

B2.2-1 Vangorda Creek Drainage Reference Sites

Table 1. Reference Site Data 2005-2007 Miscellaneous Parameters

STATION	DATE	Color CU	Condcutivity-L µS/cm	Hardness mg/L	Ammonia mg/L	pH-F pH unit	Sulfate mg/L	TSS mg/L	Turbidity NTU
Benchmark		7	303	158	0.030	6.58-8.16	20.3	3	0.76
VR	27-Mar-07	< 5	103	44.2			6.54	< 1	0.41
VR	26-Sep-07		62	28.9	< 0.005	7.3	5	< 1	
VR	25-Oct-07		76	31.8	0.009		7.8	1	
VR	21-Nov-07		79	35	0.028	6.87	7.1	< 1	
VR	13-Dec-07		85	39.3	< 0.005	8.44	7	3	
VR	Total # samples	1	5	5	4	3	5	5	1
VR	Median	2.5	79.0	35.0	0.0058	7.3	7	0.5	0.41
VR	MEAN	2.5	81	35.8	0.0105	7.54	6.69	1.1	0.41
VR	STD		14.9	6.06	0.0121	0.811	1.05	1.08	
VR	MINIMUM	< 5	62	28.9	< 0.005	6.87	5	< 1	0.41
VR	MAXIMUM	< 5	103	44.2	0.028	8.44	7.8	3	0.41
VR	# samples < MDL	1	0	0	2	0	0	3	0
VR	% samples < MDL	100	0	0	50	0	0	60	0
VR	Maximum MDL	< 5			< 0.005			< 1	
VR	25th Percentile	2.5	76	31.8	0.0025	7.08	6.54	0.5	0.41
VR	75th Percentile	2.5	85	39.3	0.0137	7.87	7.10	1	0.41
V1	7-Mar-05	< 5	95	56	< 0.01		10.7	< 1	0.1
V1	7-Jun-05	7	42	18	0.03	7	4.6	1	0.35
V1	12-Sep-05	5	67	29	< 0.01	8	10.5	< 1	0.26
V1	1-Dec-05	< 5	104	47	< 0.01	8.1	10.8	< 1	0.18
V1	20-Mar-06	< 5	121	59	< 0.01	8.1	10.8	< 1	0.16
V1	5-Jun-06	20	35	13	< 0.01	8.3	3.62	3	0.77
V1	9-Jun-06	< 5	73	29	< 0.01	8.1	9.71	< 1	0.2
V1	6-Sep-06	< 5	73	29	< 0.01	8.1	9.71	< 1	0.2
V1	27-Mar-07	< 5	125	54.5			10	< 1	0.11
V1	18-Jun-07	8	48	21	< 0.01	7.5	5.31	< 1	0.27
V1	28-Aug-07		71		< 0.005	6.85	8.9	< 1	
V1	29-Aug-07					6.56			
V1	24-Sep-07	< 5	71	26	< 0.01	7.2	9.75	< 1	0.16
V1	26-Sep-07		66	28.7	< 0.005	7.58	9.7	< 1	
V1	24-Oct-07		90	36.3	< 0.005	7.69	11.8	< 1	
V1	22-Nov-07		100	48.3	< 0.005	7.25	12.4	< 1	
V1	10-Dec-07	< 5	106	42	< 0.01	7.6	11.3	< 1	0.11
V1	14-Dec-07		110	49	< 0.005	8.01	12	< 1	
V1	Total # samples	12	17	16	16	19	17	17	12
V1	Median	2.5	73	32.7	0.01	7.58	10	0.5	0.19
V1	MEAN	5	82.2	36.6	0.0058	7.46	9.51	0.676	0.239
V1	STD	5.12	26.9	14.4	0.0066	0.619	2.57	0.611	0.183
V1	MINIMUM	< 5	35	13	< 0.005	6.37	3.62	< 1	0.1
V1	MAXIMUM	20	125	59	0.03	8.3	12.4	3	0.77
V1	# samples < MDL	8	0	0	15	0	0	15	0
V1	% samples < MDL	67	0	0	94	0	0	88	0
V1	Maximum MDL	< 5			< 0.01			< 1	
V1	25th Percentile	2.5	67	28.0	0.0025	6.95	9.70	0.5	0.147

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STATION	DATE	Color CU	Condcutivity-L µS/cm	Hardness mg/L	Ammonia mg/L	pH-F pH unit	Sulfate mg/L	TSS mg/L	Turbidity NTU
V1	75th Percentile	5.5	104	48.5	0.005	8.06	10.8	0.5	0.262

Notes:

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

DL: Method Detection Limit

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

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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	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
	Benchmark	<0.00005	0.156	<0.001	0.088	<0.001	<0.001	<0.05	44.9	0.00004	<0.001	<0.001	0.002	0.246	<0.00002	1.4		10.74	0.0264
VR	27-Mar-07	<0.00005	0.024	0.0002	0.038	<0.0002	<0.0002	<0.01	13.4	0.00002	<0.0002	<0.0002	0.0005	0.03	<0.000015	0.73	0.0004	2.62	0.0012
VR	26-Sep-07	<0.00001	0.0627	<0.0001	0.0251	<0.00005	<0.00005	<0.008	8.85	0.00001	0.00006	0.0015	0.0008	0.042	<0.00001	0.347	<0.0002	1.66	0.00107
VR	25-Oct-07	<0.000005	0.0205	0.00018	0.028	0.00001	<0.000005	<0.005	9.89	0.000036	0.00002	0.0002	0.00088	0.024		0.32	<0.0005	1.74	0.0018
VR	21-Nov-07	<0.000005	0.0245	0.00017	0.0327	0.00001	<0.000005	<0.005	11	0.000012	0.000017	<0.0001	0.00045	0.027		0.36	<0.0005	1.83	0.00176
VR	13-Dec-07	<0.000005	0.0286	0.00021	0.0338	0.00002	<0.000005	<0.005	12.3	0.000026	0.000028	0.0001	0.00104	0.029		0.47	0.0006	2.11	0.00267
VR	Total # samples	5	5	5	5	5	5	5	5	5	5	5	5	5	2	5	5	5	5
VR	Median	0.000025	0.0245	0.00018	0.0327	0.00002	2.5E-06	0.0025	11	0.00002	0.000028	0.0001	0.0008	0.029	0.00000625	0.36	0.00025	1.83	0.00176
VR	MEAN	0.000021	0.03206	0.000162	0.03152	0.000033	2.65E-05	0.0033	11.1	0.000021	0.000045	0.00039	0.00073	0.0304	0.00000625	0.445	0.00032	1.992	0.0017
VR	STD	8.94E-06	0.01737	6.46E-05	0.00505	3.8E-05	4.22E-05	0.00115	1.82	1.06E-05	3.52E-05	0.00062	0.00025	0.0069	1.77E-06	0.169	0.00019	0.390	0.00063
VR	MINIMUM	<0.000005	0.0205	<0.0001	0.0251	<0.00005	<0.000005	<0.005	8.85	0.00001	0.000017	<0.0002	0.00045	0.024	<0.00001	0.32	<0.0002	1.66	0.00107
VR	MAXIMUM	<0.00001	0.0627	0.0002	0.038	<0.0002	<0.0002	<0.01	13.4	0.000036	<0.0002	0.0015	0.00104	0.042	<0.000015	0.73	0.0006	2.62	0.00267
VR	# samples < MDL	5	0	1	0	2	5	0	5	5	1	2	0	0	2	0	3	0	0
VR	% samples < MDL	100	0	20	0	40	100	100	0	0	20	40	0	0	100	0	60	0	0
VR	Maximum MDL	<0.00005		<0.0001		<0.0002	<0.0002	<0.01			<0.0002	<0.0002			<0.000015		<0.0005		
VR	25th Percentile	0.000025	0.024	0.00017	0.028	0.00001	2.5E-06	0.0025	9.89	0.000012	0.00002	0.0001	0.0005	0.027	5.63E-06	0.347	0.00025	1.74	0.0012
VR	75th Percentile	0.000025	0.0286	0.0002	0.0338	0.000025	0.000025	0.004	12.3	0.000026	0.00006	0.0002	0.00088	0.03	6.88E-06	0.47	0.0004	2.11	0.0018
V1	7-Mar-05	<0.00025	0.012	<0.001	0.037	<0.001	<0.001	<0.05	17.9	<0.0002	<0.001	<0.001	<0.001	0.08	<0.00002	1.4	0.001	2.87	<0.001
V1	7-Jun-05	<0.00025	0.043	0.002	0.016	<0.001	<0.001	0.07	6.03	<0.0002	<0.001	0.001	0.002	0.09	<0.00002	0.8	<0.001	0.75	0.002
V1	12-Sep-05	<0.00025	0.013	<0.001	0.025	<0.001	<0.001	<0.05	9.61	<0.0002	<0.001	<0.001	<0.001	<0.05	<0.00002	0.3	<0.001	1.3	0.001
V1	1-Dec-05	<0.00025	0.006	<0.001	0.037	<0.001	<0.001	<0.05	14.7	<0.0002	<0.001	<0.001	<0.001	<0.05	<0.00002	0.6	<0.001	2.46	<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	<0.001	<0.001	<0.05	<0.00002	0.6	0.002	2.89	<0.001
V1	5-Jun-06	<0.00025	0.099	<0.001	0.013	<0.001	<0.001	<0.05	4.31	<0.0002	<0.001	<0.001	<0.001	0.14	<0.00002	0.4	<0.001	0.64	0.005
V1	9-Jun-06	<0.00025	0.024	<0.001	0.025	<0.001	<0.001	<0.05	9.48	<0.0002	<0.001	<0.001	<0.001	<0.05	<0.00002	0.3	<0.001	1.4	<0.001
V1	6-Sep-06	<0.00025	0.024	<0.001	0.025	<0.001	<0.001	<0.05	9.48	<0.0002	<0.001	<0.001	<0.001	<0.05	<0.00002	0.3	<0.001	1.4	<0.001
V1	27-Mar-07	<0.00005	0.007	0.0003	0.043	<0.0002	<0.0002	<0.01	16.8	0.00001	<0.0002	<0.0002	0.0003	0.01	<0.000015	0.64	0.0014	3.07	0.0004
V1	18-Jun-07	<0.00025	0.033	<0.001	0.014	<0.001	<0.001	<0.05	6.62	<0.0002	<0.001	<0.001	<0.001	0.07	<0.00002	0.4	<0.005	0.97	0.014
V1	28-Aug-07	<0.00001	0.0143	0.0002	0.0257	<0.00005	<0.00005	<0.008	10.6	<0.00001	<0.00002	<0.0002	0.0004	0.027	<0.00005	0.343		1.45	0.00076
V1	24-Sep-07	<0.00025	0.012	<0.001	0.022	<0.001	<0.001	<0.05	7.73	<0.0002	<0.001	<0.001	<0.001	<0.05		0.3	<0.001	1.11	0.002
V1	26-Sep-07	<0.000005	0.0115	<0.00002	0.0246	<0.00001	<0.005	<0.005	9.38	<0.000005	<0.000005	<0.0001	0.0004	0.019		0.317	0.0008	1.29	0.00069
V1	24-Oct-07	<0.000005	0.0077	0.00022	0.0301	<0.00001	<0.005	<0.005	11.8	0.000036	0.00001	0.0001	0.00034	0.015		0.37	0.0012	1.67	0.00077
V1	22-Nov-07	<0.000005	0.0059	0.00026	0.0333	<0.00001	<0.005	<0.005	15.4	0.000007	0.000013	<0.0001	0.00029	0.008		0.49	0.0012	2.4	0.00042
V1	10-Dec-07	<0.00025	0.006	<0.001	0.032	<0.001	<0.001	<0.05	13.3	<0.0002	<0.001	<0.001	<0.001	<0.05	<0.00002	0.6	0.001	2.22	0.002
V1	14-Dec-07	<0.000005	0.0051	0.00029	0.0386	<0.00001	<0.005	<0.005	15.8	0.000023	0.000023	<0.0001	0.00033	0.005		0.5	0.0014	2.34	0.00072
V1	Total # samples	17	17	17	17	17	17	17	17	17	17	17	17	17	12	17	16	17	17
V1	Median	0.000125	0.012	0.0005	0.0257	0.0005	0.0005	0.025	10.6	0.0001	0.0005	0.0005	0.0005	0.025	0.00001	0.4	0.0009	1.45	0.00072
V1	MEAN	8.32E-05	0.0773	0.000516	0.0330	0.000332	0.000919	0.0255	11.6	6.96E-05	0.000333	0.00038	0.00053	0.0376	1.10E-05	0.509	0.001	1.78	0.0019
V1	STD	0.0001	0.236	0.0004	0.024	0.0002	0.0009	0.0295	4.36	0	0.0002	0.0003	0.0004	0.0361	0	0.274	0.0006	0.782	0.0033
V1	MINIMUM	<0.000005	0.0051	<0.00002	0.013	<0.00001	<0.00005	<0.005	4.31	<0.000005	<0.000005	<0.0001	0.00029	0.005	<0.000015	0.3	0.0008	0.64	0.0004
V1	MAXIMUM	<0.00025	0.99	0.002	0.12	<0.001	<0.005	0.12	18.7	<0.0002	<0.001	<0.001	0.002	0.14	<0.00005	1.4	<0.005	3.07	0.014
V1	# samples < MDL	17	0	10	0	17	17	15	0	13	14	15	10	7	12	0	8	0	5
V1	% samples < MDL	100	0	59	0	100	100	88	0	76	82	88	59	41	100	0	50	0	29
V1	Maximum MDL	<0.00025		<0.001		<0.001	<0.005	<0.05		<0.0002	<0.001	<0.001	<0.001	<0.05	<0.00005		<0.005		<0.001
V1	25th Percentile	5E-06	0.007	0.00029	0.0246	2.50E-05	0.0005	0.004	9.38	2.3E-05	2.3E-05	1E-04	0.0004	0.019	1E-05	0.317	0.0005	1.29	0.0005
V1	75th Percentile	0.000125	0.024	0.0005	0.037	0.0005	0.0005	0.025	15.4	1E-04	0.0005	0.0005	0.0005	0.027	1E-05	0.6	0.00125	2.4	0.002

