 0.001	0.01	< 0.01
V8	16-Oct-06	< 0.00025	0.22	< 0.001	0.056	< 0.001	< 0.001	< 0.05	53.3	< 0.0002	0.0054	< 0.001	< 0.001	0.001	0.42	< 0.00002	< 0.02	0.9	0.004	23.5	0.024	0.0007	3.42	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.21	< 0.001	< 0.0005	0.006	< 0.0001	0.0038	< 0.001	0.011	< 0.01
V8	14-Nov-06	< 0.00025	0.026	< 0.001	0.068	< 0.001	< 0.001	< 0.05	69.2	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.12	< 0.00002	< 0.02	0.9	0.004	33.7	0.016	0.001	4.09	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.32	< 0.001	< 0.0005	0.004	< 0.0001	0.0057	< 0.001	0.013	< 0.01
V8	13-Dec-06	< 0.00025	0.018	< 0.001	0.073	< 0.001	< 0.001	< 0.05	77.3	< 0.0002	0.0053	< 0.001	< 0.001	< 0.001	0.08	< 0.00002	< 0.02	1.1	0.005	32.8	0.017	0.0009	4.28	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.1	< 0.001	0.31	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0071	< 0.001	0.028	< 0.01
V8	15-Jan-07	< 0.00025	0.016	< 0.001	0.077	< 0.001	< 0.001	< 0.05	83.8	< 0.0002	0.0055	< 0.001	< 0.001	< 0.001	0.06	< 0.00002	< 0.02	1.2	0.005	37	0.034	0.0012	4.61	0.003	< 0.001	< 0.15	< 0.001	0.002	4.6	< 0.001	0.36	< 0.001	< 0.0005	< 0.001	0.0001	0.0072	< 0.001	0.064	< 0.01
V8	13-Feb-07	< 0.00025	0.015	< 0.001	0.072	< 0.001	< 0.001	< 0.05	84.9	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.14	< 0.00002	< 0.02	1.3	0.005	38.2	0.018	0.0012	4.66	0.002	< 0.001	< 0.15	< 0.001	0.001	4.6	< 0.001	0.36	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0074	< 0.001	0.011	< 0.01
V8	11-Mar-07	< 0.00025	0.008	< 0.001	0.085	< 0.001	< 0.001	< 0.05	90.9	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.12	< 0.00002	< 0.02	1.5	0.007	44.3	0.028	0.001	5.38	0.003	< 0.001	< 0.15	< 0.001	0.002	4.9	< 0.001	0.41	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0089	< 0.001	0.028	< 0.01
V8	18-Apr-07	< 0.00025	0.026	< 0.001	0.075	< 0.001	< 0.001	< 0.05	85.5	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.2	< 0.00002	< 0.02	1.5	0.004	38.1	0.028	0.0013	4.59	0.006	< 0.001	< 0.15	< 0.001	0.002	4.3	< 0.001	0.37	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0063	< 0.001	0.045	< 0.01
V8	14-May-07	< 0.00025	0.19	< 0.001	0.051	< 0.001	< 0.001	< 0.05	47.1	< 0.0002	0.0098	< 0.001	0.002	0.004	0.49	< 0.00002	< 0.02	1.5	< 0.005	19.3	0.026	0.0014	2.48	0.004	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.19	< 0.001	< 0.0005	0.008	< 0.0001	0.0037	< 0.001	0.018	< 0.01
V8	18-Jun-07	< 0.00025	0.3	< 0.001	0.036	< 0.001	< 0.001	< 0.05	26.9	< 0.0002	< 0.005	< 0.001	< 0.001	0.002	0.5	< 0.00002	< 0.02	0.7	< 0.005	11	0.019	< 0.0005	2.01	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.1	< 0.001	< 0.0005	0.008	< 0.0001	0.0016	< 0.001	0.03	< 0.01
V8	16-Jul-07	< 0.00025	1.37	0.002	0.074	< 0.001	< 0.001	< 0.05	32.3	< 0.0002	0.0074	< 0.001	0.003	0.005	2.13	< 0.00002	< 0.02	0.9	< 0.005	12.8	0.038	0.0006	2.14	0.005	0.002	< 0.15	< 0.001	< 0.001	5.9	< 0.001	0.15	< 0.001	0.0005	0.036	< 0.0001	0.002	0.003	0.017	< 0.01
V8	13-Aug-07	< 0.00025	0.054	< 0.001	0.055	< 0.001	< 0.001	< 0.05	48.4	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.1	< 0.00002	< 0.02	0.8	< 0.005	19.7	0.011	0.0007	3.08	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0032	< 0.001	0.019	< 0.01
V8	10-Sep-07	< 0.00025	0.014	< 0.001	0.053	< 0.001	< 0.001	< 0.05	42.3	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.07	< 0.00002	< 0.02	0.8	0.002	18.1	0.006	0.0008	2.77	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0033	< 0.001	0.007	< 0.01
V8	23-Oct-07	< 0.00025	0.04	< 0.001	0.057	< 0.001	< 0.001	< 0.05	60.6	< 0.0002	< 0.005	< 0.001	< 0.001	0.001	0.13	< 0.00002	< 0.02	1	0.003	26.4	0.009	0.001	3.84	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.27	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0044	< 0.001	0.01	< 0.01
V8	13-Nov-07	< 0.00025	0.051	< 0.001	0.061	< 0.001	< 0.001	< 0.05	66.5	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.15	< 0.00002	< 0.02	1.1	0.004	28.1	0.011	0.0009	3.82	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.27	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0046	< 0.001	0.01	< 0.01
V8	09-Dec-07	< 0.00025	0.045	< 0.001	0.063	< 0.001	< 0.001	< 0.05	68.3	< 0.0002	< 0.005	< 0.001	< 0.001	< 0.001	0.18	< 0.00002	< 0.02	1.1	0.002	29.7	0.016	0.0009	3.81	0.002	< 0.001	< 0.15	< 0.001	0.002	4.4	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	< 0.0001	0.006	< 0.001	0.013	< 0.01
	N	36	36	36	36	36	36	36	36	36	35	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	median	0.000125	0.033	0.0005	0.0675	0.0005	0.0005	0.025	68.75	0.0001	0.0025	0.0005	0.0005	0.00075	0.14	0.00001		1.1	0.0045	28.9	0.028	0.0009	3.815	0.002	0.0005	0.075	0.0005	0.0005	4.9	0.0005	0.28	0.0005	0.00025	0.0005	0.00005	0.0045	0.0005	0.016	0.005
	mean	0.000125	0.1679	0.0013	0.065	0.0005	0.0005	0.024319	66.63	0.00013	0.0045	0.0007	0.0009	0.00275	0.341	0.00001		1.1	0.0046	28	0.046	0.0014	3.656	0.0025	0.0022	0.081111	0.0019	0.0016	6.3	0.001	0.276	0.0005	0.000257	0.0043	5.14E-05	0.0047	0.0007	0.019	0.005
	std	8.25E-20	0.3153	0.0041	0.013	3.30E-19	3.30E-19	0.004083	23.52	0.00015	0.0049	0.0011	0.0008	0.00744	0.519	6.87E-21		0.26619	0.0019	10.4	0.078	0.0032	1.118	0.002	0.0067	0.037533	0.0083	0.0041	2.5	0.0033	0.1	3.30E-19	4.17E-05	0.008	8.33E-06	0.0023	0.0006	0.012	1.76E-18
	minimum	< 0.00025	< 0.005	< 0.001	0.036	< 0.001	< 0.001	< 0.001	26.9	< 0.0002	0.005	< 0.001	< 0.001	< 0.001	0.049	< 0.00002		0.6	0.002	10.6	0.006	< 0.0005	1.5	< 0.001	< 0.001	0.07	< 0.001	< 0.001	3.7	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.007	< 0.01
	maximum	< 0.00025	1.37	0.05	0.085	< 0.001	< 0.001	< 0.05	120	< 0.002	< 0.005	0.007	0.005	0.045	2.13	< 0.00002		1.6	0.01	44.3	0.38	0.02	5.38	0.02	0.04	0.3	0.05	0.05	11.1	0.02	0.48	0.001	0.0005	0.036	0.0001	0.0089	0.005	0.064	< 0.01
	# < DL	36	2	33	0	36	36	36	0	36	28	33	29	18	5	36	36	0	4	0	0	4	0	3	30	34	35	24	0	35	0	36	35	22	35	0	32	0	36
	% < DL	100%	6%	92%	0%	100%	100%	100%	0%	100%	80%	92%	81%	50%	14%	100%	100%	0%	11%	0%	0%	11%	0%	8%	83%	94%	97%	67%	0%	97%	0%	100%	97%	61%	97%	0%	89%	0%	100%
	# > BM	36	10	1	0	0	0			36			8	7	9		0	0		0	0	0	0	0	4	36	1	9		0	0			0	0	16	0	4	36

Appendix C3
2005 to 2007 Surface Water Quality Data
Vangorda Creek Drainage

Table 8. Receiving Environment Total Metals

STATION	DATE	AG-T mg/L	AL-T mg/L	AS-T mg/L	BA-T mg/L	BE-T mg/L	BI-T mg/L	B-T mg/L	CA-T mg/L	CD-T mg/L	CN-T mg/L	CO-T mg/L	CR-T mg/L	CU-T mg/L	FE-T mg/L	HG-T mg/L	HG-T µg/L	K-T mg/L	LI-T mg/L	MG-T mg/L	MN-T mg/L	MO-T mg/L	NA-T mg/L	NI-T mg/L	PB-T mg/L	P-T mg/L	SB-T mg/L	SE-T mg/L	SI-T mg/L	SN-T mg/L	SR-T mg/L	TE-T mg/L	TH-T mg/L	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
Benchmark		0.0001	0.1	0.005	1	1.1	0.26			0.00003			0.001	0.002	0.3		0.026	53		82	1	0.073	200	0.065	0.002	0.03	0.02	0.001		0.35	9.3			1.83	0.0008	0.005	0.006	0.03	0.004
	% > BM	100%	28%	3%	0%	0%	0%			100%			22%	19%	25%		0%	0%		0%	0%	0%	0%	0%	11%	100%	3%	25%		0%	0%			0%	0%	44%	0%	11%	100%
	# < DL (DL>BM)	36	0	1	0	0	0			36			1	0	0		0	0		0	0	0	0	0	0	196	0	1		0	0			0	0	0	0	0	36
	% < DL (DL>BM)	100%	0%	3%	0%	0%	0%			100%			3%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	544%	0%	3%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0.005	0.05	0	0.001	0.001	0.05	0	0.002	0.05	0.001	0.005	0.001	0.05	0.00002		0	0.005	0	0	0.0005	0	0.02	0.001	0.15	0.001	0.05	0	0.001	0	0.001	0.0005	0.002	0.0001	0	0.005	0	0.01
	95th percentile	0.000125	0.9375	0.002	0.08325	0.0005	0.0005	0.025	92.95	0.0001	0.01536	0.001	0.003	0.006	1.7625	0.00001		1.5	0.0085	40.425	0.1535	0.001425	5.1975	0.00625	0.007	0.075	0.0005	0.002	10.45	0.0005	0.395	0.0005	0.00025	0.02275	0.00005	0.008125	0.002125	0.039	0.005
	5th percentile	0.000125	0.005875	0.0005	0.042	0.0005	0.0005	0.025	29.625	0.0001	0.0025	0.0005	0.0005	0.0005	0.025	0.00001		0.7	0.002375	10.925	0.0105	0.00025	1.895	0.000875	0.0005	0.075	0.0005	0.0005	4.025	0.0005	0.11	0.0005	0.00025	0.0005	0.00005	0.001675	0.0005	0.0085	0.005
V27	26-May-05	< 0.00025	0.12	< 0.001	0.018	< 0.001	< 0.001	< 0.05	14.3	< 0.0002		< 0.001	< 0.001	0.002	0.19	< 0.00002	< 0.02	0.6	0.001	5.25	0.008	< 0.0005	1.39	0.001	0.002	0.2	< 0.001	< 0.001	8	< 0.001	0.054	< 0.001	< 0.0005	0.003	< 0.0001	0.001	< 0.001	0.031	< 0.01
V27	21-Sep-05	< 0.00025	0.023	< 0.001	0.026	< 0.001	< 0.001	< 0.05	22.3	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.5	0.002	6.83	0.008	< 0.0005	2.03	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.3	0.005	0.087	< 0.001	< 0.0005	0.001	< 0.0001	0.0009	< 0.001	0.017	< 0.01
V27	29-May-06	< 0.00025	0.083	< 0.001	0.019	< 0.001	< 0.001	< 0.05	14.9	< 0.0002		< 0.001	< 0.001	0.002	0.16	< 0.00002	< 0.02	0.8	< 0.001	4.37	0.023	< 0.0005	1.22	< 0.001	0.002	< 0.15	< 0.001	< 0.001	2.8	< 0.001	0.052	< 0.001	< 0.0005	0.001	< 0.0001	0.0009	< 0.001	0.022	< 0.01
V27	01-Aug-06	< 0.00025	0.021	< 0.001	0.032	< 0.001	< 0.001	< 0.05	28.2	< 0.0002		< 0.001	< 0.001	0.002	0.06	< 0.00002	< 0.02	0.6	0.002	9.46	0.004	< 0.0005	2.14	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.018	< 0.01
V27	26-Sep-06	< 0.00025	< 0.005	< 0.001	0.029	< 0.001	< 0.001	< 0.05	24.2	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.5	0.001	8.2	0.003	< 0.0005	2.05	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.093	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.023	< 0.01
V27	04-Jun-07	< 0.00025	0.16	< 0.001	0.012	< 0.001	< 0.001	< 0.05	4.68	< 0.0002		< 0.001	< 0.001	0.001	0.36	< 0.00002	< 0.02	0.5	< 0.005	1.35	0.039	< 0.0005	0.69	< 0.001	0.002	< 0.15	< 0.001	< 0.001	1.6	< 0.001	0.02	< 0.001	< 0.0005	0.005	< 0.0001	< 0.0005	< 0.001	0.016	< 0.01
V27	25-Jul-07	< 0.00025	0.021	< 0.001	0.03	< 0.001	< 0.001	< 0.05	26.5	< 0.0002		< 0.001	< 0.001	0.001	0.09	< 0.00002	< 0.02	0.6	< 0.005	8.22	0.004	< 0.0005	2.12	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.095	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.031	< 0.01
V27	10-Oct-07	< 0.00025	0.018	< 0.001	0.035	< 0.001	< 0.001	< 0.05	28.6	< 0.0002		< 0.001	< 0.001	< 0.001	0.07	< 0.00002	< 0.02	0.5	< 0.001	8.86	0.003	< 0.0005	2.01	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	0.026	< 0.01
	N	8	8	8	8	8	8	8	8	8	0	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	median	0.000125	0.022	0.0005	0.0275	0.0005	0.0005	0.025	23.25	0.0001		0.0005	0.0005	0.001	0.08	0.00001		0.55	0.0015	7.515	0.006	0.00025	2.02	0.0005	0.0005	0.075	0.0005	0.0005	4.1	0.0005	0.09	0.0005	0.00025	0.00075	0.00005	0.001	0.0005	0.0225	0.005
	mean	0.000125	0.0561	0.0005	0.025	0.0005	0.0005	0.025	20.46	0.0001		0.0005	0.0005	0.0012	0.1225	0.00001		0.575	0.0015	6.568	0.0115	0.00025	1.7063	0.0006	0.0011	0.091	0.0005	0.0005	4.78	0.00106	0.076	0.0005	0.00025	0.0015	0.00005	0.0011	0.0005	0.023	0.005
	std	0	0.0579	0	0.008	0	0	3.71E-18	8.434	1.45E-20		0	0	0.0007	0.1128	0		0.104	0.0008	2.748	0.0129	0	0.5403	0.0002	0.0008	0.044	0	0	2.59	0.00159	0.031	0	0	0.0016	7.24E-21	0.0005	0	0.006	0
	minimum	< 0.00025	< 0.005	< 0.001	0.012	< 0.001	< 0.001	< 0.05	4.68	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002		0.5	< 0.001	1.35	0.003	< 0.0005	0.69	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	1.6	0.001	0.02	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.016	< 0.01
	maximum	< 0.00025	0.16	< 0.001	0.035	< 0.001	< 0.001	< 0.05	28.6	< 0.0002		< 0.001	< 0.001	0.002	0.36	< 0.00002		0.8	0.005	9.46	0.039	< 0.0005	2.14	0.001	0.002	0.2	< 0.001	< 0.001	9.3	0.005	0.11	< 0.001	< 0.0005	0.005	< 0.0001	0.0018	< 0.001	0.031	< 0.01
	# < DL	8	1	8	0	8	8	8	0	8	0	8	8	3	2	8	8	0	4	0	0	8	0	6	5	7	8	8	0	7	0	8	8	4	8	1	8	0	8
	% < DL	100%	13%	100%	0%	100%	100%	100%	0%	100%	0%	100%	100%	38%	25%	100%	100%	0%	50%	0%	0%	100%	0%	75%	63%	88%	100%	100%	0%	88%	0%	100%	100%	50%	100%	13%	100%	0%	100%
	# > BM	8	2	0	0	0	0			8			0	0	1		0	0		0	0	0	0	0	0	7	0	0		0	0			0	0	0	0	2	8
	% > BM	100%	25%	0%	0%	0%	0%			100%			0%	0%	13%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	25%	100%
	# < DL (DL>BM)	8	0	0	0	0	0			8			0	0	0		0	0		0	0	0	0	0	0	7	0	0		0	0			0	0	0	0	0	8
	% < DL (DL>BM)	100%	0%	0%	0%	0%	0%			100%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	86%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0.005	0.001	0	0.001	0.001	0.05	0	0.0002		0.001	0.001	0.001	0.05	0.00002		0	0.005	0	0	0.0005	0	0.001	0.001	0.15	0.001	0.001	0	0.001	0	0.001	0.0005	0.001	0.0001	0.0005	0.001	0	0.01
	95th percentile	0.000125	0.146	0.0005	0.03395	0.0005	0.0005	0.025	28.46	0.0001		0.0005	0.0005	0.002	0.3005	0.00001		0.73	0.0025	9.25	0.0334	0.00025	2.133	0.001	0.002	0.15625	0.0005	0.0005	8.845	0.003425	0.1065	0.0005	0.00025	0.0043	0.00005	0.00166	0.0005	0.031	0.005
	5th percentile	0.000125	0.007925	0.0005	0.0141	0.0005	0.0005	0.025	8.047	0.0001		0.0005	0.0005	0.0005	0.025	0.00001		0.5	0.0005	2.407	0.003	0.00025	0.8755	0.0005	0.0005	0.075	0.0005	0.0005	2.02	0.0005	0.0312	0.0005	0.00025	0.0005	0.00005	0.000478	0.0005	0.01635	0.005
VGMAIN	21-Jan-05	< 0.00025	0.008	< 0.001	0.072	< 0.001	< 0.001	< 0.05	78.2	< 0.0002		< 0.001	< 0.001	0.001	0.1	< 0.00002	< 0.02	1.1	0.004	31	0.005	0.0007	3.75	0.002	< 0.001	< 0.15	< 0.001	< 0.001	9.5	< 0.001	0.31	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0072	< 0.001	0.019	< 0.01
VGMAIN	08-Feb-05	< 0.00025	0.008	< 0.001	0.089	< 0.001	< 0.001	< 0.05	96.3	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.3	0.005	39.2	0.006	0.0009	4.92	0.002	< 0.001	< 0.15	< 0.001	< 0.001	11.7	< 0.001	0.39	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0094	< 0.001	0.023	< 0.01
VGMAIN	15-Mar-05	< 0.00025	0.018	< 0.001	0.076	< 0.001	< 0.001	< 0.05	85.1	< 0.0002		< 0.001	< 0.001	0.052	0.14	< 0.00002	< 0.02	1.1	0.004	29.9	0.004	0.0008	4.22	0.003	< 0.001	< 0.15	< 0.001	< 0.001	8.9	< 0.001	0.34	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0089	< 0.001	0.016	< 0.01
VGMAIN	11-Apr-05	< 0.00025	0.038	< 0.001	0.071	< 0.001	< 0.001	< 0.05	82.4	< 0.0002		< 0.001	< 0.001	0.001	0.14	< 0.00002	< 0.02	1.2	0.005	34.4	0.006	0.0009	4.37	0.003	< 0.001	< 0.15	< 0.001	< 0.001	9.9	< 0.001	0.34	< 0.001	< 0.0005	0.001	< 0.0001	0.0089	< 0.001	0.017	< 0.01
VGMAIN	09-May-05	< 0.00025	0.49	0.002	0.045	< 0.001	< 0.001	< 0.05	27.2	< 0.0002		< 0.001	0.001	0.004	0.95	< 0.00002	< 0.02	1.1	0.002	9.57	0.053	< 0.0005	1.44	0.003	0.008	< 0.15	< 0.001	< 0.001	8.8	< 0.001	0.1	< 0.001	< 0.0005	0.01	< 0.0001	0.0015	0.001	0.041	< 0.01
VGMAIN	20-Jun-05	< 0.00025	0.041	< 0.001	0.058	< 0.001	< 0.001	< 0.05	63.5	< 0.0002		< 0.001	< 0.001	0.001	0.22	< 0.00002	< 0.02	1	0.006	19.9	0.07	< 0.0005	2.66	0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.9	< 0.001	0.27	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0021	< 0.001	0.032	< 0.01
VGMAIN	25-Jul-05	< 0.00025	0.018	< 0.001	0.078	< 0.001	< 0.001	< 0.05	96.3	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.1	0.009	28.1	0.48	< 0.0005	3.07	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.3	< 0.001	0.4	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0027	< 0.001	0.031	< 0.01
VGMAIN	22-Aug-05	< 0.00025	0.01	< 0.001	0.079	< 0.001	< 0.001	< 0.05	145	0.0003		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.4	0.013	39.6	0.61	< 0.0005	3.71	< 0.001	< 0.001	< 0.15	< 0.001	0.003	7.5	< 0.001	0.58	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0034	< 0.001	0.023	< 0.01
VGMAIN	06-Sep-05	< 0.00025	0.047	< 0.001	0.038	< 0.001	< 0.001	< 0.05	46.6	< 0.0002		< 0.001	< 0.001	< 0.001	0.1	< 0.00002	< 0.02	0.8	0.004	17.8	0.006	< 0.0005	2.69	0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.1	0.001	0.2	< 0.001	0.003	< 0.001	< 0.0001	0.0037	< 0.001	0.012	< 0.01
VGMAIN	10-Oct-05	< 0.00025	0.006	< 0.001	0.045	< 0.001	< 0.001	< 0.05	49.2	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.8	0.003	20.1	0.009	0.0005	2.87	0.001	< 0.001	< 0.15	< 0.001	< 0.001	11	0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0031	< 0.001	0.01	< 0.01
VGMAIN	01-Nov-05	< 0.00025	0.008	< 0.001	0.049	< 0.001	< 0.001	< 0.05	60.6	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.8	0.004	23.6	0.005	0.0006	2.8	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.005	< 0.001	0.01	< 0.01
VGMAIN	14-Dec-05	< 0.00025	0.014	< 0.001	0.073	< 0.001	< 0.001	< 0.05	83.9	< 0.0002		< 0.001	< 0.001	< 0.001	0.07	< 0.00002	< 0.02	1.1	0.005	33.6	0.012	0.0007	4.29	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.29	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0065	< 0.001	0.024	< 0.01
VGMAIN	13-Feb-06	< 0.00025	0.009	< 0.001	0.073	< 0.001	< 0.001	< 0.05	79.4	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.2	0.005	34.1	0.009	0.0008	4.32	0.002	< 0.001	< 0.15	< 0.001	0.002	5.2	< 0.001	0.32	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0073	< 0.001	0.018	< 0.01
VGMAIN	24-Mar-06	< 0.00025	< 0.005	< 0.001	0.07	< 0.001	< 0.001	< 0.05	81.3	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.2	0.005	33.8	0.011	0.0007	4.18	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.31	< 0.001	< 0.0005	< 0.001	< 0.0001	0.008	< 0.001	0.023	< 0.01
VGMAIN	24-Apr-06	< 0.00025	< 0.005	< 0.001	0.062	< 0.001	< 0.001	< 0.05	77.5	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1.1	0.004	32.6	0.014	0.0008	3.8	0.005	< 0.001	< 0.15	< 0.001	0.001	4	< 0.001	0.32	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0075	< 0.001	0.024	< 0.01
VGMAIN	17-May-06	< 0.00025	0.12	0.001	0.04	< 0.001	< 0.001	< 0.05	35.1	< 0.0002		< 0.001	< 0.001	0.003	0.4	< 0.00002	< 0.02	1.4	0.002	13.1	0.066	< 0.0005	1.59	0.003	0.003	< 0.15	< 0.001	< 0.001	3.3	< 0.001	0.13	< 0.001	< 0.0005	0.003	< 0.0001	0.0023	< 0.001	0.02	< 0.01
VGMAIN	19-Jun-06	< 0.00025	0.058	< 0.001	0.033	< 0.001	< 0.001	< 0.05	28.3	< 0.0002		< 0.001	< 0.001	0.002	0.16	< 0.00002	< 0.02	0.7	0.002	9.32	0.012	< 0.0005	1.88	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.1	< 0.001	< 0.0005	0.001	< 0.0001	0.0019	< 0.001	0.012	< 0.01
VGMAIN	18-Jul-06	< 0.00025	0.06	< 0.001	0.032	< 0.001	< 0.001	< 0.05	29.1	< 0.0002		< 0.001	< 0.001	0.002	0.17	< 0.00002	< 0.02	0.6	0.008	11.2	0.015	< 0.0005	2.1	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.11	< 0.001	< 0.0005	0.001	< 0.0001	0.0016	< 0.001	0.015	< 0.01
VGMAIN	21-Aug-06	< 0.00025	0.013	< 0.001	0.04	< 0.001	< 0.001	< 0.05	36.9	< 0.0002		< 0.001	< 0.001	0.001	< 0.05	< 0.00002	< 0.02	0.7	0.003	14.2	0.004	< 0.0005	2.59	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.6	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.011	< 0.01
VGMAIN	11-Sep-06	< 0.00025	0.012	< 0.001	0.032	< 0.001	< 0.001	< 0.05	29.7	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.5	0.002	12	0.004	< 0.0005	2.24	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0018	< 0.001	0.01	< 0.01
VGMAIN	16-Oct-06	< 0.00025	0.007	< 0.001	0.044	< 0.001	< 0.001	< 0.05	46.7	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.7	0.003	19.6	0.005	0.0005	3.01	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0037	< 0.001	0.019	< 0.01
VGMAIN	14-Nov-06	0.0003	0.019	< 0.001	0.062	< 0.001	< 0.001	< 0.05	64.5	0.0004		0.001	< 0.001	< 0.001	0.08	< 0.00002	< 0.02	0.8	0.004	29.8	0.074	0.001	3.83	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	0.0003	0.0063	< 0.001	0.025	< 0.01
VGMAIN	13-Dec-06	< 0.00025	< 0.005	< 0.001	0.07	< 0.001	< 0.001	< 0.05	69.4	< 0.0002		< 0.001	< 0.001	0.001	< 0.05	< 0.00002	< 0.02	1	0.004	27.3	0.007	0.0006	3.75	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.27	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0078	< 0.001	0.018	< 0.01
VGMAIN	15-Jan-07	< 0.00025	< 0.00025	< 0.001	0.071	< 0.001	< 0.001	< 0.05	74.8	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	1	0.004	31	0.007	0.0007	3.92	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.31	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0073	< 0.001	0.024	< 0.01
VGMAIN	13-Feb-07	< 0.00025	0.007	< 0.001	0.07	< 0.001	< 0.001	< 0.05	78.6	< 0.0002		< 0.001	< 0.001	< 0.001	0.08	< 0.00002	< 0.02	1.1	0.004	33	0.006	0.0007	4.24	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.31	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0084	< 0.001	0.015	< 0.01
VGMAIN	11-Mar-07	< 0.00025	< 0.005	< 0.001	0.08	< 0.001	< 0.001	< 0.05	81.4	< 0.0002		< 0.001	< 0.001	< 0.001	0.09	< 0.00002	< 0.02	1.2	0.005	35.7	0.008	0.0008	4.56	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4.6	< 0.001	0.35	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0089	< 0.001	0.022	< 0.01
VGMAIN	18-Apr-07	< 0.00025	0.007	< 0.001	0.075	< 0.001	< 0.001	< 0.05	82.1	0.0003		< 0.001	< 0.001	0.001	0.22	< 0.00002	< 0.02	1.2	0.003	33.2	0.035	0.0008	3.8	0.011	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.34	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0069	< 0.001	0.086	< 0.01
VGMAIN	14-May-07	< 0.00025	0.031	< 0.001	0.045	< 0.001	< 0.001	< 0.05	46.1	< 0.0002		< 0.001	0.001	0.004	0.24	< 0.00002	< 0.02	1.4	< 0.005	18.8	0.017	0.0012	2.33	0.004	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.18	< 0.001	< 0.0005	0.001	< 0.0001	0.0039	< 0.001	0.027	< 0.01
VGMAIN	18-Jun-07	< 0.00025	0.03	< 0.001	0.026	< 0.001	< 0.001	< 0.05	21.2	< 0.0002		< 0.001	< 0.001	0.001	0.09	< 0.00002	< 0.02	0.6	< 0.005	7.97	0.008	< 0.0005	1.64	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.081	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0014	< 0.001	0.023	< 0.01
VGMAIN	16-Jul-07	< 0.00025	0.021	< 0.001	0.035	< 0.001	< 0.001	< 0.05	26.1	< 0.0002		< 0.001	< 0.001	0.001	< 0.05	< 0.00002	< 0.02	0.5	< 0.005	9.61	0.004	< 0.0005	1.86	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	0.01	< 0.01
VGMAIN	13-Aug-07	< 0.00025	0.046	< 0.001	0.044	< 0.001	< 0.001	< 0.05	40.1	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.7	< 0.005	15.7	0.004	< 0.0005	2.66	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.3	0.002	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.003	< 0.001	0.011	< 0.01
VGMAIN	10-Sep-07	< 0.00025	< 0.005	< 0.001	0.043	< 0.001	< 0.001	< 0.05	34.4	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	< 0.02	0.7	0.002	13.9	0.002	0.0005	2.46	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.7	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0029	< 0.001	0.01	< 0.01
VGMAIN	23-Oct-07	< 0.00025	0.007	< 0.001	0.049	< 0.001	< 0.001	< 0.05	52	< 0.0002		< 0.001	< 0.001	< 0.001	0.08	< 0.00002	< 0.02	0.8	0.002	21.3	0.003	0.0005	3.25	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0043	< 0.001	0.013	< 0.01
VGMAIN	13-Nov-07	< 0.00025	0.032	< 0.001	0.053	< 0.001	< 0.001	< 0.05	58	< 0.0002		< 0.001	< 0.001	< 0.001	0.05	< 0.00002	< 0.02	0.9	0.003	23.2	0.005	0.0007	3.29	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.24	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0046	< 0.001	0.014	< 0.01
VGMAIN	10-Dec-07	< 0.00025	0.006	< 0.001	0.057	< 0.001	< 0.001	< 0.05	60	< 0.0002		< 0.001	< 0.001	< 0.001	0.1	< 0.00002	< 0.02	1	< 0.001	25.1	0.006	0.0006	3.45	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.24	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0062	< 0.001	0.02	< 0.01
	N	35	35	35	35	35	35	35	35	35	0	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	median	0.000125	0.012	0.0005	0.057	0.0005	0.0005	0.025	60.6	0.0001		0.0005	0.0005	0.0005	0.07	0.00001		1	0.004	23.6	0.007	0.0006	3.25	0.002	0.0005	0.075	0.0005	0.0005	4.6	0.0005	0.24	0.0005	0.00025	0.0005	0.00005	0.0043	0.0005	0.019	0.005
	mean	0.00013	0.0345	0.0006	0.0565	0.0005	0.0005	0.025	61.3	0.00012		0.0005	0.0005	0.0024	0.111	0.00001		0.97	0.004	23.78	0.045	0.00055	3.187	0.002	0.0008	0.075	0.0005	0.0006	6.01	0.0006	0.246	0.0005	0.00033	0.0009	5.71E-05	0.0049	0.0005	0.0208	0.005
	std	2.96E-05	0.0828	0.0003	0.0173	3.30E-19	3.30E-19	1.06E-17	26.7	6.77E-05		8.45E-05	0.0001	0.0087	0.168	6.88E-21		0.26	0.002	9.62	0.127	0.00027	0.953	0.002	0.0013	2.82E-17	3.30E-19	0.0005	2.64	0.0003	0.109	3.30E-19	0.00046	0.001644	4.23E-05	0.0027	8.45E-05	0.0135	1.76E-18
	minimum	< 0.00025	< 0.00025	< 0.001	0.026	< 0.001	< 0.001	< 0.05	21.2	< 0.0002		< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002		0.5	0.001	7.97	0.002	< 0.0005	1.44	< 0.001	0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.081	< 0.001	< 0.0005	0.001	< 0.0001	0.0014	0.001	0.01	< 0.01
	maximum	0.0003	0.49	0.002	0.089	< 0.001	< 0.001	< 0.05	145	0.0004		0.001	0.001	0.052	0.95	< 0.00002		1.4	0.013	39.6	0.61	0.0012	4.92	0.011	< 0.001	< 0.15	< 0.001	0.003	11.7	0.002	0.58	< 0.001	0.003	0.01	0.0003	0.0094	0.001	0.086	< 0.01
	# < DL	34	6	33	0	35	35	35	0	32	0	34	33	21	16	35	35	0	5	0	0	13	0	9	33	35	35	32	0	32	0	35	34	29	34	0	34	0	35
	% < DL	97%	17%	94%	0%	100%	100%	100%	0%	91%	0%	97%	94%	60%	46%	100%	100%	0%	14%	0%	0%	37%	0%	26%	94%	100%	100%	91%	0%	91%	0%	100%	97%	83%	97%	0%	97%	0%	100%
	# > BM	35	2	0	0	0	0			35			0	4	2		0	0		0	0	0	0	0	2	35	0	2		0	0			0	0	15	0	4	35
	% > BM	100%	6%	0%	0%	0%	0%			100%			0%	11%	6%		0%	0%		0%	0%	0%	0%	0%	6%	100%	0%	6%		0%	0%			0%	0%	43%	0%	11%	100%
	# < DL (DL>BM)	34	0	0	0	0	0			32			0	0	0		0	0		0	0	0	0	0	0	35	0	0		0	0			0	0	0	0	0	35
	% < DL (DL>BM)	97%	0%	0%	0%	0%	0%			91%			0%	0%	0%		0%	0%		0%	0%	0%	0%	0%	0%	100%	0%	0%		0%	0%			0%	0%	0%	0%	0%	100%
	max DL	0.00025	0.005	0.001	0	0.001	0.001	0.05	0	0.0002		0.001	0.001	0.001	0.05	0.00002		0	0.005	0	0	0.0005	0	0.001	0.001	0.15	0.001	0.001	0	0.001	0	0.001	0.0005	0.001	0.0001	0	0.001	0	0.01
	95th percentile	0.000125	0.078	0.00065	0.0793	0.0005	0.0005	0.025	96.3	0.0003		0.0005	0.00065	0.004	0.288	0.00001		1.4	0.0083	36.75	0.1958	0.00093	4.427	0.0043	0.00125	0.075	0.0005	0.0013	10.37	0.001	0.393	0.0005	0.00025	0.0016	0.00005	0.0089	0.0005	0.0347	0.005
	5th percentile	0.000125	0.0025	0.0005	0.032	0.0005	0.0005	0.025	26.87	0.0001		0.0005	0.0005	0.0005	0.025	0.00001		0.57	0.002	9.495	0.0037	0.00025	1.625	0.0005	0.0005	0.075	0.0005	0.0005	3.58	0.0005	0.1	0.0005	0.00025	0.0005	0.00005	0.00157	0.0005	0.01	0.005

