Appendix 19.
Water Quality Results Tables

Table 1 – Surface Water General Water Quality Parameters

Guideline		pH	Electrical Conductivity (uS/cm)	Dissolved Oxygen (% Saturation)	Turbidity (NTU)	Hardness (mgCaCO3/L)	Total Alkalinity as CaCO3 (mg/L)	Total Suspended Solids (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)
ANZECC/ARMCANZ (2000) Default Trigger Values for Slightly Disturbed Rivers in Tropical Australia		6.0 to 8.0	20 to 250	85 to 120	2 to 15	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sample Site	**Sample Date**													
FHSW01	01-Jan-12	6.76	198.3											
FHSW01	28-Jan-12	6.96	96.4			29	62	8	5	2	4	1	6	
FHSW01	19-Feb-12	7.27	122.6			36	67	13	5	*2*	6	1	8	
FHSW01	03-Apr-12	7.51	240.6			78	110	*5*	13	2	11	1	10	
FHSW01	11-Feb-13	7.19	36			210	*5*	*5*	30	59	32	1	19	170
FHSW01	13-Apr-13	7.36	135.3			39	65	12	6	2	6	2	8	7
FHSW01	10-May-13	7.05	180.7											
FHSW01	26-Jan-14	6.47	69.2			19	28	140	3	1	3	1	5	2
FHSW01	22-Mar-14	7.66	188.5			62	77	8	10	2	9	1	8	4
FHSW01	06-Feb-15					31	38	10	5	2	5	1	6	4
FHSW01	13-Mar-15					20	36	*10*	3	*1*	3	1	5	5
FHSW01	20-Feb-16	6.78	55.6			19	32	60	3	1	3	1	5	2
FHSW01	12-Apr-19	7.15	64.8	83	42	18	40	21	2	3	3	1	5	7
FHSW01	05-Feb-20	6.61	70.2	23		30	26	121	4	2	5	5	4	2
FHSW01	26-Mar-21					13	23	14	2	2	2	1	5	*1*
FHSW01	12-Feb-21	6.72	52.1	97	76		22	68	2	1	2	1	4	2
FHSW01	15-Apr-21	7.35	59.2	93			40	12	3	3	4	2	7	2
FHSW02	01-Jan-12	6.75	96.3											
FHSW02	19-Feb-12	6.89	156.9			48	84	16	8	2	7	1	9	
FHSW02	04-Mar-12	6.94	81.6			19	46	5	2	1	3	1	6	
FHSW02	09-Jun-12	7.48	270.6											
FHSW02	10-Jun-12	7.48	270.6											
FHSW02	11-Feb-13	7.23	119.4											
FHSW02	01-Mar-13	7.36	166.3											
FHSW02	13-Apr-13	7.19	175.2			59	76	6	10	3	9	1	9	5
FHSW02	10-May-13	7.59	197.9											
FHSW02	24-Jan-14	7.3	68.1			21	29	16	4	2	3	1	5	1
FHSW02	22-Mar-14	7.55	206.9			71	85	17	12	3	10	1	9	3
FHSW02	08-Feb-15					31	43	9	5	2	4	1	7	2
FHSW02	13-Mar-15					40	56	*10*	7	2	6	1	7	3