Notes:
 Statistics calculated for stations with 3 or more values in a dataset.
 DL: Method Detection Limit
 Method Detection Limit set to 1/2 method detection limit for statistical calculations

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Table 2. Reference Site Data 2005-2007 Total Metals

STATION	DATE	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	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	0.00118	3.41	<0.001	<0.001		<0.001	<0.001		<0.0005	0.18	0.004	<0.0001	0.0025	<0.001	0.0164	<0.005
VR	27-Mar-07	< 0.0001	2.06	0.0003	0.0002	< 0.03	< 0.0002	< 0.0002	5.49	< 0.0002	0.064	0.0006	< 0.00002	0.0008	< 0.0002	0.001	< 0.002
VR	26-Sep-07	0.00013	2.23	<0.0005	0.00016	<0.1	<0.00005	<0.0005	4.23	<0.00005	0.042	0.0041	<0.00005	0.00035	0.00005	0.0049	
VR	25-Oct-07	0.00013	1.54	0.00021	0.00032		0.00002	<0.00004	4.08	0.00005	0.0529	<0.0005	0.000002	0.00041	0.0002	0.0024	0.0001
VR	21-Nov-07	0.00015	1.41	0.00017	0.00015		0.00003	<0.00004	4.5	<0.00001	0.0566	<0.0005	0.000002	0.00044	0.0002	0.0009	<0.0001
VR	13-Dec-07	0.00013	1.78	0.00038	0.00035		0.0001	0.00006	5.1	0.00003	0.0601	<0.0005	0.000003	0.00043	<0.0002	0.0031	0.0001
VR	Total # samples	5	5	5	5	2	5	5	5	5	5	5	5	5	5	5	4
VR	Median	0.00013	1.78	0.00025	0.0002	0.0325	0.00003	0.00006	4.5	0.00003	0.0566	0.00025	0.000003	0.00043	0.0001	0.0024	0.0001
VR	MEAN	0.00012	1.80	0.000262	0.00024	0.0325	0.000055	0.00009	4.68	0.000042	0.05512	0.00109	0.0000084	0.00049	0.00013	0.00246	0.00031
VR	STD	3.9E-05	0.3437	8.17E-05	9.2E-05	0.0247	4.12E-05	9.54E-05	0.597	3.62E-05	0.00841	0.00169	9.86E-06	0.00018	6.708E-05	0.00165	0.00046
VR	MINIMUM	< 0.0001	1.41	0.00017	0.00015	< 0.03	0.00002	0.00006	4.08	<0.00001	0.042	<0.0005	<0.00005	0.00035	0.00005	0.0009	<0.0001
VR	MAXIMUM	0.00015	2.23	<0.0005	0.00035	<0.1	< 0.0002	<0.0005	5.49	< 0.0002	0.064	0.0041	0.000002	0.0008	0.0002	0.0049	< 0.002
VR	# samples < MDL	1	0	1	0	2	2	4	0	3	0	3	2	0	2	0	2
VR	% samples < MDL	20	0	20	0	100	40	80	0	60	0	60	40	0	40	0	50
VR	Maximum MDL	< 0.0001		<0.0005		<0.1	< 0.0002	< 0.0002		< 0.0002			<0.00005		< 0.0002		< 0.002
VR	25th Percentile	0.00013	1.54	0.00021	0.00016	0.02375	0.000025	0.00002	4.23	0.000025	0.0529	0.00025	0.000002	0.00041	0.0001	0.001	8.8E-05
VR	75th Percentile	0.00013	2.06	0.0003	0.00032	0.04125	0.0001	0.0001	5.1	0.00005	0.0601	0.0006	0.00001	0.00044	0.0002	0.0031	0.00033
V1	7-Mar-05	0.0006	2.71	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.7	< 0.001	0.08	< 0.001	< 0.0001	0.0014	< 0.001	0.011	< 0.01
V1	7-Jun-05	< 0.0005	1.61	< 0.001	< 0.001	< 0.15	< 0.001	0.011	8.2	< 0.001	0.03	0.001	< 0.0001	< 0.0005	< 0.001	0.006	< 0.01
V1	12-Sep-05	< 0.0005	1.7	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	7	0.002	0.044	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	1-Dec-05	0.0005	1.89	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.068	< 0.001	< 0.0001	0.0006	< 0.001	< 0.005	< 0.01
V1	20-Mar-06	0.0007	2.27	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.11	0.001	< 0.0001	0.0012	< 0.001	0.038	< 0.01
V1	5-Jun-06	< 0.0005	0.87	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.4	< 0.001	0.022	0.003	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	9-Jun-06	< 0.0005	1.79	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.052	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	6-Sep-06	< 0.0005	1.79	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.052	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	27-Mar-07	0.0007	2.46	0.0004	0.0002	< 0.03	< 0.0002	< 0.0002	5.32	< 0.0002	0.078	0.0003	< 0.00002	0.0025	< 0.0002	< 0.001	< 0.002
V1	18-Jun-07	< 0.0005	1.89	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.9	< 0.001	0.03	0.002	0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	28-Aug-07	0.00023	2.09	< 0.0005	0.00004	0.01	< 0.00005	< 0.0005		< 0.00005	0.0539	< 0.0005	< 0.00005	0.00031	< 0.00005	0.0027	< 0.005
V1	24-Sep-07	< 0.0005	1.64	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.5	< 0.001	0.042	< 0.001	< 0.0001	< 0.0005	< 0.001	0.006	< 0.01
V1	26-Sep-07	0.00019	1.78	< 0.00002	0.00002	< 0.005	< 0.00002	< 0.00004	3.96	< 0.00001	0.0476	< 0.0005	< 0.000002	0.0003	< 0.0002	0.0012	0.00012
V1	24-Oct-07	0.00031	1.81	0.00021	0.00021	< 0.005	0.00003	0.0001	4	0.00013	0.0636	< 0.0005	< 0.000002	0.00052	< 0.0002	0.0013	< 0.0001
V1	22-Nov-07	0.00044	2.1	0.00024	1.4E-05	< 0.005	0.00003	0.00015	5.73	0.00001	0.0724	< 0.0005	< 0.000002	0.00065	< 0.0002	0.0006	< 0.0001
V1	10-Dec-07	0.0005	2.27	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.065	< 0.001	< 0.0001	0.0008	< 0.001	< 0.005	< 0.01
V1	14-Dec-07	0.0005	2.13	0.00025	8E-06	< 0.005	0.00004	0.00015	4.89	< 0.00001	0.0784	< 0.0005	0.000002	0.00094	< 0.0002	0.0009	< 0.0001
V1	Total # samples	17	17	17	17	17	17	17	16	17	17	17	17	17	17	17	17
V1	Median	0.00025	1.89	0.0005	0.0005	0.075	0.0005	0.0005	4.65	0.0005	0.0539	0.0005	0.00005	0.00031	0.0005	0.0025	0.005
V1	MEAN	0.00038	1.93	0.00040	0.00035	0.0506	0.000337	0.00099	5.09	0.00043	0.0582	0.00071	3.76E-05	0.00065	0.00035	0.00504	0.0035
V1	STD	0.0002	0.408	0.0002	0.0002	0.0342	0.0002	0.0026	2.07	0.0005	0.0222	0.0007	0	0.0006	0.0002	0.0089	0.0022
V1	MINIMUM	0.00019	0.87	< 0.00002	8E-06	< 0.005	< 0.00002	< 0.00004	2.4	< 0.00001	0.022	0.0003	< 0.000002	0.0003	< 0.00005	0.0006	< 0.0001
V1	MAXIMUM	0.0007	2.71	< 0.001	< 0.001	< 0.15	< 0.001	0.011	10.7	0.002	0.11	0.003	< 0.0001	0.0025	< 0.001	0.038	< 0.01
V1	# samples < MDL	7	0	13	11	16	14	13	0	14	0	12	15	7	17	8	16
V1	% samples < MDL	41	0	76	65	94	82	76	0	82	0	71	88	41	100	47	94
V1	Maximum MDL	< 0.0005		< 0.001	< 0.001	< 0.15	< 0.001	< 0.001		< 0.001		< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	25th Percentile	0.00025	1.78	0.00025	0.0002	0.01	4E-05	0.00015	3.99	1E-04	0.044	0.00025	1E-05	0.00025	1E-04	0.0013	0.001
V1	75th Percentile	0.0005	2.13	0.0005	0.0005	0.075	0.0005	0.0005	5.42	0.0005	0.0724	0.0005	5E-05	0.0008	0.0005	0.0027	0.005

Notes:
 Statistics calculated for stations with 3 or more values in a dataset.
 DL: Method Detection Limit
 Method Detection Limit set to 1/2 method detection limit for statistical calculations