Appendix C3
2005 to 2007 Surface Water Quality Data
Vangorda Creek Drainage

Table 9. Receiving Environment Dissolved Metals

STATION	DATE	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																																					
V5	21-Jan-05	< 0.00025	< 0.005	< 0.001	0.07	< 0.05	< 0.001	< 0.001	83.8	< 0.0002	< 0.001	< 0.001	< 0.001	0.15		1.1	0.005	36.4	0.003	0.0017	4.26	0.001	< 0.001	< 0.15	< 0.001	0.003	10.1	< 0.001	0.33	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0046	< 0.001	< 0.005	< 0.01
V5	11-Apr-05	< 0.00025	< 0.005	< 0.001	0.065	< 0.05	< 0.001	< 0.001	86	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		1.2	0.005	38.8	0.008	0.002	4.88	0.002	< 0.001	< 0.15	< 0.001	0.002	10.2	< 0.001	0.34	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0052	< 0.001	0.007	< 0.01
V5	09-May-05	< 0.00025	0.052	< 0.001	0.034	< 0.05	< 0.001	< 0.001	24	< 0.0002	< 0.001	< 0.001	0.002	0.17		0.8	0.001	8.68	0.016	< 0.0005	1.25	0.002	< 0.001	< 0.15	< 0.001	< 0.001	5.5	< 0.001	0.096	< 0.001	< 0.0005	0.002	< 0.0001	0.0008	< 0.001	0.007	< 0.01
V5	20-Jun-05	< 0.00025	0.014	< 0.001	0.048	< 0.05	< 0.001	< 0.001	42.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.17		0.7	0.003	16.8	0.011	0.0008	2.65	0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.3	< 0.001	0.18	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0021	< 0.001	< 0.005	< 0.01
V5	25-Jul-05	< 0.00025	< 0.005	< 0.001	0.065	< 0.05	< 0.001	< 0.001	51.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	0.004	20.5	0.008	0.001	2.98	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	11	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0026	< 0.001	< 0.005	< 0.01
V5	22-Aug-05	< 0.00025	< 0.005	0.001	0.064	< 0.05	< 0.001	< 0.001	66.5	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.005	27.7	0.015	0.0012	3.63	0.001	< 0.001	< 0.15	< 0.001	0.003	9.4	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0035	< 0.001	< 0.005	< 0.01
V5	05-Sep-05	< 0.00025	< 0.005	< 0.001	0.06	< 0.05	< 0.001	< 0.001	57.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.004	23.7	0.016	0.001	3.27	0.002	< 0.001	< 0.15	< 0.001	0.001	9.1	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0028	< 0.001	< 0.005	< 0.01
V5	10-Oct-05	< 0.00025	< 0.005	< 0.001	0.054	< 0.05	< 0.001	< 0.001	53.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.003	23.6	0.016	0.0011	3.02	0.002	< 0.001	< 0.15	< 0.001	< 0.001	10.6	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0024	< 0.001	< 0.005	< 0.01
V5	01-Nov-05	< 0.00025	< 0.005	< 0.001	0.071	< 0.05	< 0.001	< 0.001	74.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.005	29.9	0.008	0.0012	3.57	0.002	< 0.001	< 0.15	< 0.001	< 0.001	11.6	< 0.001	0.31	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0041	< 0.001	< 0.005	< 0.01
V5	24-Jan-06	< 0.00025	0.006	< 0.001	0.071	< 0.05	< 0.001	< 0.001	81.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.1		1	0.005	38	0.007	0.0016	4.38	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.32	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0043	< 0.001	0.01	< 0.01
V5	13-Feb-06	< 0.00025	0.005	< 0.001	0.076	< 0.05	< 0.001	< 0.001	84.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.2	0.005	38.8	0.016	0.0018	4.58	0.001	< 0.001	< 0.15	< 0.001	0.003	5.2	< 0.001	0.33	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0047	< 0.001	0.013	< 0.01
V5	17-May-06	< 0.00025	0.039	< 0.001	0.042	< 0.05	< 0.001	< 0.001	30.3	< 0.0002	< 0.001	< 0.001	0.003	0.15		1.4	0.002	11.6	0.009	0.0007	1.56	0.003	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.11	< 0.001	< 0.0005	0.002	< 0.0001	0.0012	< 0.001	< 0.005	< 0.01
V5	19-Jun-06	< 0.00025	0.053	< 0.001	0.038	< 0.05	< 0.001	< 0.001	32.8	< 0.0002	< 0.001	< 0.001	0.002	0.14		0.6	0.002	11.8	0.008	0.0007	2.14	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.12	< 0.001	< 0.0005	0.001	< 0.0001	0.0015	< 0.001	< 0.005	< 0.01
V5	17-Jul-06	< 0.00025	0.053	< 0.001	0.043	< 0.05	< 0.001	< 0.001	40.8	< 0.0002	< 0.001	< 0.001	0.001	0.11		0.6	0.01	16.9	0.011	0.0009	2.6	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.15	< 0.001	< 0.0005	0.001	< 0.0001	0.0017	< 0.001	< 0.005	< 0.01
V5	21-Aug-06	< 0.00025	0.04	< 0.001	0.058	< 0.05	< 0.001	< 0.001	52.2	< 0.0002	< 0.001	< 0.001	0.018	< 0.05		0.9	0.003	20.1	0.014	0.001	3.07	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.19	< 0.001	< 0.0005	0.001	< 0.0001	0.0027	< 0.001	0.015	< 0.01
V5	11-Sep-06	< 0.00025	0.027	< 0.001	0.055	< 0.05	< 0.001	< 0.001	51.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.004	22.9	0.01	0.001	3.16	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0024	< 0.001	< 0.005	< 0.01
V5	16-Oct-06	< 0.00025	0.005	< 0.001	0.058	< 0.05	< 0.001	< 0.001	61	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.004	27.5	0.005	0.0012	3.4	0.001	< 0.001	< 0.15	< 0.001	0.001	4.3	< 0.001	0.24	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0035	< 0.001	< 0.005	< 0.01
V5	14-Nov-06	< 0.00025	< 0.005	< 0.001	0.072	< 0.05	< 0.001	< 0.001	75.8	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		0.8	0.004	33.6	0.003	0.0017	4	0.001	< 0.001	< 0.15	< 0.001	0.002	5	< 0.001	0.32	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0041	< 0.001	< 0.005	< 0.01
V5	13-Dec-06	< 0.00025	< 0.005	< 0.001	0.077	< 0.05	< 0.001	< 0.001	82.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.1	0.004	34.5	0.005	0.0017	4.21	0.001	< 0.001	< 0.15	< 0.001	0.001	5.4	< 0.001	0.32	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0055	< 0.001	< 0.005	< 0.01
V5	15-Jan-07	< 0.00025	< 0.005	< 0.001	0.082	< 0.05	< 0.001	< 0.001	100	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.3	0.005	46.1	0.009	0.002	4.96	0.002	< 0.001	< 0.15	< 0.001	0.003	5.3	< 0.001	0.39	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0058	< 0.001	0.009	< 0.01
V5	14-May-07	< 0.00025	0.012	< 0.001	0.047	< 0.05	< 0.001	< 0.001	40.5	< 0.0002	< 0.001	0.001	0.002	0.16		1.3	< 0.005	16.3	0.011	0.0014	2.33	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.019	< 0.01
V5	18-Jun-07	< 0.00025	0.02	< 0.001	0.043	< 0.05	< 0.001	< 0.001	36.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.6	< 0.005	14.4	0.001	0.0006	2.46	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	< 0.005	< 0.01
V5	16-Jul-07	< 0.00025	0.051	< 0.001	0.054	< 0.05	< 0.001	< 0.001	42.8	< 0.0002	< 0.001	< 0.001	0.002	< 0.05		0.7	< 0.005	16.8	0.006	0.0009	2.64	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	< 0.005	< 0.01
V5	13-Aug-07	< 0.00025	< 0.005	< 0.001	0.063	< 0.05	< 0.001	< 0.001	58.5	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	< 0.005	24.5	0.007	0.0012	3.27	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.24	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0034	< 0.001	< 0.005	< 0.01
V5	10-Sep-07	< 0.00025	0.006	< 0.001	0.066	< 0.05	< 0.001	< 0.001	61.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.2		1	0.004	25.1	0.006	0.0014	3.41	0.002	< 0.001	< 0.15	< 0.001	0.002	5.1	< 0.001	0.25	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0036	< 0.001	< 0.005	< 0.01
V5	23-Oct-07	< 0.00025	< 0.005	< 0.001	0.058	< 0.05	< 0.001	< 0.001	63	< 0.0002	< 0.001	< 0.001	< 0.001	0.08		0.8	0.003	26.9	0.004	0.0014	3.62	0.001	< 0.001	< 0.15	< 0.001	0.001	4.2	< 0.001	0.26	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0032	< 0.001	< 0.005	< 0.01
V5	13-Nov-07	< 0.00025	< 0.005	< 0.001	0.068	< 0.05	< 0.001	< 0.001	75.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.06		1	0.004	30.1	0.004	0.0015	3.81	< 0.001	< 0.001	< 0.15	< 0.001	0.001	4.7	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0036	< 0.001	0.006	< 0.01
V5	09-Dec-07	< 0.00025	< 0.005	< 0.001	0.062	< 0.05	< 0.001	< 0.001	71.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		1	0.001	30.4	0.014	0.0017	3.53	0.001	< 0.001	< 0.15	< 0.001	0.002	4.3	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0046	< 0.001	0.033	< 0.01
	N	28	28	28	28	28	28	28	28	28	28	28	28	28	0	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
	median	0.000125	0.00375	0.0005	0.061	0.025	0.0005	0.0005	59.75	0.0001	0.0005	0.0005	0.0005	0.0425		0.9	0.004	24.8	0.008	0.0012	3.335	0.001	0.0005	0.075	0.0005	0.0005	5	0.0005	0.24	0.0005	0.00025	0.0005	0.00005	0.0033	0.0005	0.0025	0.005
	mean	0.0001	0.0149	0.0005	0.0594	0.025	0.0005	0.0005	60.1607	0.0001	0.0005	0.0005	0.0014	0.07		0.921	0.004	25.442	0.009	0.001	3.309	0.0015	0.0005	0.075	0.0005	0.0012	6.19	0.0005	0.2388	0.001	0	0.001	0	0.003	0.001	0.006	0.005
	std	0	0.0187	0.0001	0.0124	0	0	0	19.6107	0	0	0.0001	0.0033	0.06		0.222	0.002	9.508	0.004	0	0.918	0.0006	0	0	0	0.0009	2.65	0	0.0782	0	0	0	0	0.001	0	0.007	0
	minimum	< 0.00025	< 0.005	< 0.001	0.034	< 0.05	< 0.001	< 0.001	24	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.6	0.001	8.68	0.001	< 0.0005	1.25	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.096	< 0.001	< 0.0005	0.001	< 0.0001	0.0008	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.053	< 0.001	0.082	< 0.05	< 0.001	< 0.001	100	< 0.0002	< 0.001	0.001	0.018	0.2		1.4	0.01	46.1	0.016	0.002	4.96	0.003	< 0.001	< 0.15	< 0.001	0.003	11.6	< 0.001	0.39	< 0.001	< 0.0005	0.002	< 0.0001	0.0058	< 0.001	0.033	< 0.01
	# < DL	28	14	27	0	28	28	28	0	28	28	27	21	14	0	0	4	0	0	1	0	2	28	28	28	15	0	28	0	28	28	23	28	0	28	19	28
	% < DL	100%	50%	96%	0%	100%	100%	100%	0%	100%	100%	96%	75%	50%		0%	14%	0%	0%	4%	0%	7%	100%	100%	100%	54%	0%	100%	0%	100%	100%	82%	100%	0%	100%	68%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05			0.005			0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001	0.005	0.01
	95th percentile	0.000125	0.05265	0.0005	0.07665	0.025	0.0005	0.0005	85.44	0.0001	0.0005	0.0005	0.00265	0.17		1.3	0.005	38.8	0.016	0.00193	4.775	0.002	0.0005	0.075	0.0005	0.003	10.86	0.0005	0.3365	0.0005	0.00025	0.00165	0.00005	0.005395	0.0005	0.0176	0.005
	5th percentile	0.000125	0.0025	0.0005	0.0394	0.025	0.0005	0.0005	31.175	0.0001	0.0005	0.0005	0.0005	0.025		0.6	0.00135	11.67	0.003	0.000635	1.763	0.000675	0.0005	0.075	0.0005	0.0005	3.835	0.0005	0.1135	0.0005	0.00025	0.0005	0.00005	0.001305	0.0005	0.0025	0.005
V8	21-Jan-05	< 0.00025	< 0.005	< 0.001	0.07	< 0.05	< 0.001	< 0.001	78.5	< 0.0002	< 0.001	< 0.001	< 0.001	0.11		1.1	0.005	33.2	0.03	0.001	3.94	0.002	< 0.001	< 0.15	< 0.001	0.001	9.8	< 0.001	0.32	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0062	< 0.001	0.008	< 0.01
V8	08-Feb-05	< 0.00025	< 0.005	< 0.001	0.072	< 0.05	< 0.001	< 0.001	81.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.1	0.005	35.6	0.032	0.0011	4.27	0.002	< 0.001	< 0.15	< 0.001	< 0.001	9.1	< 0.001	0.34	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0071	< 0.001	0.012	< 0.01
V8	15-Mar-05	< 0.00025	< 0.005	< 0.001	0.076	< 0.05	< 0.001	< 0.001	90.3	< 0.0002	< 0.001	< 0.001	< 0.001	0.23		1.3	0.004	34.9	0.028	0.0011	4.7	0.002	< 0.001	< 0.15	< 0.001	< 0.001	8.2	< 0.001	0.36	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0072	< 0.001	0.009	< 0.01
V8	11-Apr-05	< 0.00025	0.006	< 0.001	0.062	< 0.05	< 0.001	< 0.001	80.1	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		1.2	0.005	36	0.033	0.0012	4.55	0.002	< 0.001	< 0.15	< 0.001	< 0.001	9.4	< 0.001	0.34	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0072	< 0.001	0.011	< 0.01
V8	09-May-05	< 0.00025	0.065	< 0.001	0.034	< 0.05	< 0.001	< 0.001	25.9	< 0.0002	< 0.001	< 0.001	0.007	0.23		0.9	0.002	9.34	0.034	< 0.0005	1.35	0.003	< 0.001	< 0.15	< 0.001	< 0.001	7	< 0.001	0.1	< 0.001	< 0.0005	0.003	< 0.0001	0.0012	< 0.001	0.037	< 0.01
V8	20-Jun-05	< 0.00025	0.016	< 0.001	0.045	< 0.05	< 0.001	< 0.001	48	< 0.0002	< 0.001	< 0.001	< 0.001	0.13		0.7	0.004	15.6	0.037	< 0.0005	2.18	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	8.5	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	0.024	< 0.01
V8	25-Jul-05	< 0.00025	< 0.005	< 0.001	0.06	< 0.05	< 0.001	< 0.001	71.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.007	22.6	0.062	< 0.0005	2.73	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9	< 0.001	0.3	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0024	< 0.001	< 0.005	< 0.01
V8	22-Aug-05	< 0.00025	< 0.005	< 0.001	0.066	< 0.05	< 0.001	< 0.001	106	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.1	0.01	33	0.37	< 0.0005	3.33	< 0.001	< 0.001	< 0.15	< 0.001	0.002	7.1	< 0.001	0.44	< 0.001	< 0.0005	< 0.001	< 0.0001	0.003	< 0.001	0.009	< 0.01
V8	05-Sep-05	< 0.00025	0.006	< 0.001	0.044	< 0.05	< 0.001	< 0.001	49.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.004	18.7	0.012	0.0006	2.85	0.001	< 0.001	< 0.15	< 0.001	< 0.001	8.4	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0026	< 0.001	0.009	< 0.01
V8	10-Oct-05	< 0.00025	< 0.005	< 0.001	0.05	< 0.05	< 0.001	< 0.001	53	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.004	22.7	0.017	0.0008	3.02	0.001	< 0.001	< 0.15	< 0.001	< 0.001	11.2	< 0.001	0.23	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0029	< 0.001	0.009	< 0.01
V8	01-Nov-05	< 0.00025	< 0.005	< 0.001	0.05	< 0.05	< 0.001	< 0.001	61.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.9	0.004	25	0.012	0.0008	2.95	0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.6	< 0.001	0.24	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0044	< 0.001	< 0.005	< 0.01
V8	14-Dec-05	< 0.00025	< 0.005	< 0.001	0.067	< 0.05	< 0.001	< 0.001	75.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.005	31.6	0.02	0.0009	4.15	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.6	< 0.001	0.27	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0052	< 0.001	0.022	< 0.01
V8	24-Jan-06	< 0.00025	0.007	< 0.001	0.067	< 0.05	< 0.001	< 0.001	79	< 0.0002	< 0.001	< 0.001	< 0.001	0.1		1	0.006	36	0.024	0.0011	4.47	0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.1	< 0.001	0.33	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0061	< 0.001	0.013	< 0.01
V8	13-Feb-06	< 0.00025	< 0.005	< 0.001	0.063	< 0.05	< 0.001	< 0.001	72.1	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.1	0.005	32.7	0.023	0.0009	3.98	0.002	< 0.001	< 0.15	< 0.001	0.002	4.7	< 0.001	0.29	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0058	< 0.001	0.022	< 0.01
V8	24-Mar-06	< 0.00025	< 0.005	< 0.001	0.069	< 0.05	< 0.001	< 0.001	84.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.2	0.006	38.9	0.03	0.0012	4.43	0.002	< 0.001	< 0.15	< 0.001	0.001	4.8	< 0.001	0.34	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0077	< 0.001	0.026	< 0.01
V8	24-Apr-06	< 0.00025	< 0.005	< 0.001	0.06	< 0.05	< 0.001	< 0.001	78.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.2	0.005	35.7	0.025	0.0012	4.19	0.003	< 0.001	< 0.15	< 0.001	0.001	4	< 0.001	0.32	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0065	< 0.001	0.011	< 0.01
V8	17-May-06	< 0.00025	0.013	< 0.001	0.036	< 0.05	< 0.001	< 0.001	30.9	< 0.0002	< 0.001	< 0.001	0.002	0.1		1.3	0.002	11.8	0.007	0.0005	1.5	0.002	< 0.001	< 0.15	< 0.001	< 0.001	2.8	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	0.006	< 0.01
V8	19-Jun-06	< 0.00025	0.029	< 0.001	0.031	< 0.05	< 0.001	< 0.001	27.6	< 0.0002	< 0.001	< 0.001	0.001	0.1		0.6	0.002	9.73	0.005	< 0.0005	1.8	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.5	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	0.006	< 0.01
V8	17-Jul-06	< 0.00025	0.032	< 0.001	0.033	< 0.05	< 0.001	< 0.001	31.1	< 0.0002	< 0.001	< 0.001	0.001	0.08		0.5	0.008	12.6	0.006	0.0005	2.15	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.12	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0015	< 0.001	0.006	< 0.01
V8	21-Aug-06	< 0.00025	0.017	< 0.001	0.042	< 0.05	< 0.001	< 0.001	38.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	0.003	15.5	0.007	0.0006	2.57	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0021	< 0.001	0.01	< 0.01
V8	11-Sep-06	< 0.00025	0.006	< 0.001	0.036	< 0.05	< 0.001	< 0.001	35.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	0.003	15	0.007	0.0005	2.39	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.14	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0019	< 0.001	0.007	< 0.01
V8	16-Oct-06	< 0.00025	< 0.005	< 0.001	0.045	< 0.05	< 0.001	< 0.001	47.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.1		0.7	0.003	21.3	0.007	0.0006	3.06	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0035	< 0.001	< 0.005	< 0.01
V8	14-Nov-06	< 0.00025	< 0.005	< 0.001	0.063	< 0.05	< 0.001	< 0.001	66.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.004	32.4	0.013	0.001	4	0.002	< 0.001	< 0.15	< 0.001	0.001	4.9	< 0.001	0.29	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0054	< 0.001	0.013	< 0.01
V8	13-Dec-06	< 0.00025	< 0.005	< 0.001	0.067	< 0.05	< 0.001	< 0.001	69.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.004	29.6	0.012	0.0009	3.79	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0066	< 0.001	0.007	< 0.01
V8	15-Jan-07	< 0.00025	< 0.005	< 0.001	0.074	< 0.05	< 0.001	< 0.001	82.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.2	0.005	37	0.018	0.0011	4.48	0.002	< 0.001	< 0.15	< 0.001	0.001	4.7	< 0.001	0.35	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0069	< 0.001	0.01	< 0.01
V8	13-Feb-07	< 0.00025	< 0.005	< 0.001	0.065	< 0.05	< 0.001	< 0.001	79.5	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		1.1	0.005	35.8	0.017	0.001	4.37	0.002	< 0.001	< 0.15	< 0.001	0.001	4.5	< 0.001	0.31	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0071	< 0.001	0.01	< 0.01
V8	11-Mar-07	< 0.00025	< 0.005	< 0.001	0.084	< 0.05	< 0.001	< 0.001	90.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.05		1.4	0.007	44.3	0.029	0.001	5.4	0.002	< 0.001	< 0.15	< 0.001	0.002	5	< 0.001	0.41	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0089	< 0.001	0.014	< 0.01
V8	18-Apr-07	< 0.00025	< 0.005	< 0.001	0.067	< 0.05	< 0.001	< 0.001	75	< 0.0002	< 0.001	< 0.001	< 0.001	0.05		1.2	0.003	34	0.024	0.0012	3.96	0.005	< 0.001	< 0.15	< 0.001	0.002	4	< 0.001	0.34	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0055	< 0.001	0.029	< 0.01
V8	14-May-07	< 0.00025	0.01	< 0.001	0.042	< 0.05	< 0.001	< 0.001	41.6	< 0.0002	< 0.001	0.001	0.003	0.15		1.2	< 0.005	17.1	0.013	0.0011	2.2	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0031	< 0.001	0.018	< 0.01
V8	18-Jun-07	< 0.00025	0.013	< 0.001	0.03	< 0.05	< 0.001	< 0.001	26.5	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.6	< 0.005	10.2	< 0.001	< 0.0005	1.88	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.4	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	< 0.005	< 0.01
V8	16-Jul-07	< 0.00025	0.051	< 0.001	0.04	< 0.05	< 0.001	< 0.001	30.5	< 0.0002	< 0.001	< 0.001	0.001	0.07		0.6	< 0.005	11.8	0.004	< 0.0005	2.05	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.14	< 0.001	< 0.0005	0.002	< 0.0001	0.0018	< 0.001	< 0.005	< 0.01
V8	13-Aug-07	< 0.00025	0.011	< 0.001	0.05	< 0.05	< 0.001	< 0.001	45.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	< 0.005	18.8	0.005	0.0007	2.81	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.19	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0031	< 0.001	< 0.005	< 0.01
V8	10-Sep-07	< 0.00025	< 0.005	< 0.001	0.049	< 0.05	< 0.001	< 0.001	39.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	0.002	16.6	0.004	0.0008	2.58	0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.6	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0028	< 0.001	< 0.005	< 0.01
V8	23-Oct-07	< 0.00025	0.01	< 0.001	0.05	< 0.05	< 0.001	< 0.001	54.2	< 0.0002	< 0.001	< 0.001	0.001	0.06		0.8	0.003	23.9	0.006	0.0009	3.43	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0039	< 0.001	< 0.005	< 0.01