FHSW02	20-Feb-16	6.5	120.3			34	49	28	6	3	5	1	8	3
FHSW02	12-Apr-19	6.7	67	60	228	18	39	16	3	3	3	1	6	*5*
FHSW02	05-Feb-20	6.74	113	55		26	40	16	4	2	4	1	7	*8*
FHSW02	20-Mar-20	7.61	86.5			22	36	26	4	3	3	1	6	1
FHSW02	26-Mar-20					16	29	17	3	3	2	1	5	*1*
FHSW02	12-Feb-21	6.62	69	86	49	22	32	21	4	3	3	2	6	*1*
FHSW02	15-Apr-21	6.86	91.6	68		26	41	10	4	3	4	<1	7	2
FHSW03	13-Apr-13	6.82	117.6			21	56	16	2	2	4	1	11	1
FHSW03	10-May-13	7.04	117.6											
FHSW03	23-Jan-14	6.62	30			4	13	14	1	1	1	*1*	3	*1*
FHSW03	22-Mar-14	7.19	103.2			29	44	7	4	2	5	1	7	*1*
FHSW03	08-Feb-15					16	34	8	2	*1*	3	*1*	6	*1*
FHSW03	13-Mar-15					14	35	*10*	1	*1*	3	1	6	*1*
FHSW03	20-Feb-16	6.39	65			13	28	30	2	2	2	1	6	*1*
FHSW03	12-Apr-19	6.77	54	78	70	13	62	6	1	2	3	1	7	5
FHSW03	05-Feb-20	6.52	53	60		8	16	16	<1	2	2	3	2	2
FHSW03	20-Mar-20					21	35	35	2	1	4	1	5	*1*
FHSW03	26-Mar-20					17	35	6	2	1	3	2	5	*10*
FHSW03	12-Feb-21	6.68	36.9	100	9	11	20	<5	1	<1	2	<1	5	*1*
FHSW03	15-Apr-21	7.25	77.1	97		21	41	8	2	1	4	1	8	*1*
FHSW04	06-Jan-13	6.44	77.4			12	31	34	2	1	2	2	7	*1*
FHSW04	27-Jan-13	6.78	66.8											
FHSW04	11-Feb-13	7.07	42.5											
FHSW04	01-Mar-13		57.8											
FHSW04	13-Apr-13	7.13	114.3			31	56	7	4	3	5	1	9	1
FHSW04	10-May-13	7.16	125.8											
FHSW04	23-Jan-14	6.54	80.8			22	33	18	3	2	3	1	6	1
FHSW04	22-Mar-14	7.4	112.7											
FHSW04	08-Feb-15					22	36	30	3	1	4	1	6	*1*
FHSW04	13-Mar-15					16	36	*10*	2	1	3	1	6	*1*
FHSW04	12-Apr-19	7.18	59.6	75	152	15	50	15	2	2	3	1	6	5
FHSW04	05-Feb-20	6.45	89.5	24		26	29	68	4	4	4	7	8	*1*
FHSW04	20-Mar-20	7.15	67.9			17	29	8	2	2	3	1	7	*1*
FHSW04	26-Mar-20					11	27	14	1	2	2	1	7	*1*
FHSW04	12-Feb-21	6.79	49.6	90	35	13	21	14	2	2	2	1	5	*1*
FHSW04	15-Apr-21	7.16	90.9	79		17	36	9	2	3	3	*1*	7	*1*
S5	02-Apr-19	6.9*	177.8*			40	87	<1	6	4	6	3	7	
S6	02-Apr-19	6.1*	66*			<1	32	2	<1	2	<1	<1	6	
S7	02-Apr-19	7.1*	131*			28	64	29	3	3	5	3	5	
S8	02-Apr-19	6.8*	82*			11	36	8	1	2	2	1	5	