B2.2-1 Vangorda Creek Drainage Reference Sites

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	K-D mg/L	LI-D mg/L	MG-D mg/L
VR	27-Mar-07	< 0.00005	0.007	0.0002	0.037	< 0.01	< 0.0002	< 0.0002	12.6	0.00002	< 0.0002	< 0.0002	0.0005	0.01	< 0.000015	0.66	0.0003	2.45
VR	26-Sep-07	<0.00001	0.04	0.0002	0.0256	<0.008	<0.00005	<0.00005	9.25	<0.00001	0.0001	0.0004	0.0006	0.028	<0.00001	0.348	0.0005	1.74
VR	25-Oct-07	<0.000005	0.0152	0.00017	0.0285	<0.005	0.00001	<0.000005	10.2	0.000014	0.000011	0.0001	0.00051	0.000014		0.34	0.0005	1.79
VR	21-Nov-07	<0.000005	0.0154	0.00018	0.0317	<0.005	0.00001	<0.000005	11.6	0.00001	0.000013	<0.0001	0.00031	0.013		0.37	<0.0005	2.11
VR	13-Dec-07	<0.000005	0.0151	0.0002	0.034	<0.005	0.00001	<0.000005	12	0.000018	0.000021	<0.0001	0.00084	0.013		0.43	0.0006	2.1
VR	Total # samples	5	5	5	5	5	5	5	5	5	5	5	5	5	2	5	5	5
VR	Median	0.000025	0.0152	0.0002	0.0317	0.0025	0.00001	0.000025	11.6	0.000014	0.000021	0.0001	0.00051	0.013	0.00000625	0.37	0.0005	2.1
VR	MEAN	0.000075	0.01854	0.00019	0.0314	0.0033	0.000031	0.0000265	11.13	0.0000134	0.000049	0.00014	0.000552	0.0128	0.00000625	0.430	0.00043	2.04
VR	STD	9.8E-06	0.0125	1.41E-05	0.00448	0.00115	3.91E-05	4.22E-05	1.37	6.07E-06	4.67E-05	0.000147	0.000193	0.0100	1.77E-06	0.134	0.000148	0.287
VR	MINIMUM	<0.000005	0.007	0.00017	0.0256	<0.005	0.00001	<0.000005	9.25	<0.00001	0.000011	<0.0001	0.00031	0.000014	<0.00001	0.34	0.0003	1.74
VR	MAXIMUM	< 0.00005	0.04	0.0002	0.037	< 0.01	< 0.0002	< 0.0002	12.6	0.00002	< 0.0002	0.0004	0.00084	0.028	< 0.000015	0.66	0.0006	2.45
VR	# samples < MDL	5	0	0	0	5	2	5	0	1	4	3	0	0	2	0	1	0
VR	% samples < MDL	100	0	0	0	100	40	100	0	20	80	60	0	0	100	0	20	0
VR	Maximum MDL	< 0.00005				< 0.01	< 0.0002	< 0.0002			< 0.0002				< 0.000015			
VR	25th Percentile	0.000025	0.0151	0.00018	0.0285	0.0025	0.00001	0.000025	10.2	0.00001	0.000013	0.00005	0.0005	0.01	5.63E-06	0.348	0.0003	1.79
VR	75th Percentile	0.000005	0.04	0.0002	0.034	0.004	0.000025	0.000025	11.6	0.000018	0.0001	0.0004	0.00084	0.028	1.50	0.43	0.0006	2.11
V1	7-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		0.6	0.001	2.78
V1	7-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		0.8	< 0.001	0.74
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		0.4	< 0.001	1.31
V1	1-Dec-05	< 0.00025	0.0025	< 0.001	0.035	< 0.05	< 0.001	< 0.001	15.4	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	< 0.001	2.14
V1	20-Mar-06	< 0.00025		0.001	0.11	0.12	< 0.001	< 0.001	16	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05		0.5	0.002	2.37
V1	5-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		0.4	< 0.001	0.7
V1	9-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		0.3	< 0.001	1.28
V1	6-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		0.3	< 0.001	1.28
V1	27-Mar-07	< 0.00005	0.008	0.0003	0.04	< 0.01	< 0.0002	< 0.0002	15.8	< 0.00001	< 0.0002	< 0.0002	0.0002	< 0.01	< 0.000015	0.56	0.0014	2.89
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		0.3	< 0.005	0.77
V1	28-Aug-07																	1.34
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		0.3	< 0.001	1.13
V1	26-Sep-07	< 0.000005	0.0133	0.0001	0.0247	< 0.005	< 0.00001	< 0.000005	9.85	< 0.000005	0.0001	< 0.0001	0.0009	0.019		0.334	0.0009	1.44
V1	24-Oct-07	< 0.000005	0.0064	0.00022	0.0301	< 0.005	< 0.00001	< 0.000005	12.3	0.000021	0.000011	0.0001	0.00033	0.009		0.38	0.0011	1.74
V1	22-Nov-07	< 0.000005	0.0047	0.00025	0.0352	< 0.005	< 0.00001	< 0.000005	15.6	0.000016	0.00001	< 0.0001	0.00036	0.004		0.5	0.0012	2.44
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		0.5	< 0.001	2.09
V1	14-Dec-07	< 0.000005	0.0043	0.00027	0.0379	< 0.005	< 0.00001	< 0.000005	16.3	0.000017	0.000014	0.0001	0.00038	0.003		0.55	0.0014	2.45
V1	Total # samples	16	15	16	16	16	16	16	16	16	16	16	16	16	1	16	16	17
V1	Median	0.000125	0.0120	0.0005	0.0274	0.025	0.0005	0.0005	11.1	0.0001	0.0005	0.0005	0.0005	0.025	0.0000075	0.45	0.0007	1.44
V1	MEAN	8.81E-05	0.0161	0.00054	0.0319	0.0269	0.000351	0.000351	11.4	7.26E-05	0.000358	0.000369	0.000573	0.0234	0.0000075	0.452	0.000969	1.70
V1	STD	0.0001	0.015	0.0004	0.0227	0.0299	0.0002	0.0002	4.42	0	0.0002	0.0002	0.0004	0.0151		0.139	0.0006	0.720
V1	MINIMUM	< 0.000005	0.0043	0.0001	0.012	< 0.005	< 0.00001	< 0.000005	3.94	< 0.000005	0.00001	< 0.0001	0.0002	0.003	< 0.000015	0.3	0.0009	0.7
V1	MAXIMUM	< 0.00025	0.061	0.002	0.11	0.12	< 0.001	< 0.001	17.7	< 0.0002	< 0.001	< 0.001	0.002	0.06	< 0.000015	0.8	< 0.005	2.89
V1	# samples < MDL	16	1	9	0	14	16	16	0	13	12	14	10	10	1	0	9	0
V1	% samples < MDL	100	7	56	0	88	100	100	0	81	75	88	62	62	100	0	56	0
V1	Maximum MDL	< 0.00025	< 0.005	< 0.001		< 0.05	< 0.001	< 0.001		< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.000015		< 0.005	
V1	25th Percentile	1.94E-05	0.0062	0.000292	0.022	0.00437	7.62E-05	7.56E-05	8.55	2E-05	1E-04	1E-04	0.00047	0.0165	0.0000075	0.326	0.0005	1.28
V1	75th Percentile	0.000125	0.020	0.0005	0.0354	0.025	0.0005	0.0005	15.7	1E-04	0.0005	0.0005	0.0005	0.025	0.0000075	0.513	0.00125	2.37

Notes:
 Statistics calculated for stations with 3 or more values in a dataset.
 DL: Method Detection Limit
 Method Detection Limit set to 1/2 method detection limit for statistical calculations

B2.2-1 Vangorda Creek Drainage Reference Sites

Table 3. Reference Site Data 2005-2007 Dissolved Metals

STATION	DATE	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	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
VR	27-Mar-07	0.001	< 0.0001	2.06	0.0003	< 0.0002	< 0.03	< 0.0002	< 0.0002	5.31	< 0.0002	0.061	0.0003	< 0.00002	0.0006	< 0.0002	< 0.001	< 0.002
VR	26-Sep-07	0.00056	0.00013	1.68	<0.0005	0.00005	<0.1	0.00089	<0.0005	4.4	<0.00005	0.0467	0.0026	0.00005	0.00035	0.00006	0.0022	0.00024
VR	25-Oct-07	0.00074	0.00013	1.64	0.00014	0.000139		0.00002	<0.00004		0.00002	0.0529	<0.0005	0.000002	0.000382	<0.0002	0.002	0.0001
VR	21-Nov-07	0.00031	0.00014	1.63	0.00016	0.000109		0.00003	0.00004	4.6	<0.00001	0.0583	<0.0005	<0.000002	0.000458	<0.0002	0.001	<0.0001
VR	13-Dec-07	0.00098	0.00015	1.76	0.00026	0.000041		0.00006	0.00006	4.94	0.00002	0.0602	<0.0005	0.000004	0.000421	0.0002	0.0015	0.0001
VR	Total # samples	5	5	5	5	5	2	5	5	4	5	5	5	5	5	5	5	5
VR	Median	0.00074	0.00013	1.68	0.00025	0.0001	0.0325	0.00006	0.00006	4.77	0.00002	0.0583	0.00025	0.000004	0.000421	0.0001	0.0015	0.0001
VR	MEAN	0.000718	0.00012	1.754	0.000222	0.000088	0.0325	0.00022	0.000094	4.81	0.000034	0.05582	0.00073	0.0000134	0.000442	0.000112	0.00144	0.000298
VR	STD	0.000292	0.00004	0.179	6.87E-05	4.13E-05	0.0247	0.000376	9.21E-05	0.40	3.76E-05	0.00600	0.00105	0.000021	0.000097	0.000052	0.000702	0.000399
VR	MINIMUM	0.00031	< 0.0001	1.63	0.00014	0.000041	< 0.03	0.00002	<0.00004	4.4	<0.00001	0.0467	0.0003	<0.000002	0.00035	0.00006	0.0005	0.00024
VR	MAXIMUM	0.001	0.00015	2.06	<0.0005	< 0.0002	<0.1	0.00089	<0.0005	5.31	< 0.0002	0.061	0.0026	0.00005	0.0006	0.0002	0.0022	< 0.002
VR	# samples < MDL	0	1	0	1	1	2	1	2	0	3	0	3	2	0	3	1	2
VR	% samples < MDL	0	20	0	20	20	100	20	40	0	60	0	60	40	0	60	20	40
VR	Maximum MDL				<0.0005	< 0.0002	<0.1		<0.0005		< 0.0002							< 0.002
VR	25th Percentile	0.00056	0.00013	1.64	0.00016	0.00005	0.0238	0.00003	0.00004	4.55	0.00002	0.0529	0.00025	0.000002	0.000382	0.0001	0.001	0.0001
VR	75th Percentile	0.00098	0.00015	1.76	0.00026	0.000139	1.513	0.00089	0.00025	5.03	0.000025	0.0602	0.0026	0.00005	0.000458	0.0002	0.0022	0.00024
V1	7-Mar-05	< 0.001	0.0006	2	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	9.9	< 0.001	0.077	< 0.001	< 0.0001	0.0011	< 0.001	< 0.005	< 0.01
V1	7-Jun-05	0.001	< 0.0005	1.59	< 0.001	< 0.001	< 0.15	< 0.001	0.009	7.7	< 0.001	0.028	0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	12-Sep-05	0.001	< 0.0005	1.9	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	7.1	< 0.001	0.046	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	1-Dec-05	< 0.001	< 0.0005	2.27	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.067	< 0.001	< 0.0001	0.0005	< 0.001	< 0.005	< 0.01
V1	20-Mar-06	< 0.001	0.0006	2	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.9	< 0.001	0.1	< 0.001	< 0.0001	0.001	< 0.001	0.047	< 0.01
V1	5-Jun-06	< 0.001	< 0.0005	0.76	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2	< 0.001	0.02	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	9-Jun-06	< 0.001	< 0.0005	1.62	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.046	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	6-Sep-06	< 0.001	< 0.0005	1.62	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.1	< 0.001	0.046	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	27-Mar-07	< 0.0002	0.0007	2.32	0.0003	< 0.0002	< 0.03	< 0.0002	< 0.0002	5.15	< 0.0002	0.075	0.0002	< 0.00002	0.0021	< 0.0002	< 0.001	< 0.002
V1	18-Jun-07	0.003	< 0.0005	1.19	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.9	< 0.001	0.026	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	28-Aug-07			1.81														
V1	24-Sep-07	0.004	< 0.0005	1.71	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.6	< 0.001	0.044	< 0.001	< 0.0001	< 0.0005	< 0.001	0.011	< 0.01
V1	26-Sep-07	0.00056	0.0002	1.91	< 0.0002	0.00013		0.00094	< 0.00004	4.07	< 0.00001	0.0516	< 0.0005	< 0.000002	0.00031	< 0.0002	0.003	0.06
V1	24-Oct-07	0.00019	0.00031	1.83	0.00019	0.000061		0.00003	0.0001	4.26	0.00004	0.0631	< 0.0005	< 0.000002	0.000497	< 0.0002	0.0011	< 0.1
V1	22-Nov-07	0.00006	0.00045	2.08	0.00024	0.000023		0.00004	0.00015	5.72	0.00002	0.0749	< 0.0005	< 0.000002	0.000672	< 0.0002	0.001	< 0.1
V1	10-Dec-07	< 0.001	< 0.0005	1.84	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.7	< 0.001	0.063	< 0.001	< 0.0001	0.0005	< 0.001	0.006	< 0.01
V1	14-Dec-07	0.00037	0.00051	2.17	0.00023	0.000023		0.00005	0.00017	4.17	< 0.00001	0.0775	< 0.0005	< 0.000002	0.000898	< 0.0002	0.001	< 0.1
V1	Total # samples	16	16	17	16	16	12	16	16	16	16	16	16	16	16	16	16	16
V1	Median	0.0005	0.00025	1.84	0.0005	0.0005	0.075	0.0005	0.0005	4.48	0.0005	0.0573	0.0005	0.00005	0.000404	0.0005	0.0025	0.005
V1	MEAN	0.00086	0.00035	1.80	0.00040	0.00036	0.07	0.000416	0.00091	4.97	0.00035	0.0566	0.00045	0.000035	0.000583	0.000375	0.00566	0.0166
V1	STD	0.0011	0.0002	0.3858	0.0002	0.0002	0.0173	0.0002	0.0022	1.92	0.0002	0.0219	0.0002	0	0.0005	0.0002	0.0113	0.0215
V1	MINIMUM	0.00006	0.0002	0.76	< 0.00002	0.000023	< 0.03	0.00003	< 0.00004	2	< 0.00001	0.02	0.0002	< 0.000002	0.00031	< 0.0002	< 0.001	< 0.002
V1	MAXIMUM	0.004	0.0007	2.32	< 0.001	< 0.001	< 0.15	< 0.001	0.009	9.9	< 0.001	0.1	< 0.001	< 0.0001	0.0021	< 0.001	0.047	< 0.1
V1	# samples < MDL	8	9	0	12	12	12	12	12	0	14	0	14	16	7	16	9	15
V1	% samples < MDL	50	56	0	75	75	100	75	75	0	88	0	88	100	44	100	56	94
V1	Maximum MDL	< 0.001	< 0.0005		< 0.001	< 0.001	< 0.15	< 0.001	< 0.001		< 0.001		< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.1
V1	25th Percentile	0.00047	0.00025	1.62	0.000285	0.000122	0.075	0.0004	0.000165	4.09	8.5E-05	0.0455	0.00025	7.75E-06	0.00025	1E-04	0.00215	0.005
V1	75th Percentile	0.00067	0.00046	2	0.0005	0.0005	0.075	0.0005	0.0005	5.33	0.0005	0.0749	0.0005	5E-05	0.000728	0.0005	0.00262	0.0162