Appendix C3
2005 to 2007 Surface Water Quality Data
Vangorda Creek Drainage

Table 9. Receiving Environment Dissolved Metals

STATION	DATE	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																																					
V8	13-Nov-07	< 0.00025	< 0.005	< 0.001	0.056	< 0.05	< 0.001	< 0.001	65.4	< 0.0002	< 0.001	< 0.001	< 0.001	0.06		1	0.004	26.9	0.007	0.0009	3.59	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.26	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0043	< 0.001	0.007	< 0.01
V8	09-Dec-07	< 0.00025	< 0.005	< 0.001	0.053	< 0.05	< 0.001	< 0.001	58.7	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		0.9	0.001	26	0.01	0.0008	3.32	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.24	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0053	< 0.001	0.008	< 0.01
	N	36	36	36	36	36	36	36	36	36	36	36	36	36	0	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	median	0.000125	0.0025	0.0005	0.0545	0.025	0.0005	0.0005	63.5	0.0001	0.0005	0.0005	0.0005	0.0375		0.95	0.004	25.5	0.015	0.00085	3.325	0.001	0.0005	0.075	0.0005	0.0005	4.65	0.0005	0.25	0.0005	0.00025	0.0005	0.00005	0.0041	0.0005	0.009	0.005
	mean	0.0001	0.0096	0.0005	0.0547	0.025	0.0005	0.0005	60.3	0.0001	0.001	0.001	0.001	0.063		0.936	0.004	25.33	0.028	0.001	3.29	0.002	0.001	0.075	0.001	0.001	5.664	0.001	0.247	0.0005	0.0003	0.0006	0.0001	0.0043	0.0005	0.0109	0.005
	std	0	0.014	0	0.0144	0	0	0	21.8	0	0	0	0.001	0.054		0.247	0.002	10	0.06	0	1.03	0.001	0	0	0	0	2.28	0	0.094	0	0	0.0005	0	0.0022	0	0.0084	0
	minimum	< 0.00025	< 0.005	< 0.001	0.03	< 0.05	< 0.001	< 0.001	25.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.05		0.5	< 0.001	9.34	< 0.001	< 0.0005	1.35	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.8	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0012	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.065	< 0.001	0.084	< 0.05	< 0.001	< 0.001	106	< 0.0002	< 0.001	0.001	0.007	0.23		1.4	0.01	44.3	0.37	0.0012	5.4	0.005	< 0.001	< 0.15	< 0.001	0.002	11.2	< 0.001	0.44	< 0.001	< 0.0005	0.003	< 0.0001	0.0089	< 0.001	0.037	< 0.01
	# < DL	36	21	36	0	36	36	36	0	36	36	35	29	18	0	0	4	0	1	7	0	8	36	36	36	26	0	36	0	36	36	34	36	0	36	8	36
	% < DL	100%	58%	100%	0%	100%	100%	100%	0%	100%	100%	97%	81%	50%	0%	0%	11%	0%	3%	19%	0%	22%	100%	100%	100%	72%	0%	100%	0%	100%	100%	94%	100%	0%	100%	22%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05			0.005		0.001	0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001	0.005	0.01
	95th percentile	0.000125	0.03675	0.0005	0.0745	0.025	0.0005	0.0005	90.45	0.0001	0.0005	0.0005	0.00225	0.17		1.3	0.00725	37.475	0.04325	0.0012	4.5875	0.003	0.0005	0.075	0.0005	0.002	9.65	0.0005	0.3725	0.0005	0.00025	0.000875	0.00005	0.007325	0.0005	0.02675	0.005
	5th percentile	0.000125	0.0025	0.0005	0.0325	0.025	0.0005	0.0005	27.325	0.0001	0.0005	0.0005	0.0005	0.025		0.575	0.002	10.0825	0.004	0.00025	1.725	0.0005	0.0005	0.075	0.0005	0.0005	3.475	0.0005	0.1	0.0005	0.00025	0.0005	0.00005	0.00145	0.0005	0.0025	0.005
V27	26-May-05	< 0.00025	0.049	< 0.001	0.016	< 0.05	< 0.001	< 0.001	13.3	< 0.0002	< 0.001	< 0.001	0.002	0.06		0.5	0.001	4.85	0.003	< 0.0005	1.31	< 0.001	< 0.001	0.2	< 0.001	< 0.001	7.8	< 0.001	0.051	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0009	< 0.001	0.031	< 0.01
V27	21-Sep-05	< 0.00025	0.008	< 0.001	0.026	< 0.05	< 0.001	< 0.001	20.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.4	0.001	6.28	0.005	< 0.0005	1.88	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	8.1	< 0.001	0.076	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0007	< 0.001	0.015	< 0.01
V27	29-May-06	< 0.00025	0.026	< 0.001	0.016	< 0.05	< 0.001	< 0.001	14.1	< 0.0002	< 0.001	< 0.001	0.001	0.09		0.7	< 0.001	4.19	0.007	< 0.0005	1.16	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.9	< 0.001	0.05	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0008	< 0.001	0.019	< 0.01
V27	01-Aug-06	< 0.00025	0.018	< 0.001	0.031	< 0.05	< 0.001	< 0.001	27.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	0.002	8.92	0.002	< 0.0005	2.07	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.02	< 0.01
V27	26-Sep-06	< 0.00025	< 0.005	< 0.001	0.027	< 0.05	< 0.001	< 0.001	22.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	0.001	7.79	0.003	< 0.0005	1.93	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.088	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.015	< 0.01
V27	04-Jun-07	< 0.00025	0.038	< 0.001	0.009	< 0.05	< 0.001	< 0.001	4.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	0.5	< 0.005	1.32	0.002	< 0.0005	0.69	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	1.5	< 0.001	0.02	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.008	< 0.01
V27	25-Jul-07	< 0.00025	0.055	< 0.001	0.033	< 0.05	< 0.001	< 0.001	28.7	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		0.6	< 0.005	8.28	0.004	< 0.0005	2.22	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.099	< 0.001	< 0.0005	< 0.001	< 0.0001	0.001	< 0.001	0.029	< 0.01
V27	10-Oct-07	< 0.00025	0.016	< 0.001	0.034	< 0.05	< 0.001	< 0.001	28.6	< 0.0002	< 0.001	< 0.001	0.001	0.06		0.5	< 0.001	8.76	0.003	< 0.0005	2.01	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.1	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	0.025	< 0.01
	N	8	8	8	8	8	8	8	8	8	8	8	8	8	1	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	median	0.000125	0.022	0.0005	0.0265	0.025	0.0005	0.0005	21.5	0.0001	0.0005	0.0005	0.00075	0.025	0.00001	0.5	0.001	7.035	0.003	0.00025	1.905	0.0005	0.0005	0.075	0.0005	0.0005	4.2	0.0005	0.082	0.0005	0.00025	0.0005	0.00005	0.00095	0.0005	0.0195	0.005
	mean	0.000125	0.027	0.0005	0.024	0.025	0.0005	0.0005	19.9	0.0001	0.0005	0.0005	0.001	0.042	0.00001	0.53	0.001	6.299	0.004	0.00025	1.66	0.0005	0.0005	0.091	0.0005	0.0005	4.6	0.0005	0.07	0.0005	0.00025	0.0005	0.0001	0.0009	0.0005	0.02	0.005
	std	0	0.019	0	0.009	0	0	0	8.8	0	0	0	0.001	0.025		0.09	0.001	2.684	0.002	0	0.54	0	0	0.044	0	0	2.3	0	0.03	0	0	0	0	0.0004	0	0.008	0
	minimum	< 0.00025	< 0.005	< 0.001	0.009	< 0.05	< 0.001	< 0.001	4.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002	0.4	< 0.001	1.32	0.002	< 0.0005	0.69	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	1.5	< 0.001	0.02	< 0.001	< 0.0005	< 0.001	< 0.0001	< 0.0005	< 0.001	0.008	< 0.01
	maximum	< 0.00025	0.055	< 0.001	0.034	< 0.05	< 0.001	< 0.001	28.7	< 0.0002	< 0.001	< 0.001	0.002	0.09	< 0.00002	0.7	0.005	8.92	0.007	0.0005	2.22	< 0.001	< 0.001	0.2	< 0.001	< 0.001	8.1	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	0.031	< 0.01
	# < DL	8	1	8	0	8	8	8	0	8	8	8	4	5	1	0	4	0	0	8	0	8	8	7	8	8	0	8	0	8	8	8	8	1	8	0	8
	% < DL	100%	13%	100%	0%	100%	100%	100%	0%	100%	100%	100%	50%	63%	100%	0%	50%	0%	0%	100%	0%	100%	100%	88%	100%	100%	0%	100%	0%	100%	100%	100%	100%	13%	100%	0%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05	0.00002		0.005			0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001	0.0005	0.001		0.01
	95th percentile	0.000125	0.0529	0.0005	0.03365	0.025	0.0005	0.0005	28.665	0.0001	0.0005	0.0005	0.00165	0.0795	0.00001	0.665	0.0025	8.864	0.0063	0.00025	2.1675	0.0005	0.0005	0.15625	0.0005	0.0005	7.995	0.0005	0.1065	0.0005	0.00025	0.0005	0.00005	0.00149	0.0005	0.0303	0.005
	5th percentile	0.000125	0.004425	0.0005	0.01145	0.025	0.0005	0.0005	7.385	0.0001	0.0005	0.0005	0.0005	0.025	0.00001	0.435	0.0005	2.3245	0.002	0.00025	0.8545	0.0005	0.0005	0.075	0.0005	0.0005	1.99	0.0005	0.0305	0.0005	0.00025	0.0005	0.00005	0.000408	0.0005	0.01045	0.005
VGMAIN	21-Jan-05	< 0.00025	< 0.005	< 0.001	0.064	< 0.05	< 0.001	< 0.001	68.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.09		0.9	0.004	27.9	0.004	0.0007	3.25	0.002	< 0.001	< 0.15	< 0.001	< 0.001	9.4	< 0.001	0.27	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0063	< 0.001	0.01	< 0.01
VGMAIN	08-Feb-05	< 0.00025	0.006	< 0.001	0.065	< 0.05	< 0.001	< 0.001	74.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.004	31.3	0.005	0.0007	3.79	0.002	< 0.001	< 0.15	< 0.001	< 0.001	9.5	< 0.001	0.3	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0076	< 0.001	0.02	< 0.01
VGMAIN	15-Mar-05	< 0.00025	< 0.005	< 0.001	0.071	< 0.05	< 0.001	< 0.001	80.1	< 0.0002	< 0.001	< 0.001	< 0.001	0.11		0.9	0.003	30.1	0.003	0.0008	3.71	0.002	< 0.001	< 0.15	< 0.001	< 0.001	8.1	< 0.001	0.33	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0084	< 0.001	0.009	< 0.01
VGMAIN	11-Apr-05	< 0.00025	0.006	< 0.001	0.067	< 0.05	< 0.001	< 0.001	78.3	< 0.0002	< 0.001	< 0.001	< 0.001	0.06		1.1	0.004	32.6	0.004	0.0008	4.14	0.002	< 0.001	< 0.15	< 0.001	< 0.001	9.1	< 0.001	0.32	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0083	< 0.001	0.009	< 0.01
VGMAIN	09-May-05	< 0.00025	0.033	< 0.001	0.031	< 0.05	< 0.001	< 0.001	24.5	< 0.0002	< 0.001	< 0.001	0.002	0.12		0.9	0.001	8.52	0.008	< 0.0005	1.3	0.002	< 0.001	< 0.15	< 0.001	< 0.001	6.4	< 0.001	0.093	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.014	< 0.01
VGMAIN	20-Jun-05	< 0.00025	0.019	< 0.001	0.048	< 0.05	< 0.001	< 0.001	51.9	< 0.0002	< 0.001	< 0.001	< 0.001	0.15		0.7	0.005	15.9	0.056	< 0.0005	2.16	0.001	< 0.001	< 0.15	< 0.001	< 0.001	8.7	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.036	< 0.01
VGMAIN	25-Jul-05	< 0.00025	< 0.005	< 0.001	0.063	< 0.05	< 0.001	< 0.001	80.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.008	23.1	0.38	< 0.0005	2.55	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	8.4	< 0.001	0.33	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0021	< 0.001	0.014	< 0.01
VGMAIN	22-Aug-05	< 0.00025	< 0.005	< 0.001	0.07	< 0.05	< 0.001	< 0.001	128	0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.2	0.011	35.1	0.54	< 0.0005	3.27	< 0.001	< 0.001	< 0.15	< 0.001	0.002	6.6	< 0.001	0.51	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0029	< 0.001	0.014	< 0.01
VGMAIN	06-Sep-05	< 0.00025	< 0.005	< 0.001	0.04	< 0.05	< 0.001	< 0.001	45.8	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	0.004	16	0.004	< 0.0005	2.55	0.001	< 0.001	< 0.15	< 0.001	< 0.001	8.6	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0026	< 0.001	0.009	< 0.01
VGMAIN	10-Oct-05	< 0.00025	< 0.005	< 0.001	0.037	< 0.05	< 0.001	< 0.001	41.6	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	0.003	17	0.004	< 0.0005	2.35	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.9	< 0.001	0.16	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0026	< 0.001	0.007	< 0.01
VGMAIN	01-Nov-05	< 0.00025	< 0.005	< 0.001	0.048	< 0.05	< 0.001	< 0.001	58.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.004	22.5	0.004	0.0006	2.62	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.4	< 0.001	0.21	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0048	< 0.001	0.006	< 0.01
VGMAIN	14-Dec-05	< 0.00025	< 0.005	< 0.001	0.064	< 0.05	< 0.001	< 0.001	73.1	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.005	29.2	0.008	0.0006	3.67	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.25	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0057	< 0.001	0.024	< 0.01
VGMAIN	13-Feb-06	< 0.00025	< 0.005	< 0.001	0.065	< 0.05	< 0.001	< 0.001	72.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.004	31.2	0.008	0.0007	3.95	0.002	< 0.001	< 0.15	< 0.001	0.001	5.1	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0068	< 0.001	0.017	< 0.01
VGMAIN	24-Mar-06	< 0.00025	< 0.005	< 0.001	0.065	< 0.05	< 0.001	< 0.001	72.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.004	30.4	0.009	0.0007	3.69	0.003	< 0.001	< 0.15	< 0.001	< 0.001	5	< 0.001	0.28	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0073	< 0.001	0.028	< 0.01
VGMAIN	24-Apr-06	< 0.00025	< 0.005	< 0.001	0.056	< 0.05	< 0.001	< 0.001	70.9	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.004	30.3	0.013	0.0007	3.39	0.005	< 0.001	< 0.15	< 0.001	< 0.001	3.9	< 0.001	0.29	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0069	< 0.001	0.02	< 0.01
VGMAIN	17-May-06	< 0.00025	0.008	< 0.001	0.032	< 0.05	< 0.001	< 0.001	32.3	< 0.0002	< 0.001	< 0.001	0.002	0.1		1.2	0.002	11.9	0.004	< 0.0005	1.44	0.002	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0021	< 0.001	0.011	< 0.01
VGMAIN	19-Jun-06	< 0.00025	0.018	< 0.001	0.03	< 0.05	< 0.001	< 0.001	25.4	< 0.0002	< 0.001	< 0.001	0.001	0.08		0.6	0.002	8.42	0.003	< 0.0005	1.73	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.5	< 0.001	0.092	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.009	< 0.01
VGMAIN	18-Jul-06	< 0.00025	0.023	< 0.001	0.028	< 0.05	< 0.001	< 0.001	26.4	< 0.0002	< 0.001	< 0.001	< 0.001	0.06		0.5	0.007	10.1	0.002	< 0.0005	1.88	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.3	< 0.001	0.098	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0013	< 0.001	0.009	< 0.01
VGMAIN	21-Aug-06	< 0.00025	0.01	< 0.001	0.036	< 0.05	< 0.001	< 0.001	34.8	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		0.7	0.002	12.8	0.003	< 0.0005	2.41	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.13	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0022	< 0.001	0.011	< 0.01
VGMAIN	11-Sep-06	< 0.00025	0.006	< 0.001	0.03	< 0.05	< 0.001	< 0.001	29	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.4	0.002	11.5	0.002	< 0.0005	2.15	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0017	< 0.001	0.009	< 0.01
VGMAIN	16-Oct-06	< 0.00025	< 0.005	< 0.001	0.04	< 0.05	< 0.001	< 0.001	40.2	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.6	0.003	17.2	0.003	< 0.0005	2.61	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0033	< 0.001	< 0.005	< 0.01
VGMAIN	14-Nov-06	< 0.00025	< 0.005	< 0.001	0.061	< 0.05	< 0.001	< 0.001	62.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.7	0.003	28.1	0.006	0.0007	3.72	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.27	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0056	< 0.001	0.018	< 0.01
VGMAIN	13-Dec-06	< 0.00025	< 0.005	< 0.001	0.064	< 0.05	< 0.001	< 0.001	62.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.004	24.9	0.007	0.0006	3.41	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.25	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0071	< 0.001	0.018	< 0.01
VGMAIN	15-Jan-07	< 0.00025	< 0.005	< 0.001	0.068	< 0.05	< 0.001	< 0.001	72.5	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1	0.004	31.3	0.007	0.0007	3.97	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4.6	< 0.001	0.31	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0069	< 0.001	0.025	< 0.01
VGMAIN	13-Feb-07	< 0.00025	0.005	< 0.001	0.069	< 0.05	< 0.001	< 0.001	75.6	< 0.0002	< 0.001	< 0.001	< 0.001	0.1		1	0.004	31.2	0.006	0.0008	3.96	0.002	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.31	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0075	< 0.001	0.01	< 0.01
VGMAIN	11-Mar-07	< 0.00025	< 0.005	< 0.001	0.074	< 0.05	< 0.001	< 0.001	75.1	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		1.1	0.005	33.6	0.007	0.0007	4.2	0.003	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.31	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0079	< 0.001	0.013	< 0.01
VGMAIN	18-Apr-07	< 0.00025	< 0.005	< 0.001	0.073	< 0.05	< 0.001	< 0.001	78.2	< 0.0002	< 0.001	< 0.001	< 0.001	0.08		1.1	0.002	31.8	0.032	0.0007	3.6	0.011	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.32	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0064	< 0.001	0.039	< 0.01
VGMAIN	14-May-07	< 0.00025	0.01	< 0.001	0.042	< 0.05	< 0.001	< 0.001	43.2	< 0.0002	< 0.001	0.001	0.003	0.16		1.2	< 0.005	17.9	0.008	0.0012	2.17	0.005	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.17	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0038	< 0.001	0.016	< 0.01
VGMAIN	18-Jun-07	< 0.00025	0.008	< 0.001	0.025	< 0.05	< 0.001	< 0.001	21.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	< 0.005	7.97	< 0.001	< 0.0005	1.57	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.2	< 0.001	0.08	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	0.007	< 0.01
VGMAIN	16-Jul-07	< 0.00025	0.013	< 0.001	0.031	< 0.05	< 0.001	< 0.001	25.1	< 0.0002	< 0.001	< 0.001	0.001	< 0.05		0.5	< 0.005	9.6	0.001	< 0.0005	1.83	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.11	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0016	< 0.001	0.007	< 0.01
VGMAIN	13-Aug-07	< 0.00025	0.02	< 0.001	0.041	< 0.05	< 0.001	< 0.001	37.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.6	< 0.005	14.7	0.002	< 0.0005	2.46	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0028	< 0.001	0.007	< 0.01
VGMAIN	10-Sep-07	< 0.00025	< 0.005	< 0.001	0.045	< 0.05	< 0.001	< 0.001	34.1	< 0.0002	< 0.001	< 0.001	0.002	< 0.05		0.6	0.002	13.8	0.002	0.0006	2.42	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.8	< 0.001	0.15	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0029	< 0.001	0.01	< 0.01
VGMAIN	23-Oct-07	< 0.00025	< 0.005	< 0.001	0.048	< 0.05	< 0.001	< 0.001	49	< 0.0002	< 0.001	< 0.001	0.001	0.06		0.7	0.002	20.5	0.003	0.0006	3.11	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.2	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0041	< 0.001	0.006	< 0.01
VGMAIN	13-Nov-07	< 0.00025	0.027	< 0.001	0.052	< 0.05	< 0.001	< 0.001	57	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.8	0.003	22.5	0.004	0.0006	3.18	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.4	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0043	< 0.001	0.009	< 0.01
VGMAIN	10-Dec-07	< 0.00025	< 0.005	< 0.001	0.053	< 0.05	< 0.001	< 0.001	56	< 0.0002	< 0.001	< 0.001	< 0.001	0.07		0.8	< 0.001	22.9	0.004	0.0006	3.15	0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.22	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0058	< 0.001	0.012	< 0.01
	N	35	35	35	35	35	35	35	35	35	35	35	35	35	0	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	median	0.000125	0.0025	0.0005	0.052	0.025	0.0005	0.0005	57	0.0001	0.0005	0.0005	0.0005	0.025		0.8	0.003	22.5	0.004	0.0006	3.11	0.001	0.0005	0.075	0.0005	0.0005	4.4	0.0005	0.22	0.0005	0.00025	0.0005	0.00005	0.0041	0.0005	0.011	0.005

Appendix C3
2005 to 2007 Surface Water Quality Data
Vangorda Creek Drainage

Table 9. Receiving Environment Dissolved Metals

STATION	DATE	AG-D mg/L	AL-D mg/L	AS-D mg/L	BA-D mg/L	B-D mg/L	BE-D mg/L	BI-D mg/L	CA-D mg/L	CD-D mg/L	CO-D mg/L	CR-D mg/L	CU-D mg/L	FE-D mg/L	HG-D mg/L	K-D mg/L	LI-D mg/L	MG-D mg/L	MN-D mg/L	MO-D mg/L	NA-D mg/L	NI-D mg/L	PB-D mg/L	P-D mg/L	SB-D mg/L	SE-D mg/L	SI-D mg/L	SN-D mg/L	SR-D mg/L	TE-D mg/L	TH-D mg/L	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
Benchmark																																					
	mean	0.000125	0.00749	0.0005	0.05131	0.025	0.0005	0.0005	55.96571	0.0001	0.0005	0.0005	0.0008	0.0511		0.83	0.0036	21.8231	0.033	0.001	2.896	0.002	0.001	0.075	0.001	0.001	5.569	0.001	0.2221	0.0005	0.0003	0.0005	0.0001	0.0044	0.0005	0.0139	0.005
	std	8.25E-20	0.00809	0	0.0155	0	0	0	23.22026	0.00002	0	0.0001	0.0006	0.0396		0.22	0.002	8.7643	0.1089	0	0.847	0.002	0	0	0	0	2.187	0	0.0959	0	0	0	0	0.0024	0	0.0083	0
	minimum	< 0.00025	< 0.005	< 0.001	0.025	< 0.05	< 0.001	< 0.001	21.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.4	< 0.001	7.97	< 0.001	< 0.0005	1.3	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3	< 0.001	0.08	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0011	< 0.001	< 0.005	< 0.01
	maximum	< 0.00025	0.033	< 0.001	0.074	< 0.05	< 0.001	< 0.001	128	0.0002	< 0.001	0.001	0.003	0.16		1.2	0.011	35.1	0.54	0.0012	4.2	0.011	< 0.001	< 0.15	< 0.001	0.002	9.9	< 0.001	0.51	< 0.001	< 0.0005	< 0.001	< 0.0001	0.0084	< 0.001	0.039	< 0.01
	# < DL	35	20	35	0	35	35	35	0	34	35	34	27	22	0	0	5	0	1	15	0	15	35	35	35	33	0	35	0	35	35	35	35	0	35	1	35
	% < DL	100%	57%	100%	0%	100%	100%	100%	0%	97%	100%	97%	77%	63%	0%	0%	14%	0%	3%	43%	0%	43%	100%	100%	100%	94%	0%	100%	0%	100%	100%	100%	100%	0%	100%	3%	100%
	# > BM																																				
	% > BM																																				
	# < DL (DL>BM)																																				
	% < DL (DL>BM)																																				
	max DL	0.00025	0.005	0.001		0.05	0.001	0.001		0.0002	0.001	0.001	0.001	0.05			0.005		0.001	0.0005		0.001	0.001	0.15	0.001	0.001		0.001		0.001	0.0005	0.001	0.0001		0.001	0.005	0.01
	95th percentile	0.000125	0.0242	0.0005	0.0716	0.025	0.0005	0.0005	80.16	0.0001	0.0005	0.0005	0.002	0.129		1.2	0.0073	32.9	0.1532	0.0008	4.021	0.005	0.0005	0.075	0.0005	0.00065	9.43	0.0005	0.33	0.0005	0.00025	0.0005	0.00005	0.00802	0.0005	0.0304	0.005
	5th percentile	0.000125	0.0025	0.0005	0.0294	0.025	0.0005	0.0005	24.92	0.0001	0.0005	0.0005	0.0005	0.025		0.5	0.0017	8.49	0.0017	0.00025	1.531	0.0005	0.0005	0.075	0.0005	0.0005	3.41	0.0005	0.0927	0.0005	0.00025	0.0005	0.00005	0.0013	0.0005	0.006	0.005

Statistics calculated for stations with 3 or more values in a dataset.

DL	Method Detection Limit
BM	Draft Water Quality Benchmark, quideline source provided in Appendix X

Method Detection Limit set to 1/2 method detection limit for statistical calculations

Appendix C4.
Water Quality Data from Additional Monitoring Programs, including the Pelly River Aquatic Effects Assessment

Data Source	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Interim	Interim	Interim	Interim	Pelly AE	Pelly AE	Pelly AE	Pelly AE
Lab	Norwest	Norwest	Norwest	Norwest	Maxxam	Maxxam	Maxxam	Maxxam	Norwest	Norwest	Norwest	Norwest
Lab ID	324989-5	401480-14	482049	489654	H22010	H68310	I14735	I40629	324033-3	400527-3	482049	489654
Sampling Date	31/07/2004	09/08/2005	27/07/2006	30/08/2006	26/09/2007	24/10/2007	22/11/2007	14/12/2007	29/07/2004	05/08/2005	27/07/2006	30/08/2006
COC Number					8198216	8199472	8201068	8201389				
Sample ID	**A1 (R11)**	**A1 (R11)**	**A1 (R11)**	**A1 (R11)**	**A1 (R11)**	**A1 (R11)**	**A1 (R11)**	**A1 (R11)**	**A-2**	**A-2**	**A-2**	**A-2**
Misc. Inorganics												
Fluoride (F)					0.11	0.11	0.11	0.12				
ANIONS												
Nitrite (N)	<0.05	<0.03	<0.03	<0.03	<0.005	<0.005	<0.005	<0.005	<0.05	<0.03	<0.03	<0.03
Calculated Parameters												
Total Hardness (CaCO3)					125	176	165	170				
Nitrate (N)	<0.1	0.03	0.03	0.03	0.07	0.13	0.15	0.21	<0.1	0.04	0.04	0.04
Misc. Inorganics												
Weak Acid Dissoc. Cyanide (CN)					<0.0005	<0.0005	<0.0005	<0.0005				
Dissolved Hardness (CaCO3)	141	120	145	143	127	180	180	180	146	140	152	148
Dissolved Organic Carbon (C)					4.3	2.2	3	1				
Alkalinity (Total as CaCO3)					91.5	132	130	130				
Total Organic Carbon (C)					3.3	2.2	2.5	1.6				
Alkalinity (PP as CaCO3)					<0.5	<0.5	<0.5	<0.5				
Bicarbonate (HCO3)					112	161	160	160				
Carbonate (CO3)					<0.5	<0.5	<0.5	<0.5				
Hydroxide (OH)					<0.5	<0.5	<0.5	<0.5				
Anions												
Dissolved Sulphate (SO4)	10.5	31	49	44	33.3	59.2	44.8	43.5	10.7	32	52	48
Dissolved Chloride (Cl)	0.5	0.12	0.38	0.31	<0.5	<0.5	<0.5	<0.5	<0.5	0.11	0.34	0.34
Nutrients												
Ammonia (N)		0.008	0.006	<0.002	<0.005	<0.005	<0.005	0.021		<0.002	0.007	0.009
Nitrate plus Nitrite (N)	<0.2	0.03	0.03	0.03	0.07	0.13	0.15	0.21	<0.2	0.04	0.04	0.04
Total Phosphorus (P)	0.07		<0.02	<0.01	<0.005	0.007	<0.005	<0.005	<0.05		<0.02	<0.01
Physical Properties												
Conductivity			290		236	364	330	340			306	
pH	8.35	8.02	8.15	8.12	8.2	8.2	8.1	8.2	8.45	8.19	8.13	8.14
Physical Properties												
Total Suspe<1ed Solids	2	4	6	4	2	6	<1	<1	2	14	4	<2
Total Dissolved Solids		0.008		<0.002	156	232	200	220		<0.002		0.009
Dissolved Metals by ICP												
Dissolved Boron (B)	0.002	<0.002	<0.002	0.002	<0.008	<0.005	<0.005	<0.005	0.002	<0.002	<0.002	0.002
Dissolved Calcium (Ca)	41.2	35.9	42	42.4	37.2	53.6	52.9	53.6	42.7	39.9	44.1	43.5
Dissolved Iron (Fe)	0.01	0.06	0.06	0.05	0.074	0.000027	0.009	0.007	0.03	0.13	0.04	0.06
Dissolved Magnesium (Mg)	9.3	8.7	9.6	9.1	8.35	11.3	11.5	11.3	9.7	9.3	10.3	9.5
Dissolved Phosphorus (P)					<0.1							
Dissolved Silicon (Si)	4.06	4.47	4.04	4.03	4.18	0.00493	5.94	4.43	3.8	4.56	3.99	3.91
Dissolved Sodium (Na)	2.8	2.4	2.6	2.9	2.77	3.57	3.38	3.39	2.8	2.3	3	3
Dissolved Metals by ICPMS												
Dissolved Aluminum (Al)	<0.005	0.015	0.005	0.008	0.0159	0.0046	0.0042	0.0028	<0.005	0.038	<0.005	0.006
Dissolved Antimony (Sb)	<0.0002	<0.0002	<0.0002	<0.0002	0.00108	0.00012	0.00016	0.00014	<0.0002	0.0002	<0.0002	<0.0002
Dissolved Arsenic (As)	0.0006	<0.0002	0.0005	0.0006	0.0004	0.00053	0.0005	0.00056	0.0006	0.0007	0.0006	0.0005
Dissolved Barium (Ba)	0.066	0.059	0.062	0.056	0.057	0.0767	0.0752	0.0795	0.067	0.07	0.06	0.057
Dissolved Beryllium (Be)	<0.0001	<0.0001	<0.0001	<0.0001	<0.00005	<0.00001	<0.00001	<0.00001	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Bismuth (Bi)	<0.0005	<0.0005	<0.0005	<0.0005	<0.00005	<0.000005	<0.000005	<0.000005	<0.0005	<0.0005	<0.0005	<0.0005
Dissolved Cadmium (Cd)	0.00001	0.00001	<0.00001	<0.00001	0.00002	0.000021	0.000057	0.000011	<0.00001	0.00001	<0.00001	<0.00001
Dissolved Chromium (Cr)	<0.0005	0.0013	0.0012	0.0007	0.0003	0.0001	0.0001	0.0001	<0.0005	0.001	<0.0005	0.0005
Dissolved Cobalt (Co)	<0.0001	<0.0001	<0.0001	0.0005	0.00009	0.000037	0.000019	0.000018	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Copper (Cu)	<0.001	<0.001	0.001	<0.001	0.0009	0.00058	0.00095	0.00062	<0.001	<0.001	<0.001	<0.001
Dissolved Lead (Pb)	<0.0001	<0.0001	0.0007	0.0009	0.00013	0.000049	0.000103	0.000022	<0.0001	0.0003	0.0006	0.0009
Dissolved Lithium (Li)	0.003	0.003	0.003	0.004	0.0024	0.0037	0.0034	0.0036	0.003	0.004	0.003	0.004
Dissolved Manganese (Mn)	<0.005	0.048		0.041	0.018	0.0382	0.00283	0.00168	0.008	0.06		0.073
Dissolved Molybdenum (Mo)	0.001	<0.001	0.001	<0.001	0.00084	0.00106	0.00101	0.00104	0.001	<0.001	<0.001	<0.001
Dissolved Nickel (Ni)	<0.0005	0.0008	0.0008	<0.0005	<0.0005	0.0006	0.00071	0.00046	<0.0005	0.0011	<0.0005	<0.0005
Dissolved Potassium (K)	1.3	1.1	1.4	1.1	0.972	1.45	1.68	1.52	1.3	1	1.2	1.1
Dissolved Selenium (Se)	0.0006	0.0005	<0.0002	0.0003	0.0007	0.00064	0.00071	0.00072	0.0005	0.0004	<0.0002	0.0005
Dissolved Silver (Ag)	<0.0001	<0.0001	<0.0001	<0.0001	<0.00001	<0.000005	<0.000005	<0.000005	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Strontium (Sr)	0.137	0.126	0.125	0.136	0.123	0.173	0.164	0.166	0.137	0.141	0.12	0.138
Dissolved Thallium (Tl)	<0.00005	<0.00005	<0.00005	<0.00005	0.00005	0.000004	0.000002	<0.000002	<0.00005	<0.00005	<0.00005	<0.00005
Dissolved Tin (Sn)	<0.001	<0.001	<0.001	<0.001	<0.00005	0.00002	0.00001	<0.00001	<0.001	<0.001	<0.001	<0.001
Dissolved Titanium (Ti)	0.0011	0.001	0.0009	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0006	0.0015	0.0009	<0.0005
Dissolved Uranium (U)	0.0016	0.0013	0.0014	0.0016	0.00143	0.00208	0.00199	0.00227	0.0016	0.0012	0.0015	0.0016
Dissolved Vanadium (V)	<0.0001	0.0006	0.0007	0.0008	0.00011	<0.0002	<0.0002	<0.0002	0.0001	0.0006	0.0006	0.0009
Dissolved Zinc (Zn)	0.001	0.003	0.003	0.004	0.0035	0.0025	0.0031	0.0018	0.002	0.005	0.003	0.006
Dissolved Zirconium (Zr)					0.00071	<0.0001	<0.0001	<0.0001				
Dissolved Sulphur (S)						20	16	17				
Mercury by CVAA												
Dissolved Mercury (Hg)					<0.00001							
Total Mercury (Hg)					0.00001							
Total Metals by ICP												
Total Boron (B)	0.004	0.002	0.005	<0.004	<0.008	<0.005	<0.005	<0.005	0.004	0.003	0.004	0.004
Total Calcium (Ca)	40.1	35.9	54	42.2	36.5	52.1	49.9	50.6	41.6	36.1	43.8	45.1
Total Iron (Fe)	0.1	0.2	0.1	<0.2	0.143	0.097	0.037	0.019	**<0.1**	0.3	0.2	<0.2
Total Magnesium (Mg)	8.8	8.6	8.5	9.1	8.2	11.2	9.87	10.7	9.4	8.9	9	10
Total Phosphorus (P)	1.3	0.9		1.1	<0.1				1.3	0.8		1.2
Total Silicon (Si)	3.74	4.65	3.81	4.15	4.13	4.05	4.78	5.12	3.53	4.65	3.84	4.19
Total Sodium (Na)	2.6	2.3	3.1	3	2.66	3.59	2.7	3.16	2.7	2.1	3.1	3.2
Total Metals by ICPMS												
Total Aluminum (Al)	0.041	0.114	0.106	0.042	0.0492	0.0359	0.0169	0.0079	0.035	0.171	0.142	0.042
Total Antimony (Sb)	0.0003	<0.0002	<0.0002	<0.0004	0.0001	0.00012	0.00016	0.00013	<0.0002	<0.0002	<0.0002	<0.0004
Total Arsenic (As)	0.0007	0.0006	0.0007	0.0005	0.0002	0.0006	0.00046	0.00055	0.0006	0.0006	0.0007	0.0004
Total Barium (Ba)	0.066	0.067	0.062	0.062	0.0574	0.0793	0.0833	0.0749	0.071	0.065	0.066	0.067
Total Beryllium (Be)	<0.0001	<0.0001	<0.0001	<0.0002	<0.00005	<0.00001	<0.00001	<0.00001	<0.0001	<0.0001	<0.0001	<0.0002
Total Bismuth (Bi)	<0.0005	<0.0005	<0.0005	<0.001	<0.00005	<0.000005	<0.000005	<0.000005	<0.0005	<0.0005	<0.0005	<0.001
Total Cadmium (Cd)	0.00002	0.00003	<0.00001	<0.00002	0.00001	0.000025	0.000013	0.000027	0.00001	0.00003	0.00001	<0.00002
Total Chromium (Cr)	<0.0005	0.0009	0.0006	<0.001	0.0012	0.0001	0.0001	0.0001	<0.0005	0.0009	0.0006	<0.001
Total Cobalt (Co)	<0.0001	<0.0001	0.0001	<0.0002	0.00007	0.000084	0.000027	0.000022	<0.0001	<0.0001	0.0002	<0.0002
Total Copper (Cu)	<0.001	0.001	0.008	0.003	0.001	0.00065	0.00065	0.00061	<0.001	0.002	0.002	<0.002
Total Lead (Pb)	0.0004	0.0003	0.0009	0.001	0.00024	0.000249	0.000074	0.000083	0.0001	<0.0001	0.0011	0.0009
Total Lithium (Li)	0.003	0.003	0.004	0.003	0.0023	0.004	0.0033	0.0034	0.004	0.004	0.004	0.004
Total Manganese (Mn)	0.013	0.058	0.027	0.053	0.0345	0.0508	0.00647	0.00396	0.014	0.068	0.049	0.09
Total Molybdenum (Mo)	0.001	<0.001	0.001	<0.002	0.00084	0.00109	0.00106	0.00093	0.001	<0.001	<0.001	<0.002
Total Nickel (Ni)	<0.0005	0.0012	0.0018	0.002	0.0006	0.00069	0.00048	0.00042	0.0007	0.0018	0.0019	0.0024
Total Potassium (K)	1.3	0.9	1.3	1.1	1.07	1.43	1.51	1.46	1.3	0.8	1.3	1.2
Total Selenium (Se)	0.0007	0.0005	0.0006	<0.0004	<0.0005	0.00059	0.00061	0.00066	0.0006	0.0004	0.0006	<0.0004
Total Silver (Ag)	<0.0001	<0.0001	<0.0001	<0.0002	<0.00001	<0.000005	<0.000005	<0.000005	0.0002	<0.0001	<0.0001	<0.0002
Total Strontium (Sr)	0.14	0.132	0.162	0.13	0.112	0.178	0.162	0.156	0.139	0.131	0.158	0.14
Total Thallium (Tl)	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	0.000004	0.000003	0.000002	<0.00005	<0.00005	<0.00005	<0.0001
Total Tin (Sn)	<0.001	<0.001	<0.001	<0.002	<0.00005	<0.00001	<0.00001	<0.00001	<0.001	<0.001	<0.001	<0.002
Total Titanium (Ti)	0.0024	0.0049	0.0046	0.0024	0.0014	0.0016	0.0007	<0.0005	0.0016	0.0071	0.0073	0.0024
Total Uranium (U)	0.0016	0.0013	0.0015	0.001	0.00145	0.00217	0.00198	0.00212	0.0018	0.0013	0.0016	0.002
Total Vanadium (V)	0.0003	0.0008	0.0006	0.0002	0.00024	0.0002	0.0002	<0.0002	0.0003	0.0008	0.0008	0.0002
Total Zinc (Zn)	0.007	0.006	0.005	0.006	0.0076	0.0027	0.002	0.0022	0.004	0.006	0.005	0.006
Total Zirconium (Zr)	<0.001	<0.001	<0.001	<0.002	0.14	0.0002	<0.0001	<0.0001	<0.001	<0.001	<0.001	<0.002
						19	15	16				
In-Situ												
pH			8.68	7.57	8.12	8.48	7.88	8.93		8.36	8.64	7.41
Dissolved Oxygen			11.2	11.4	263	13.31	14.58				11.6	11.6
Dissolved Oxygen						91.9						
Conductivity	274	270	441	296	meter down	403	364	160.2	281	256	458	307
Total Dissolved Solids			207	118			182	85.6		114	215	121
Temperature			9.8	7.5	2.2	-1	0.1	0.2		10.4	8.9	7.1