Note: Values in italics were less than the laboratory limit of reporting but were assigned a value equal to the laboratory limiit of reporting for statistical analyses.

* Values are an average of three recorded measurements.

Table 2 – Surface Water Dissolved Metals and Metalloids (µg/L)

Guideline		Aluminium	Arsenic	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Nickel	Zinc
ANZECC/ARMCANZ (2000) Default Trigger Values for Slightly Disturbed Rivers in Tropical Australia		55	13 (As(V))	0.2	1 (Cr(VI))	1.4*	1.4	NA	3.4	1,900	11	8
Sample Site	**Sample Date**											
FHSW01	28-Jan-12	980	1	<0.1	2	<1	1	470	<1	10	1	1
FHSW01	19-Feb-12	220	4	<0.1	*1*	<1	*1*	350	<1	8	<1	*1*
FHSW01	03-Apr-12	15	1	<0.1	*1*	<1	*1*	59	<1	11	<1	5
FHSW01	11-Feb-13	26	8	<0.1	*1*	<1	*1*	*10*	<1	*5*	<1	6
FHSW01	13-Apr-13	260	4	<0.1	1	<1	3	430	<1	12	<1	35
FHSW01	26-Jan-14	270	4	<0.1	1	<1	1	360	<1	10	<1	14
FHSW01	22-Mar-14	20	*1*	<0.1	*1*	<1	*1*	50	<1	9	<1	1
FHSW01	06-Feb-15	320	4	<0.1	*1*	<1	*1*	520	<1	11	<1	7
FHSW01	13-Mar-15	180	3	<0.1	*1*	<1	*1*	260	<1	8	<1	5
FHSW01	20-Feb-16	290	3	<0.1	*1*	<1	1	300	<1	10	<1	5
FHSW01	12-Apr-19	260	3	<0.2	*1*	<1	2	280	<1	7	<1	6
FHSW01	05-Feb-20	46000	13	<0.1	40	8	22	21700	8	67	26	20
FHSW01	26-Mar-20	100	2	<0.1	*1*	<1	1	160	<1	6	<1	*5*
FHSW01	12-Feb-21	90	3	<0.1	*1*	<1	2	210	<1	21	<1	*5*
FHSW01	15-Apr-21	2290	5	<0.1	2	<1	2	1950	2	21	1	*5*
FHSW02	19-Feb-12	140	2	<0.1	<1	<1	*1*	270	<1	25	<1	*1*
FHSW02	04-Mar-12	710	*1*	<0.1	<1	<1	<1	490	<1	27	<1	8
FHSW02	13-Apr-13	51	*1*	<0.1	<1	<1	1	74	<1	16	<1	29
FHSW02	24-Jan-14	180	1	<0.1	<1	<1	1	270	<1	16	<1	19
FHSW02	22-Mar-14	*10*	*1*	<0.1	<1	<1	<1	34	<1	14	<1	2
FHSW02	08-Feb-15	190	1	<0.1	<1	<1	<1	300	<1	30	<1	3
FHSW02	13-Mar-15	*10*	*1*	<0.1	<1	<1	<1	21	<1	10	<1	1