Notes:
 Statistics calculated for stations with 3 or more values in a dataset.
 DL: Method Detection Limit
 Method Detection Limit set to 1/2 method detection limit for statistical calculations

B2.2-1 Vangorda Creek Drainage Reference Sites

Table 4. Reference Site Data 1998-2007 Miscellaneous Parameters

STATION	DATE	Color CU	Condcutivity-L µS/cm	Hardness mg/L	Ammonia mg/L	pH-F pH unit	Sulfate mg/L	TSS mg/L	Turbidity NTU
Benchmark		7	303	158	0.030	6.58-8.16	20.3	3	0.76
VR	27-Mar-07	< 5	103	44.2			6.54	< 1	0.41
VR	26-Sep-07		62	28.9	< 0.005	7.3	5	< 1	
VR	25-Oct-07		76	31.8	0.009		7.8	1	
VR	21-Nov-07		79	35	0.028	6.87	7.1	< 1	
VR	13-Dec-07		85	39.3	< 0.005	8.44	7	3	
VR	Total # samples	1	5	5	4	3	5	5	1
VR	Median	2.5	79	35	0.0058	7.3	7	0.5	0.41
VR	MEAN	2.5	81	35.8	0.0105	7.54	6.69	1.1	0.41
VR	STD		14.9	6.06	0.0121	0.811	1.05	1.08	
VR	MINIMUM	< 5	62	28.9	< 0.005	6.87	5	< 1	0.41
VR	MAXIMUM	< 5	103	44.2	0.028	8.44	7.8	3	0.41
VR	# samples < MDL	1	0	0	2	0	0	3	0
VR	% samples < MDL	100	0	0	50	0	0	60	0
VR	Maximum MDL	< 5			< 0.005			< 1	
VR	25th Percentile	2.5	76	31.8	0.0025	7.08	6.54	0.5	0.41
VR	75th Percentile	2.5	85	39.3	0.0137	7.87	7.10	1	0.41
V1	18-May-98			23	< 0.05	7.6	24	1	
V1	30-Jun-98			325	< 0.05	7.6	17	< 1	
V1	14-Sep-98			29	< 0.05	7.88	10	2	
V1	31-Dec-98			58	< 0.05	7.16	13	1	
V1	17-Mar-99		124	56	< 0.05	7.12	13	3	
V1	18-Jun-99			10	< 0.05	8.08	3	2	
V1	29-Jul-99		35.2	9	< 0.05	7.44	6	1	
V1	31-Aug-99		55.5	22	< 0.05	7.7	7	1	
V1	12-Oct-99			17	< 0.05	6.75	10	1	
V1	20-Jun-00			12	< 0.05		4	1	
V1	09-Aug-00					7.13			
V1	12-Sep-00		73	21		8.05	10	2	
V1	5-Mar-01		116	65		8.4	16	< 1	
V1	13-Jun-01		24	12		8.6	3	5	
V1	21-Mar-02		116	66			13	2	
V1	25-Jun-02						5		
V1	25-Jun-02		52	22			5	< 1	
V1	27-Sep-02						9		
V1	27-Sep-02		72	33		8.3	9	2	
V1	14-Dec-02					8.2			
V1	15-Dec-02						12		
V1	15-Dec-02		111	51			12	3	
V1	6-Mar-03		120	59		8.3	12	1	
V1	17-Jun-03		42	13			5	3	
V1	3-Sep-03		56	22	< 0.05		8	< 1	
V1	15-Sep-03		60	23		7.5	8	2	

B2.2-1 Vangorda Creek Drainage Reference Sites

Table 4. Reference Site Data 1998-2007 Miscellaneous Parameters

STATION	DATE	Color CU	Condcutivity-L µS/cm	Hardness mg/L	Ammonia mg/L	pH-F pH unit	Sulfate mg/L	TSS mg/L	Turbidity NTU
V1	12-Dec-03					7.8			
V1	13-Dec-03		100	53			11	1	
V1	12-Mar-04					7.8			
V1	14-Mar-04		115	49			10	< 1	
V1	7-Sep-04	5	77	29.5	< 0.01		10.9	< 1	
V1	7-Mar-05	< 5	95	56	< 0.01		10.7	< 1	0.1
V1	7-Jun-05	7	42	18	0.03	7	4.6	1	0.35
V1	12-Sep-05	5	67	29	< 0.01	8	10.5	< 1	0.26
V1	1-Dec-05	< 5	104	47	< 0.01	8.1	10.8	< 1	0.18
V1	20-Mar-06	< 5	121	59	< 0.01	8.1	10.8	< 1	0.16
V1	5-Jun-06	20	35	13	< 0.01	8.3	3.62	3	0.77
V1	9-Jun-06	< 5	73	29	< 0.01	8.1	9.71	< 1	0.2
V1	6-Sep-06	< 5	73	29	< 0.01	8.1	9.71	< 1	0.2
V1	27-Mar-07	< 5	125	54.5			10	< 1	0.11
V1	18-Jun-07	8	48	21	< 0.01	7.5	5.31	< 1	0.27
V1	28-Aug-07		71		< 0.005	6.85	8.9	< 1	
V1	29-Aug-07					6.56			
V1	24-Sep-07	< 5	71	26	< 0.01	7.2	9.75	< 1	0.16
V1	26-Sep-07		66	28.7	< 0.005	7.58	9.7	< 1	
V1	24-Oct-07		90	36.3	< 0.005	7.69	11.8	< 1	
V1	22-Nov-07		100	48.3	< 0.005	7.25	12.4	< 1	
V1	10-Dec-07	< 5	106	42	< 0.01	7.6	11.3	< 1	0.11
V1	14-Dec-07		110	49	< 0.005	8.01	12	< 1	
V1	Total # samples	13	34	40	28	38	44	41	12
V1	Median	2.5	73	29	0.005	7.65	10	0.5	0.20
V1	MEAN	5	80.8	41.6	0.0133	7.61	9.72	1.18	0.24
V1	STD	4.90	29.9	49.1	0.0108	0.58	3.95	1.02	0.18
V1	MINIMUM	< 5	24	9	< 0.005	6.37	3	< 1	0.10
V1	MAXIMUM	20	125	325	< 0.05	8.6	24	5	0.77
V1	# samples < MDL	8	0	0	27	0	0	21	0
V1	% samples < MDL	62	0	0	96	0	0	51	0
V1	Maximum MDL	< 5			< 0.05			< 1	
V1	25th Percentile	2.5	57	21.8	0.005	7.17	7.75	0.5	0.15
V1	75th Percentile	5	109	51.5	0.025	8.09	11.9	2	0.26

Notes:

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

DL: Method Detection Limit

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

B2.2-1 Vangorda Creek Drainage Reference Sites

Table 5. Reference Sites Data 1998-2007 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	CR-T mg/L	CU-T mg/L	FE-T mg/L	HG-T mg/L
	Benchmark	<0.00005	0.156	<0.001	0.088	<0.001	<0.001	<0.05	44.9	0.00004	<0.001	<0.001	0.002	0.246	<0.00002
VR	27-Mar-07	<0.00005	0.024	0.0002	0.038	<0.0002	<0.0002	<0.01	13.4	0.00002	<0.0002	<0.0002	0.0005	0.03	<0.000015
VR	26-Sep-07	<0.00001	0.0627	<0.0001	0.0251	<0.00005	<0.00005	<0.008	8.85	0.00001	0.00006	0.0015	0.0008	0.042	<0.00001
VR	25-Oct-07	<0.000005	0.0205	0.00018	0.028	0.00001	<0.000005	<0.005	9.89	0.000036	0.00002	0.0002	0.00088	0.024	
VR	21-Nov-07	<0.000005	0.0245	0.00017	0.0327	0.00001	<0.000005	<0.005	11	0.000012	0.000017	<0.0001	0.00045	0.027	
VR	13-Dec-07	<0.000005	0.0286	0.00021	0.0338	0.00002	<0.000005	<0.005	12.3	0.000026	0.000028	0.0001	0.00104	0.029	
VR	Total # samples	5	5	5	5	5	5	5	5	5	5	5	5	5	2
VR	Median	0.000025	0.0245	0.00018	0.0327	0.00002	0.0000025	0.0025	11	0.00002	0.000028	0.0001	0.0008	0.029	0.00000625
VR	MEAN	0.000021	0.03206	0.000162	0.03152	0.000033	0.0000265	0.0033	11.1	0.0000208	0.000045	0.00039	0.000734	0.0304	0.00000625
VR	STD	8.94E-06	0.0174	6.46E-05	0.00505	3.80E-05	4.22E-05	0.00115	1.82	1.06E-05	3.52E-05	0.000623	0.000252	0.00688	1.77E-06
VR	MINIMUM	<0.000005	0.0205	<0.0001	0.0251	<0.00005	<0.000005	<0.005	8.85	0.00001	0.000017	<0.0002	0.00045	0.024	<0.00001
VR	MAXIMUM	<0.00001	0.0627	0.0002	0.038	<0.0002	<0.0002	<0.01	13.4	0.000036	<0.0002	0.0015	0.00104	0.042	<0.000015
VR	# samples < MDL	5	0	1	0	2	5	0	5	5	1	2	0	0	2
VR	% samples < MDL	100	0	20	0	40	100	0	100	100	20	40	0	0	100
VR	Maximum MDL	<0.00005		<0.0001		<0.0002	<0.0002	<0.01			<0.0002	<0.0002			<0.000015
VR	25th Percentile	0.000025	0.024	0.00017	0.028	0.00001	0.0000025	0.0025	9.89	0.000012	0.00002	0.0001	0.0005	0.027	5.63E-06
VR	75th Percentile	0.000025	0.0286	0.0002	0.0338	0.000025	0.000025	0.004	12.3	0.000026	0.00006	0.0002	0.00088	0.03	6.88E-06
V1	18-May-98	<0.003	0.15	0.02	0.028	<0.001	<0.04	0.23	7.1	<0.002	<0.005	0.02	0.027	0.09	
V1	30-Jun-98	<0.003	<0.05	<0.02	0.152	<0.001	<0.04	<0.05	7.5	<0.002	<0.005	0.008	<0.002	<0.01	
V1	14-Sep-98	<0.003	<0.05	<0.02	0.078	<0.001	<0.04	<0.05	9.1	<0.002	0.01	<0.005	0.016	0.61	
V1	31-Dec-98	<0.003	0.06	<0.005	0.058	<0.001	<0.04	0.21	18.5	<0.001	0.009	<0.005	0.057	0.29	
V1	17-Mar-99	<0.003	0.24	<0.005	0.043	<0.001	<0.04	0.22	17.7	<0.001	<0.005	<0.005	0.025	0.09	
V1	18-Jun-99	<0.003	0.15	<0.005	0.095	<0.001	<0.04	0.08	4.1	0.002	0.007	<0.005	0.007	4.18	
V1	29-Jul-99	<0.0001	0.03	<0.001	0.0167	<0.0001	<0.001	0.01	2.9	<0.0001	<0.0002	<0.0002	0.002	0.07	
V1	31-Aug-99	<0.0001	0.038	<0.001	0.0245	<0.0001	<0.001	0.017	8.073	0.0051	<0.0002	<0.0002	0.0113	0.421	
V1	12-Oct-99	<0.003	0.05	<0.005	0.131	<0.001	<0.04	<0.05	9.8	0.001	<0.005	<0.005	0.013	0.2	
V1	20-Jun-00	<0.003	0.19	<0.005	0.211	0.001	<0.05	<0.05	4.5	<0.001	<0.005	<0.005	0.017	0.81	
V1	12-Sep-00	<0.003	0.33	<0.005	0.15	<0.001	<0.05	0.1	12.8	0.01	<0.005	<0.005	0.103	4.44	
V1	5-Mar-01	<0.003	0.36	<0.005	0.226	<0.001	<0.05	0.08	18	<0.001	<0.005	0.011	0.025	0.045	
V1	13-Jun-01	<0.003	0.21	0.022	0.136	<0.001	<0.05	0.87	3.9	<0.001	<0.005	0.121	0.015	0.41	
V1	21-Mar-02	<0.001	0.05	<0.005	0.151	<0.001	<0.05	<0.05	20.6	<0.001	<0.005	<0.005	<0.002	0.04	
V1	25-Jun-02	0.0021	0.128	<0.003	0.155	0.0004	0.01	0.12	8.1	0.0013	0.002	0.007	0.021	0.064	
V1	27-Sep-02	0.0037	0.074	<0.003	0.137	<0.0002	0.03	0.09	12.1	<0.0002	0.002	0.003	0.042	0.309	
V1	15-Dec-02	<0.0002	0.057	<0.003	0.15	<0.0002	0.01	0.23	19.1	0.0004	<0.001	0.006	0.012	0.075	
V1	6-Mar-03	<0.002	0.038	<0.003	0.161	<0.002	<0.01	0.11	20.3	<0.002	<0.001	0.004	0.027	0.018	
V1	17-Jun-03	<0.0002	0.042	<0.003	0.016	<0.0002	0.01	0.08	6.8	<0.0002	<0.001	0.002	0.038	0.532	
V1	3-Sep-03	<0.0002	0.032	<0.003	0.025	<0.0002	0.03	0.1	9.3	0.0002	<0.001	<0.001	0.021	0.131	
V1	15-Sep-03	0.0005	0.032	<0.003	0.023	<0.0002	0.02	0.14	10.3	<0.0002	<0.001	<0.001	0.013	0.178	
V1	13-Dec-03	0.0004	0.015	<0.003	0.038	<0.0002	0.01	0.07	18.7	<0.0002	<0.001	0.003	0.007	0.024	<0.0001
V1	14-Mar-04	<0.0002	0.057	<0.003	0.037	<0.0002	<0.01	0.12	19	<0.0002	<0.001	0.002	0.01	0.066	<0.0001
V1	7-Sep-04	<0.00005	0.02	0.0002	0.025	<0.0002	<0.0002	<0.01	9.33	<0.00004	<0.0002	0.0003	0.0006	<0.01	<0.00002
V1	7-Mar-05	<0.00025	0.012	<0.001	0.037	<0.001	<0.001	<0.05	17.9	<0.0002	<0.001	<0.001	<0.001	0.08	<0.00002
V1	7-Jun-05	<0.00025	0.043	0.002	0.016	<0.001	<0.001	0.07	6.03	<0.0002	<0.001	0.001	0.002	0.09	<0.00002
V1	12-Sep-05	<0.00025	0.013	<0.001	0.025	<0.001	<0.001	<0.05	9.61	<0.0002	<0.001	<0.001	<0.001	<0.05	<0.00002
V1	1-Dec-05	<0.00025	0.006	<0.001	0.037	<0.001	<0.001	<0.05	14.7	<0.0002	<0.001	<0.001	<0.001	<0.05	<0.00002