Data Source	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Pelly AE
Lab	Norwest	Norwest	Norwest	Norwest	Norwest	Norwest	Norwest	Norwest	Norwest	Norwest	Norwest	Norwest
Lab ID	324033-2	400527-2	482049	489654	324033-1	400527-1	482049	489654	324033-5	400527-8	324033-5	400527-8
Sampling Date	29/07/2004	05/08/2005	27/07/2006	30/08/2006	29/07/2004	05/08/2005	27/07/2006	30/08/2006	30/07/2004	06/08/2005	30/07/2004	06/08/2005
COC Number												
Sample ID	**A-3**	**A-3**	**A-3**	**A-3**	**A-4**	**A-4**	**A-4**	**A-4**	**Blind Creek B1**	**Blind Creek B1**	**Blind Creek B1**	**Blind Creek B1**
Misc. Inorganics												
Fluoride (F)												
ANIONS												
Nitrite (N)	<0.05	<0.03	<0.03	<0.03	<0.05	<0.03	<0.03	<0.03	<0.05	<0.03	<0.05	<0.03
Calculated Parameters												
Total Hardness (CaCO3)												
Nitrate (N)	0.3	0.05	0.06	0.05	<0.1	0.05	0.06	0.05	<0.1	<0.03	<0.1	<0.03
Misc. Inorganics												
Weak Acid Dissoc. Cyanide (CN)												
Dissolved Hardness (CaCO3)	142	130	148	149	149	145	156	155	86.2	70	86.2	70
Dissolved Organic Carbon (C)												
Alkalinity (Total as CaCO3)												
Total Organic Carbon (C)												
Alkalinity (PP as CaCO3)												
Bicarbonate (HCO3)												
Carbonate (CO3)												
Hydroxide (OH)												
Anions												
Dissolved Sulphate (SO4)	10.5	32	51	47	11.2	34	59	52	4.64	10	4.64	10
Dissolved Chloride (Cl)	<0.5	0.11	0.34	0.34	<0.5	0.12	0.36	0.36	<0.5	0.08	<0.5	0.08
Nutrients												
Ammonia (N)		<0.002	0.008	0.006		<0.002	0.01	0.012		<0.002		<0.002
Nitrate plus Nitrite (N)	0.3	0.05	0.06	0.05	<0.2	0.05	0.06	0.05	<0.2	<0.06	<0.2	<0.06
Total Phosphorus (P)	0.06		<0.02	<0.01	0.07		<0.02	<0.01	0.07		0.07	
Physical Properties												
Conductivity			301				303					
pH	8.41	8.12	8.12	8.1	8.34	7.69	8.16	8.13	8.29	7.93	8.29	7.93
Physical Properties												
Total Suspe<1ed Solids	2	12	8	<2	2	12	2	<2	13	9	13	9
Total Dissolved Solids		<0.002		0.006		<0.002		0.012		<0.002		<0.002
Dissolved Metals by ICP												
Dissolved Boron (B)	0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	0.005	0.003	0.005	0.003
Dissolved Calcium (Ca)	41.5	37.8	42.8	43.8	43	41.6	44.9	45.3	24.6	20.4	24.6	20.4
Dissolved Iron (Fe)	0.06	0.12	0.04	0.07	0.07	0.09	0.06	0.07	0.06	0.15	0.06	0.15
Dissolved Magnesium (Mg)	9.4	8.8	10	9.6	10.1	10.1	10.6	10.2	6	4.7	6	4.7
Dissolved Phosphorus (P)												
Dissolved Silicon (Si)	3.92	4.33	3.95	4.01	3.91	4.44	3.86	3.92	4.52	4.78	4.52	4.78
Dissolved Sodium (Na)	2.7	2.2	2.8	3	2.7	2.3	2.8	3	2.9	2.1	2.9	2.1
Dissolved Metals by ICPMS												
Dissolved Aluminum (Al)	<0.005	0.033	<0.005	0.008	<0.005	0.015	<0.005	<0.005	0.009	0.027	0.009	0.027
Dissolved Antimony (Sb)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Dissolved Arsenic (As)	0.0006	0.0007	0.0004	0.0004	0.0004	0.0005	0.0003	0.0004	0.0008	0.0007	0.0008	0.0007
Dissolved Barium (Ba)	0.066	0.067	0.06	0.059	0.07	0.063	0.059	0.058	0.063	0.063	0.063	0.063
Dissolved Beryllium (Be)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Bismuth (Bi)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dissolved Cadmium (Cd)	<0.00001	<0.00001	0.00002	<0.00001	<0.00001	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Dissolved Chromium (Cr)	<0.0005	0.0013	<0.0005	0.0006	<0.0005	0.001	<0.0005	0.0006	<0.0005	<0.0005	<0.0005	<0.0005
Dissolved Cobalt (Co)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Copper (Cu)	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001
Dissolved Lead (Pb)	<0.0001	0.0003	0.0007	0.0007	0.0004	0.0002	0.001	0.001	<0.0001	0.0002	<0.0001	0.0002
Dissolved Lithium (Li)	0.003	0.004	0.003	0.004	0.003	0.004	0.003	0.004	0.002	0.002	0.002	0.002
Dissolved Manganese (Mn)	0.014	0.067		0.098	0.022	0.094		0.15	0.007	0.011	0.007	0.011
Dissolved Molybdenum (Mo)	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dissolved Nickel (Ni)	<0.0005	0.0023	<0.0005	<0.0005	<0.0005	0.0022	<0.0005	<0.0005	<0.0005	0.0009	<0.0005	0.0009
Dissolved Potassium (K)	1.3	0.9	1.2	1.1	1.2	1	1.2	1.1	0.8	0.7	0.8	0.7
Dissolved Selenium (Se)	0.0005	0.0004	0.0002	0.0003	0.0005	0.0006	0.0002	0.0005	<0.0002	0.0003	<0.0002	0.0003
Dissolved Silver (Ag)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Strontium (Sr)	0.136	0.13	0.121	0.138	0.14	0.137	0.124	0.143	0.101	0.089	0.101	0.089
Dissolved Thallium (Tl)	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Dissolved Tin (Sn)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dissolved Titanium (Ti)	0.0006	0.001	0.001	<0.0005	0.0006	0.0008	0.0011	<0.0005	<0.0005	0.0006	<0.0005	0.0006
Dissolved Uranium (U)	0.0016	0.0011	0.0014	0.0017	0.0016	0.0012	0.0013	0.0016	0.0006	<0.0005	0.0006	<0.0005
Dissolved Vanadium (V)	0.0001	0.001	0.0006	0.001	0.0001	0.0079	0.0004	0.0008	0.0002	0.0005	0.0002	0.0005
Dissolved Zinc (Zn)	0.002	0.006	0.004	0.007	0.007	0.008	0.005	0.009	<0.001	0.001	<0.001	0.001
Dissolved Zirconium (Zr)												
Dissolved Sulphur (S)												
Mercury by CVAA												
Dissolved Mercury (Hg)												
Total Mercury (Hg)												
Total Metals by ICP												
Total Boron (B)	0.004	0.006	0.003	0.004	0.005	0.007	0.003	<0.004	0.007	0.004	0.007	0.004
Total Calcium (Ca)	41.9	35.9	43.8	48.6	43.1	38.9	45.4	45.1	23.4	19	23.4	19
Total Iron (Fe)	0.1	0.3	0.2	<0.2	0.1	0.3	0.1	<0.2	0.1	<0.2	0.1	<0.2
Total Magnesium (Mg)	9.6	8.8	9	9.5	10.2	9.8	9.5	10	5.7	4.6	5.7	4.6
Total Phosphorus (P)	1.2	<0.8		1.1	1.2	0.9		1.1	0.8	<0.8	0.8	<0.8
Total Silicon (Si)	3.86	4.59	3.79	4.08	3.75	4.42	3.66	3.97	4.14	4.62	4.14	4.62
Total Sodium (Na)	2.7	2	3.1	3.1	2.6	2.2	3.2	3.1	2.8	2	2.8	2
Total Metals by ICPMS												
Total Aluminum (Al)	0.051	0.16	0.095	0.071	0.007	0.113	0.032	0.01	0.034	0.063	0.034	0.063
Total Antimony (Sb)	<0.0002	<0.0004	<0.0002	<0.0004	<0.0002	<0.0002	<0.0002	<0.0004	<0.0002	<0.0004	<0.0002	<0.0004
Total Arsenic (As)	0.0006	0.0006	0.0007	0.0005	0.0004	0.0005	0.0005	<0.0004	0.0009	0.0007	0.0009	0.0007
Total Barium (Ba)	0.073	0.064	0.065	0.065	0.075	0.065	0.062	0.063	0.066	0.058	0.066	0.058
Total Beryllium (Be)	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002
Total Bismuth (Bi)	<0.0005	<0.001	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.001	<0.0005	<0.001
Total Cadmium (Cd)	0.00001	0.00003	0.00003	<0.00002	0.00002	0.00002	<0.00001	<0.00002	0.00001	<0.00002	0.00001	<0.00002
Total Chromium (Cr)	<0.0005	0.001	0.0008	<0.001	<0.0005	0.001	<0.0005	<0.001	<0.0005	<0.001	<0.0005	<0.001
Total Cobalt (Co)	0.0002	<0.0002	0.0002	<0.0002	<0.0001	0.0001	0.0001	<0.0002	<0.0001	<0.0002	<0.0001	<0.0002
Total Copper (Cu)	0.001	<0.002	0.001	0.004	0.001	0.001	<0.001	<0.002	0.001	<0.002	0.001	<0.002
Total Lead (Pb)	0.0004	<0.0002	0.0009	0.0007	0.0005	0.0005	0.0009	0.0008	<0.0001	<0.0002	<0.0001	<0.0002
Total Lithium (Li)	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.003	<0.002	0.003	<0.002
Total Manganese (Mn)	0.02	0.075	0.057	0.11	0.031	0.124	0.084	0.17	0.012	0.01	0.012	0.01
Total Molybdenum (Mo)	0.001	<0.002	<0.001	<0.002	0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.002
Total Nickel (Ni)	0.001	0.0024	0.0016	0.0021	0.0009	0.0025	0.0012	0.002	0.0006	<0.001	0.0006	<0.001
Total Potassium (K)	1.2	<0.8	1.2	1.1	1.2	0.9	1.2	1.1	0.8	<0.8	0.8	<0.8
Total Selenium (Se)	0.0004	<0.0004	0.0004	<0.0004	0.0005	0.0006	0.0006	0.0005	<0.0002	<0.0004	<0.0002	<0.0004
Total Silver (Ag)	0.0002	<0.0002	<0.0001	<0.0002	0.0002	<0.0001	<0.0001	<0.0002	0.0002	<0.0002	0.0002	<0.0002
Total Strontium (Sr)	0.142	0.13	0.154	0.14	0.145	0.141	0.163	0.14	0.1	0.088	0.1	0.088
Total Thallium (Tl)	<0.00005	<0.0001	<0.00005	<0.0001	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001
Total Tin (Sn)	<0.001	<0.002	<0.001	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.002
Total Titanium (Ti)	0.0018	0.0066	0.005	0.0032	0.0009	0.007	0.0025	0.001	0.0011	0.0022	0.0011	0.0022
Total Uranium (U)	0.0018	0.001	0.0017	0.002	0.0017	0.0013	0.0015	0.001	0.0007	<0.001	0.0007	<0.001
Total Vanadium (V)	0.0003	0.0008	0.0006	0.0003	0.0002	0.0005	0.0004	<0.0002	0.0003	0.001	0.0003	0.001
Total Zinc (Zn)	0.039	0.008	0.011	0.008	0.015	0.018	0.007	0.009	0.002	<0.002	0.002	<0.002
Total Zirconium (Zr)	<0.001	<0.002	<0.001	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.002
In-Situ												
pH		7.59	8.67	7.33		8.14	8.6	7.57		6.9		6.9
Dissolved Oxygen			12.4	13.7			12.6	13.7				
Dissolved Oxygen												
Conductivity	279	262	321	305	299	270	477	319	173	157	173	157
Total Dissolved Solids		117	150	121		123	223	124		66		66
Temperature		9.3	8.6	7.4		7.3	8.4	6.9		10.9		10.9

Data Source	Pelly AE	Pelly AE	Interim	Interim	Interim	Interim	Interim	Pelly AE	Pelly AE	Pelly AE	Pelly AE
Lab	Norwest	Norwest	Maxxam	Maxxam	Maxxam	Maxxam	Cantest	Norwest	Norwest	Norwest	Norwest
Lab ID	324989-1	401480-3	H22001	H68325	I14727	I40620	703290470	324989-13	401480-6	324989-11	401480-1
Sampling Date	02/08/2004	09/08/2005	25/09/2007	25/10/2007	21/11/2007	13/12/2007	03/26/2007	01/04/2004	09/08/2005	04/08/2004	09/08/2005
COC Number			8198215	8199474	8201068	8201389	181381				
Sample ID	**Earn River**	**Earn River**	**FC**	**FC**	**FC**	**FC**	**FDU**	**Glenlyon River**	**Glenlyon River**	**Macmillan River**	**Macmillan River**
Misc. Inorganics											
Fluoride (F)			0.09	0.08	0.1	0.11					
ANIONS											
Nitrite (N)	<0.05	<0.03	<0.005	<0.005	<0.005	<0.005		<0.05	<0.03	<0.05	<0.03
Calculated Parameters											
Total Hardness (CaCO3)			12.2	12.9	13.8	16	21.1				
Nitrate (N)	<0.1	<0.03	<0.02	<0.02	0.02	0.04		<0.1	<0.03	<0.1	<0.03
Misc. Inorganics											
Weak Acid Dissoc. Cyanide (CN)			<0.0005	<0.0005	<0.0005	<0.0005					
Dissolved Hardness (CaCO3)	276	255	11.5	13.6	15.1	16.2	19.8	72.9	69	120	120
Dissolved Organic Carbon (C)			2.9	2.1	1.2	1.8					
Alkalinity (Total as CaCO3)			11.6	14	15	17	< 0.5				
Total Organic Carbon (C)			2.8	2.1	1	1.6					
Alkalinity (PP as CaCO3)			<0.5	<0.5	<0.5	<0.5	29.4				
Bicarbonate (HCO3)			14.1	17	18	21	35.9				
Carbonate (CO3)			<0.5	<0.5	<0.5	<0.5	< 0.5				
Hydroxide (OH)			<0.5	<0.5	<0.5	<0.5	< 0.5				
Anions											
Dissolved Sulphate (SO4)	38.3	109	1.2	2.6	2.4	2.9	1.76	4.94	14.8	17.8	49
Dissolved Chloride (Cl)	1.2	<0.07	<0.5	<0.5	<0.5	<0.5	< 0.2	0.5	<0.07	<0.5	0.08
Nutrients											
Ammonia (N)		-	<0.005	<0.005	<0.005	<0.005			-		0.021
Nitrate plus Nitrite (N)	<0.2	<0.06	<0.02	<0.02	0.02	0.04			<0.06	<0.2	<0.06
Total Phosphorus (P)	0.07		<0.005	<0.005	<0.005	<0.005		0.06		0.06	
Physical Properties											
Conductivity			29	37	37	41	56				
pH	8.3	8.09	7.4	7.4	7.5	7.6	6.93	8.15	7.86	8.14	7.62
Physical Properties											
Total Suspe<1ed Solids	1	<3	2	<1	<1	<1	1		<3	13	31
Total Dissolved Solids		-	40	34	28	46			-		0.021
Dissolved Metals by ICP											
Dissolved Boron (B)	0.008	0.006	<0.008	<0.005	<0.005	0.005	< 0.01	<0.002	<0.002	0.004	0.005
Dissolved Calcium (Ca)	66.7	63	3.42	4.14	4.54	4.89	5.8	20.2	18.9	30.9	30.6
Dissolved Iron (Fe)	0.03	0.06	0.05	0.00003	0.027	0.018	0.02	<0.01	0.02	0.02	0.04
Dissolved Magnesium (Mg)	26.5	23.8	0.72	0.79	0.92	0.96	1.29	5.4	5.2	10.4	10.6
Dissolved Phosphorus (P)			<0.1				< 0.03				
Dissolved Silicon (Si)	2.92	3.6	6.4	0.00627	6.77	7.6	7.92	3.36	3.58	2.96	3.58
Dissolved Sodium (Na)	3.8	3.6	2.45	1.85	1.98	2.16	2.94	1.9	1.9	1.9	2.4
Dissolved Metals by ICPMS											
Dissolved Aluminum (Al)	<0.005	<0.005	0.0647	0.0362	0.0321	0.0277	0.015	0.008	0.014	0.064	0.041
Dissolved Antimony (Sb)	0.0003	0.0003	0.00083	0.00002	0.00003	0.00004	< 0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Dissolved Arsenic (As)	0.0012	0.0005	<0.0001	0.0001	0.00009	0.00009	< 0.0002	<0.0002	<0.0002	0.0004	<0.0002
Dissolved Barium (Ba)	0.057	0.057	0.0143	0.0161	0.0164	0.017	0.023	0.046	0.044	0.067	0.062
Dissolved Beryllium (Be)	<0.0001	<0.0001	<0.00005	0.00002	0.00001	<0.00001	< 0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Bismuth (Bi)	<0.0005	<0.0005	<0.00005	<0.000005	<0.000005	<0.000005	< 0.0002	<0.0005	<0.0005	<0.0005	<0.0005
Dissolved Cadmium (Cd)	0.00002	0.00002	0.00002	0.000041	0.00001	0.00001	0.00001	<0.00001	<0.00001	0.00005	0.00006
Dissolved Chromium (Cr)	<0.0005	<0.0005	0.0008	0.0002	0.0001	0.0002	< 0.0002	<0.0005	0.0008	<0.0005	0.0009
Dissolved Cobalt (Co)	<0.0001	<0.0001	0.00014	0.000021	0.000017	0.000018	< 0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Copper (Cu)	0.001	0.001	0.001	0.0006	0.00055	0.00044	0.0003	<0.001	<0.001	<0.001	0.001
Dissolved Lead (Pb)	<0.0001	<0.0001	0.00041	0.000271	0.000198	0.000065	< 0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Lithium (Li)	0.007	0.007	0.0017	0.0018	0.002	0.0025	0.0023	0.001	0.001	0.004	0.004
Dissolved Manganese (Mn)	<0.005	0.01	0.00217	0.00162	0.00077	0.00047	1.29	<0.005	<0.005	<0.005	0.006
Dissolved Molybdenum (Mo)	0.002	0.002	0.00005	0.00006	0.00007	0.00009	< 0.0001	<0.001	<0.001	<0.001	0.001
Dissolved Nickel (Ni)	0.0007	0.0012	<0.0005	0.00029	0.00028	0.00023	0.0003	<0.0005	0.0005	0.0009	0.0026
Dissolved Potassium (K)	1.4	1.4	0.139	0.15	0.17	0.19	0.27	0.6	0.4	0.7	0.7
Dissolved Selenium (Se)	0.0012	0.0009	<0.0005	<0.00004	<0.00004	<0.00004	< 0.0002	<0.0002	<0.0002	0.0012	0.0012
Dissolved Silver (Ag)	<0.0001	<0.0001	<0.00001	<0.000005	<0.000005	<0.000005	< 0.00005	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Strontium (Sr)	0.274	0.266	0.023	0.0266	0.0274	0.0287	0.031	0.104	0.097	0.163	0.173
Dissolved Thallium (Tl)	<0.00005	<0.00005	0.00005	0.000002	<0.000002	0.000004	< 0.00002	<0.00005	<0.00005	<0.00005	<0.00005
Dissolved Tin (Sn)	<0.001	<0.001	<0.00005	0.00002	<0.00001	<0.00001	< 0.0002	<0.001	<0.001	<0.001	<0.001
Dissolved Titanium (Ti)	0.0024	0.002	0.001	0.0005	<0.0005	<0.0005	0.0005	0.0007	<0.0005	0.0023	0.0014
Dissolved Uranium (U)	0.0014	0.0013	0.00014	0.000118	0.00012	0.000085	< 0.0001	0.0009	0.0009	<0.0005	0.0005
Dissolved Vanadium (V)	<0.0001	0.0008	0.00012	<0.0002	<0.0002	0.0003	< 0.0002	<0.0001	0.0004	0.0002	0.0007
Dissolved Zinc (Zn)	0.002	0.001	0.006	0.0053	0.0025	0.0017	0.003	0.003	0.002	0.003	0.003
Dissolved Zirconium (Zr)			0.00024	<0.0001	<0.0001	<0.0001	< 0.002				
Dissolved Sulphur (S)				<3	<3	<3					
Mercury by CVAA											
Dissolved Mercury (Hg)			<0.00001				< 0.000015				
Total Mercury (Hg)			<0.00001				< 0.000015				
Total Metals by ICP											
Total Boron (B)	0.009	0.007	<0.008	<0.005	<0.005	<0.005	< 0.01	0.004	<0.002	0.007	0.007
Total Calcium (Ca)	62.4	64.2	3.54	3.91	4.27	4.87	6.15	20.4	19	31	32
Total Iron (Fe)	0.1	0.1	0.066	0.033	0.031	0.024	0.08	<0.1	<0.1	0.4	1.6
Total Magnesium (Mg)	25.6	22.8	0.83	0.76	0.77	0.94	1.38	5.3	4.9	10.4	10.5
Total Phosphorus (P)	1.3	1.3	<0.1				< 0.03	0.6	0.5	0.9	1.1
Total Silicon (Si)	2.83	3.33	6.29	5.87	7.43	7.54	8.23	3.2	3.32	3.41	5.83
Total Sodium (Na)	3.5	3.6	2.18	1.8	1.69	2.07	2.89	1.9	1.8	1.9	2.2
Total Metals by ICPMS											
Total Aluminum (Al)	<0.005	0.019	0.0797	0.037	0.0322	0.0293	0.074	0.024	0.028	0.45	1.27
Total Antimony (Sb)	0.0003	0.0003	0.00006	<0.00002	<0.00002	<0.00002	< 0.0002	<0.0002	<0.0002	<0.0002	0.0003
Total Arsenic (As)	0.0011	0.001	0.0002	0.0001	0.00006	0.00008	< 0.0002	<0.0002	0.0003	0.0006	0.0014
Total Barium (Ba)	0.056	0.058	0.0129	0.0156	0.0172	0.0176	0.026	0.046	0.044	0.078	0.123
Total Beryllium (Be)	<0.0001	<0.0001	<0.00005	0.00001	<0.00001	<0.00001	< 0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Total Bismuth (Bi)	<0.0005	<0.0005	<0.00005	<0.000005	<0.000005	<0.000005	< 0.0002	<0.0005	<0.0005	<0.0005	<0.0005
Total Cadmium (Cd)	0.00003	<0.00001	0.00001	0.000013	0.000009	0.000009	0.00001	<0.00001	<0.00001	0.00009	0.00023
Total Chromium (Cr)	<0.0005	<0.0005	0.001	0.0001	0.0001	0.0001	< 0.0002	<0.0005	<0.0005	0.0008	0.0027
Total Cobalt (Co)	0.0003	<0.0001	0.00005	0.000018	0.000015	0.000019	< 0.0002	<0.0001	<0.0001	0.0005	0.0007
Total Copper (Cu)	0.001	0.002	0.0009	0.00047	0.00051	0.00039	0.0004	<0.001	<0.001	0.001	0.004
Total Lead (Pb)	0.0003	<0.0001	0.00032	0.000104	0.000152	0.000088	0.0006	0.0003	<0.0001	0.0003	0.0008
Total Lithium (Li)	0.007	0.007	0.0012	0.002	0.0019	0.0025	0.0025	0.002	0.002	0.005	0.006
Total Manganese (Mn)	0.014	0.013	0.00261	0.00105	0.00089	0.0007	0.0015	<0.005	<0.005	0.016	0.053
Total Molybdenum (Mo)	0.002	0.002	0.00006	0.00005	0.00008	0.00008	< 0.0001	<0.001	<0.001	0.001	0.001
Total Nickel (Ni)	0.0015	0.0017	<0.0005	0.00022	0.00024	0.00023	0.0004	<0.0005	<0.0005	0.0018	0.0078
Total Potassium (K)	1.3	1.3	0.142	0.13	0.16	0.17	0.31	0.6	0.5	0.9	1.1
Total Selenium (Se)	0.0012	0.001	<0.0005	<0.00004	<0.00004	<0.00004	< 0.0002	<0.0002	<0.0002	0.0014	0.0012
Total Silver (Ag)	<0.0001	<0.0001	<0.00001	<0.000005	<0.000005	<0.000005	< 0.00005	<0.0001	<0.0001	<0.0001	<0.0001
Total Strontium (Sr)	0.28	0.268	0.0222	0.0264	0.0261	0.0296	0.033	0.11	0.102	0.168	0.181
Total Thallium (Tl)	<0.00005	<0.00005	<0.00005	<0.000002	0.000002	0.000002	< 0.00002	<0.00005	<0.00005	<0.00005	<0.00005
Total Tin (Sn)	<0.001	<0.001	<0.00005	<0.00001	<0.00001	<0.00001	< 0.0002	<0.001	<0.001	0.001	<0.001
Total Titanium (Ti)	0.0024	0.0022	0.0014	0.0007	<0.0005	<0.0005	0.0021	0.0011	0.0011	0.0125	0.0293
Total Uranium (U)	0.0014	0.0013	0.00015	0.000123	0.0001	0.00009	< 0.0001	0.001	0.0008	0.0005	0.0005
Total Vanadium (V)	0.0002	0.0003	0.00014	0.0002	0.0003	<0.0002	0.0002	0.0002	0.0002	0.002	0.0059
Total Zinc (Zn)	0.022	0.019	0.0061	0.0018	0.0021	0.0015	0.003	0.004	0.009	0.011	0.028
Total Zirconium (Zr)	<0.001	<0.001	0.28	<0.0001	<0.0001	<0.0001	< 0.002	<0.001	<0.001	<0.001	<0.001
				<3	<3	<3					
In-Situ											
pH			6.85	6.84	6.45	8.01					
Dissolved Oxygen			10.43	11.65	13.01						
Dissolved Oxygen				80.1							
Conductivity	501	496	338	40.2	71.3	29.3		151	159	241	266
Total Dissolved Solids					35.6	14.7					
Temperature			2.4	-1	0.2	0.3					

[a] Sampled under the Pelly River Aquatic Effects Assessment Program

[b] Sampled under the Pelly River Interim Aquatic Ecosystem Monitoring Program

Water quality data provided by Access Consulting Group and Laberge Environmental Services, in conjunction with Selkirk First Nation, and Minnow Environmental Inc.