FHSW02	20-Feb-16	20	1	<0.1	<1	<1	<1	74	<1	39	<1	6
FHSW02	12-Apr-19	140	1	<0.2	<1	<1	1	250	<1	93	<1	7
FHSW02	05-Feb-20	1750	3	<0.1	<1	<1	<1	710	<1	31	2	*5*
FHSW02	20-Mar-20	1260	1	<0.1	<1	<1	1	1010	<1	4	1	*5*
FHSW02	26-Mar-20	20	1	<0.1	<1	<1	<1	50	<1	49	<1	*5*
FHSW02	12-Feb-21	170	1	<0.1	<1	<1	2	290	<1	45	1	*5*
FHSW02	15-Apr-21	290	2	<0.1	<1	<1	<1	760	<1	97	<1	*5*
FHSW03	13-Apr-13	190	3	<0.1	<1	<1	<1	800	<1	15	<1	21
FHSW03	23-Jan-14	180	1	<0.1	<1	<1	<1	170	<1	8	<1	3
FHSW03	22-Mar-14	40	*1*	<0.1	<1	<1	<1	100	<1	29	2	4
FHSW03	08-Feb-15	130	3	<0.1	<1	<1	<1	1100	<1	43	<1	4
FHSW03	13-Mar-15	140	1	<0.1	<1	<1	<1	440	<1	8	<1	1
FHSW03	20-Feb-16	350	*1*	<0.1	<1	<1	<1	310	<1	45	<1	5
FHSW03	12-Apr-19	140	2	<0.2	<1	<1	<1	510	<1	*5*	<1	*5*
FHSW03	05-Feb-20	340	4	<0.1	<1	<1	<1	680	<1	21	<1	*5*
FHSW03	20-Mar-20	70	6	<0.1	<1	<1	<1	1840	<1	4	<1	*5*
FHSW03	26-Mar-20	30	2	<0.1	<1	<1	<1	240	<1	8	<1	*5*
FHSW03	12-Feb-21	80	*1*	<0.1	<1	<1	<1	230	<1	7	<1	*5*
FHSW03	15-Apr-21	70	3	<0.1	<1	<1	<1	1570	<1	46	<1	*5*
FHSW04	06-Jan-13	1200	2	<0.1	5	1	4	2300	1	34	4	4
FHSW04	13-Apr-13	210	*1*	<0.1	*1*	<1	2	220	<1	14	1	38
FHSW04	23-Jan-14	210	*1*	<0.1	*1*	<1	1	250	<1	19	<1	27
FHSW04	08-Feb-15	520	1	<0.1	*1*	<1	*1*	480	<1	120	<1	4
FHSW04	13-Mar-15	370	*1*	<0.1	*1*	<1	*1*	340	<1	26	<1	4
FHSW04	12-Apr-19	180	*1*	<0.2	*1*	<1	1	270	<1	23	<1	*5*
FHSW04	05-Feb-20	27600	8	<0.1	22	8	11	16300	5	398	14	14
FHSW04	20-Mar-20	1580	*1*	<0.1	2	<1	1	1200	<1	4	1	*5*
FHSW04	26-Mar-20	100	2	<0.1	*1*	<1	*1*	1500	<1	22	<1	*5*
FHSW04	12-Feb-21	220	*1*	<0.1	*1*	<1	1	320	<1	20	<1	*5*
FHSW04	15-Apr-21	360	2	<0.1	1	<1	*1*	720	<1	38	<1	*5*
S5	02-Apr-19		5	0.1	*0.2*		1		0		1	3
S6	02-Apr-19		1	*0.05*	1.3		1		0		1	1
S7	02-Apr-19		2	*0.05*	0.6		1.1		0.3		1	*1*
S8	02-Apr-19		2	*0.05*	0.5		1.3		0.2		0.7	6