B2.2-1 Vangorda Creek Drainage Reference Sites

Table 5. Reference Sites Data 1998-2007 Total Metals

STATION	DATE	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
	Benchmark	1.4		10.74	0.0264	0.00118	3.41	<0.001	<0.001		<0.001	<0.001		<0.0005	0.18
VR	27-Mar-07	0.73	0.0004	2.62	0.0012	< 0.0001	2.06	0.0003	0.0002	< 0.03	< 0.0002	< 0.0002	5.49	< 0.0002	0.064
VR	26-Sep-07	0.347	<0.0002	1.66	0.00107	0.00013	2.23	<0.0005	0.00016	<0.1	<0.00005	<0.0005	4.23	<0.00005	0.042
VR	25-Oct-07	0.32	<0.0005	1.74	0.0018	0.00013	1.54	0.00021	0.00032		0.00002	<0.00004	4.08	0.00005	0.0529
VR	21-Nov-07	0.36	<0.0005	1.83	0.00176	0.00015	1.41	0.00017	0.000149		0.00003	<0.00004	4.5	<0.00001	0.0566
VR	13-Dec-07	0.47	0.0006	2.11	0.00267	0.00013	1.78	0.00038	0.000347		0.0001	0.00006	5.1	0.00003	0.0601
VR	Total # samples	5	5	5	5	5	5	5	5	2	5	5	5	5	5
VR	Median	0.36	0.00025	1.83	0.00176	0.00013	1.78	0.00025	0.0002	0.0325	0.00003	0.00006	4.5	0.00003	0.0566
VR	MEAN	0.4454	0.00032	1.992	0.0017	0.000118	1.804	0.000262	0.0002352	0.0325	0.000055	0.00009	4.68	0.000042	0.0551
VR	STD	0.169	0.00019	0.390	0.000633	3.90E-05	0.344	8.17E-05	9.22E-05	0.0247	4.12E-05	9.54E-05	0.597	3.62E-05	0.00841
VR	MINIMUM	0.32	<0.0002	1.66	0.00107	< 0.0001	1.41	0.00017	0.000149	< 0.03	0.00002	0.00006	4.08	<0.00001	0.042
VR	MAXIMUM	0.73	0.0006	2.62	0.00267	0.00015	2.23	<0.0005	0.000347	<0.1	< 0.0002	<0.0005	5.49	< 0.0002	0.064
VR	# samples < MDL	0	3	0	0	1	0	1	0	2	2	4	0	3	0
VR	% samples < MDL	0	60	0	0	20	0	20	0	100	40	80	0	60	0
VR	Maximum MDL		<0.0005			< 0.0001		<0.0005		<0.1	< 0.0002	< 0.0002		< 0.0002	
VR	25th Percentile	0.347	0.00025	1.74	0.0012	0.00013	1.54	0.00021	0.00016	0.0238	0.000025	0.00002	4.23	0.000025	0.0529
VR	75th Percentile	0.47	0.0004	2.11	0.0018	0.00013	2.06	0.0003	0.00032	0.0413	0.0001	0.0001	5.1	0.00005	0.0601
V1	18-May-98	1		1.3	< 0.01	< 0.002	2	0.01	< 0.02	0.27	< 0.03	< 0.03	1.6	< 0.01	0.033
V1	30-Jun-98	< 1		1.4	< 0.01	0.005	2	< 0.005	< 0.02	2.37	< 0.03	< 0.03	4	< 0.01	0.048
V1	14-Sep-98	< 1		1.5	< 0.01	0.007	2	0.011	< 0.02	< 0.04	< 0.03	< 0.03	3.4	< 0.01	0.058
V1	31-Dec-98	< 1		2.8	< 0.01	0.033	3	< 0.005	< 0.01	1.95	< 0.03	< 0.03	4.4	< 0.01	0.102
V1	17-Mar-99	< 1		2.9	< 0.01	< 0.002	4	< 0.005	< 0.01	< 0.04	< 0.03	< 0.03	4.2	< 0.01	0.083
V1	18-Jun-99	1		0.8	< 0.01	0.021	2	< 0.005	0.11	0.77	< 0.03	< 0.03	1.9	< 0.01	0.049
V1	29-Jul-99	0.4		0.61	0.001	< 0.0001	0.8	< 0.0002	< 0.001	< 0.002	< 0.001	< 0.001	2.46	< 0.0004	0.0237
V1	31-Aug-99	0.42		0.698	0.0017	0.0009	2.43	0.0008	< 0.001	< 0.002	< 0.001	< 0.001	2.702	< 0.0004	0.0385
V1	12-Oct-99	< 1		1.6	< 0.01	< 0.002	3	< 0.005	< 0.01	< 0.04	< 0.03	< 0.005	4.3	< 0.01	0.051
V1	20-Jun-00	1		0.6	0.08	< 0.002	1	< 0.005	0.04	< 1	< 0.03	< 0.005	2.2	< 0.01	0.044
V1	12-Sep-00	< 1		2.4	0.01	0.029	3	0.023	0.02	4	< 0.03	< 0.005	5.3	< 0.01	0.004
V1	5-Mar-01	5.51		3	< 0.01	< 0.002	7	< 0.005	< 0.01	< 1	< 0.03	< 0.005	4.6	< 0.01	0.1
V1	13-Jun-01	< 1		0.8	0.07	< 0.002	2	0.007	< 0.01	< 1	< 0.03	0.023	2.2	0.04	0.025
V1	21-Mar-02	1		3.2	< 0.01	0.005	4	< 0.005	< 0.01	0.01	< 0.03	< 0.005	5.5	0.01	0.099
V1	25-Jun-02	0.5		1.2	0.003	0.007	1.1	0.005	< 0.002	< 0.01	0.006	< 0.005	3.8	0.005	0.041
V1	27-Sep-02	0.4		1.8	0.004	0.001	1.4	0.002	0.008	< 0.01	0.019	< 0.005	4.5	0.035	0.06
V1	15-Dec-02	0.6		2.8	0.005	< 0.001	1.1	< 0.001	0.006	< 0.01	< 0.002	< 0.005	5	< 0.002	0.084
V1	6-Mar-03	0.7		3.2	0.005	< 0.001	3.8	< 0.001	0.006	< 0.01	0.006	< 0.005	5	< 0.002	0.094
V1	17-Jun-03	0.3		0.9	0.002	< 0.001	0.4	0.007	0.005	0.02	0.003	< 0.005		< 0.002	0.024
V1	3-Sep-03	0.3		1.3	0.014	< 0.001	0.8	< 0.001	0.008	0.02	< 0.002	< 0.005		0.003	0.027
V1	15-Sep-03	0.3		1.4	0.003	< 0.001	1.5	< 0.001	0.004	0.01	0.002	< 0.005		< 0.002	0.032
V1	13-Dec-03	0.6		2.5	0.005	< 0.001	1.8	< 0.001	0.007	< 0.01	< 0.002	< 0.005		0.006	0.068
V1	14-Mar-04	0.7		2.8	0.005	0.002	1.7	0.003	< 0.002	< 0.01	< 0.002	< 0.005		< 0.002	0.058
V1	7-Sep-04	0.37	0.0009	1.49	0.0009	< 0.0001	2.04	0.0003	< 0.0002	< 0.03	< 0.0002	< 0.0002	10.1	< 0.0002	0.053
V1	7-Mar-05	1.4	0.001	2.87	< 0.001	0.0006	2.71	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	10.7	< 0.001	0.08
V1	7-Jun-05	0.8	< 0.001	0.75	0.002	< 0.0005	1.61	< 0.001	< 0.001	< 0.15	< 0.001	0.011	8.2	< 0.001	0.03
V1	12-Sep-05	0.3	< 0.001	1.3	0.001	< 0.0005	1.7	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	7	0.002	0.044
V1	1-Dec-05	0.6	< 0.001	2.46	< 0.001	0.0005	1.89	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.8	< 0.001	0.068

B2.2-1 Vangorda Creek Drainage Reference Sites

Table 5. Reference Sites Data 1998-2007 Total Metals

STATION	DATE	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	0.004	<0.0001	0.0025	<0.001	0.0164	<0.005
VR	27-Mar-07	0.0006	< 0.00002	0.0008	< 0.0002	0.001	< 0.002
VR	26-Sep-07	0.0041	<0.00005	0.00035	0.00005	0.0049	
VR	25-Oct-07	<0.0005	0.000002	0.000409	0.0002	0.0024	0.0001
VR	21-Nov-07	<0.0005	0.000002	0.000437	0.0002	0.0009	<0.0001
VR	13-Dec-07	<0.0005	0.000003	0.000433	<0.0002	0.0031	0.0001
VR	Total # samples	5	5	5	5	5	4
VR	Median	0.00025	0.000003	0.000433	0.0001	0.0024	0.0001
VR	MEAN	0.00109	0.0000084	0.0004858	0.00013	0.00246	0.000313
VR	STD	0.00169	9.86E-06	0.00017905	6.71E-05	0.00165	0.00046
VR	MINIMUM	<0.0005	<0.00005	0.00035	0.00005	0.0009	<0.0001
VR	MAXIMUM	0.0041	0.000002	0.0008	0.0002	0.0049	< 0.002
VR	# samples < MDL	3	2	0	2	0	2
VR	% samples < MDL	60	40	0	40	0	50
VR	Maximum MDL		<0.00005		< 0.0002		< 0.002
VR	25th Percentile	0.00025	0.000002	0.000409	0.0001	0.001	0.000088
VR	75th Percentile	0.0006	0.00001	0.000437	0.0002	0.0031	0.00033
V1	18-May-98	< 0.005			< 0.005	0.02	
V1	30-Jun-98	0.008			0.008	< 0.01	
V1	14-Sep-98	0.038			< 0.005	0.02	
V1	31-Dec-98	0.013			< 0.005	0.05	
V1	17-Mar-99	< 0.005			< 0.005	0.04	
V1	18-Jun-99	0.104			< 0.005	0.24	
V1	29-Jul-99	0.0035			< 0.0002	0.002	
V1	31-Aug-99	0.0221			0.0011	0.0015	
V1	12-Oct-99	0.028			< 0.005	0.01	
V1	20-Jun-00	0.065			0.009	0.06	
V1	12-Sep-00	0.085			< 0.005	0.02	
V1	5-Mar-01	0.01			0.023	0.02	
V1	13-Jun-01	0.009			< 0.005	0.03	
V1	21-Mar-02	< 0.005			< 0.005	< 0.01	
V1	25-Jun-02	< 0.001			< 0.001	0.002	
V1	27-Sep-02	0.003			< 0.001	0.043	
V1	15-Dec-02	< 0.001			< 0.001	< 0.001	
V1	6-Mar-03	< 0.001			< 0.001	0.03	
V1	17-Jun-03	0.002	< 0.002		< 0.001	0.016	
V1	3-Sep-03	< 0.001	< 0.002		< 0.001	0.003	
V1	15-Sep-03	< 0.001	< 0.002		0.001	0.004	
V1	13-Dec-03	< 0.001	< 0.002		< 0.001	< 0.001	
V1	14-Mar-04	< 0.001	< 0.002		< 0.001	0.01	
V1	7-Sep-04	0.0006	< 0.00002	0.0003	< 0.0002	0.002	< 0.002
V1	7-Mar-05	< 0.001	< 0.0001	0.0014	< 0.001	0.011	< 0.01
V1	7-Jun-05	0.001	< 0.0001	< 0.0005	< 0.001	0.006	< 0.01
V1	12-Sep-05	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	1-Dec-05	< 0.001	< 0.0001	0.0006	< 0.001	< 0.005	< 0.01