Data source abrreviations:

"Pelly AE" - Pelly River Aquatic Effects Assessment (2004-2006)

"Interim" - Pelly River Interim Aquacitc Ecosystem Monitoring Plan (2007)

Appendix C4.
Water Quality Data from Additional Monitoring Programs, including the Pelly River Aquatic Effects Assessment

Data Source	Pelly AE	Pelly AE	Interim	Interim	Interim	Interim	Interim	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Interim	Interim	Interim	Interim	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Interim	Interim	Interim	Interim	Pelly AE	Pelly AE	Interim	Interim	Interim	Interim	Pelly AE	Pelly AE	Interim	Interim	Interim	Interim
Lab	Norwest	Norwest	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Norwest	Norwest	Norwest	Norwest	Maxxam	Maxxam	Maxxam	Maxxam	Norwest	Norwest	Norwest	Norwest	Maxxam	Maxxam	Maxxam	Maxxam	Norwest	Norwest	Maxxam	Maxxam	Maxxam	Maxxam	Norwest	Norwest	Maxxam	Maxxam	Maxxam	Maxxam
Lab ID	324989-9	401480-2	G74772	H21997	H68324	I14729	I40622	324989-3	401480-7	482049	482049	H22013	H68315	I14750	I40658	324989-4	401480-8	482049	489654	H22005	H68314	I14742	I40651	324989-6	401480-10	H22011	H68311	I14741	I40631	324989-7	401480-11	H22012	H68312	I14736	I40630
Sampling Date	04/08/2004	09/08/2005	26/08/2007	25/09/2007	25/10/2007	21/11/2007	13/12/2007	02/08/2004	09/08/2005	27/07/2006	30/08/2006	26/09/2007	24/10/2007	22/11/2007	14/12/2007	01/08/2004	09/08/2005	27/07/2006	30/08/2006	27/09/2007	24/10/2007	22/11/2007	14/12/2007	03/08/2004	09/08/2005	26/09/2007	24/10/2007	22/11/2007	14/12/2007	03/08/2004	09/08/2005	26/09/2007	24/10/2007	22/11/2007	14/12/2007
COC Number			F82587	8198215	8199474	8201068	8201389				489654	8198216	8199472	8201069	8201390					8198215	8199472	8201069	8201390			8198216	8199472	8201069	8201390			8198216	8199472	8201068	8201389
Sample ID	**Needlerock Creek**	**Needlerock Creek**	**Next Creek**	**NF2**	**NF2**	**NF2**	**NF2**	**P1[a]**	**P1[a]**	**P1[a]**	**P1[a]**	**P1[b]**	**P1[b]**	**P1[b]**	**P1[b]**	**P1A**	**P1A**	**P1A**	**P1A**	**P2**	**P2**	**P2**	**P2**	**P3**	**P3**	**P3**	**P3**	**P3**	**P3**	**P4**	**P4**	**P4**	**P4**	**P4**	**P4**
Misc. Inorganics																																			
Fluoride (F)				0.15	0.12	0.13	0.15					0.14	0.12	0.12	0.13					0.13	0.13	0.13	0.13			0.14	0.13	0.13	0.12			0.13	0.12	0.12	0.13
ANIONS																																			
Nitrite (N)	<0.05	<0.03		<0.005	<0.005	<0.005	<0.005	<0.05	<0.03	<0.03	<0.03	<0.005	<0.005	<0.005	<0.005	<0.05	<0.03	<0.03	<0.03	<0.005	<0.005	<0.005	<0.005	<0.05	<0.03	<0.005	<0.005	<0.005	<0.005	<0.05	<0.03	<0.005	<0.005	<0.005	<0.005
Calculated Parameters																																			
Total Hardness (CaCO3)				78.4	104	114	135					154	174	214	216					153	176	214	213			156	173	200	200			142	173	187	209
Nitrate (N)	<0.1	<0.03		0.06	0.11	0.2	0.23	<0.1	<0.03	<0.03	<0.03	<0.02	<0.02	0.05	0.08	<0.1	<0.03	<0.03	<0.03	<0.02	0.02	0.05	0.08	<0.1	<0.03	<0.02	<0.02	0.08	0.09	<0.1	<0.03	0.02	<0.02	0.08	0.09
Misc. Inorganics																																			
Weak Acid Dissoc. Cyanide (C				<0.0005	<0.0005	<0.0005	<0.0005					<0.0005	<0.0005	<0.0005	<0.0005					<0.0005	<0.0005	<0.0005	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005
Dissolved Hardness (CaCO3)	181	181		82.1	106	126	131	173	154	161	144	159	178	212	217	172	154	160	156	161	178	214	201	169	155	163	179	197	199	169	152	147	176	206	202
Dissolved Organic Carbon (C)				1.6	1.8	<0.5	1.3					3.5	3.8	4.2	2.7					4.1	3.8	5.4	3.2			3.5	3.4	1.7	1.9			3.5	3.4	4.1	2.4
Alkalinity (Total as CaCO3)				69.4	96.6	100	120					97.5	120	130	140					98.2	121	130	140			101	122	140	140			97.3	123	140	140
Total Organic Carbon (C)				2.7	1.8	0.8	1					3.5	3.9	4	2.5					4.1	3.7	4.5	3.3			3.3	3.3	1.9	1.8			3.4	3.5	4.2	2.1
Alkalinity (PP as CaCO3)				<0.5	<0.5	<0.5	<0.5					<0.5	<0.5	<0.5	<0.5					<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5
Bicarbonate (HCO3)				84.7	118	130	140					119	147	160	170					120	148	160	170			123	149	170	170			119	150	170	170
Carbonate (CO3)				<0.5	<0.5	<0.5	<0.5					<0.5	<0.5	<0.5	<0.5					<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5
Hydroxide (OH)				<0.5	<0.5	<0.5	<0.5					<0.5	<0.5	<0.5	<0.5					<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5
Anions																																			
Dissolved Sulphate (SO4)	4.63	14.5		18.9	16.1	17.3	18.1	18.2	48	58	50	55.5	62.5	68.5	67.3	18	49	56	50	54.5	62.9	68.2	62.6	17.8	49	53.3	59.8	57.4	58.4	17.8	47	45.4	60.1	61.2	61.1
Dissolved Chloride (Cl)	0.5	0.54		<0.5	<0.5	<0.5	<0.5	0.6	<0.07	0.27	0.24	<0.5	<0.5	<0.5	<0.5	0.5	0.08	0.26	0.24	<0.5	<0.5	<0.5	<0.5	0.5	0.08	<0.5	<0.5	<0.5	<0.5	0.5	0.09	<0.5	<0.5	<0.5	<0.5
Nutrients																																			
Ammonia (N)		-		<0.005	0.006	<0.005	<0.005		0.024	0.003	0.006	<0.005	<0.005	<0.005	0.006		0.008	0.007	0.008	<0.005	<0.005	0.023	0.026		-	<0.005	<0.005	0.006	0.007	0.06	0.014	<0.005	<0.005	0.025	0.008
Nitrate plus Nitrite (N)	<0.2	<0.06		0.06	0.11	0.2	0.23	<0.2	<0.06	<0.06	<0.06	<0.02	<0.02	0.05	0.08	<0.2	<0.06	<0.06	<0.06	<0.02	0.02	0.05	0.08	<0.2	<0.06	<0.02	<0.02	0.08	0.09	<0.2	<0.06	0.02	<0.02	0.08	0.09
Total Phosphorus (P)	0.07			<0.005	0.006	<0.005	<0.005	0.06		<0.02	<0.01	0.011	0.007	0.005	<0.005	0.06		<0.02	<0.01	0.007	0.013	0.008	0.006	0.05		0.009	0.008	<0.005	<0.005			0.006	0.008	<0.005	<0.005
Physical Properties																																			
Conductivity				156	219	240	260			287	292	292	350	390	400			288		294	352	380	390			293	349	360	380			271	351	370	390
pH	8.4	8.04		8	8	7.9	8	8.3	7.77	8.14	8.03	8.2	8.1	8.1	8	8.31	8.08	8.17	8.1	8.2	8.2	8.1	8.1	8.35	8.14	8.2	8.2	8.1	8.1	8.34	8.11	8.2	8.2	8.1	8.1
Physical Properties																																			
Total Suspe<1ed Solids	1	<3		<1	4	1	2	5	32	12	16	5	3	1	<1	7	6	10	12	5	8	1	<1	10	24	8	3	3	<1	81	21	4	7	1	<1
Total Dissolved Solids		-		90	128	140	190		0.024			206	214	240	250		0.008		0.008	171	214	230	230		-	196	202	220	230	0.06	0.014	184	202	230	250
Dissolved Metals by ICP																																			
Dissolved Boron (B)	0.003	0.003		0.014	<0.005	<0.005	<0.005	0.004	0.003	0.003	0.005	<0.008	<0.005	<0.005	<0.005	0.004	0.003	0.003	0.004	<0.008	<0.005	<0.005	<0.005	0.004	0.003	<0.008	<0.005	<0.005	<0.005	0.004	0.003	<0.008	<0.005	<0.005	<0.005
Dissolved Calcium (Ca)	52.2	52.2		24.6	31.8	37.7	39.2	43.7	39.3	40.5	37.4	41.3	46.6	55	56.8	43.5	39.7	40.6	42	42.1	46.7	55.3	52.7	43.3	40.2	44.1	47.3	55.9	53.9	43.5	39.5	39.8	47	54.9	53.7
Dissolved Iron (Fe)	0.01	0.05		0.101	0.000117	0.089	0.069	<0.01	0.03	0.02	0.03	0.056	0.000066	0.034	0.012	<0.01	0.03	0.02	0.04	0.064	0.000065	0.036	0.014	0.01	0.05	0.041	0.00005	0.015	0.018	<0.01	0.04	0.072	0.000055	0.031	0.021
Dissolved Magnesium (Mg)	12.2	12.4	2.32	5.01	6.39	7.83	8.1	15.5	13.5	14.4	12.4	13.7	14.9	18.2	18.3	15.3	13.4	14.2	12.4	13.7	15	18.5	17	14.8	13.2	12.9	14.9	14	15.5	14.7	12.9	11.7	14.2	16.6	16.6
Dissolved Phosphorus (P)				<0.1								<0.1								<0.1						<0.1						<0.1			
Dissolved Silicon (Si)	4.08	4.74		4.65	0.00427	5.38	5.92	2.6	3.15	2.86	2.78	3.03	0.00281	4.11	4.05	2.67	3.22	2.94	2.85	3.03	0.00297	4.14	2.97	2.75	3.39	3.39	0.00299	4.95	3.25	2.84	3.39	3.44	0.00339	4.98	3.6
Dissolved Sodium (Na)	3.6	3.7	2	2.12	2.33	2.66	2.86	1.8	1.6	1.6	1.3	2.42	2.06	2.39	2.47	1.8	1.6	1.7	1.5	1.79	2.14	2.52	2.39	2	2	2.83	2.14	3.15	2.63	2	2	2.38	2.21	2.79	2.52
Dissolved Metals by ICPMS																																			
Dissolved Aluminum (Al)	<0.005	<0.005		0.0248	0.008	0.0052	0.0037	0.01	0.023	0.018	0.038	0.0316	0.0177	0.0083	0.0027	0.012	0.023	0.017	0.044	0.0312	0.017	0.011	0.0045	0.011	0.021	0.0245	0.0133	0.0084	0.006	0.01	0.021	0.0332	0.0128	0.0125	0.0049
Dissolved Antimony (Sb)	<0.0002	<0.0002		0.00082	0.00007	0.00007	0.00008	0.0002	0.0002	0.0002	<0.0002	0.00105	0.00019	0.0002	0.00018	<0.0002	0.0002	0.0002	0.0002	0.00101	0.00018	0.00023	0.00018	<0.0002	<0.0002	0.00106	0.00018	0.00021	0.00021	<0.0002	<0.0002	0.00111	0.00017	0.00021	0.00018
Dissolved Arsenic (As)	0.0015	0.001		0.0005	0.00051	0.00036	0.00035	0.0005	<0.0002	0.0005	0.0005	0.0004	0.00041	0.00037	0.0003	0.0005	<0.0002	0.0006	0.0005	0.0003	0.00041	0.00037	0.00028	0.0006	<0.0002	0.0003	0.00045	0.00039	0.00032	0.0006	<0.0002	0.0003	0.00042	0.00045	0.00033
Dissolved Barium (Ba)	0.108	0.108		0.0418	0.0587	0.063	0.0654	0.079	0.07	0.073	0.063	0.0704	0.0801	0.0841	0.0951	0.078	0.07	0.072	0.063	0.0706	0.0768	0.088	0.0887	0.076	0.069	0.0778	0.0765	0.0989	0.094	0.075	0.068	0.0656	0.0761	0.0847	0.0913
Dissolved Beryllium (Be)	<0.0001	<0.0001		<0.00005	<0.00001	<0.00001	<0.00001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00005	<0.00001	<0.00001	<0.00001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00005	<0.00001	<0.00001	<0.00001	<0.0001	<0.0001	<0.00005	<0.00001	<0.00001	<0.00001	<0.0001	<0.0001	<0.00005	<0.00001	<0.00001	<0.00001
Dissolved Bismuth (Bi)	<0.0005	<0.0005		<0.00005	<0.000005	<0.000005	<0.000005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00005	<0.000005	<0.000005	<0.000005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00005	<0.000005	<0.000005	<0.000005	<0.0005	<0.0005	<0.00005	<0.000005	<0.000005	<0.000005	<0.0005	<0.0005	<0.00005	<0.000005	<0.000005	<0.000005
Dissolved Cadmium (Cd)	0.00001	<0.00001		0.00002	0.000021	0.000025	0.000018	0.00004	0.00006	0.00004	0.00005	0.00013	0.000162	0.000148	0.000152	0.00005	0.00006	0.00004	0.00005	0.00013	0.000144	0.000183	0.000174	0.00004	0.00005	0.00008	0.000129	0.000103	0.000124	0.00004	0.00004	0.00009	0.000131	0.000103	0.000129
Dissolved Chromium (Cr)	<0.0005	<0.0005		<0.0002	0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	0.0008	<0.0002	0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	0.0007	<0.0002	0.0001	0.0001	0.0001	<0.0005	0.0009	0.0007	<0.0001	0.0002	0.0001	<0.0005	0.0009	0.0004	0.0001	0.0002	<0.0001
Dissolved Cobalt (Co)	<0.0001	<0.0001		0.00012	0.000236	0.000141	0.000074	<0.0001	<0.0001	<0.0001	<0.0001	0.00011	0.000038	0.000023	0.000019	<0.0001	<0.0001	<0.0001	<0.0001	0.00011	0.000035	0.000023	0.000022	<0.0001	<0.0001	0.00012	0.000029	0.000028	0.000028	<0.0001	<0.0001	0.00013	0.00003	0.000029	0.000022
Dissolved Copper (Cu)	<0.001	<0.001		0.0009	0.00057	0.0003	0.00045	<0.001	<0.001	<0.001	0.001	0.0012	0.00083	0.0009	0.00069	<0.001	<0.001	<0.001	0.001	0.001	0.00079	0.00127	0.00099	0.001	<0.001	0.0011	0.00078	0.00124	0.00086	0.003	<0.001	0.0012	0.00073	0.00124	0.00081
Dissolved Lead (Pb)	<0.0001	<0.0001		0.00031	0.000818	0.000319	0.000155	<0.0001	<0.0001	0.0007	0.001	0.00016	0.000082	0.000053	0.000017	<0.0001	<0.0001	0.0007	0.0008	0.00005	0.000034	0.000141	0.000096	<0.0001	<0.0001	0.00012	0.000063	0.000145	0.000067	<0.0001	<0.0001	0.00037	0.000065	0.000132	0.000053
Dissolved Lithium (Li)	0.002	0.002		0.0029	0.0047	0.0056	0.0069	0.004	0.003	0.003	0.003	0.003	0.0037	0.0038	0.0041	0.004	0.003	0.003	0.003	0.003	0.0035	0.0041	0.0039	0.004	0.004	0.0029	0.0035	0.0033	0.0038	0.004	0.003	0.0026	0.0034	0.0039	0.0039
Dissolved Manganese (Mn)	0.005	0.014		0.0116	0.0835	0.0483	0.0243	<0.005	0.008		<0.005	0.00595	0.015	0.00933	0.0108	<0.005	0.009		<0.005	0.00615	0.0133	0.00927	0.011	<0.005	0.012	0.00475	0.0139	0.00674	0.0116	<0.005	0.005	0.00993	0.0156	0.00998	0.0131
Dissolved Molybdenum (Mo)	0.002	0.002		0.00042	0.00064	0.00068	0.00074	0.001	0.001	0.001	0.001	0.00119	0.00138	0.00126	0.00124	0.001	0.001	0.001	0.001	0.00114	0.00133	0.00133	0.00112	0.001	0.001	0.00115	0.00132	0.00121	0.00111	0.001	0.001	0.00108	0.00129	0.00125	0.00117
Dissolved Nickel (Ni)	<0.0005	<0.0005		<0.0005	0.00071	0.00063	0.00045	0.0007	0.0023	0.0009	0.0023	0.0044	0.00432	0.00446	0.00421	0.0007	0.002	0.0008	0.0021	0.0041	0.00427	0.00459	0.00415	0.0005	0.002	0.0029	0.00378	0.00193	0.00311	<0.0005	0.0019	0.0026	0.00348	0.00307	0.0034
Dissolved Potassium (K)	1.7	1.8		0.515	0.73	0.84	0.87	0.8	0.6	0.8	0.5	0.632	0.71	0.89	0.85	0.8	0.6	0.8	0.5	0.626	0.7	1.16	0.88	0.8	0.9	0.852	0.76	1.42	1.07	0.8	0.6	0.775	0.79	1.19	0.93
Dissolved Selenium (Se)	0.0002	<0.0002		<0.0005	0.00028	0.00033	0.00038	0.0013	0.001	0.0009	0.001	0.0013	0.00084	0.0012	0.00128	0.0012	0.001	0.0007	0.001	0.001	0.00095	0.00118	0.00125	0.001	0.001	0.0009	0.00087	0.00083	0.00104	0.0012	0.001	0.0005	0.00092	0.00105	0.00126
Dissolved Silver (Ag)	<0.0001	<0.0001		<0.00001	<0.000005	<0.000005	<0.000005	<0.0001	<0.0001	<0.0001	<0.0001	<0.00001	<0.000005	<0.000005	<0.000005	<0.0001	<0.0001	<0.0001	<0.0001	<0.00001	<0.000005	<0.000005	<0.000005	<0.0001	<0.0001	<0.00001	0.000007	<0.000005	<0.000005	<0.0001	<0.0001	<0.00001	<0.000005	<0.000005	<0.000005
Dissolved Strontium (Sr)	0.223	0.233		0.0946	0.137	0.152	0.164	0.186	0.176	0.155	0.158	0.177	0.208	0.216	0.23	0.181	0.172	0.152	0.162	0.179	0.2	0.227	0.219	0.185	0.179	0.173	0.196	0.189	0.211	0.18	0.175	0.154	0.196	0.21	0.222
Dissolved Thallium (Tl)	<0.00005	<0.00005		0.00005	0.000004	0.000002	0.000004	<0.00005	<0.00005	<0.00005	<0.00005	0.00005	0.000003	0.000003	0.000004	<0.00005	<0.00005	<0.00005	<0.00005	0.00005	0.000003	0.000004	0.000004	<0.00005	<0.00005	0.00005	0.000003	<0.000002	0.000002	<0.00005	<0.00005	0.00005	0.000003	0.000003	0.000003
Dissolved Tin (Sn)	<0.001	<0.001		<0.00005	0.00003	<0.00001	0.00001	<0.001	<0.001	<0.001	<0.001	<0.00005	<0.000001	<0.00001	<0.00001	<0.001	<0.001	<0.001	<0.001	<0.00005	0.00001	0.00003	0.00003	<0.001	<0.001	<0.00005	0.00002	0.00002	0.00001	<0.001	<0.001	<0.00005	0.00001	0.00002	<0.00001
Dissolved Titanium (Ti)	0.0005	<0.0005		0.0011	<0.0005	<0.0005	<0.0005	0.0017	0.0014	0.001	<0.0005	0.0011	0.0005	<0.0005	<0.0005	0.0018	0.0014	0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0018	0.0014	<0.0005	<0.0005	<0.0005	<0.0005	0.0018	0.0014	0.0012	0.0006	<0.0005	<0.0005
Dissolved Uranium (U)	0.0011	0.0011		0.00088	0.00159	0.00186	0.00224	0.0011	0.0014	0.0015	0.0014	0.00134	0.00174	0.00182	0.00208	0.0016	0.0014	0.0015	0.0014	0.00133	0.00163	0.00191	0.00192	0.0016	0.0014	0.0014	0.00164	0.00184	0.00195	0.0015	0.0013	0.00134	0.00167	0.00199	0.00208
Dissolved Vanadium (V)	<0.0001	0.001		0.0001	<0.0002	<0.0002	<0.0002	0.0002	0.0009	0.0008	0.0013	0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.0008	0.0008	0.0011	0.00021	<0.0002	<0.0002	<0.0002	0.0001	0.0009	0.00019	<0.0002	<0.0002	<0.0002	0.0002	0.0009	0.0002	<0.0002	<0.0002	<0.0002
Dissolved Zinc (Zn)	0.002	<0.001		0.0064	0.0103	0.0173	0.009	0.002	0.006	0.004	0.004	0.0104	0.0112	0.0157	0.0234	0.003	0.003	0.003	0.004	0.0091	0.0107	0.0188	0.0247	0.002	0.002	0.0079	0.0084	0.0055	0.0154	0.003	0.002	0.0079	0.0075	0.0088	0.0164
Dissolved Zirconium (Zr)				0.00019	<0.0001	<0.0001	<0.0001					0.00012	<0.0001	<0.0001	<0.0001					0.00012	<0.0001	<0.0001	<0.0001			0.00007	<0.0001	<0.0001	<0.0001			0.00017	<0.0001	<0.0001	<0.0001
Dissolved Sulphur (S)					6	6	7						21	26	27						21	25	26				21	19	23				19	21	24
Mercury by CVAA																																			
Dissolved Mercury (Hg)				<0.00001								<0.00001								<0.00001						<0.00001						<0.00001			
Total Mercury (Hg)			<0.00005	<0.00001								<0.00001								<0.00001						<0.00001						<0.00001			
Total Metals by ICP																																			
Total Boron (B)	0.006	0.004	<0.008	<0.008	<0.005	<0.005	<0.005	0.006	0.004	0.014	0.005	<0.008	<0.005	<0.005	<0.005	0.006	0.004	0.008	0.005	<0.008	<0.005	<0.005	<0.005	0.006	0.004	<0.008	<0.005	<0.005	<0.005	0.006	0.004	<0.008	<0.005	<0.005	<0.005
Total Calcium (Ca)	51.5	53.5	16.5	23.7	30.8	34.8	40.1	42	40	40.2	41.4	39.9	45.5	55.5	56.8	41.8	36.7	40.3	37.7	39.5	45.8	55.2	55.6	42.7	41.2	40.9	45.4	55.8	54.4	42.8	38.6	38.2	45.8	51.8	56
Total Iron (Fe)	<0.1	0.1	0.014	0.145	0.199	0.167	0.138	0.1	0.6	0.3	0.3	0.253	0.163	0.082	0.04	0.1	0.4	0.2	0.3	0.247	0.21	0.076	0.041	0.3	0.9	0.261	0.145	0.05	0.027	1.5	0.6	0.199	0.181	0.057	0.036
Total Magnesium (Mg)	11.9	11.6	2.47	4.66	6.48	6.59	8.33	15.3	12.8	12.8	13	13.1	14.7	18.4	18.1	15	12.7	12.5	12	13.1	14.9	18.5	17.9	14.4	13.4	13	14.4	14.8	15.7	14.4	12.8	11.3	14.3	14.1	16.9
Total Phosphorus (P)	2	1.8		<0.1				0.7	0.7			<0.1				0.8	0.6		<0.8	<0.1				0.9	0.8	<0.1				1.1	0.7	<0.1			
Total Silicon (Si)	3.81	4.47		4.42	4.1	5.3	5.7	2.55	3.51	3.03	3.39	3.08	2.87	4.16	3.76	2.59	3.72	2.84	3.28	3.04	2.81	4.3	3.84	2.8	4.45	3.34	2.91	4.97	4	3.82	4.22	3.4	3.02	3.72	4.01
Total Sodium (Na)	3.6	3.7		2.46	2.41	2.25	2.88	1.6	1.5	1.6	1	2.12	2.25	2.4	2.43	1.7	1.6	1.7	2	1.69	2.05	2.46	2.41	1.9	1.9	2.43	2.13	2.98	2.65	1.9	1.9	2.52	2.23	2.3	2.61
Total Metals by ICPMS																																			
Total Aluminum (Al)	0.022	0.028	0.0172	0.0304	0.0268	0.0178	0.0116	0.055	0.321	0.189	0.23	0.137	0.0397	0.0238	0.009	0.077	0.221	0.125	0.219	0.131	0.051	0.0315	0.0093	0.167	0.481	0.177	0.0461	0.0131	0.0069	0.858	0.376	0.097	0.0456	0.0174	0.0103
Total Antimony (Sb)	<0.0002	<0.0002	<0.00005	0.00000009	0.00008	0.00007	0.00007	0.0002	0.0002	0.0002	<0.0004	0.00018	0.00019	0.0002	0.00017	0.0003	0.0002	0.0002	<0.0004	0.00037	0.00018	0.00022	0.0002	0.0003	0.0002	0.00016	0.00019	0.0002	0.00021	0.0003	0.0002	0.00013	0.00018	0.00021	0.00022
Total Arsenic (As)	0.0014	0.0014	<0.0001	0.0005	0.00061	0.0004	0.00043	0.0006	0.001	0.0008	0.0007	0.0003	0.00049	0.00042	0.00033	0.0006	0.0008	0.0008	0.0006	0.0002	0.00054	0.00042	0.00031	0.0007	0.0012	0.0002	0.00049	0.00042	0.00033	0.0015	0.001	0.0002	0.00053	0.00044	0.00036
Total Barium (Ba)	0.107	0.11	0.0256	0.0386	0.0584	0.0645	0.0715	0.08	0.099	0.082	0.082	0.0755	0.0785	0.0846	0.0885	0.083	0.083	0.081	0.078	0.0753	0.0797	0.0894	0.0906	0.085	0.108	0.0787	0.0782	0.0974	0.0904	0.146	0.1	0.0681	0.0795	0.0925	0.0923
Total Beryllium (Be)	<0.0001	<0.0001	<0.00005	<0.00005	<0.00001	<0.00001	<0.00001	<0.0001	<0.0001	<0.0001	<0.0002	<0.00005	<0.00001	<0.00001	<0.00001	<0.0001	<0.0001	<0.0001	<0.0002	<0.00005	<0.00001	<0.00001	<0.00001	<0.0001	<0.0001	<0.00005	<0.00001	<0.00001	<0.00001	<0.0001	<0.0001	<0.00005	<0.00001	<0.00001	<0.00001
Total Bismuth (Bi)	<0.0005	<0.0005	<0.00005	<0.00005	<0.000005	<0.000005	<0.000005	<0.0005	<0.0005	<0.0005	<0.001	<0.00005	<0.000005	<0.000005	<0.000005	<0.0005	<0.0005	<0.0005	<0.001	<0.00005	<0.000005	<0.000005	<0.000005	<0.0005	<0.0005	<0.00005	<0.000005	<0.000005	<0.000005	<0.0005	<0.0005	<0.00005	<0.000005	<0.000005	<0.000005
Total Cadmium (Cd)	0.00001	0.00002	0.00001	0.00001	0.000031	0.000027	0.000016	0.00007	0.00012	0.00007	0.00008	0.00015	0.000219	0.000172	0.000169	0.00006	0.00006	0.00006	0.00007	0.00015	0.000204	0.000179	0.000179	0.00007	0.00013	0.00011	0.000145	0.000082	0.000129	0.00016	0.00008	0.00009	0.000177	0.000099	0.000147
Total Chromium (Cr)	<0.0005	<0.0005	<0.0002	0.0005	0.0001	<0.0001	0.0002	<0.0005	0.0005	0.0007	<0.001	0.001	0.0001	0.0001	<0.0001	<0.0005	0.0008	<0.0005	<0.001	0.0003	0.0001	0.0002	<0.0001	0.0006	0.0016	0.0023	<0.0001	0.0001	0.0001	0.0021	0.0008	0.0007	0.0001	<0.0001	<0.0001
Total Cobalt (Co)	0.0031	<0.0001	<0.00002	0.00006	0.000254	0.000145	0.000092	0.0004	0.0002	0.0002	<0.0002	0.00015	0.000077	0.000041	0.000026	<0.0001	0.0001	0.0002	<0.0002	0.00014	0.000112	0.00004	0.000038	0.0002	0.0004	0.00019	0.00007	0.000039	0.000032	0.0007	0.0002	0.0001	0.000096	0.000033	0.000033
Total Copper (Cu)	<0.001	<0.001	0.0006	0.0008	0.00077	0.00055	0.00048	0.001	0.002	0.002	<0.002	0.0015	0.00091	0.00087	0.0007	<0.001	0.001	0.003	<0.002	0.0013	0.00101	0.00108	0.00088	0.001	0.003	0.0014	0.0008	0.00079	0.00121	0.003	0.002	0.0013	0.00096	0.00085	0.00096
Total Lead (Pb)	<0.0001	<0.0001	0.00005	0.00057	0.00313	0.000914	0.000545	0.0003	0.0005	0.001	0.0008	0.00025	0.00013	0.000135	0.000074	0.0003	0.0003	0.001	0.0009	0.00018	0.000189	0.000162	0.000106	0.0005	0.0007	0.00023	0.000087	0.000073	0.000074	0.0014	0.0005	0.00026	0.000217	0.000168	0.000187
Total Lithium (Li)	0.002	0.002		0.0026	0.0047	0.0054	0.0062	0.004	0.004	0.004	0.003	0.0026	0.0039	0.0039	0.0041	0.004	0.003	0.004	0.003	0.0026	0.0036	0.0041	0.0046	0.004	0.004	0.0027	0.0036	0.0035	0.0039	0.004	0.004	0.0025	0.0037	0.0037	0.0041
Total Manganese (Mn)	0.01	0.026	0.00035	0.0154	0.0781	0.0475	0.0313	0.013	0.035	0.015		0.0212	0.0204	0.0119	0.0117	0.014	0.022	0.014	0.02	0.0196	0.0267	0.0114	0.013	0.017	0.045	0.0201	0.0189	0.0095	0.0122	0.051	0.028	0.0226	0.0267	0.0111	0.0145
Total Molybdenum (Mo)	0.002	0.002	0.00024	0.00044	0.00062	0.00065	0.00072	0.001	0.001	0.001	<0.002	0.0012	0.0013	0.00126	0.00116	0.001	0.001	0.001	<0.002	0.00119	0.00127	0.00134	0.00119	0.001	0.001	0.00123	0.00131	0.00126	0.00111	0.001	0.001	0.00109	0.00129	0.00126	0.00119
Total Nickel (Ni)	<0.0005	<0.0005	<0.0005	<0.0005	0.00078	0.00061	0.0005	0.0016	0.004	0.0039	0.0049	0.0049	0.00452	0.00471	0.00406	0.0014	0.0035	0.0038	0.0044	0.0049	0.00479	0.00469	0.00419	0.0014	0.0045	0.0046	0.0039	0.00233	0.00302	0.0037	0.0032	0.0031	0.00383	0.00268	0.00358
Total Potassium (K)	2	1.8	0.17	0.502	0.71	0.78	0.89	0.7	0.7	0.7		0.665	0.69	0.88	0.88	0.8	0.6	0.7	<0.8	0.664	0.69	0.91	0.86	0.9	0.8	0.769	0.73	1.3	1.13	1.1	0.7	0.78	0.78	1.07	0.99
Total Selenium (Se)	0.0002	<0.0002	0.522	<0.0005	0.00028	0.00031	0.00037	0.0014	0.0009	0.0011	0.001	0.0008	0.00094	0.00124	0.0012	0.0014	0.001	0.0011	0.001	0.0008	0.00094	0.00119	0.00118	0.001	0.001	0.0008	0.00088	0.00089	0.00098	0.0013	0.001	0.0007	0.0009	0.0009	0.00108
Total Silver (Ag)	<0.0001	<0.0001	<0.0005	0.00001	<0.000005	<0.000005	<0.000005	<0.0001	<0.0001	<0.0001	<0.0002	<0.00001	<0.000005	0.000007	<0.000005	<0.0001	<0.0001	<0.0001	<0.0002	<0.00001	<0.000005	<0.000005	<0.000005	<0.0001	<0.0001	<0.00001	<0.000005	<0.000005	<0.000005	<0.0001	<0.0001	<0.00001	<0.000005	<0.000005	<0.000005
Total Strontium (Sr)	0.233	0.234	<0.00001	0.0913	0.136	0.143	0.161	0.194	0.181	0.189	0.17	0.164	0.202	0.222	0.224	0.194	0.173	0.192	0.16	0.165	0.201	0.228	0.234	0.19	0.194	0.171	0.196	0.198	0.209	0.184	0.19	0.145	0.196	0.208	0.222
Total Thallium (Tl)	<0.00005	<0.00005	<0.00005	<0.00005	0.000005	0.000004	0.000003	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	0.000003	0.000003	0.000003	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	0.000004	0.000004	0.000004	<0.00005	<0.00005	<0.00005	0.000003	0.000004	0.000003	<0.00005	<0.00005	<0.00005	0.000004	0.000003	0.000004
Total Tin (Sn)	<0.001	<0.001	<0.00005	<0.00005	<0.00001	<0.00001	<0.00001	<0.001	<0.001	<0.001	<0.002	<0.00005	0.00001	0.00002	<0.00001	<0.001	<0.001	<0.001	<0.002	0.00007	<0.00001	0.00002	0.00002	<0.001	<0.001	<0.00005	<0.00001	0.00001	0.00002	0.001	<0.001	<0.00005	<0.00001	<0.00001	0.00002
Total Titanium (Ti)	0.0008	0.0016	<0.0005	0.001	0.001	0.0005	<0.0005	0.0027	0.0084	0.0057	0.0059	0.0027	0.0009	0.001	<0.0005	0.0028	0.0132	0.004	0.0056	0.0022	0.0016	0.0009	<0.0005	0.0061	0.0228	0.0077	0.0015	<0.0005	<0.0005	0.0299	0.0138	0.002	0.0011	<0.0005	<0.0005
Total Uranium (U)	0.0012	0.001	0.00029	0.00083	0.00161	0.00176	0.00239	0.0017	0.0014	0.0017	0.001	0.00131	0.00171	0.00189	0.00199	0.0017	0.0014	0.0017	0.001	0.00123	0.00169	0.00191	0.00189	0.0016	0.0014	0.00133	0.00171	0.00188	0.00189	0.0016	0.0014	0.00136	0.00175	0.00196	0.00203
Total Vanadium (V)	0.0002	0.0003	0.00006	0.00013	0.0002	0.0002	<0.0002	0.0005	0.002	0.0013	0.001	0.0007	0.0002	0.0002	<0.0002	0.0006	0.0015	0.001	0.001	0.00067	0.0002	0.0002	<0.0002	0.001	0.0028	0.00066	0.0002	0.0002	<0.0002	0.0042	0.002	0.0005	0.0002	0.0003	<0.0002
Total Zinc (Zn)	0.004	0.002	0.0019	0.0078	0.0111	0.016	0.0098	0.007	0.015	0.007	0.01	0.0184	0.0142	0.017	0.0234	0.01	0.008	0.007	0.01	0.0179	0.0149	0.0174	0.0238	0.012	0.016	0.0144	0.0101	0.0063	0.0145	0.016	0.009	0.014	0.0107	0.0078	0.0175
Total Zirconium (Zr)	<0.001	<0.001		0.43	<0.0001	<0.0001	<0.0001	<0.001	0.001	<0.001	<0.002	0.18	<0.0001	<0.0001	<0.0001	<0.001	<0.001	<0.001	<0.002	0.35	0.0001	<0.0001	<0.0001	<0.001	<0.001	0.2	<0.0001	<0.0001	<0.0001	<0.001	<0.001	0.18	<0.0001	<0.0001	<0.0001
					6	6	8						21	26	27						21	25	25				20	20	23				20	23	24
In-Situ																			7.55																
pH				7.1	6.75	7.06	7.75			8.77	7.58	8.2	8.39	7.4	8.31			8.7	9	7.9	8	7.69	8.63			7.47	7.46	7.17	8.16			8.01	8.41	7.16	8.07
Dissolved Oxygen				10.2	12.41	13.01 (error)				8.75	8.8	318	13.21	frozen				8.68		319	12.85	frozen				320	10.15	14.05				296	12.65	14.58	
Dissolved Oxygen					N.A			327	314				93.2	frozen		324	310		295		87.5	frozen					73	70.1						88.7	
Conductivity	337	356		174.6	220	262	143.5			458	269	meter down	352	268	506			455	125	meter down	386	362	701	324	320	meter down	343	226	1078	322	316	meter down	367	372	1133
Total Dissolved Solids						131	73			219	126			133	253			217	12.4			18.1	352					115	539					183	566
Temperature				1.1	-0.5	-0.2	0.2			15.9	12.8	4.4	0	-0.2	0.1			14.9		4.9	0	-0.2	0.1			4	0	-0.1	0.4			3.6	0	0.1	0.1