Note: Values in italics were less than the laboratory limit of reporting but were assigned a value equal to the laboratory limiit of reporting for statistical analyses.

* Low reliability trigger value.

Table 3 – Pit General Water Quality Parameters

Guideline		pH	Electrical Conductivity (uS/cm)	Hardness (mg $CaCO_3$/L)	Total Alkalinity (mg $CaCO_3$/L)	Calcium (mg/L)	Chloride (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)
ANZECC/ARMCANZ (2000) Short-term Trigger Value for Irrigation and General Water Use		6.0 to 9.0	650[#]	60 to 350**	NA	NA	350[†]	NA	NA	230[†]	NA
Livestock Drinking Water Guidelines ANZECC/ARMCANZ (2000)		5.0 to 9.0	0 to 2,680*	NA	NA	1,000	NA	NA	NA	NA	1,000
ANZECC/ARMCANZ (2000) Default Trigger Values for Slightly Disturbed Rivers in Tropical Australia		6.0 to 8.0	20 to 250	NA	NA	NA	NA	NA	NA	NA	NA
Sample Site	**Sample Date**										
FHPIT	09-Jun-12	7.9	460	130	110	13	4.0	23	1.8	28	71
FHPIT	27-Jan-13	8.3	485	140	130	13	4.0	26	1.8	28	68
FHPIT	26-Apr-13	8.2	459	150	120	13	4.0	28	1.8	30	74
FHPIT	05-Oct-13	9.0	511	150	130	14	5.0	27	1.7	26	81
FHPIT	18-Dec-13	8.9	512	140	93	13	5.0	27	1.9	29	80
FHPIT	24-Jan-14	7.5	475	140	130	13	4.0	27	1.9	26	68
FHPIT	04-Jun-14	8.1	422	150	120	13	4.0	28	1.7	27	62
FHPIT	30-Sep-14	9.4	461	153	135	14	4.7	29	2.4	33	67
FHPIT	06-Feb-15			130	120	11	5.0	26	1.4	28	71
FHPIT	24-Jul-15	6.7	417	140	130	12	5.0	26	1.8	32	67
FHPIT	03-Sep-15	9.1	477	140	130	12	5.0	26	2.0	33	64
FHPIT	02-Oct-15	9.1	508	140	140	12	5.0	27	2.1	34	66
FHPIT	07-Nov-15	9.0	471	150	140	13	4.0	28	2.0	34	64
FHPIT	20-Feb-16	8.7	347	130	130	11	4.0	24	1.6	33	60
FHPIT	07-May-16	8.0	426	140	140	12	4.0	27	1.7	29	68
FHPIT	12-Apr-19	8.6	383	130	160	10	5.5	26	1.7	29	59
FHPIT	05-Feb-20	8.8	441	138	140	9	6.0	28	1	31	47
FHPIT	20-Mar-20	8.4	411	143	144	11	6.0	28	1	32	58
FHPIT	26-Mar-20			136	147	10	6.0	27	1	32	64
FHPIT	12-Feb-21	8.3	405	149	157	12	6.0	29	2	34	60
FHPIT	15-Apr-21	8.4	399	132	144	10	6.0	26	2	30	62
FH1-0	27-Oct-16	8.4	426		148	13	6.1	29	1.6	31	69
FH1-10	27-Oct-16	7.2	402		170	13	6.0	28	1.7	30	65
FH1-20	27-Oct-16	7.2	402		144	13	6.5	28	1.6	29	66
FH1-30	27-Oct-16	7.2	401		146	13	7.5	28	1.6	29	66
FH1-40	27-Oct-16	7.3	401		146	13	7.0	27	1.6	29	65
FH1-50	27-Oct-16	7.2	400		146	13	7.3	28	1.6	29	65
FH2-0	27-Oct-16	8.7	414		149	13	7.1	29	1.6	31	68
FH2-10	27-Oct-16	7.5	401		143	13	6.6	28	1.6	29	64
FH2-20	27-Oct-16	7.2	399		148	13	7.8	28	1.6	29	63
FH2-30	27-Oct-16	7.2	399		146	13	7.9	28	1.6	29	65
FH2-40	27-Oct-16	7.3	401		147	13	7.9	28	1.6	29	63
FHPITE	2-Jun-11	7.9	392			9.6	*5*	28	2.0	23	
FHPITE	13-Jul-12	6.5	412			15	*5*	27	1.8	29	85
FHPITE	3-Oct-12	8.7	57			15	*5*	27	1.8	28	84
FHPITE	14-Nov-13	8.6	508			14	5	29	1.7	30	81

Note: Values in italics were less than the laboratory limit of reporting but were assigned a value equal to the laboratory limiit of reporting for statistical analyses.

NA: No trigger value available.

* Based on total dissolved solids conversion provided in ANZECC/ARMCANZ (2000).

[#] Guideline for sensitive crops.

[†] Upper tolerance for moderately tolerant crops (e.g., lucerne and sorghum).