B2.2-1 Vangorda Creek Drainage Reference Sites

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
V1	20-Mar-06	< 0.00025	0.99	0.001	0.12	< 0.001	< 0.001	0.12	18.7	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002
V1	5-Jun-06	< 0.00025	0.099	< 0.001	0.013	< 0.001	< 0.001	< 0.05	4.31	< 0.0002	< 0.001	< 0.001	< 0.001	0.14	< 0.00002
V1	9-Jun-06	< 0.00025	0.024	< 0.001	0.025	< 0.001	< 0.001	< 0.05	9.48	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002
V1	6-Sep-06	< 0.00025	0.024	< 0.001	0.025	< 0.001	< 0.001	< 0.05	9.48	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002
V1	27-Mar-07	< 0.00005	0.007	0.0003	0.043	< 0.0002	< 0.0002	< 0.01	16.8	0.00001	< 0.0002	< 0.0002	0.0003	0.01	< 0.000015
V1	18-Jun-07	< 0.00025	0.033	< 0.001	0.014	< 0.001	< 0.001	< 0.05	6.62	< 0.0002	< 0.001	< 0.001	< 0.001	0.07	< 0.00002
V1	28-Aug-07	< 0.00001	0.0143	0.0002	0.0257	< 0.00005	< 0.00005	< 0.008	10.6	< 0.00001	< 0.00002	< 0.0002	0.0004	0.027	< 0.00005
V1	24-Sep-07	< 0.00025	0.012	< 0.001	0.022	< 0.001	< 0.001	< 0.05	7.73	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	
V1	26-Sep-07	< 0.000005	0.0115	< 0.00002	0.0246	< 0.00001	< 0.005	< 0.005	9.38	< 0.000005	< 0.000005	< 0.0001	0.0004	0.019	
V1	24-Oct-07	< 0.000005	0.0077	0.00022	0.0301	< 0.00001	< 0.005	< 0.005	11.8	0.000036	0.00001	0.0001	0.00034	0.015	
V1	22-Nov-07	< 0.000005	0.0059	0.00026	0.0333	< 0.00001	< 0.005	< 0.005	15.4	0.000007	0.000013	< 0.0001	0.00029	0.008	
V1	10-Dec-07	< 0.00025	0.006	< 0.001	0.032	< 0.001	< 0.001	< 0.05	13.3	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	< 0.00002
V1	14-Dec-07	< 0.000005	0.0051	0.00029	0.0386	< 0.00001	< 0.005	< 0.005	15.8	0.000023	0.000023	< 0.0001	0.00033	0.005	
V1	Total # samples	41	41	41	41	41	41	41	41	41	41	41	41	41	15
V1	Median	0.000125	0.033	0.0015	0.037	0.0005	0.005	0.025	9.8	0.0001	0.0005	0.0005	0.002	0.066	0.00001
V1	MEAN	0.000650	0.0906	0.00257	0.0690	0.000352	0.0100	0.0839	11.6	0.00070	0.00151	0.0052	0.0127	0.335	1.62E-05
V1	STD	0.0008	0.1678	0.0047	0.0613	0.0003	0.0106	0.142	5.24	0.0017	0.0023	0.0189	0.0198	0.9299	0
V1	MINIMUM	< 0.000005	0.0051	< 0.00002	0.013	< 0.00001	< 0.00005	< 0.005	2.9	< 0.000005	< 0.000005	< 0.0001	0.00029	0.005	< 0.000015
V1	MAXIMUM	0.0037	0.99	0.022	0.226	< 0.002	< 0.05	0.87	20.6	0.01	0.01	0.121	0.103	4.44	< 0.0001
V1	# samples < MDL	37	2	31	0	39	34	21	0	30	33	27	12	9	15
V1	% samples < MDL	90	5	76	0	95	83	51	0	73	80	66	29	22	100
V1	Maximum MDL	< 0.003	< 0.05	< 0.02		< 0.002	< 0.05	< 0.05		< 0.002	< 0.005	< 0.005	< 0.002	< 0.05	< 0.0001
V1	25th Percentile	1E-04	0.0143	0.0005	0.025	1E-04	0.0005	0.025	7.73000002	1E-04	0.0005	0.0005	0.0005	0.025	1E-05
V1	75th Percentile	0.0015	0.074	0.0025	0.131	0.0005	0.02	0.1	16.8	0.0005	0.0025	0.0025	0.017	0.178	1E-05

Notes:

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

DL: Method Detection Limit

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

B2.2-1 Vangorda Creek Drainage Reference Sites

STATION	DATE	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
V1	20-Mar-06	0.6	0.002	2.89	< 0.001	0.0007	2.27	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	5.2	< 0.001	0.11
V1	5-Jun-06	0.4	< 0.001	0.64	0.005	< 0.0005	0.87	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.4	< 0.001	0.022
V1	9-Jun-06	0.3	< 0.001	1.4	< 0.001	< 0.0005	1.79	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.052
V1	6-Sep-06	0.3	< 0.001	1.4	< 0.001	< 0.0005	1.79	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.2	< 0.001	0.052
V1	27-Mar-07	0.64	0.0014	3.07	0.0004	0.0007	2.46	0.0004	0.0002	< 0.03	< 0.0002	< 0.0002	5.32	< 0.0002	0.078
V1	18-Jun-07	0.4	< 0.005	0.97	0.014	< 0.0005	1.89	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	2.9	< 0.001	0.03
V1	28-Aug-07	0.343		1.45	0.00076	0.00023	2.09	< 0.0005	0.00004	0.01	< 0.00005	< 0.0005		< 0.00005	0.0539
V1	24-Sep-07	0.3	< 0.001	1.11	0.002	< 0.0005	1.64	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	3.5	< 0.001	0.042
V1	26-Sep-07	0.317	0.0008	1.29	0.00069	0.00019	1.78	< 0.00002	0.00002	< 0.005	< 0.00002	< 0.00004	3.96	< 0.00001	0.0476
V1	24-Oct-07	0.37	0.0012	1.67	0.00077	0.00031	1.81	0.00021	0.000214	< 0.005	0.00003	0.0001	4	0.00013	0.0636
V1	22-Nov-07	0.49	0.0012	2.4	0.00042	0.00044	2.1	0.00024	0.000014	< 0.005	0.00003	0.00015	5.73	0.00001	0.0724
V1	10-Dec-07	0.6	0.001	2.22	0.002	0.0005	2.27	< 0.001	< 0.001	< 0.15	< 0.001	< 0.001	4.5	< 0.001	0.065
V1	14-Dec-07	0.5	0.0014	2.34	0.00072	0.0005	2.13	0.00025	0.000008	< 0.005	0.00004	0.00015	4.89	< 0.00001	0.0784
V1	Total # samples	41	17	41	41	41	41	41	41	41	41	41	35	41	41
V1	Median	0.5	0.0009	1.49	0.003	0.0005	2	0.0005	0.001	0.02	0.001	0.0025	4.3	0.001	0.052
V1	MEAN	0.665	0.00099	1.79	0.00700	0.00308	2.11	0.0024	0.0069	0.290	0.0055	0.0040	4.53	0.00395	0.0558
V1	STD	0.813	0.0006	0.844	0.016	0.0073	1.12	0.0042	0.018	0.766	0.0069	0.006	2.02	0.0081	0.0253
V1	MINIMUM	0.3	0.0008	0.6	0.0004	< 0.0001	0.4	< 0.00002	0.000008	< 0.002	< 0.00002	< 0.00004	1.6	< 0.00001	0.004
V1	MAXIMUM	5.51	< 0.005	3.2	0.08	0.033	7	0.023	0.11	4	< 0.03	< 0.03	10.7	0.04	0.11
V1	# samples < MDL	7	8	0	14	21	0	27	25	31	33	36	0	32	0
V1	% samples < MDL	17	47	0	34	51	0	66	61	76	80	88	0	78	0
V1	Maximum MDL	< 1	< 0.005		< 0.01	< 0.002		< 0.005	< 0.02	< 1	< 0.03	< 0.03		< 0.01	
V1	25th Percentile	0.37	0.0005	1.20000005	0.00077	0.00025	1.63999999	0.0005	0.0005	0.005	0.0005	0.0005	3.45000005	0.0005	0.0385
V1	75th Percentile	0.60000002	0.0012	2.5	0.005	0.001	2.26999998	0.0025	0.006	0.075	0.015	0.0025	5.1	0.005	0.0724

Notes:

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

DL: Method Detection Limit

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

B2.2-1 Vangorda Creek Drainage Reference Sites

STATION	DATE	TI-T mg/L	TL-T mg/L	U-T mg/L	V-T mg/L	ZN-T mg/L	ZR-T mg/L
V1	20-Mar-06	0.001	< 0.0001	0.0012	< 0.001	0.038	< 0.01
V1	5-Jun-06	0.003	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	9-Jun-06	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	6-Sep-06	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	27-Mar-07	0.0003	< 0.00002	0.0025	< 0.0002	< 0.001	< 0.002
V1	18-Jun-07	0.002	0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	28-Aug-07	< 0.0005	< 0.00005	0.00031	< 0.00005	0.0027	< 0.005
V1	24-Sep-07	< 0.001	< 0.0001	< 0.0005	< 0.001	0.006	< 0.01
V1	26-Sep-07	< 0.0005	< 0.00002	0.0003	< 0.0002	0.0012	0.00012
V1	24-Oct-07	< 0.0005	< 0.00002	0.000522	< 0.0002	0.0013	< 0.0001
V1	22-Nov-07	< 0.0005	< 0.00002	0.000646	< 0.0002	0.0006	< 0.0001
V1	10-Dec-07	< 0.001	< 0.0001	0.0008	< 0.001	< 0.005	< 0.01
V1	14-Dec-07	< 0.0005	0.000002	0.00094	< 0.0002	0.0009	< 0.0001
V1	Total # samples	41	23	18	41	41	18
V1	Median	0.0006	0.00005	0.000305	0.0005	0.004	0.005
V1	MEAN	0.010104	0.000246	0.000626	0.00183	0.0176	0.00332
V1	STD	0.0231	0.0004	0.0006	0.0039	0.0388	0.0022
V1	MINIMUM	0.0003	< 0.000002	0.0003	< 0.00005	0.0006	< 0.0001
V1	MAXIMUM	0.104	< 0.002	0.0025	0.023	0.24	< 0.01
V1	# samples < MDL	22	21	7	36	12	17
V1	% samples < MDL	54	91	39	88	29	94
V1	Maximum MDL	< 0.005	< 0.002	< 0.0005	< 0.005	< 0.01	< 0.01
V1	25th Percentile	0.0005	1.75E-05	0.00025	0.0005	0.002	0.001
V1	75th Percentile	0.0035	7.5E-05	0.00076	0.0025	0.02	0.005

Notes:

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

DL: Method Detection Limit

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

B2.2-1 Vangorda Creek Drainage Reference Sites

Table 6. Reference Site Data 1998-2007 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
VR	27-Mar-07	< 0.00005	0.007	0.0002	0.037	< 0.01	< 0.0002	< 0.0002	12.6	0.00002	< 0.0002	< 0.0002	0.0005	0.01	< 0.000015
VR	26-Sep-07	<0.00001	0.04	0.0002	0.0256	<0.008	<0.00005	<0.00005	9.25	<0.00001	0.0001	0.0004	0.0006	0.028	<0.00001
VR	25-Oct-07	<0.000005	0.0152	0.00017	0.0285	<0.005	0.00001	<0.000005	10.2	0.000014	0.000011	0.0001	0.00051	0.000014	
VR	21-Nov-07	<0.000005	0.0154	0.00018	0.0317	<0.005	0.00001	<0.000005	11.6	0.00001	0.000013	<0.0001	0.00031	0.013	
VR	13-Dec-07	<0.000005	0.0151	0.0002	0.034	<0.005	0.00001	<0.000005	12	0.000018	0.000021	<0.0001	0.00084	0.013	
VR	Total # samples	5	5	5	5	5	5	5	5	5	5	5	5	5	2
VR	Median	0.0000025	0.0152	0.0002	0.0317	0.0025	0.00001	0.0000025	11.6	0.000014	0.000021	0.0001	0.00051	0.013	0.00000625
VR	MEAN	0.0000075	0.0185	0.00019	0.03136	0.0033	0.000031	0.0000265	11.13	0.0000134	0.000049	0.00014	0.000552	0.0128	0.00000625
VR	STD	9.84E-06	0.0125	1.41E-05	0.00448	0.00115	3.91E-05	4.22E-05	1.37	6.07E-06	4.67E-05	0.00015	0.000193	0.0100	1.77E-06
VR	MINIMUM	<0.000005	0.007	0.00017	0.0256	<0.005	0.00001	<0.000005	9.25	<0.00001	0.000011	<0.0001	0.00031	0.000014	<0.00001
VR	MAXIMUM	< 0.00005	0.04	0.0002	0.037	< 0.01	< 0.0002	< 0.0002	12.6	0.00002	< 0.0002	0.0004	0.00084	0.028	< 0.000015
VR	# samples < MDL	5	0	0	0	5	2	5	0	1	4	3	0	0	2
VR	% samples < MDL	100	0	0	0	100	40	100	0	20	80	60	0	0	100
VR	Maximum MDL	< 0.00005				< 0.01	< 0.0002	< 0.0002			< 0.0002				< 0.000015
VR	25th Percentile	0.0000025	0.0151	0.00018	0.029	0.0025	0.00001	0.0000025	10.2	0.00001	0.000013	0.00005	0.0005	0.01	5.63E-06
VR	75th Percentile	0.000005	0.04	0.0002	0.034	0.004	0.000025	0.000025	11.6	0.000018	0.0001	0.0004	0.00084	0.028	1.50
V1	31-Dec-98	< 0.003	< 0.05	< 0.005	0.011	< 0.05	< 0.001	< 0.04	16.6	< 0.001	0.013	< 0.005	< 0.002	< 0.01	
V1	17-Mar-99	< 0.003	< 0.05	< 0.005	0.005	0.08	< 0.001	< 0.04	17.1	< 0.001	< 0.005	0.48	< 0.007	< 0.01	
V1	18-Jun-99	< 0.003	< 0.05	< 0.005	< 0.002	< 0.05	< 0.001	< 0.04	2.7	< 0.001	< 0.005	< 0.005	< 0.002	0.07	
V1	29-Jul-99	< 0.0001	0.05	< 0.001	0.008	0.05	< 0.0001	< 0.001	2.78	< 0.0001	< 0.0002	0.007	0.0014	0.014	
V1	31-Aug-99	< 0.0001	0.006	< 0.001	0.0035	0.075	< 0.0001	< 0.001	7.725	< 0.0001	< 0.0002	< 0.0002	0.001	< 0.001	
V1	12-Oct-99	< 0.003	< 0.05	< 0.005	0.002	< 0.05	< 0.001	< 0.04	5.2	< 0.001	< 0.005	< 0.005	< 0.002	< 0.01	
V1	20-Jun-00	< 0.003	< 0.05	< 0.005	0.006	< 0.05	< 0.001	< 0.05	2	< 0.001	< 0.005	< 0.005	< 0.002	0.13	
V1	12-Sep-00	< 0.003	< 0.05	< 0.005	0.011	< 0.05	< 0.001	< 0.05	8.5	< 0.001	< 0.005	< 0.005	< 0.002	< 0.01	
V1	5-Mar-01	< 0.003	< 0.05	< 0.005	0.13	0.07	< 0.001	< 0.05	20	< 0.001	< 0.005	< 0.005	< 0.002	< 0.01	
V1	13-Jun-01	< 0.003	< 0.05	< 0.005	0.084	0.09	< 0.001	< 0.05	4	0.001	< 0.005	< 0.005	< 0.002	0.09	
V1	21-Mar-02	< 0.001	< 0.05	< 0.005	0.162	< 0.05	< 0.001	< 0.05	21.5	< 0.001	< 0.005	< 0.005	0.011	0.01	
V1	25-Jun-02	0.0005	0.058	0.004	0.108	0.06	0.0003	< 0.01	7.6	0.0009	< 0.001	< 0.001	0.012	0.024	
V1	27-Sep-02	< 0.0002	0.059	0.005	0.109	0.08	< 0.0002	< 0.01	11.5	0.0002	< 0.001	< 0.001	0.022	0.023	
V1	15-Dec-02	< 0.0002	0.075	< 0.003	0.17	0.16	< 0.0002	< 0.01	18.5	0.0007	< 0.001	0.007	0.026	0.072	
V1	6-Mar-03	< 0.0002	0.055	< 0.003	0.159	0.13	< 0.0002	< 0.01	19.5	< 0.0002	< 0.001	0.003	0.017	0.019	
V1	17-Jun-03	< 0.0002	0.024	< 0.003	0.016	0.06	< 0.0002	< 0.01	7.5	< 0.0002	< 0.001	0.001	0.008	0.082	
V1	3-Sep-03	< 0.0002	0.022	< 0.003	0.019	0.06	< 0.0002	< 0.01	8.1	< 0.0002	< 0.001	< 0.001	0.019	0.103	
V1	15-Sep-03	0.0007	0.048	< 0.003	0.019	0.09	< 0.0002	< 0.01	9	< 0.0002	< 0.001	0.001	0.013	0.128	
V1	13-Dec-03	< 0.0002	0.02	< 0.003	0.033	0.06	< 0.0002	< 0.01	17.7	< 0.0002	< 0.001	< 0.001	0.008	0.032	< 0.0001
V1	14-Mar-04	< 0.0002	0.061	< 0.003	0.037	0.1	< 0.0002	< 0.01	20	0.0003	< 0.001	< 0.001	0.008	0.039	
V1	7-Sep-04	< 0.00005	0.007	0.0002	0.022	< 0.01	< 0.0002	< 0.0002	8.64	< 0.00004	< 0.0002	< 0.0002	0.0003	< 0.01	
V1	7-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	7-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	1-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		0.001	0.11	0.12	< 0.001	< 0.001	16	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.05	
V1	5-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	9-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	6-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	27-Mar-07	< 0.00005	0.008	0.0003	0.04	< 0.01	< 0.0002	< 0.0002	15.8	< 0.00001	< 0.0002	< 0.0002	0.0002	< 0.01	< 0.000015
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	28-Aug-07														
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	26-Sep-07	< 0.000005	0.0133	0.0001	0.0247	< 0.005	< 0.00001	< 0.000005	9.85	< 0.000005	0.0001	< 0.0001	0.0009	0.019	

B2.2-1 Vangorda Creek Drainage Reference Sites

Table 6. Reference Site Data 1998-2007 Dissolved Metals

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
VR	27-Mar-07	0.66	0.0003	2.45	0.001	< 0.0001	2.06	0.0003	< 0.0002	< 0.03	< 0.0002	< 0.0002	5.31	< 0.0002	0.061
VR	26-Sep-07	0.348	0.0005	1.74	0.00056	0.00013	1.68	<0.0005	0.00005	<0.1	0.00089	<0.0005	4.4	<0.00005	0.0467
VR	25-Oct-07	0.34	0.0005	1.79	0.00074	0.00013	1.64	0.00014	0.000139		0.00002	<0.00004		0.00002	0.0529
VR	21-Nov-07	0.37	<0.0005	2.11	0.00031	0.00014	1.63	0.00016	0.000109		0.00003	0.00004	4.6	<0.00001	0.0583
VR	13-Dec-07	0.43	0.0006	2.1	0.00098	0.00015	1.76	0.00026	0.000041		0.00006	0.00006	4.94	0.00002	0.0602
VR	Total # samples	5	5	5	5	5	5	5	5	2	5	5	4	5	5
VR	Median	0.37	0.0005	2.1	0.00074	0.00013	1.68	0.00025	0.0001	0.0325	0.00006	0.00006	4.77	0.00002	0.0583
VR	MEAN	0.430	0.00043	2.038	0.000718	0.00012	1.754	0.000222	0.0000878	0.0325	0.00022	0.000094	4.81	0.000034	0.0558
VR	STD	0.134	0.000148324	0.287	0.000292	0.00004	0.179	6.87E-05	4.13E-05	0.0247	0.000376	9.21E-05	0.40	3.76E-05	0.0060
VR	MINIMUM	0.34	0.0003	1.74	0.00031	< 0.0001	1.63	0.00014	0.000041	< 0.03	0.00002	<0.00004	4.4	<0.00001	0.0467
VR	MAXIMUM	0.66	0.0006	2.45	0.001	0.00015	2.06	<0.0005	< 0.0002	<0.1	0.00089	<0.0005	5.31	< 0.0002	0.061
VR	# samples < MDL	0	1	0	0	1	0	1	1	2	1	2	0	3	0
VR	% samples < MDL	0	20	0	0	20	0	20	20	100	20	40	0	60	0
VR	Maximum MDL							<0.0005	< 0.0002	<0.1		<0.0005		< 0.0002	
VR	25th Percentile	0.348	0.0003	1.79	0.00056	0.00013	1.64	0.00016	0.00005	0.02375	0.00003	0.00004	4.55	0.00002	0.0529
VR	75th Percentile	0.43	0.0006	2.11	0.00098	0.00015	1.76	0.00026	0.000139	1.51	0.00089	0.00025	5.03	0.000025	0.0602
V1	31-Dec-98	< 1		3.3	< 0.01	0.014	2	< 0.005	< 0.01	< 0.04	< 0.03	< 0.03	3.7	< 0.01	0.114
V1	17-Mar-99	< 1		2.9	< 0.01	< 0.002	3	< 0.005	< 0.01	< 0.04	< 0.03	< 0.03	3.7	< 0.01	0.075
V1	18-Jun-99	< 1		0.7	< 0.01	< 0.002	< 1	< 0.005	< 0.01	< 0.04	< 0.03	< 0.03	0.1	< 0.01	0.04
V1	29-Jul-99	0.2		0.58	0.001	< 0.0001	1	0.002	< 0.001	< 0.002	< 0.001	< 0.001	3.23	< 0.0004	0.027
V1	31-Aug-99	0.2		0.668	< 0.0004	0.0002	2.32	< 0.0002	< 0.001	< 0.002	< 0.001	< 0.001	3.538	< 0.0004	0.0282
V1	12-Oct-99	< 1		1.1	< 0.01	< 0.002	2	< 0.005	< 0.01	< 0.04	< 0.03	< 0.005	3	< 0.01	0.034
V1	20-Jun-00	1		1.4	< 0.01	< 0.002	2	< 0.005	< 0.01	< 1	< 0.03	< 0.005	2.1	< 0.01	< 0.002
V1	12-Sep-00	< 1		1	< 0.01	< 0.002	4	0.005	< 0.01	4	< 0.03	< 0.005	3	< 0.01	0.004
V1	5-Mar-01	< 1		4	0.01	< 0.002	5	< 0.005	< 0.01	< 1	< 0.03	< 0.005	4.88	< 0.01	0.1
V1	13-Jun-01	< 1		0.6	< 0.01	0.006	3	< 0.005	< 0.01	< 1	< 0.03	< 0.005	2.3	0.04	0.023
V1	21-Mar-02	1		3.3	0.01	0.003	4	< 0.005	< 0.01	0.03	< 0.03	< 0.005	5.6	< 0.01	0.1
V1	25-Jun-02	0.5		1.1	0.003	< 0.001	0.9	0.003	< 0.002	0.03	< 0.002	< 0.005	4	< 0.002	0.037
V1	27-Sep-02	0.6		1.7	0.004	0.001	2.2	0.002	0.004	0.01	0.007	< 0.005	4.3	0.017	0.058
V1	15-Dec-02	0.8		2.7	0.004	< 0.001	1.3	< 0.001	< 0.002	0.01	0.009	< 0.005	5.3	< 0.002	0.084
V1	6-Mar-03	0.7		3.2	0.006	0.001	3.6	0.001	0.003	< 0.01	< 0.002	< 0.005	5.1	< 0.002	0.091
V1	17-Jun-03	0.3		1	< 0.001	0.001	0.8	< 0.001	< 0.002	0.01	< 0.002	< 0.005		< 0.002	0.024
V1	3-Sep-03	0.3		1.2	0.014	< 0.001	0.9	< 0.001	< 0.002	< 0.01	< 0.002	< 0.005		< 0.002	0.022
V1	15-Sep-03	0.3		1.2	0.002	< 0.001	1.1	< 0.001	0.003	< 0.01	0.004	< 0.005		0.002	0.028
V1	13-Dec-03	0.6		2.3	0.004	0.001	1.5	< 0.001	0.002	< 0.01	< 0.002	< 0.005		< 0.002	0.064
V1	14-Mar-04	0.7		3.2	0.005	0.001	1.8	0.003	0.003	< 0.01	< 0.002	< 0.005		< 0.002	0.066
V1	7-Sep-04	0.29	0.0008	1.29	0.0004	< 0.0001	1.68	0.0003	< 0.0002	< 0.03	< 0.0002	< 0.0002	9.46	< 0.0002	0.048
V1	7-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
V1	7-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
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
V1	1-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
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
V1	5-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
V1	9-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
V1	6-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
V1	27-Mar-07	0.56	0.0014	2.89	< 0.0002	0.0007	2.32	0.0003	< 0.0002	< 0.03	< 0.0002	< 0.0002	5.15	< 0.0002	0.075
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
V1	28-Aug-07			1.34			1.81								
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
V1	26-Sep-07	0.334	0.0009	1.44	0.00056	0.0002	1.91	< 0.00002	0.00013		0.00094	< 0.00004	4.07	< 0.00001	0.0516