[a]Sampled under the Pelly River

[b] Sampled under the Pelly Rive

Water quality data provided by

Data source abrreviations:

"Pelly AE" - Pelly River Aqu

"Interim" - Pelly River Interi

Appendix C4.
Water Quality Data from Additional Monitoring Programs, including the Pelly River Aquatic Effects Assessment

Data Source	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Pelly AE	Pelly AE	Pelly AE	Interim	Interim	Interim	Pelly AE	Pelly AE	Pelly AE	Pelly AE	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Pelly AE	Pelly AE	Pelly AE	Pelly AE
Lab	Norwest	Norwest	Norwest	Norwest	Norwest	Norwest	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Norwest	Deloitte	Maxxam	Maxxam	Maxxam	Maxxam	Norwest	Deloitte	Norwest	Deloitte	Maxxam	Maxxam	Maxxam	Maxxam	Cantest	Cantest	Cantest	Norwest	Norwest	Norwest	Norwest
Lab ID	324989-8	401480-12	401480-13	324989-10	324033-4	400527-7	H21998	H68327	I14730	I40623	H22007	H68307	I14732	I40625	400527-6	607280374	H22009	H68308	I14734	I40627	400527-4	607280375	400527-5	607280376	H22008	H68309	I14733	I40628	703290472	703290479	703290478	324989-2	401480-5	324989-12	401480-4
Sampling Date	03/08/2004	09/08/2005	09/08/2005	04/08/2004	30/07/2004	06/08/2005	25/09/2007	25/10/2007	21/11/2007	13/12/2007	26/09/2007	24/10/2007	22/11/2007	14/12/2007	05/08/2005	25/07/2006	26/09/2007	24/10/2007	22/11/2007	14/12/2007	05/08/2005	25/07/2006	05/08/2005	25/07/2006	26/09/2007	24/10/2007	22/11/2007	14/12/2007	03/27/2007	03/27/2007	03/27/2007	02/08/2004	09/08/2005	04/08/2004	09/08/2005
COC Number							8198215	8199474	8201068	8201389	8198216	8199472	8201068	8201389			8198216	8199472	8201068	8201389					8198216	8199472	8201068	8201389	181381	181381	181381				
Sample ID	**P5**	**P5**	**P6**	**elly River @P(**	**PB**	**PB**	**R1**	**R1**	**R1**	**R1**	**R3**	**R3**	**R3**	**R3**	**R4**	**R4**	**R4**	**R4**	**R4**	**R4**	**R5**	**R5**	**R6**	**R6**	**R6**	**R6**	**R6**	**R6**	**R7**	**RC1**	**SF**	**Tay River**	**Tay River**	**Tummel River**	**Tummel River**
Misc. Inorganics																																			
Fluoride (F)							0.12	0.12	0.13	0.14	0.12	0.13	0.12	0.13			0.1	0.12	0.12	0.12					0.08	0.08	0.08	0.08							
ANIONS																																			
Nitrite (N)	<0.05	<0.03	<0.03	<0.05	<0.05	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.03	-	<0.005	<0.005	<0.005	<0.005	<0.03	-	<0.03	-	<0.005	<0.005	<0.005	<0.005				<0.05	<0.03	<0.05	<0.03
Calculated Parameters																																			
Total Hardness (CaCO3)							75.8	112	112	138	118	276	187	212			117	233	181	213					141	155	157	166	147	77.1	58.2				
Nitrate (N)	<0.1	<0.03	<0.03	<0.1	<0.1	<0.03	0.05	0.08	0.12	0.14	0.06	0.15	0.18	0.21	0.07	-	0.07	0.16	0.19	0.22	0.06	-	0.08	-	0.09	0.36	0.19	0.2				<0.1	<0.03	<0.1	<0.03
Misc. Inorganics																																			
Weak Acid Dissoc. Cyanide (C							<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005					<0.0005	<0.0005	<0.0005	<0.0005							
Dissolved Hardness (CaCO3)	169	154	136	154	173	156	80.8	115	124	135	121	297	207	233	159	156	125	244	200	221	153	123	142	135	147	156	178	170	138	72.7	56.3	156	130	147	140
Dissolved Organic Carbon (C)							2.1	2.1	0.9	1.5	2.9	1.8	1	0.9			2.8	1.7	<0.5	1.3					2.5	1.4	0.6	0.6							
Alkalinity (Total as CaCO3)							63.2	98.3	98	110	85.5	135	130	140			97.4	128	120	140					120	141	140	150	< 0.5	< 0.5	< 0.5				
Total Organic Carbon (C)							3.4	2.3	1	1.4	2.2	1.6	0.6	1.1			2.7	1.8	2.1	1.4					2.4	1.4	1.1	0.6							
Alkalinity (PP as CaCO3)							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5					<0.5	<0.5	<0.5	<0.5	157	78.2	63.3				
Bicarbonate (HCO3)							77.1	120	120	130	104	164	150	170			119	156	150	170					147	172	180	180	191	95.3	77.2				
Carbonate (CO3)							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5					<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5				
Hydroxide (OH)							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	<0.5	<0.5					<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5				
Anions																																			
Dissolved Sulphate (SO4)	17.4	47	44	17	18.4	49	16.7	24	24	26.8	33	170	74.7	85.7	56	97.9	26.4	125	69.6	77.6	55	27.2	18	20.1	19.6	24	24.7	23.5	10.6	11.1	5.67	15.2	40	6.28	19.5
Dissolved Chloride (Cl)	1.4	0.09	0.12	0.6	<0.5	<0.07	<0.5	<0.5	0.7	0.5	<0.5	<0.5	0.6	<0.5	0.16	-	<0.5	<0.5	<0.5	<0.5	0.14	-	0.07	-	<0.5	<0.5	<0.5	<0.5	< 0.2	< 0.2	< 0.2	1	0.1	0.9	0.1
Nutrients																																			
Ammonia (N)		-	-			<0.002	<0.005	0.032	0.027	0.08	<0.005	0.097	0.029	0.027	0.003	0.05	<0.005	0.042	0.014	0.016	0.002	< 0.01	0.006	< 0.01	<0.005	<0.005	<0.005	<0.005					-		-
Nitrate plus Nitrite (N)	<0.2	<0.06	<0.06	<0.2	<0.2	<0.06	0.05	0.08	0.12	0.14	0.06	0.15	0.18	0.21	0.07	-	0.07	0.16	0.19	0.22	0.06	-	0.08	-	0.09	0.36	0.19	0.2				<0.2	<0.06	<0.2	<0.06
Total Phosphorus (P)	0.06			0.06	<0.05		<0.005	0.005	<0.005	0.008	<0.005	<0.005	<0.005	<0.005		-	<0.005	<0.005	<0.005	<0.005		-		-	<0.005	<0.005	<0.005	<0.005				0.08		0.07	
Physical Properties																																			
Conductivity							158	242	240	270	231	582	390	450		353	238	497	370	420		275		267	264	307	310	320	294	168	130				
pH	8.33	8.11	8.03	8.3	8.43	8.11	8	8.1	8	8	8.1	8.1	8	8	8.04	8.18	8.2	8.2	8.1	8.1	8.07	8.32	8.02	8.33	8.3	8.3	8.1	8.2	7.77	7.75	7.54	8.33	8.08	8.41	8.13
Physical Properties																																			
Total Suspe<1ed Solids	7	18	38	<3	<5	17	<1	<1	1	2	1	<1	<1	<1	4	< 1	1	<1	<1	1	2	1	<2	2	<1	<1	<1	2	< 1	< 1	< 1	2	4	3	5
Total Dissolved Solids		-	-			<0.002	96	148	140	180	148	396	240	290	0.003		153	320	230	260	0.002		0.006		178	180	170	180					-		-
Dissolved Metals by ICP																																			
Dissolved Boron (B)	0.003	0.003	0.003	0.004	0.004	0.002	<0.008	<0.005	<0.005	<0.005	<0.008	<0.005	<0.005	<0.005	<0.002	< 0.01	<0.008	<0.005	<0.005	<0.005	<0.002	< 0.01	<0.002	< 0.01	<0.008	<0.005	<0.005	<0.005	< 0.01	< 0.01	< 0.01	0.008	0.005	0.002	0.002
Dissolved Calcium (Ca)	43.5	40	35.1	39.7	43.6	40.4	24.9	35.9	38.7	43	35.9	89.3	61.3	69.6	46.8	-	37.2	73.3	59.5	66.2	45	-	39.3	-	41.4	44.6	50.5	49	41	23.6	17	45.9	38	41.4	39.2
Dissolved Iron (Fe)	<0.01	0.03	0.04	0.01	0.02	0.13	0.174	0.000176	0.136	0.156	0.124	0.000055	0.047	0.031	0.14	-	0.108	0.000024	0.021	0.016	0.13	-	0.09	-	0.1	0.000071	0.03	0.041	0.02	< 0.01	0.03	0.01	0.1	0.02	0.02
Dissolved Magnesium (Mg)	14.7	13	11.7	13.2	15.6	13.5	4.51	6.26	6.51	6.77	7.65	18.1	13.1	14.3	10.2	-	7.77	14.9	12.5	13.5	9.9	-	10.6	-	10.6	10.8	12.6	11.7	8.62	3.36	3.37	10.1	9	10.7	10.4
Dissolved Phosphorus (P)							<0.1				<0.1						<0.1								<0.1				< 0.03	< 0.03	< 0.03				
Dissolved Silicon (Si)	2.82	3.39	3.53	2.94	2.58	3.13	3.86	0.00411	4.58	5.09	4.39	0.00457	6.05	4.8	4.47	4.19	4.33	0.00483	5.91	4.48	4.35	4.15	4.55	4.48	4.16	0.0047	5.53	4.51	5.91	5.7	5.25	3.63	4.33	3.86	3.76
Dissolved Sodium (Na)	2	2	2.3	2.2	1.6	1.1	2.77	2.55	2.63	2.98	3.33	7.01	4.54	5.08	3	-	3.31	6.3	4.08	4.69	2.8	-	1.2	-	2.5	2.62	2.12	2.12	3.73	2.65	2.74	3.6	3.2	2.4	2.2
Dissolved Metals by ICPMS																																			
Dissolved Aluminum (Al)	0.011	0.021	0.035	0.024	0.014	0.049	0.0096	0.0032	0.0028	0.0031	0.0146	0.0025	0.004	0.002	0.02	0.004	0.0092	0.003	0.002	0.0023	0.02	0.004	0.021	0.005	0.0118	0.0068	0.0047	0.0025	0.001	0.003	0.003	<0.005	0.013	0.01	0.006
Dissolved Antimony (Sb)	<0.0002	0.0002	<0.0002	<0.0002	0.0002	0.0002	0.00091	0.00004	0.00004	0.00008	0.00093	0.00013	0.00009	0.0001	<0.0002	< 0.0002	0.00091	0.00014	0.00011	0.00016	<0.0002	< 0.0002	<0.0002	< 0.0002	0.00099	0.00014	0.00013	0.00012	< 0.0002	< 0.0002	< 0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Dissolved Arsenic (As)	0.0006	<0.0002	<0.0002	0.0007	0.0005	0.0005	0.0003	0.00036	0.00032	0.00035	0.0003	0.00029	0.00021	0.00019	0.0005	0.0003	0.0002	0.00029	0.00021	0.0002	0.0004	0.0003	0.0004	0.0004	0.0003	0.00041	0.00034	0.00033	0.0003	< 0.0002	< 0.0002	0.0008	0.0003	0.0004	<0.0002
Dissolved Barium (Ba)	0.076	0.07	0.068	0.079	0.077	0.076	0.0383	0.054	0.0579	0.063	0.0496	0.0668	0.062	0.0759	0.072	0.047	0.0535	0.078	0.0705	0.0805	0.07	0.053	0.066	0.061	0.0653	0.0763	0.0814	0.09	0.079	0.035	0.054	0.065	0.056	0.074	0.068
Dissolved Beryllium (Be)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.0001	< 0.0002	<0.00005	<0.00001	<0.00001	<0.00001	<0.0001	< 0.0002	<0.0001	< 0.0002	<0.00005	<0.00001	<0.00001	<0.00001	< 0.0002	< 0.0002	< 0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Bismuth (Bi)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00005	<0.000005	<0.000005	<0.000005	<0.00005	<0.000005	<0.000005	<0.000005	<0.0005	< 0.0002	<0.00005	<0.000005	<0.000005	<0.000005	<0.0005	< 0.0002	<0.0005	< 0.0002	<0.00005	<0.000005	<0.000005	<0.000005	< 0.0002	< 0.0002	< 0.0002	<0.0005	<0.0005	<0.0005	<0.0005
Dissolved Cadmium (Cd)	0.00003	0.00004	0.00003	0.00004	0.00004	0.00009	0.00002	0.000017	0.000007	0.000019	0.00002	0.000051	0.000038	0.000024	<0.00001	< 0.00004	0.00002	0.000037	0.000029	0.000045	<0.00001	< 0.00004	<0.00001	< 0.00004	0.00002	0.000077	0.000016	0.000018	0.00001	0.00002	0.00001	0.00001	0.00001	<0.00001	<0.00001
Dissolved Chromium (Cr)	<0.0005	0.001	0.001	<0.0005	<0.0005	<0.0005	<0.0002	0.0001	<0.0001	0.0001	<0.0002	<0.0001	0.0001	0.0001	0.0007	< 0.0002	<0.0002	0.0005	0.0001	0.0002	0.0009	< 0.0002	0.0009	< 0.0002	<0.0002	0.001	0.0001	<0.0001	< 0.0002	< 0.0002	< 0.0002	<0.0005	<0.0005	<0.0005	0.0009
Dissolved Cobalt (Co)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.00015	0.000087	0.000085	0.00011	0.00021	0.00191	0.000197	0.000257	0.0002	< 0.0002	0.00014	0.000665	0.000036	0.000049	0.0002	< 0.0002	<0.0001	< 0.0002	0.00013	0.000044	0.000011	0.00002	< 0.0002	< 0.0002	< 0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Copper (Cu)	0.001	<0.001	<0.001	0.001	<0.001	0.002	0.0009	0.0004	0.00024	0.0009	0.0008	0.0005	0.00094	0.00056	<0.001	0.0006	0.0008	0.00062	0.00068	0.00125	0.001	0.0005	0.001	0.0005	0.0008	0.00101	0.00051	0.00039	0.0003	0.0003	0.0002	<0.001	<0.001	<0.001	<0.001
Dissolved Lead (Pb)	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	0.0002	0.00051	0.000142	0.000116	0.000101	0.00041	0.000219	0.000238	0.000069	0.0003	< 0.0002	0.00023	0.000127	0.00005	0.000064	0.0003	< 0.0002	<0.0001	< 0.0002	0.00032	0.000461	0.00005	0.000016	< 0.0002	< 0.0002	< 0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Lithium (Li)	0.004	0.004	0.004	0.004	0.004	0.004	0.0016	0.0019	0.002	0.0023	0.0026	0.0066	0.0044	0.0051	0.005	0.0043	0.0025	0.005	0.004	0.0041	0.005	0.0016	0.002	0.0015	0.0018	0.0021	0.0024	0.0025	0.0095	0.0021	0.0014	0.005	0.004	0.002	0.002
Dissolved Manganese (Mn)	<0.005	0.005	0.011	0.009	<0.005	0.011	0.045	0.096	0.0932	0.111	0.149	2.17	0.416	0.486	0.246		0.0988	0.973	0.0948	0.0961	0.224		0.01		0.0132	0.0186	0.00377	0.00894	8.62	3.36	3.37	<0.005	0.008	<0.005	0.006
Dissolved Molybdenum (Mo)	0.001	0.001	0.001	0.001	0.001	0.001	0.00022	0.00025	0.00027	0.00027	0.00045	0.00064	0.00055	0.00056	<0.001	0.0006	0.00055	0.00074	0.00061	0.00057	<0.001	0.0009	<0.001	0.0011	0.00106	0.00123	0.00126	0.00124	0.0009	< 0.0001	0.0007	0.001	0.001	<0.001	<0.001
Dissolved Nickel (Ni)	<0.0005	0.0017	0.0017	0.0006	0.0016	0.0031	<0.0005	0.00038	0.00044	0.00061	<0.0005	0.00452	0.00171	0.00144	0.0011	0.001	<0.0005	0.00216	0.00096	0.00107	0.0012	0.0004	<0.0005	0.0004	<0.0005	0.00043	0.00034	0.00026	0.0005	0.0003	0.0003	<0.0005	0.0005	<0.0005	<0.0005
Dissolved Potassium (K)	0.8	0.8	0.9	0.9	0.8	0.7	0.645	1.03	1.06	1.35	0.8	1.89	1.45	1.47	1.1	-	0.847	1.63	1.43	1.61	1.2	-	0.8	-	0.985	1.14	1.28	1.25	1.02	0.64	0.57	1.2	0.9	0.9	0.9
Dissolved Selenium (Se)	0.001	0.0008	0.001	0.0012	0.0012	0.0011	<0.0005	0.00014	0.00015	0.00016	0.0006	0.00037	0.00041	0.00046	0.0004	< 0.0002	<0.0005	0.00053	0.00052	0.00061	0.0005	0.0005	0.0005	0.0006	0.0007	0.00074	0.00082	0.00081	0.0005	< 0.0002	< 0.0002	0.0006	0.0005	0.0003	0.0002
Dissolved Silver (Ag)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00001	<0.000005	<0.000005	<0.000005	<0.00001	<0.000005	<0.000005	<0.000005	<0.0001	< 0.00005	<0.00001	<0.000005	<0.000005	<0.000005	<0.0001	< 0.00005	<0.0001	< 0.00005	<0.00001	<0.000005	<0.000005	<0.000005	< 0.00005	< 0.00005	< 0.00005	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Strontium (Sr)	0.183	0.176	0.184	0.184	0.186	0.179	0.118	0.186	0.19	0.213	0.135	0.283	0.204	0.24	0.177	0.175	0.133	0.242	0.2	0.216	0.163	0.106	0.114	0.112	0.117	0.132	0.137	0.145	0.173	0.128	0.085	0.164	0.158	0.174	0.168
Dissolved Thallium (Tl)	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00005	<0.000002	<0.000002	0.000003	0.00005	0.000018	0.000004	0.000005	<0.00005	< 0.00002	0.00005	0.000009	0.000006	0.000005	<0.00005	< 0.00002	<0.00005	< 0.00002	0.00005	<0.000002	<0.000002	<0.000002	< 0.00002	< 0.00002	< 0.00002	<0.00005	<0.00005	<0.00005	<0.00005
Dissolved Tin (Sn)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00005	0.00007	<0.00001	0.00003	<0.00005	0.00002	0.00001	<0.00001	<0.001	< 0.0002	<0.00005	0.00001	<0.00001	0.00011	<0.001	< 0.0002	<0.001	< 0.0002	<0.00005	0.00012	<0.00001	<0.00001	< 0.0002	< 0.0002	< 0.0002	<0.001	<0.001	<0.001	<0.001
Dissolved Titanium (Ti)	0.0017	0.0012	0.0015	0.0017	0.0012	0.0013	<0.0005	<0.0005	<0.0005	<0.0005	0.0007	<0.0005	<0.0005	<0.0005	0.0013	< 0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.001	< 0.0002	0.0006	< 0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0002	0.0002	0.0002	0.0011	0.0011	0.0008	0.0006
Dissolved Uranium (U)	0.0016	0.0013	0.001	0.0012	0.0016	0.0012	0.00102	0.00172	0.00225	0.00226	0.00112	0.00221	0.00193	0.00244	0.001	0.0008	0.00107	0.00199	0.00185	0.00221	0.001	0.0012	0.0013	0.0013	0.00163	0.00209	0.00231	0.00242	0.0032	0.007	0.0021	<0.0005	0.0006	0.0019	0.0016
Dissolved Vanadium (V)	0.0002	0.001	0.0009	0.0003	0.0003	0.0009	0.00007	<0.0002	<0.0002	<0.0002	<0.00005	<0.0002	<0.0002	<0.0002	0.0009	< 0.0002	0.00005	<0.0002	<0.0002	<0.0002	0.0006	< 0.0002	0.0008	< 0.0002	0.0001	<0.0002	<0.0002	<0.0002	< 0.0002	< 0.0002	< 0.0002	<0.0001	0.0007	<0.0001	0.0008
Dissolved Zinc (Zn)	0.002	0.009	0.002	0.001	0.003	0.012	0.0032	0.0021	0.0012	0.0035	0.0169	0.0438	0.0321	0.0246	0.014	0.008	0.0119	0.0246	0.0163	0.0155	0.014	0.003	<0.001	0.001	0.0022	0.0051	0.001	0.0009	< 0.001	< 0.001	< 0.001	0.004	0.002	0.004	<0.001
Dissolved Zirconium (Zr)							0.00012	<0.0001	<0.0001	0.0001	0.00008	<0.0001	<0.0001	<0.0001			0.00008	<0.0001	<0.0001	<0.0001					0.0001	<0.0001	<0.0001	<0.0001	< 0.002	< 0.002	< 0.002				
Dissolved Sulphur (S)								8	8	10		61	28	36				44	26	32						7	9	9							
Mercury by CVAA																																			
Dissolved Mercury (Hg)							<0.00001				<0.00001						<0.00001								<0.00001				< 0.000015	< 0.000015	< 0.000015				
Total Mercury (Hg)							<0.00001				<0.00001						0.00001								<0.00001				< 0.000015	< 0.000015	< 0.000015				
Total Metals by ICP																																			
Total Boron (B)	0.006	0.004	0.005	0.007	0.005	<0.004	<0.008	<0.005	<0.005	<0.005	<0.008	<0.005	<0.005	<0.005	<0.002	< 0.01	<0.008	<0.005	<0.005	<0.005	0.002	< 0.01	<0.002	< 0.01	<0.008	<0.005	<0.005	<0.005	< 0.01	< 0.01	< 0.01	0.008	0.005	0.004	0.002
Total Calcium (Ca)	42.8	38.7	36	40.5	43	38.9	23.4	34.8	35.7	44	34.8	82.2	56.7	63.5	43	53.4	34.6	69.6	55.4	63.7	42.3	38.9	35.7	38.9	39.6	44.1	46	47.7	43.6	25	17.6	42.7	39.6	42	41
Total Iron (Fe)	0.2	0.6	1.2	1.8	<0.1	0.3	0.255	0.246	0.308	0.405	0.193	0.193	0.094	0.076	0.2	0.15	0.15	0.081	0.048	0.047	0.2	0.15	0.1	0.16	0.148	0.101	0.051	0.147	0.06	0.02	0.07	0.1	0.3	0.1	0.2
Total Magnesium (Mg)	14.3	12.8	12	13.6	15.4	14	4.24	6.18	5.52	6.73	7.56	17.1	10.9	12.9	9.7	10.3	7.43	14.4	10.5	13	9.7	10.2	10.1	10.4	10.4	10.8	10.3	11.3	9.19	3.57	3.44	9.2	8.7	10.8	10
Total Phosphorus (P)	0.9	0.7	1.1	1.3	0.7	<0.8	<0.1				<0.1				0.9		<0.1				1		0.5		<0.1				< 0.03	< 0.03	< 0.03	1	0.9	1	0.9
Total Silicon (Si)	2.73	4.26	5.84	4.5	2.49	3.25	3.64	3.91	4.35	5.24	4.32	4.67	4.68	5.32	4.15	4.43	4.08	4.27	4.59	5.46	4.26	4.33	4.39	4.49	4.03	4	4.89	4.81	6.22	5.88	5.24	3.28	4.14	3.8	3.8
Total Sodium (Na)	1.9	1.9	2.2	2.2	1.6	1	1.99	2.4	2.19	2.95	3.08	6.69	3.63	4.61	3	4.38	2.79	6.03	3.38	4.45	2.9	1.92	1.3	1.68	2.06	2.16	1.69	2.04	3.96	2.91	2.88	3.3	3.4	2.3	2.3
Total Metals by ICPMS																																			
Total Aluminum (Al)	0.091	0.365	0.85	1.22	0.034	0.15	0.0358	0.0061	0.0204	0.0103	0.0287	0.0044	0.0081	0.0037	0.025	0.018	0.0209	0.0054	0.005	0.0046	0.024	0.031	0.049	0.035	0.0316	0.0079	0.0067	0.0141	0.015	0.007	0.02	0.019	0.086	0.091	0.145
Total Antimony (Sb)	0.0002	0.0002	0.0003	0.0003	0.0002	<0.0004	<0.00005	0.00003	0.00004	0.00008	0.00007	0.00013	0.00008	0.00011	<0.0002	< 0.0002	0.00009	0.00013	0.00011	0.00011	<0.0002	< 0.0002	<0.0002	< 0.0002	0.00011	0.00013	0.00013	0.0001	< 0.0002	< 0.0002	< 0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Total Arsenic (As)	0.0007	0.001	0.0013	0.0017	0.0006	0.0007	0.0004	0.00037	0.00033	0.00043	0.0001	0.00033	0.0002	0.00022	0.0004	0.0003	<0.0001	0.00029	0.00019	0.00022	0.0004	0.0004	0.0004	0.0004	<0.0001	0.00045	0.00029	0.00045	0.0004	0.0002	0.0002	0.0008	0.001	0.0004	0.0006
Total Barium (Ba)	0.08	0.095	0.117	0.146	0.083	0.08	0.0354	0.054	0.0642	0.0695	0.0493	0.0668	0.0701	0.0744	0.066	0.052	0.0529	0.076	0.0743	0.0808	0.064	0.063	0.062	0.066	0.0642	0.0761	0.0887	0.0878	0.085	0.039	0.055	0.066	0.06	0.077	0.076
Total Beryllium (Be)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.00005	<0.00001	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.0001	< 0.0002	<0.00005	<0.00001	<0.00001	<0.00001	<0.0001	< 0.0002	<0.0001	< 0.0002	<0.00005	<0.00001	<0.00001	<0.00001	< 0.0002	< 0.0002	< 0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Total Bismuth (Bi)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.00005	<0.000005	<0.000005	<0.000005	<0.00005	<0.000005	<0.000005	<0.000005	<0.0005	< 0.0002	<0.00005	<0.000005	<0.000005	<0.000005	<0.0005	< 0.0002	<0.0005	< 0.0002	<0.00005	<0.000005	<0.000005	<0.000005	< 0.0002	< 0.0002	< 0.0002	<0.0005	<0.0005	<0.0005	<0.0005
Total Cadmium (Cd)	0.00005	0.00006	0.00011	0.0002	0.00006	0.00011	<0.00001	0.000012	0.000007	0.000024	0.00002	0.000046	0.000032	0.000026	<0.00001	< 0.00004	0.00001	0.00006	0.000022	0.00002	<0.00001	< 0.00004	<0.00001	< 0.00004	0.00002	0.000019	0.00001	0.000013	0.00001	0.00001	0.00001	0.00003	0.00004	0.00001	<0.00001
Total Chromium (Cr)	<0.0005	0.0011	0.0018	0.0026	<0.0005	<0.001	0.0005	<0.0001	0.0001	0.0001	0.0006	0.0003	0.0001	0.0002	<0.0005	< 0.0002	0.0006	0.0005	0.0001	0.0001	0.0006	< 0.0002	0.0005	0.0002	0.0017	0.0001	<0.0001	0.0001	< 0.0002	< 0.0002	< 0.0002	<0.0005	<0.0005	<0.0005	0.0006
Total Cobalt (Co)	<0.0001	0.0002	0.0005	0.0008	<0.0001	<0.0002	0.00008	0.000087	0.000085	0.00012	0.00015	0.00183	0.0002	0.000263	0.0002	0.0002	0.00011	0.00064	0.000045	0.000057	0.0002	< 0.0002	<0.0001	< 0.0002	0.00005	0.000036	0.000013	0.000042	< 0.0002	< 0.0002	< 0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Total Copper (Cu)	<0.001	0.002	0.003	0.003	0.001	<0.002	0.0004	0.00038	0.00037	0.00088	0.0008	0.0005	0.00046	0.00075	0.001	0.001	0.0008	0.00103	0.0005	0.00061	0.001	0.0007	<0.001	0.0013	0.0007	0.00043	0.00035	0.00036	0.0003	0.0004	0.0004	<0.001	0.002	<0.001	<0.001
Total Lead (Pb)	0.0004	0.0005	0.0008	0.0011	0.0001	<0.0002	0.00009	0.000093	0.000102	0.000867	0.00037	0.000901	0.000202	0.000126	0.0002	0.0003	0.00038	0.000416	0.000129	0.000177	<0.0001	< 0.0002	<0.0001	0.0003	0.0002	0.000091	0.000017	0.000034	< 0.0002	0.0004	< 0.0002	0.0003	0.0001	0.0003	0.0001
Total Lithium (Li)	0.004	0.004	0.005	0.005	0.005	0.004	0.0012	0.002	0.0021	0.0022	0.0021	0.0067	0.0042	0.0052	0.005	0.0047	0.0019	0.0051	0.0037	0.004	0.005	0.0018	0.002	0.0016	0.0015	0.0023	0.0022	0.0024	0.0098	0.0022	0.0014	0.005	0.005	0.002	0.002
Total Manganese (Mn)	0.013	0.026	0.048	0.08	0.006	0.01	0.047	0.0938	0.0892	0.122	0.176	2.08	0.389	0.554	0.238	0.218	0.124	0.938	0.0949	0.109	0.232	0.028	0.011	0.012	0.0171	0.0188	0.00512	0.0208	0.0061	0.0006	0.0017	0.009	0.023	0.014	0.014
Total Molybdenum (Mo)	0.001	0.001	0.001	0.002	0.001	<0.002	0.00022	0.00025	0.0003	0.00026	0.00045	0.00066	0.00055	0.00056	<0.001	0.0006	0.00054	0.00071	0.00059	0.00053	<0.001	0.001	0.001	0.0011	0.0011	0.00125	0.00129	0.00116	0.0009	< 0.0001	0.0007	0.001	0.001	<0.001	<0.001
Total Nickel (Ni)	0.0011	0.0036	0.0042	0.0042	0.0019	0.0036	<0.0005	0.00033	0.00044	0.00058	0.0007	0.00427	0.00122	0.00155	0.0015	0.0011	0.0005	0.00203	0.00079	0.00082	0.0017	0.0004	0.0008	0.0005	<0.0005	0.00027	0.00023	0.00025	0.0004	0.0003	0.0007	<0.0005	0.0009	<0.0005	0.0008
Total Potassium (K)	0.9	0.7	1.1	1.3	0.7	<0.8	0.668	1	0.98	1.37	0.836	1.74	1.24	1.53	0.9	1.32	0.899	1.56	1.31	1.45	1	0.96	0.5	0.95	0.988	1.11	1.15	1.2	1.13	0.74	0.63	1	0.9	1	0.9
Total Selenium (Se)	0.001	0.001	0.001	0.0013	0.0012	0.0006	<0.0005	0.00015	0.00009	0.00016	<0.0005	0.00041	0.00033	0.00044	0.0004	< 0.0002	<0.0005	0.00049	0.00044	0.00055	0.0006	0.0006	0.0006	0.0005	0.0007	0.00071	0.0008	0.00073	0.0005	< 0.0002	< 0.0002	0.0008	0.0005	0.0004	<0.0002
Total Silver (Ag)	<0.0001	<0.0001	<0.0001	<0.0001	0.0002	<0.0002	<0.00001	<0.000005	<0.000005	<0.000005	<0.00001	<0.000005	0.000042	<0.000005	<0.0001	< 0.00005	<0.00001	<0.000005	0.000019	<0.000005	<0.0001	< 0.00005	<0.0001	< 0.00005	<0.00001	0.00002	<0.000005	<0.000005	< 0.00005	< 0.00005	< 0.00005	<0.0001	<0.0001	<0.0001	<0.0001
Total Strontium (Sr)	0.194	0.192	0.194	0.198	0.193	0.18	0.118	0.181	0.193	0.217	0.127	0.285	0.206	0.237	0.175	0.192	0.125	0.245	0.194	0.216	0.168	0.123	0.114	0.119	0.106	0.134	0.139	0.14	0.183	0.138	0.087	0.164	0.162	0.185	0.181
Total Thallium (Tl)	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	0.000002	0.000002	0.000003	<0.00005	0.000018	0.000005	0.000005	<0.00005	0.00002	<0.00005	0.000009	0.000006	0.000005	<0.00005	< 0.00002	<0.00005	< 0.00002	<0.00005	<0.000002	<0.000002	<0.000002	< 0.00002	< 0.00002	< 0.00002	<0.00005	<0.00005	<0.00005	<0.00005
Total Tin (Sn)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.00005	0.00003	<0.00001	0.00002	<0.00005	0.00001	<0.00001	0.00003	<0.001	0.0002	<0.00005	0.00018	<0.00001	<0.00001	<0.001	0.005	<0.001	0.0002	<0.00005	0.00001	<0.00001	<0.00001	< 0.0002	< 0.0002	< 0.0002	<0.001	<0.001	0.001	<0.001
Total Titanium (Ti)	0.0035	0.0136	0.0347	0.0352	0.0016	0.0039	0.0029	<0.0005	0.0005	<0.0005	0.001	<0.0005	<0.0005	<0.0005	0.0014	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	0.0013	0.0011	0.002	0.0013	0.0008	0.0006	<0.0005	<0.0005	0.0005	0.0004	0.0007	0.0014	0.0029	0.0035	0.0056
Total Uranium (U)	0.0016	0.0014	0.0011	0.0014	0.0018	0.001	0.001	0.00174	0.00189	0.00266	0.00113	0.00228	0.0019	0.00228	0.0012	0.0009	0.00111	0.00204	0.0018	0.00221	0.0011	0.0014	0.0014	0.0015	0.00165	0.00219	0.00231	0.0023	0.0034	0.0078	0.0024	0.0009	0.0006	0.0019	0.0016
Total Vanadium (V)	0.0006	0.002	0.0041	0.006	0.0004	0.001	0.0001	0.0002	0.0002	<0.0002	0.00009	0.0002	0.0002	<0.0002	0.0002	< 0.0002	0.0001	0.0002	0.0002	<0.0002	0.0002	0.0003	0.0004	0.0003	0.00017	0.0002	0.0002	<0.0002	< 0.0002	< 0.0002	< 0.0002	0.0003	0.0007	0.0005	0.0008
Total Zinc (Zn)	0.005	0.008	0.015	0.019	0.005	0.035	0.0039	0.0009	0.0007	0.0038	0.0221	0.0427	0.0274	0.0268	0.014	0.009	0.0156	0.0244	0.0147	0.0131	0.014	0.002	0.002	0.001	0.005	0.0009	0.0004	0.0006	< 0.001	0.001	< 0.001	0.005	0.004	0.005	0.003
Total Zirconium (Zr)	<0.001	<0.001	0.001	<0.001	<0.001	<0.002	0.19	<0.0001	<0.0001	<0.0001	0.13	<0.0001	<0.0001	<0.0001	<0.001	< 0.002	0.11	<0.0001	<0.0001	<0.0001	<0.001	< 0.002	<0.001	< 0.002	0.12	0.0004	<0.0001	<0.0001	< 0.002	< 0.002	< 0.002	<0.001	<0.001	<0.001	<0.001
								8	8	11		55	26	42				42	24	31						7	8	8							
In-Situ																																			
pH						7.85	7.9	7.86	7.39	7.42	7.98	8.12	7.73	6.86	8.42	8.21	8.15	8.21	7.3	7.27	8.28	8.35	8.46	8.34	8.21	8.1	7.85	7.99							
Dissolved Oxygen							10.8	11.56	12.2	nm	257	13.5	10.09			13.3	263	14.65	12.95			14.4		14.5	294	14.65	14.58								
Dissolved Oxygen	322	316						79.3	83.9			97.3	83.8					98.3	89.5							101.3	100								
Conductivity			297	297	319	270	175.6	266	243	221	10.8	653	425	1187	292	521	meter down	511	263	1171	304	285	259	268	meter down	337	351	379				304	286	284	285
Total Dissolved Solids						136			35.4	106			215	592	130	246			107	585	140	133	114	125			140	205							
Temperature						12.5	1.6	-1	-0.2	0.2	1.6	1.5	0.2	0.2	10	9.8	1.5	1.5	-0.5	0.5	9.9	8.5	8.4	8.1	1.4	-1	-0.5	0.1							