** For fouling and corrosion.

Table 4 – Pit Total Metals and Metalloids (µg/L)

Guideline		Aluminium	Arsenic	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Molybdenum	Nickel	Selenium	Uranium	Vanadium	Zinc
ANZECC/ARMCANZ (2000) Short-term Trigger Value for Irrigation and General Water Use		20,000	2,000	500	4,000 to 6,000[#]	50	1,000	100	5,000	10,000	5,000	2,500	10,000	2	50	2,000	50	100	500	5,000
Livestock Drinking Water Guidelines ANZECC/ARMCANZ (2000)		5,000	500	NA	5,000	10	1,000	1,000	1,000*	NA	100	NA	10,000	2	150	1,000	20	200	NA	20,000
Sample Site	**Sample Date**																			
FHPIT	09-Jun-12	15	400			<0.1	<1	<1	*1*	34	*1*		96			*1*				3
FHPIT	27-Jan-13	13	430			<0.1	<1	<1	*1*	14	*1*		*5*			*1*				2
FHPIT	26-Apr-13	25	6			<0.1	<1	<1	*1*	400	*1*		110			*1*				6
FHPIT	05-Oct-13	10	540			<0.1	<1	<1	1	18	*1*		10			1				10
FHPIT	18-Dec-13	10	530			<0.1	<1	<1	*1*	*10*	*1*		5			*1*				*1*
FHPIT	24-Jan-14	40	490			<0.1	<1	<1	2	61	*1*		11			*1*				17
FHPIT	04-Jun-14	10	480			<0.1	<1	<1	*1*	25	*1*		33			*1*				4
FHPIT	30-Sep-14	24	585			<0.1	<1	<1	*1*	43	*1*		12			4.7				34
FHPIT	06-Feb-15	10	530			<0.1	<1	<1	43	26	3		*5*			2				26
FHPIT	24-Jul-15	100	570			<0.1	<1	<1	*1*	170	*1*		45			*1*				7
FHPIT	03-Sep-15	50	560			<0.1	<1	<1	1	77	*1*		27			*1*				40
FHPIT	02-Oct-15	30	580			<0.1	<1	<1	*1*	49	*1*		7			*1*	<1			9
FHPIT	07-Nov-15	20	620			<0.1	<1	<1	*1*	25	*1*		13			*1*				2
FHPIT	20-Feb-16	30	560			<0.1	<1	<1	1	20	*1*		7			*1*				11
FHPIT	07-May-16	*10*	620			<0.1	<1	<1	*1*	14	*1*		8			*1*				2
FHPIT	12-Apr-19	*50*	660			<0.1	<1	<1	2	*50*	*1*		6			*1*				*5*
FHPIT	05-Feb-20	*10*	760			<0.1	<1	<1	*1*	*50*	*1*		4			*1*				*5*
FHPIT	20-Mar-20	*10*	667			<0.1	<1	<1	*1*	*50*	*1*		4			*1*				*5*
FHPIT	26-Mar-20	*10*	694			<0.1	<1	<1	*1*	*50*	*1*		3			*1*				*5*
FHPIT	12-Feb-21	*10*	713			<0.1	<1	<1	*1*	*50*	*1*		3			*1*				*5*
FHPIT	15-Apr-21	*10*	659			<0.1	<1	<1	*1*	*50*	*1*		*1*			2				*5*
FH1-0	27-Oct-16	8.4	764		17	<0.02	<0.1	0.08	0.28	8	0.17		5			0.18	<0.2		0.6	3.1
FH1-10	27-Oct-16	16	769		15	<0.02	<0.1	0.22	0.27	16	0.24		437			0.19	<0.2		0.3	8.1
FH1-20	27-Oct-16	5.8	755		15	<0.02	<0.1	0.07	0.14	28	0.17		328			0.13	<0.2		0.3	1.4
FH1-30	27-Oct-16	5.3	756		16	<0.02	<0.1	0.07	0.16	28	0.12		328			0.15	<0.2		0.3	1.0
FH1-40	27-Oct-16	11	766		16	<0.02	<0.1	0.06	0.11	28	0.09		340			0.14	<0.2		0.4	1.3
FH1-50	27-Oct-16	906	735		16	<0.02	0.9	0.36	1.1	852	9.7		385			0.73	<0.2		1.3	8.3
FH2-0	27-Oct-16	9.5	772		16	<0.02	<0.1	0.07	0.29	6	0.17		5			0.17	<0.2		0.55	2.4
FH2-10	27-Oct-16	11	747		15	<0.02	<0.1	0.22	0.29	10	0.16		426			0.18	<0.2		0.25	1.4
FH2-20	27-Oct-16	5.5	776		15	<0.02	<0.1	0.13	0.12	48	0.07		436			0.19	<0.2		0.30	1.1
FH2-30	27-Oct-16	4	767		15	<0.02	<0.1	0.13	0.14	48	0.07		426			0.15	<0.2		0.45	0.9
FH2-40	27-Oct-16	12	784		14	<0.02	<0.1	0.14	0.14	50	0.07		414			0.15	<0.2		0.75	8.6
FHPITE	13-Jul-12	2	521	<0.5	15	<0.02	<1	0.4	1.3	*20*	*0.1*	18	26	<0.2	9	0.5	<2	6.31	0.5	*1*
FHPITE	3-Oct-12	23	481	<0.5	20	<0.02	<1	0.2	1.3	40	4.1	18	16	<0.2	9	0.5	<2	6.40	*0.5*	3
FHPITE	14-Nov-13	4.1	580						0.97				7					5.42		*0.1*