B2.2-1 Vangorda Creek Drainage Reference Sites

Table 6. Reference Site Data 1998-2007 Dissolved Metals

STATION	DATE	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
VR	27-Mar-07	0.0003	< 0.00002	0.0006	< 0.0002	< 0.001	< 0.002
VR	26-Sep-07	0.0026	0.00005	0.00035	0.00006	0.0022	0.00024
VR	25-Oct-07	<0.0005	0.000002	0.000382	<0.0002	0.002	0.0001
VR	21-Nov-07	<0.0005	<0.000002	0.000458	<0.0002	0.001	<0.0001
VR	13-Dec-07	<0.0005	0.000004	0.000421	0.0002	0.0015	0.0001
VR	Total # samples	5	5	5	5	5	5
VR	Median	0.00025	0.000004	0.000421	0.0001	0.0015	0.0001
VR	MEAN	0.00073	0.0000134	0.0004422	0.000112	0.00144	0.000298
VR	STD	0.00105	2.08E-05	9.71E-05	5.22E-05	0.000702	0.000399
VR	MINIMUM	0.0003	<0.000002	0.00035	0.00006	0.0005	0.00024
VR	MAXIMUM	0.0026	0.00005	0.0006	0.0002	0.0022	< 0.002
VR	# samples < MDL	3	2	0	3	1	2
VR	% samples < MDL	60	40	0	60	20	40
VR	Maximum MDL						< 0.002
VR	25th Percentile	0.00025	0.000002	0.000382	0.0001	0.001	0.0001
VR	75th Percentile	0.0026	0.00005	0.000458	0.0002	0.0022	0.00024
V1	31-Dec-98	< 0.005			< 0.005	< 0.01	
V1	17-Mar-99	< 0.005			< 0.005	< 0.01	
V1	18-Jun-99	< 0.005			< 0.005	< 0.01	
V1	29-Jul-99	0.001			< 0.0002	0.002	
V1	31-Aug-99	0.0014			< 0.0002	< 0.0004	
V1	12-Oct-99	< 0.005			< 0.005	< 0.01	
V1	20-Jun-00	< 0.005			0.006	< 0.01	
V1	12-Sep-00	< 0.005			< 0.005	< 0.01	
V1	5-Mar-01	< 0.005			< 0.005	0.02	
V1	13-Jun-01	0.014			0.013	0.01	
V1	21-Mar-02	< 0.005			< 0.005	< 0.01	
V1	25-Jun-02	< 0.001			< 0.001	0.008	
V1	27-Sep-02	0.001			< 0.001	0.07	
V1	15-Dec-02	< 0.001			< 0.001	< 0.001	
V1	6-Mar-03	0.001			< 0.001	0.024	
V1	17-Jun-03	< 0.001	< 0.002		< 0.001	0.006	
V1	3-Sep-03	< 0.001	< 0.002		< 0.001	0.003	
V1	15-Sep-03	0.001	< 0.002		0.001	0.002	
V1	13-Dec-03	0.001	< 0.002		< 0.001	< 0.001	
V1	14-Mar-04	0.001	< 0.002		< 0.001	0.007	
V1	7-Sep-04	0.0004	< 0.00002	0.0002	< 0.0002	0.002	< 0.002
V1	7-Mar-05	< 0.001	< 0.0001	0.0011	< 0.001	< 0.005	< 0.01
V1	7-Jun-05	0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	12-Sep-05	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	1-Dec-05	< 0.001	< 0.0001	0.0005	< 0.001	< 0.005	< 0.01
V1	20-Mar-06	< 0.001	< 0.0001	0.001	< 0.001	0.047	< 0.01
V1	5-Jun-06	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	9-Jun-06	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	6-Sep-06	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	27-Mar-07	0.0002	< 0.00002	0.0021	< 0.0002	< 0.001	< 0.002
V1	18-Jun-07	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.005	< 0.01
V1	28-Aug-07						
V1	24-Sep-07	< 0.001	< 0.0001	< 0.0005	< 0.001	0.011	< 0.01
V1	26-Sep-07	< 0.0005	< 0.000002	0.00031	< 0.0002	0.003	0.06

B2.2-1 Vangorda Creek Drainage Reference Sites

Table 6. Reference Site Data 1998-2007 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
V1	24-Oct-07	< 0.000005	0.0064	0.00022	0.0301	< 0.005	< 0.00001	< 0.000005	12.3	0.000021	0.000011	0.0001	0.00033	0.009	
V1	22-Nov-07	< 0.000005	0.0047	0.00025	0.0352	< 0.005	< 0.00001	< 0.000005	15.6	0.000016	0.00001	< 0.0001	0.00036	0.004	
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	
V1	14-Dec-07	< 0.000005	0.0043	0.00027	0.0379	< 0.005	< 0.00001	< 0.000005	16.3	0.000017	0.000014	0.0001	0.00038	0.003	
V1	Total # samples	37	37	37	37	37	37	37	37	37	37	37	37	37	2
V1	Median	0.000125	0.025	0.0015	0.024	0.025	0.0005	0.0005	9.41	0.0001	0.0005	0.0005	0.001	0.025	2.87E-05
V1	MEAN	0.000431	0.0288	0.0014	0.0439	0.0473	0.00031	0.00694	11.3	0.00024	0.00118	0.0143	0.0046	0.0336	0.000029
V1	STD	0.0006	0.0224	0.0012	0.0485	0.0391	0.0002	0.0094	5.69	0.0003	0.0022	0.0787	0.0069	0.0349	0
V1	MINIMUM	< 0.000005	0.0043	0.0001	< 0.002	< 0.005	< 0.00001	< 0.000005	2	< 0.000005	0.00001	< 0.0001	0.0002	< 0.001	< 0.000015
V1	MAXIMUM	< 0.003	0.075	< 0.005	0.17	0.16	< 0.001	< 0.05	21.5	< 0.001	0.013	0.48	0.026	0.13	< 0.0001
V1	# samples < MDL	35	10	27	1	21	36	37	0	29	32	29	17	17	2
V1	% samples < MDL	95	27	73	3	57	97	100	0	78	86	78	46	46	100
V1	Maximum MDL	< 0.003	< 0.05	< 0.005	< 0.002	< 0.05	< 0.001	< 0.05		< 0.001	< 0.005	< 0.005	< 0.002	< 0.05	< 0.0001
V1	25th Percentile	1E-04	0.0080	0.0005	0.013	0.025	1E-04	0.0005	7.60	1E-04	0.0005	0.0005	0.0005	0.005	1.81E-05
V1	75th Percentile	0.0005	0.050	0.0025	0.0379	0.07	0.0005	0.005	16.3	0.0005	0.0005	0.0025	0.008	0.039	3.94E-05

Notes:

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

DL: Method Detection Limit

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

B2.2-1 Vangorda Creek Drainage Reference Sites

Table 6. Reference Site Data 1998-2007 Dissolved Metals

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
V1	24-Oct-07	0.38	0.0011	1.74	0.00019	0.00031	1.83	0.00019	0.000061		0.00003	0.0001	4.26	0.00004	0.0631
V1	22-Nov-07	0.5	0.0012	2.44	0.00006	0.00045	2.08	0.00024	0.000023		0.00004	0.00015	5.72	0.00002	0.0749
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
V1	14-Dec-07	0.55	0.0014	2.45	0.00037	0.00051	2.17	0.00023	0.000023		0.00005	0.00017	4.17	< 0.00001	0.0775
V1	Total # samples	37	17	38	37	37	38	37	37	33	37	37	32	37	37
V1	Median	0.5	0.0008	1.37	0.002	0.0005	1.87	0.0005	0.0005	0.03	0.00094	0.0025	4.14	0.0005	0.048
V1	MEAN	0.492	0.000959	1.77	0.00305	0.00113	1.98	0.00123	0.00192	0.199	0.00456	0.00265	4.46	0.0030	0.0533
V1	STD	0.194	0.0006	0.942	0.0032	0.0024	0.952	0.0012	0.002	0.6963	0.0063	0.0041	2.00	0.007	0.0285
V1	MINIMUM	0.2	0.0008	0.58	0.00006	< 0.0001	0.76	< 0.00002	0.000023	< 0.002	0.00003	< 0.00004	0.1	< 0.00001	< 0.002
V1	MAXIMUM	< 1	< 0.005	4	0.014	0.014	5	< 0.005	< 0.01	4	< 0.03	< 0.03	9.9	0.04	0.114
V1	# samples < MDL	7	9	0	17	21	1	26	28	27	30	33	0	32	1
V1	% samples < MDL	19	53	0	46	57	3	70	76	82	81	89	0	86	3
V1	Maximum MDL	< 1	< 0.005		< 0.01	< 0.002	< 1	< 0.005	< 0.01	< 1	< 0.03	< 0.03		< 0.01	< 0.002
V1	25th Percentile	0.300	0.0005	1.10	0.0005	0.00025	1.52	0.0005	0.0005	0.01	0.0005	0.0005	3.46	0.0005	0.028
V1	75th Percentile	0.56	0.0012	2.45	0.005	0.001	2.19	0.0025	0.004	0.075	0.009	0.0025	5.16	0.005	0.075

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B2.2-1 Vangorda Creek Drainage Reference Sites

Table 6. Reference Site Data 1998-2007 Dissolved Metals

STATION	DATE	TI-D mg/L	TL-D mg/L	U-D mg/L	V-D mg/L	ZN-D mg/L	ZR-D mg/L
V1	24-Oct-07	< 0.0005	< 0.000002	0.000497	< 0.0002	0.0011	< 0.1
V1	22-Nov-07	< 0.0005	< 0.000002	0.000672	< 0.0002	0.001	< 0.1
V1	10-Dec-07	< 0.001	< 0.0001	0.0005	< 0.001	0.006	< 0.01
V1	14-Dec-07	< 0.0005	< 0.000002	0.000898	< 0.0002	0.001	< 0.1
V1	Total # samples	37	22	17	37	37	17
V1	Median	0.0005	0.00005	0.00031	0.0005	0.003	0.005
V1	MEAN	0.00138	0.00025	0.00056	0.00129	0.0076	0.0157
V1	STD	0.0023	0.0004	0.0005	0.0023	0.0136	0.0212
V1	MINIMUM	0.0002	< 0.000002	0.0002	< 0.0002	< 0.0004	< 0.002
V1	MAXIMUM	0.014	< 0.002	0.0021	0.013	0.07	< 0.1
V1	# samples < MDL	26	22	7	34	19	16
V1	% samples < MDL	70	100	41	92	51	94
V1	Maximum MDL	< 0.005	< 0.002	< 0.0005	< 0.005	< 0.01	< 0.1
V1	25th Percentile	0.0005	2E-05	0.00025	0.0005	0.002	0.005
V1	75th Percentile	0.0014	5E-05	0.000672	0.001	0.006	0.005

Notes:

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