[a] Sampled under the Pelly River

[b] Sampled under the Pelly Rive

Water quality data provided by

Data source abrreviations:

"Pelly AE" - Pelly River Aqu

"Interim" - Pelly River Interir

Appendix C4.
Water Quality Data from Additional Monitoring Programs, including the Pelly River Aquatic Effects Assessment

Data Source	Pelly AE	Pelly AE	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim
Lab	Maxxam	Maxxam	Cantest	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam
Lab ID	G74770	G74771	703290474	39322	H22016	H68318	I14746	I40654	H22014	H68317	I14744	I40652
Sampling Date	25/08/2007	25/08/2007	03/27/2007	28/08/2007	26/09/2007	24/10/2007	22/11/2007	14/12/2007	26/09/2007	24/10/2007	22/11/2007	14/12/2007
COC Number	F82587	F82587	181381	F82587	8198216	8199472	8201069	8201390	8198216	8199472	8201069	8201390
Sample ID	**per WF Vango**	**Upper SF Rose**	**V1**	**V1**	**V1**	**V1**	**V1**	**V1**	**V4**	**V4**	**V4**	**V4**
Misc. Inorganics												
Fluoride (F)					0.08	0.08	0.09	0.1	0.21	0.18	0.19	0.21
ANIONS												
Nitrite (N)					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calculated Parameters												
Total Hardness (CaCO3)			54.5		28.7	36.3	48.3	49	297	312	411	382
Nitrate (N)					0.03	0.82	0.06	0.09	0.02	0.06	0.1	0.1
Misc. Inorganics												
Weak Acid Dissoc. Cyanide (C					<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005
Dissolved Hardness (CaCO3)			51.5		30.5	37.9	49	50.7	321	324	404	385
Dissolved Organic Carbon (C)					0.7	1.3	1.4	1.1	4.4	4.2	5.4	3.9
Alkalinity (Total as CaCO3)			< 0.5		22.2	32.1	37	42	255	282	300	310
Total Organic Carbon (C)					0.8	1.2	1.1	0.8	4.5	4.3	4.8	3.8
Alkalinity (PP as CaCO3)			53.5		<0.5	<0.5	<0.5	<0.5	5.7	<0.5	<0.5	<0.5
Bicarbonate (HCO3)			65.3		27	39.1	46	51	297	344	370	380
Carbonate (CO3)			< 0.5		<0.5	<0.5	<0.5	<0.5	6.8	<0.5	<0.5	<0.5
Hydroxide (OH)			< 0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anions												
Dissolved Sulphate (SO4)			10		9.7	11.8	12.4	12	50.1	54.6	63.7	63.7
Dissolved Chloride (Cl)			< 0.2		<0.5	<0.5	<0.5	<0.5	<0.5	0.7	0.6	<0.5
Nutrients												
Ammonia (N)					<0.005	<0.005	<0.005	<0.005	<0.005	0.006	0.013	0.01
Nitrate plus Nitrite (N)					0.03	0.82	0.06	0.09	0.02	0.06	0.1	0.1
Total Phosphorus (P)					<0.005	<0.005	<0.005	<0.005	<0.005	0.007	0.006	<0.005
Physical Properties												
Conductivity			125		66	90	100	110	525	592	630	670
pH			7.57		7.6	7.8	7.8	7.9	8.4	8.3	8.2	8.2
Physical Properties												
Total Suspe<1ed Solids			< 1		<1	<1	<1	<1	10	2	2	1
Total Dissolved Solids					88	54	60	80	347	352	380	390
Dissolved Metals by ICP												
Dissolved Boron (B)			< 0.01		<0.008	<0.005	<0.005	<0.005	<0.008	<0.005	<0.005	<0.005
Dissolved Calcium (Ca)			15.8		9.85	12.3	15.6	16.3	79.7	80.7	101	95
Dissolved Iron (Fe)			< 0.01		0.019	0.000009	0.004	0.003	0.112	0.000073	0.075	0.028
Dissolved Magnesium (Mg)	1.87	1.2	2.89	1.34	1.44	1.74	2.44	2.45	29.5	29.8	36.8	35.9
Dissolved Phosphorus (P)			< 0.03		<0.1				<0.1			
Dissolved Silicon (Si)			5.15		4.07	0.00426	5.72	4.17	4.62	0.00441	6.05	4.67
Dissolved Sodium (Na)	1.73	1.6	2.32	1.81	1.91	1.83	2.08	2.17	3.4	3.17	3.67	3.88
Dissolved Metals by ICPMS												
Dissolved Aluminum (Al)			0.008		0.0133	0.0064	0.0047	0.0043	0.0563	0.003	0.0019	0.0026
Dissolved Antimony (Sb)			< 0.0002		0.00094	0.00003	0.00004	0.00005	0.00091	0.0001	0.0001	0.0001
Dissolved Arsenic (As)			0.0003		0.0001	0.00022	0.00025	0.00027	0.0006	0.00053	0.00052	0.00047
Dissolved Barium (Ba)			0.04		0.0247	0.0301	0.0352	0.0379	0.0754	0.0742	0.0847	0.0907
Dissolved Beryllium (Be)			< 0.0002		<0.00005	<0.00001	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001	<0.00001
Dissolved Bismuth (Bi)			< 0.0002		<0.00005	<0.000005	<0.000005	<0.000005	<0.00005	<0.000005	<0.000005	<0.000005
Dissolved Cadmium (Cd)			< 0.00001		<0.00001	0.000021	0.000016	0.000017	0.00002	0.000038	0.000016	0.000016
Dissolved Chromium (Cr)			< 0.0002		<0.0002	0.0001	<0.0001	0.0001	0.0007	0.0001	<0.0001	<0.0001
Dissolved Cobalt (Co)			< 0.0002		0.0001	0.000011	0.00001	0.000014	0.00015	0.000045	0.000063	0.000072
Dissolved Copper (Cu)			0.0002		0.0009	0.00033	0.00036	0.00038	0.0008	0.00062	0.00055	0.00061
Dissolved Lead (Pb)			< 0.0002		0.00013	0.000061	0.000023	0.000023	0.00026	0.000097	0.000011	0.000015
Dissolved Lithium (Li)			0.0014		0.0009	0.0011	0.0012	0.0014	0.0044	0.0046	0.0056	0.006
Dissolved Manganese (Mn)			2.89		0.00056	0.00019	0.00006	0.00037	0.0379	0.0455	0.0854	0.0845
Dissolved Molybdenum (Mo)			0.0007		0.0002	0.00031	0.00045	0.00051	0.00103	0.00102	0.00111	0.00108
Dissolved Nickel (Ni)			0.0003		<0.0005	0.00019	0.00024	0.00023	<0.0005	0.00069	0.00078	0.00075
Dissolved Potassium (K)			0.56		0.334	0.38	0.5	0.55	1.05	0.93	1.14	1.17
Dissolved Selenium (Se)			< 0.0002		<0.0005	0.0001	0.00015	0.00017	0.0006	0.00044	0.0005	0.00051
Dissolved Silver (Ag)			< 0.00005		<0.00001	<0.000005	<0.000005	<0.000005	<0.00001	<0.000005	<0.000005	<0.000005
Dissolved Strontium (Sr)			0.075		0.0516	0.0631	0.0749	0.0775	0.328	0.341	0.39	0.398
Dissolved Thallium (Tl)			< 0.00002		0.00005	<0.000002	<0.000002	<0.000002	0.00005	<0.000002	<0.000002	<0.000002
Dissolved Tin (Sn)			< 0.0002		<0.00005	0.00004	0.00002	<0.00001	<0.00005	0.00002	<0.00001	<0.00001
Dissolved Titanium (Ti)			0.0002		<0.0005	<0.0005	<0.0005	<0.0005	0.0048	<0.0005	<0.0005	<0.0005
Dissolved Uranium (U)			0.0021		0.00031	0.000497	0.000672	0.000898	0.00794	0.00837	0.011	0.0124
Dissolved Vanadium (V)			< 0.0002		<0.00005	<0.0002	<0.0002	<0.0002	0.00012	<0.0002	<0.0002	<0.0002
Dissolved Zinc (Zn)			< 0.001		0.003	0.0011	0.001	0.001	0.0014	0.002	0.0014	0.0013
Dissolved Zirconium (Zr)			< 0.002		0.00006	<0.0001	<0.0001	<0.0001	0.00019	<0.0001	<0.0001	0.0002
Dissolved Sulphur (S)						4	5	5		19	24	25
Mercury by CVAA												
Dissolved Mercury (Hg)			< 0.000015		<0.00001				<0.00001			
Total Mercury (Hg)	<0.00005	<0.00005	< 0.000015	<0.00005	<0.00001				<0.00001			
Total Metals by ICP												
Total Boron (B)	<0.008	<0.008	< 0.01	<0.008	<0.008	<0.005	<0.005	<0.005	<0.008	<0.005	<0.005	<0.005
Total Calcium (Ca)	10.9	8.82	16.8	10.6	9.38	11.8	15.4	15.8	73.3	77.5	103	94.2
Total Iron (Fe)	0.031	0.164	0.01	0.027	0.019	0.015	0.008	0.005	0.196	0.197	0.252	0.233
Total Magnesium (Mg)	1.94	1.32	3.07	1.45	1.29	1.67	2.4	2.34	27.8	28.8	37.3	35.6
Total Phosphorus (P)			< 0.03		<0.1				<0.1			
Total Silicon (Si)			5.32		3.96	4	5.73	4.89	4.24	4.03	6.26	5.76
Total Sodium (Na)			2.46		1.78	1.81	2.1	2.13	3.07	3.06	3.74	3.81
Total Metals by ICPMS												
Total Aluminum (Al)	0.0306	0.0263	0.007	0.0143	0.0115	0.0077	0.0059	0.0051	0.0173	0.0059	0.0121	0.0108
Total Antimony (Sb)	<0.00005	<0.00005	< 0.0002	<0.00005	<0.00005	0.00003	0.00003	0.00004	0.00009	0.0001	0.00009	0.0001
Total Arsenic (As)	0.0001	0.0003	0.0003	0.0002	<0.0001	0.00022	0.00026	0.00029	0.0004	0.00061	0.00069	0.00063
Total Barium (Ba)	0.0287	0.025	0.043	0.0257	0.0246	0.0301	0.0333	0.0386	0.0716	0.0748	0.0859	0.0892
Total Beryllium (Be)	<0.00005	<0.00005	< 0.0002	<0.00005	<0.00005	<0.00001	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001	<0.00001
Total Bismuth (Bi)	<0.00005	<0.00005	< 0.0002	<0.00005	<0.00005	<0.000005	<0.000005	<0.000005	<0.00005	<0.000005	<0.000005	<0.000005
Total Cadmium (Cd)	0.00001	<0.00001	0.00001	<0.00001	<0.00001	0.000036	0.000007	0.000023	0.00001	0.000042	0.000017	0.000022
Total Chromium (Cr)	<0.0002	<0.0002	< 0.0002	<0.0002	<0.0002	0.0001	<0.0001	<0.0001	<0.0002	0.0001	0.0001	<0.0001
Total Cobalt (Co)	0.00002	0.00004	< 0.0002	<0.00002	<0.00002	0.00001	0.000013	0.000023	0.00006	0.000057	0.000084	0.000089
Total Copper (Cu)	0.0006	0.0004	0.0003	0.0004	0.0004	0.00034	0.00029	0.00033	0.0007	0.00063	0.00057	0.0006
Total Lead (Pb)	0.00007	0.0001	0.0002	0.00004	0.00002	0.000214	0.000014	0.000008	0.00006	0.000117	0.000042	0.000058
Total Lithium (Li)			0.0014		0.0008	0.0012	0.0012	0.0014	0.0038	0.005	0.0055	0.0057
Total Manganese (Mn)	0.00106	0.00959	0.0004	0.00076	0.00069	0.00077	0.00042	0.00072	0.0461	0.0535	0.0999	0.104
Total Molybdenum (Mo)	0.00014	0.0003	0.0007	0.00023	0.00019	0.00031	0.00044	0.0005	0.00104	0.00101	0.00108	0.00099
Total Nickel (Ni)	<0.0005	<0.0005	0.0004	<0.0005	<0.0005	0.00021	0.00024	0.00025	<0.0005	0.00069	0.00083	0.00081
Total Potassium (K)	0.00166	0.00107	0.64	0.0005	0.317	0.37	0.49	0.5	0.995	0.91	1.14	1.17
Total Selenium (Se)	0.326	0.285	< 0.0002	0.343	<0.0005	0.0001	0.00015	0.00015	<0.0005	0.00046	0.00049	0.00052
Total Silver (Ag)	<0.00005	<0.0005	< 0.00005	<0.0005	<0.00001	<0.000005	<0.000005	<0.000005	<0.00001	<0.000005	<0.000005	<0.000005
Total Strontium (Sr)	<0.00001	<0.00001	0.078	<0.00001	0.0476	0.0636	0.0724	0.0784	0.308	0.346	0.383	0.383
Total Thallium (Tl)	<0.00005	<0.00005	< 0.00002	<0.00005	<0.00005	<0.000002	<0.000002	0.000002	<0.00005	<0.000002	<0.000002	0.000002
Total Tin (Sn)	<0.00005	<0.00005	< 0.0002	<0.00005	<0.00005	0.00013	0.00001	<0.00001	<0.00005	0.00001	<0.00001	<0.00001
Total Titanium (Ti)	<0.0005	0.0008	0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0006	<0.0005	<0.0005	<0.0005
Total Uranium (U)	0.00037	0.00029	0.0025	0.00031	0.0003	0.000522	0.000646	0.00094	0.00798	0.00881	0.0109	0.0121
Total Vanadium (V)	<0.00005	0.00008	< 0.0002	<0.00005	<0.00005	0.0002	0.0002	<0.0002	0.0001	0.0002	0.0002	<0.0002
Total Zinc (Zn)	0.0021	0.0019	< 0.001	0.0027	0.0012	0.0013	0.0006	0.0009	0.0041	0.0017	0.0015	0.0017
Total Zirconium (Zr)			< 0.002		0.12	<0.0001	<0.0001	<0.0001	0.17	0.0001	<0.0001	0.0001
						4	5	5		18	24	26
In-Situ												
pH					7.58	7.69	7.25	8.01	8.3	8.26	7.92	8.13
Dissolved Oxygen					75.5	12	frozen		598	12.2	frozen	
Dissolved Oxygen						81.9	frozen			83.7	frozen	
Conductivity					meter down	60.4	99.4	320	meter down	658	796	1814
Total Dissolved Solids							46.7	159			89.2	925
Temperature					2	-1	0	0.1	2	-1	0	0.1

Data Source	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim
Lab	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam
Lab ID	39323	39321.39583	39321.39583	H22003	H68319	I14731	I40624	39322	H22015	H68316	I14745	I40653	H22017	H68323
Sampling Date	29/08/2007	27/08/2007	27/08/2007	25/09/2007	24/10/2007	21/11/2007	13/12/2007	28/08/2007	26/09/2007	24/10/2007	22/11/2007	14/12/2007	26/09/2007	25/10/2007
COC Number	F82587	F82587	F82587	8198215	8199472	8201068	8201389	F82587	8198216	8199472	8201069	8201390	8198216	8199474
Sample ID	**V5**	**V8**	**V8Z**	**V6A**	**V6A**	**V6A**	**V6A**	**V27**	**V27**	**V27**	**V27**	**V27**	**VR**	**VR**
Misc. Inorganics														
Fluoride (F)				0.1	0.09	0.09	0.1		0.09	0.09	0.1	0.11	0.08	0.07
ANIONS														
Nitrite (N)				<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calculated Parameters														
Total Hardness (CaCO3)				90	110	130	149		92	148	201	209	28.9	31.8
Nitrate (N)				0.18	0.3	0.4	0.41		0.16	0.3	0.43	0.51	<0.02	0.11
Misc. Inorganics														
Weak Acid Dissoc. Cyanide (C				<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Dissolved Hardness (CaCO3)				94.5	112	142	147		97.5	152	202	212	30.3	33
Dissolved Organic Carbon (C)				2.9	2.4	1.4	1.2		1.7	1.3	2.8	1.2	2.5	2.1
Alkalinity (Total as CaCO3)				61.2	79	90	98		46.8	72.7	87	95	26	30.2
Total Organic Carbon (C)				2.8	2.1	1.3	1.4		1.4	1.1	2.3	0.8	2.7	2.1
Alkalinity (PP as CaCO3)				<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bicarbonate (HCO3)				74.7	96.4	110	120		57.1	88.7	110	120	31.7	36.8
Carbonate (CO3)				<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hydroxide (OH)				<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anions														
Dissolved Sulphate (SO4)				28.3	36.3	45.2	46.1		50.2	85.5	99	106	5	7.8
Dissolved Chloride (Cl)				<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nutrients														
Ammonia (N)				<0.005	0.008	0.006	0.007		<0.005	<0.005	<0.005	<0.005	<0.005	0.009
Nitrate plus Nitrite (N)				0.18	0.3	0.4	0.41		0.16	0.3	0.43	0.51	<0.02	0.11
Total Phosphorus (P)				<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Physical Properties														
Conductivity				180	235	270	290		195	319	390	420	62	76
pH				8	8.1	8.1	8.1		8	8	8.1	8.1	7.7	7.7
Physical Properties														
Total Suspe<1ed Solids				<1	1	<1	2		<1	1	<1	<1	<1	1
Total Dissolved Solids				128	146	170	180		136	194	250	270	64	54
Dissolved Metals by ICP														
Dissolved Boron (B)				<0.008	<0.005	<0.005	<0.005		<0.008	<0.005	<0.005	<0.005	<0.008	<0.005
Dissolved Calcium (Ca)				28.4	33.2	41.8	44.1		25.9	39.5	51.1	53.9	9.25	10.2
Dissolved Iron (Fe)				0.099	0.000052	0.066	0.044		0.034	0.000025	0.004	0.003	0.028	0.000014
Dissolved Magnesium (Mg)	28.2	19.9	20	5.76	7.01	9.02	8.99	8.4	7.96	12.9	18	18.8	1.74	1.79
Dissolved Phosphorus (P)				<0.1					<0.1				<0.1	
Dissolved Silicon (Si)				4.86	0.00456	6.6	4.55		4.15	0.00418	5.54	4.14	4.4	0.00451
Dissolved Sodium (Na)	3.78	3.11	3.11	1.93	1.8	2	1.97	2.21	3.04	2.54	2.98	3.09	1.68	1.64
Dissolved Metals by ICPMS														
Dissolved Aluminum (Al)				0.03	0.0105	0.0089	0.007		0.0165	0.0086	0.0075	0.0049	0.04	0.0152
Dissolved Antimony (Sb)				0.00082	0.00004	0.00005	0.00006		0.00108	0.00009	0.0001	0.0001	0.00089	0.00002
Dissolved Arsenic (As)				0.0008	0.00084	0.00088	0.00075		0.0002	0.00037	0.0004	0.00042	0.0002	0.00017
Dissolved Barium (Ba)				0.0282	0.0326	0.038	0.0442		0.0314	0.0434	0.0498	0.0535	0.0256	0.0285
Dissolved Beryllium (Be)				<0.00005	<0.00001	<0.00001	<0.00001		<0.00005	<0.00001	<0.00001	<0.00001	<0.00005	0.00001
Dissolved Bismuth (Bi)				<0.00005	<0.000005	<0.000005	<0.000005		<0.00005	<0.000005	<0.000005	<0.000005	<0.00005	<0.000005
Dissolved Cadmium (Cd)				0.00004	0.000046	0.000032	0.000034		0.00007	0.00006	0.000049	0.000052	<0.00001	0.000014
Dissolved Chromium (Cr)				<0.0002	0.0002	<0.0001	<0.0001		<0.0002	0.0001	0.0001	0.0002	0.0004	0.0001
Dissolved Cobalt (Co)				0.0001	0.000022	0.000026	0.00002		0.00015	0.000018	0.000011	0.000014	0.0001	0.000011
Dissolved Copper (Cu)				0.0012	0.00048	0.00041	0.00036		0.001	0.00072	0.00066	0.00059	0.0006	0.00051
Dissolved Lead (Pb)				0.00061	0.000338	0.000067	0.000076		0.00061	0.000235	0.000067	0.000056	0.00005	0.000139
Dissolved Lithium (Li)				0.0008	0.0011	0.0012	0.0013		0.0015	0.0019	0.0021	0.0024	0.0005	0.0005
Dissolved Manganese (Mn)				0.00456	0.00574	0.00463	0.00244		0.00321	0.00125	0.00059	0.00041	0.00056	0.00074
Dissolved Molybdenum (Mo)				0.00013	0.00013	0.00016	0.00019		0.0003	0.00046	0.00058	0.00064	0.00013	0.00013
Dissolved Nickel (Ni)				<0.0005	0.00022	0.00028	0.0003		<0.0005	0.00055	0.00068	0.00067	<0.0005	0.00014
Dissolved Potassium (K)				0.355	0.36	0.43	0.47		0.489	0.59	0.71	0.74	0.348	0.34
Dissolved Selenium (Se)				<0.0005	0.00009	0.00014	0.00013		<0.0005	0.00026	0.00033	0.00036	<0.0005	<0.00004
Dissolved Silver (Ag)				<0.00001	<0.000005	<0.000005	<0.000005		<0.00001	<0.000005	<0.000005	<0.000005	<0.00001	<0.000005
Dissolved Strontium (Sr)				0.121	0.147	0.177	0.193		0.103	0.159	0.19	0.201	0.0467	0.0529
Dissolved Thallium (Tl)				0.00005	0.000004	0.000002	0.000004		0.00005	0.000006	0.000006	0.000006	0.00005	0.000002
Dissolved Tin (Sn)				0.00005	0.00001	<0.00001	<0.00001		<0.00005	<0.000001	<0.00001	<0.00001	<0.00005	0.00002
Dissolved Titanium (Ti)				<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	0.0026	<0.0005
Dissolved Uranium (U)				0.00189	0.00272	0.00342	0.00382		0.00128	0.00257	0.00362	0.00427	0.00035	0.000382
Dissolved Vanadium (V)				<0.00005	<0.0002	<0.0002	<0.0002		<0.00005	<0.0002	<0.0002	<0.0002	0.00006	<0.0002
Dissolved Zinc (Zn)				0.0162	0.0128	0.0138	0.0142		0.0257	0.0247	0.0267	0.0255	0.0022	0.002
Dissolved Zirconium (Zr)				0.00055	0.0001	<0.0001	<0.0001		0.00006	<0.0001	<0.0001	<0.0001	0.00024	0.0001
Dissolved Sulphur (S)					12	16	17			29	39	44		<3
Mercury by CVAA														
Dissolved Mercury (Hg)				<0.00001					<0.00001				<0.00001	
Total Mercury (Hg)	<0.00005	<0.00005	<0.00005	<0.00001				<0.00005	<0.00001				<0.00001	
Total Metals by ICP														
Total Boron (B)	<0.008	<0.008	<0.008	<0.008	<0.005	<0.005	<0.005	<0.008	<0.008	<0.005	<0.005	<0.005	<0.008	<0.005
Total Calcium (Ca)	77.8	52.8	54.9	26.7	32.9	39.5	44.4	28.3	24.4	38.6	50.6	52.8	8.85	9.89
Total Iron (Fe)	0.464	0.177	0.18	0.126	0.076	0.097	0.107	0.049	0.038	0.041	0.011	0.009	0.042	0.024
Total Magnesium (Mg)	28.7	19.7	20	5.65	6.84	7.63	9.19	8.55	7.52	12.7	18	18.8	1.66	1.74
Total Phosphorus (P)				<0.1					<0.1				<0.1	
Total Silicon (Si)				4.71	3.91	4.7	5.44		3.89	4.03	5.66	5.07	4.23	4.08
Total Sodium (Na)				1.8	1.77	1.64	2.03		2.65	2.57	3.78	3.05	2.23	1.54
Total Metals by ICPMS														
Total Aluminum (Al)	0.275	0.101	0.107	0.0558	0.0146	0.0156	0.0154	0.0184	0.0178	0.0106	0.0065	0.0054	0.0627	0.0205
Total Antimony (Sb)	0.00015	0.00013	0.00012	0.00007	0.00004	0.00005	0.00006	0.00007	0.00006	0.0001	0.0001	0.00013	<0.00005	0.00002
Total Arsenic (As)	0.001	0.0004	0.0005	0.0011	0.00091	0.00094	0.00094	0.0004	<0.0001	0.0004	0.00041	0.00039	<0.0001	0.00018
Total Barium (Ba)	0.078	0.0528	0.0539	0.0268	0.0328	0.0414	0.0442	0.0326	0.0309	0.0438	0.0488	0.0571	0.0251	0.028
Total Beryllium (Be)	<0.00005	<0.00005	<0.00005	<0.00005	0.00001	<0.00001	<0.00001	<0.00005	<0.00005	<0.00001	<0.00001	<0.00001	<0.00005	0.00001
Total Bismuth (Bi)	<0.00005	<0.00005	<0.00005	<0.00005	<0.000005	<0.000005	<0.000005	<0.00005	<0.00005	<0.000005	<0.000005	<0.000005	<0.00005	<0.000005
Total Cadmium (Cd)	0.00004	0.00004	0.00004	0.00003	0.000039	0.000038	0.000039	0.00005	0.00004	0.000081	0.000054	0.000054	0.00001	0.000036
Total Chromium (Cr)	0.0008	0.0003	0.0003	<0.0002	<0.0001	<0.0001	<0.0001	<0.0002	0.0004	0.0001	0.0005	<0.0001	0.0015	0.0002
Total Cobalt (Co)	0.00027	0.00014	0.00012	0.00005	0.000034	0.000032	0.000039	0.00004	0.00004	0.000029	0.000015	0.000015	0.00006	0.00002
Total Copper (Cu)	0.0014	0.0013	0.0011	0.0007	0.0004	0.00038	0.00044	0.0009	0.0011	0.00077	0.00073	0.00062	0.0008	0.00088
Total Lead (Pb)	0.00052	0.00032	0.0003	0.00049	0.000365	0.000359	0.000468	0.00052	0.00038	0.000456	0.000179	0.000134	0.00016	0.00032
Total Lithium (Li)				0.001	0.0012	0.0011	0.0014		0.0013	0.0021	0.0021	0.0025	<0.0002	<0.0005
Total Manganese (Mn)	0.0218	0.011	0.011	0.00638	0.00786	0.00696	0.00723	0.0035	0.0033	0.00275	0.00095	0.00105	0.00107	0.0018
Total Molybdenum (Mo)	0.00158	0.0081	0.00083	0.00011	0.00013	0.00015	0.00015	0.00032	0.0003	0.00045	0.00059	0.00063	0.00013	0.00013
Total Nickel (Ni)	0.0018	0.0011	0.0011	<0.0005	0.00023	0.00028	0.00032	<0.0005	<0.0005	0.00059	0.00061	0.00064	<0.0005	0.00021
Total Potassium (K)	0.00089	0.0047	0.00153	0.38	0.36	0.42	0.5	0.00137	0.454	0.58	0.71	0.71	0.347	0.32
Total Selenium (Se)	1.15	0.892	0.911	<0.0005	0.00008	0.00007	0.00013	0.525	<0.0005	0.00028	0.00031	0.00036	<0.0005	<0.00004
Total Silver (Ag)	0.0013	<0.0005	0.0006	<0.00001	<0.000005	<0.000005	<0.000005	<0.0005	<0.00001	<0.000005	<0.000005	<0.000005	<0.00001	<0.000005
Total Strontium (Sr)	<0.00001	<0.00001	<0.00001	0.117	0.146	0.172	0.186	<0.00001	0.0978	0.159	0.188	0.211	0.042	0.0529
Total Thallium (Tl)	<0.00005	<0.00005	<0.00005	<0.00005	0.000004	0.000004	0.000004	<0.00005	<0.00005	0.000006	0.000006	0.000008	<0.00005	0.000002
Total Tin (Sn)	<0.00005	0.00006	<0.00005	<0.00005	<0.00001	<0.00001	<0.00001	<0.00005	<0.00005	0.00002	0.00002	<0.00001	<0.00005	0.00005
Total Titanium (Ti)	0.0083	0.0027	0.0027	0.0016	<0.0005	<0.0005	<0.0005	0.0007	<0.0005	<0.0005	<0.0005	<0.0005	0.0041	<0.0005
Total Uranium (U)	0.00405	0.00315	0.00323	0.00181	0.00279	0.00341	0.00356	0.00126	0.00125	0.00264	0.00362	0.00442	0.00035	0.000409
Total Vanadium (V)	0.00095	0.00033	0.00032	0.00011	0.0002	0.0002	<0.0002	<0.0005	<0.00005	0.0002	0.0002	<0.0002	0.00005	0.0002
Total Zinc (Zn)	0.0039	0.0091	0.009	0.0163	0.0134	0.0137	0.0166	0.0318	0.0257	0.0253	0.0274	0.0262	0.0049	0.0024
Total Zirconium (Zr)				0.24	<0.0001	<0.0001	<0.0001		0.2	<0.0001	<0.0001	<0.0001	0.23	0.0001
					12	15	17			28	39	44		<3
In-Situ														
pH				7.6	7.81	7.67	5.55		7.85	7.64	8.18	8.3	7.3	6.6
Dissolved Oxygen				10.6	12	14.2	14.58		218	12.8	frozen		70.4	12.42
Dissolved Oxygen						93.7				90.1	frozen			85.1
Conductivity				206	N.M	296	799		meter down	354	133.7	1096	meter down	84
Total Dissolved Solids						148	397				67.2	550		
Temperature				1.4	-2	-0.4	0.3		2.7	-1	0	0.2	1.4	-1

Data Source	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim	Interim
Lab	Maxxam	Maxxam	Maxxam	Maxxam	Cantest	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam	Maxxam
Lab ID	I14728	I40621	H22002	H68326	703290477	H21999	H68320	I14726	I40619	H22000	H68322	I14724	I40618
Sampling Date	21/11/2007	13/12/2007	25/09/2007	25/10/2007	03/27/2007	25/09/2007	25/10/2007	21/11/2007	13/12/2007	25/09/2007	25/10/2007	21/11/2007	13/12/2007
COC Number	8201068	8201389	8198215	8199474	181381	8198215	8199474	8201068	8201389	8198215	8199474	8201068	8201389
Sample ID	**VR**	**VR**	**W10**	**W10**	**WF**	**X10**	**X10**	**X10**	**X10**	**X14**	**X14**	**X14**	**X14**
Misc. Inorganics													
Fluoride (F)	0.07	0.08	0.11	0.09		0.12	0.12	0.14	0.15	0.12	0.14	0.14	0.15
ANIONS													
Nitrite (N)	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calculated Parameters													
Total Hardness (CaCO3)	35	39.3	50.4	52.2	44.2	90.5	125	128	158	117	333	212	279
Nitrate (N)	0.05	0.06	<0.02	<0.02		0.05	0.11	0.18	0.21	0.05	0.12	0.16	0.19
Misc. Inorganics													
Weak Acid Dissoc. Cyanide (C	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dissolved Hardness (CaCO3)	37.7	38.7	52	52.4	41.7	96.5	127	140	155	124	339	222	279
Dissolved Organic Carbon (C)	1.2	1.4	3.5	2.8		2.4	2.1	1.6	2.2	2.4	1.7	0.8	2
Alkalinity (Total as CaCO3)	32	35	47.2	52.4	< 0.5	77.5	109	110	120	85.2	137	130	150
Total Organic Carbon (C)	0.6	2.8	3.4	2.8		2.4	2	1.1	2.2	2.4	1.9	1.2	1.5
Alkalinity (PP as CaCO3)	<0.5	<0.5	<0.5	<0.5	45.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bicarbonate (HCO3)	40	42	57.6	63.9	55	94.6	133	140	150	104	168	160	180
Carbonate (CO3)	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hydroxide (OH)	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anions													
Dissolved Sulphate (SO4)	7.1	7	3.7	4.3	6.54	16	26.3	26.8	30.6	36.6	248	89.7	119
Dissolved Chloride (Cl)	<0.5	<0.5	<0.5	<0.5	0.32	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	0.6
Nutrients													
Ammonia (N)	0.028	<0.005	<0.005	<0.005		<0.005	0.006	0.029	<0.005	<0.005	0.168	0.063	0.065
Nitrate plus Nitrite (N)	0.05	0.06	<0.02	<0.02		0.05	0.11	0.18	0.21	0.05	0.12	0.16	0.19
Total Phosphorus (P)	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005
Physical Properties													
Conductivity	79	85	101	114	103	183	263	260	290	238	685	420	530
pH	7.7	7.7	7.9	7.9	7.02	8.1	8.2	8	8.1	8.1	8.1	8	8.1
Physical Properties													
Total Suspe<1ed Solids	<1	3	1	<1	< 1	4	<1	<1	<1	4	5	<1	1
Total Dissolved Solids	44	66	80	78		112	154	150	190	158	460	280	340
Dissolved Metals by ICP													
Dissolved Boron (B)	<0.005	<0.005	<0.008	<0.005	< 0.01	<0.008	<0.005	<0.005	0.008	<0.008	<0.005	<0.005	0.009
Dissolved Calcium (Ca)	11.6	12	17.1	17.4	12.6	28.2	37	41.1	45.4	36.5	101	66.1	83.1
Dissolved Iron (Fe)	0.013	0.013	0.033	0.000009	0.01	0.184	0.000229	0.094	0.078	0.198	0.000216	0.214	0.172
Dissolved Magnesium (Mg)	2.11	2.1	2.26	2.19	2.45	6.37	8.49	8.96	10.2	8.03	21.2	13.9	17.3
Dissolved Phosphorus (P)			<0.1		< 0.03	<0.1				<0.1			
Dissolved Silicon (Si)	4.6	4.94	6.21	0.00585	5.31	4.25	0.00509	5.41	5.8	4.34	0.00464	5.37	5.93
Dissolved Sodium (Na)	1.63	1.76	2.02	1.81	2.06	2.07	2.44	2.65	2.9	2.87	8.82	5.15	6.76
Dissolved Metals by ICPMS													
Dissolved Aluminum (Al)	0.0154	0.0151	0.0232	0.0092	0.007	0.0121	0.0041	0.004	0.0022	0.0156	0.0041	0.0031	0.0023
Dissolved Antimony (Sb)	0.00003	0.00006	0.00079	0.00003	< 0.0002	0.00096	0.00008	0.00006	0.00007	0.00109	0.00013	0.00007	0.00006
Dissolved Arsenic (As)	0.00018	0.0002	<0.0001	0.00012	0.0002	0.0004	0.00034	0.00019	0.00021	0.0003	0.00031	0.00029	0.00029
Dissolved Barium (Ba)	0.0317	0.034	0.0149	0.0169	0.037	0.0434	0.0584	0.0618	0.0703	0.0453	0.0557	0.0634	0.0693
Dissolved Beryllium (Be)	0.00001	0.00001	<0.00005	0.00001	< 0.0002	<0.00005	<0.00001	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001	<0.00001
Dissolved Bismuth (Bi)	<0.000005	<0.000005	<0.00005	<0.000005	< 0.0002	<0.00005	<0.000005	<0.000005	<0.000005	<0.00005	<0.000005	<0.000005	<0.000005
Dissolved Cadmium (Cd)	0.00001	0.000018	0.00002	0.000021	0.00002	0.00002	0.000025	0.000017	0.000015	0.00003	0.000021	0.00004	0.000039
Dissolved Chromium (Cr)	<0.0001	<0.0001	<0.0002	<0.0001	< 0.0002	<0.0002	0.0001	<0.0001	0.0003	<0.0002	0.0003	<0.0001	<0.0001
Dissolved Cobalt (Co)	0.000013	0.000021	0.00009	0.000013	< 0.0002	0.00016	0.000127	0.000097	0.000081	0.00028	0.00369	0.000668	0.00103
Dissolved Copper (Cu)	0.00031	0.00084	0.0011	0.0008	0.0005	0.0008	0.00056	0.00055	0.00207	0.0007	0.00046	0.00044	0.00046
Dissolved Lead (Pb)	0.000109	0.000041	0.00021	0.000065	< 0.0002	0.00037	0.000424	0.000116	0.000048	0.00041	0.000429	0.000259	0.000048
Dissolved Lithium (Li)	<0.0005	0.0006	0.001	0.0011	0.0003	0.0026	0.0036	0.0046	0.0057	0.0025	0.0082	0.0055	0.0062
Dissolved Manganese (Mn)	0.00031	0.00098	0.00031	0.00014	2.45	0.0304	0.0755	0.0579	0.0486	0.271	3.64	0.997	1.61
Dissolved Molybdenum (Mo)	0.00014	0.00015	0.0002	0.00019	< 0.0001	0.00044	0.00053	0.00052	0.00067	0.00045	0.00069	0.00062	0.00067
Dissolved Nickel (Ni)	0.00016	0.00026	<0.0005	0.00031	0.0003	<0.0005	0.00084	0.00093	0.00099	<0.0005	0.00816	0.0023	0.00297
Dissolved Potassium (K)	0.37	0.43	0.43	0.42	0.66	0.583	0.91	0.98	1.04	0.764	2.13	1.4	1.66
Dissolved Selenium (Se)	0.00004	0.00006	<0.0005	0.00004	< 0.0002	<0.0005	0.00032	0.0003	0.00036	<0.0005	0.00022	0.00028	0.00034
Dissolved Silver (Ag)	<0.000005	<0.000005	<0.00001	<0.000005	< 0.00005	<0.00001	<0.000005	<0.000005	<0.000005	<0.00001	0.000006	<0.000005	<0.000005
Dissolved Strontium (Sr)	0.0583	0.0602	0.0583	0.0612	0.061	0.118	0.163	0.172	0.18	0.149	0.33	0.232	0.266
Dissolved Thallium (Tl)	<0.000002	0.000004	0.00005	0.000002	< 0.00002	0.00005	0.000003	<0.000002	0.000004	0.00005	0.00004	0.000004	0.000008
Dissolved Tin (Sn)	<0.00001	0.00002	<0.00005	<0.000001	< 0.0002	<0.00005	0.00002	<0.00001	<0.00001	<0.00005	0.00001	<0.00001	<0.00001
Dissolved Titanium (Ti)	<0.0005	<0.0005	0.0008	<0.0005	0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0018	<0.0005	<0.0005
Dissolved Uranium (U)	0.000458	0.000421	0.00012	0.000116	0.0006	0.00108	0.00174	0.00229	0.00229	0.00121	0.0025	0.00235	0.00325
Dissolved Vanadium (V)	<0.0002	0.0002	0.00011	<0.0002	< 0.0002	0.00008	<0.0002	<0.0002	<0.0002	0.00005	<0.0002	<0.0002	<0.0002
Dissolved Zinc (Zn)	0.001	0.0015	0.0028	0.0019	< 0.001	0.0223	0.0524	0.0587	0.0583	0.0212	0.0853	0.0544	0.0486
Dissolved Zirconium (Zr)	<0.0001	0.0001	0.0002	<0.0001	< 0.002	0.00011	<0.0001	<0.0001	<0.0001	0.00011	<0.0001	<0.0001	<0.0001
Dissolved Sulphur (S)	<3	<3		<3			9	9	11		78	34	51
Mercury by CVAA													
Dissolved Mercury (Hg)			<0.00001		< 0.000015	<0.00001				<0.00001			
Total Mercury (Hg)			<0.00001		< 0.000015	<0.00001				<0.00001			
Total Metals by ICP													
Total Boron (B)	<0.005	<0.005	<0.008	<0.005	< 0.01	<0.008	<0.005	<0.005	<0.005	<0.008	<0.005	<0.005	<0.005
Total Calcium (Ca)	11	12.3	16.7	17.3	13.4	26.5	36.3	38.5	46	34.4	99.3	64.3	82.9
Total Iron (Fe)	0.027	0.029	0.054	0.015	0.03	0.222	0.283	0.166	0.18	0.25	0.178	0.263	0.293
Total Magnesium (Mg)	1.83	2.11	2.13	2.16	2.62	5.94	8.39	7.81	10.4	7.52	20.6	12.5	17.4
Total Phosphorus (P)			<0.1		< 0.03	<0.1				<0.1			
Total Silicon (Si)	4.5	5.1	6.05	5.42	5.49	4	4.12	5.02	6.16	4.1	4.27	5.17	5.75
Total Sodium (Na)	1.41	1.78	1.85	1.77	2.06	1.91	2.42	2.24	2.96	2.68	8.77	4.53	6.7
Total Metals by ICPMS													
Total Aluminum (Al)	0.0245	0.0286	0.0511	0.0125	0.024	0.0229	0.006	0.0065	0.0045	0.0271	0.0025	0.0059	0.0088
Total Antimony (Sb)	0.00003	0.0001	<0.00005	0.00003	< 0.0002	0.00009	0.00007	0.00008	0.00006	0.00008	0.00012	0.00007	0.00006
Total Arsenic (As)	0.00017	0.00021	0.0001	0.00012	0.0002	0.0004	0.00036	0.00022	0.00022	0.0005	0.00033	0.00029	0.00035
Total Barium (Ba)	0.0327	0.0338	0.0134	0.0167	0.038	0.0418	0.06	0.0663	0.0684	0.0424	0.0539	0.0683	0.0724
Total Beryllium (Be)	0.00001	0.00002	<0.00005	<0.00001	< 0.0002	<0.00005	<0.00001	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001	<0.00001
Total Bismuth (Bi)	<0.000005	<0.000005	<0.00005	<0.000005	< 0.0002	<0.00005	<0.000005	<0.000005	<0.000005	<0.00005	<0.000005	<0.000005	<0.000005
Total Cadmium (Cd)	0.000012	0.000026	0.00003	0.000018	0.00002	0.00001	0.000025	0.000022	0.000016	0.00002	0.000056	0.000035	0.000042
Total Chromium (Cr)	<0.0001	0.0001	<0.0002	<0.0001	< 0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.0001
Total Cobalt (Co)	0.000017	0.000028	0.00004	0.000014	< 0.0002	0.00008	0.000131	0.000086	0.000079	0.00023	0.00363	0.000626	0.00107
Total Copper (Cu)	0.00045	0.00104	0.0011	0.00085	0.0005	0.0006	0.00045	0.0006	0.00043	0.0006	0.00045	0.00046	0.00042
Total Lead (Pb)	0.000149	0.000347	0.00031	0.000134	0.0002	0.00031	0.000672	0.000507	0.000145	0.00045	0.000301	0.000268	0.000214
Total Lithium (Li)	<0.0005	0.0006	0.0011	0.0012	0.0004	0.002	0.004	0.0044	0.0057	0.0025	0.0088	0.0054	0.0071
Total Manganese (Mn)	0.00176	0.00267	0.00174	0.00045	0.0012	0.0341	0.0753	0.0556	0.0523	0.262	3.65	1.02	1.61
Total Molybdenum (Mo)	0.00015	0.00013	0.0002	0.00019	< 0.0001	0.00044	0.00055	0.00055	0.00059	0.00046	0.00069	0.00065	0.00074
Total Nickel (Ni)	0.00017	0.00038	<0.0005	0.00029	0.0003	<0.0005	0.00079	0.00077	0.00089	0.0009	0.00792	0.00205	0.00312
Total Potassium (K)	0.36	0.47	0.454	0.42	0.73	0.624	0.88	0.92	1.07	0.773	2.12	1.38	1.66
Total Selenium (Se)	<0.00004	0.00006	<0.0005	0.00005	< 0.0002	<0.0005	0.00027	0.00026	0.00038	<0.0005	0.00024	0.0003	0.00034
Total Silver (Ag)	<0.000005	<0.000005	<0.00001	<0.000005	< 0.00005	<0.00001	<0.000005	<0.000005	<0.000005	<0.00001	<0.000005	<0.000005	<0.000005
Total Strontium (Sr)	0.0566	0.0601	0.0541	0.0619	0.064	0.112	0.165	0.169	0.186	0.129	0.333	0.232	0.28
Total Thallium (Tl)	0.000002	0.000003	<0.00005	<0.000002	< 0.00002	<0.00005	0.000003	0.000003	0.000002	<0.00005	0.000038	0.000005	0.000006
Total Tin (Sn)	<0.00001	0.00003	<0.00005	0.00001	< 0.0002	<0.00005	<0.00001	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001	<0.00001
Total Titanium (Ti)	<0.0005	<0.0005	0.0019	<0.0005	0.0006	0.0008	<0.0005	<0.0005	<0.0005	0.0011	<0.0005	<0.0005	<0.0005
Total Uranium (U)	0.000437	0.000433	0.00011	0.000117	0.0008	0.00102	0.00184	0.00189	0.0023	0.00119	0.0026	0.00226	0.00291
Total Vanadium (V)	0.0002	<0.0002	0.00021	0.0002	< 0.0002	0.00009	0.0002	0.0002	<0.0002	0.00011	0.0002	0.0002	<0.0002
Total Zinc (Zn)	0.0009	0.0031	0.0062	0.0017	0.001	0.0205	0.0523	0.0555	0.0631	0.0225	0.0789	0.0508	0.0517
Total Zirconium (Zr)	<0.0001	0.0001	0.22	<0.0001	< 0.002	0.15	<0.0001	<0.0001	<0.0001	0.13	<0.0001	<0.0001	<0.0001
	<3	<3		<3			8	10	12		76	34	52
In-Situ													
pH	6.87	8.44	7.38	7.4		8.04	7.42	6.31	7.39	8.04	7.41	7.26	7.44
Dissolved Oxygen	13.04		10.8	11.47		11.11	12.55	13.1	nm	11	12.32	12.24	
Dissolved Oxygen				79.5			89.1				92.1		
Conductivity	102.8	212	113.5	126.2		182.4	246	361	error	261	705	479	373
Total Dissolved Solids	51.5	107					155	181	33.4		355	240	187
Temperature	-0.2	0.1	1.1	-1.5		1.7	-0.5	0.2	0.4	2.2	-0.5	0.8	0.1

[a] Sampled under the Pelly River
[b] Sampled under the Pelly Rive
Water quality data provided by
Data source abrreviations:
"Pelly AE" - Pelly River Aqu
"Interim" - Pelly River Interir