Note: Values in italics were less than detection limits and have been assigned a value equal to the detection limit for statistical analysis

NA: No trigger value available.

NC: Not calculated as all results were below the laboratory limit of reporting.

* Guideline for beef cattle.

[#] Trigger value for irrigation of sorghum.

Table 5 – Fountain Head Pit Dissolved Metals and Metalloids (ug/L)

Guideline		Aluminium	Arsenic	Arsenic -III	Arsenic-V	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Zinc
ANZECC/ARMCANZ (2000) Trigger Value for Slightly to Moderately Disturbed Ecosystem		55	13 (As(V))	24	13	NA	370	0.84†	1 (Cr(VI))	1.4*	5.5†	25.8†	1,900	0.6#	43†	5	0.05	31†
Sample Site	**Sample Date**																	
FHPit	09-Jun-12	*10*	380					<0.1	<1	*1*	*1*	*1*	8		*1*			4
FHPIT	27-Jan-13	*10*	430					<0.1	<1	*1*	*1*	*1*	*5*		*1*			1
FHPIT	26-Apr-13	*10*	470					<0.1	<1	*1*	*1*	*1*	*5*		*1*			4
FHPIT	05-Oct-13	*10*	540					<0.1	<1	*1*	*1*	*1*	*5*		*1*			1
FHPIT	18-Dec-13	*20*	510					<0.1	<1	*1*	*1*	*1*	*5*		*1*			2
FHPIT	24-Jan-14	*10*	490					<0.1	5	*1*	*1*	*1*	*5*		6			10
FHPIT	04-Jun-14	*10*	500					<0.1	<1	*1*	*1*	*1*	*5*		*1*			2
FHPIT	30-Sep-14	*10*	547					<0.1	<1	*1*	*1*	*1*	*5*		3.45			17.5
FHPIT	06-Feb-15	*10*	530					<0.1	<1	*1*	28	2	*5*		1			19
FHPIT	24-Jul-15	*10*	620					<0.1	<1	*1*	*1*	*1*	*5*		*1*			2
FHPIT	03-Sep-15	*10*	560					<0.1	<1	*1*	*1*	*1*	*5*		*1*			16
FHPIT	02-Oct-15	*10*	570					<0.1	<1	*1*	*1*	*1*	*5*		*1*	<1		8
FHPIT	07-Nov-15	*10*	610					<0.1	<1	*1*	*1*	*1*	*5*		*1*			*1*
FHPIT	20-Feb-16	*10*	590					<0.1	<1	*1*	*1*	*1*	*5*		*1*			9
FHPIT	07-May-16	*10*	580					<0.1	<1	*1*	*1*	*1*	*5*		*1*			2
FHPIT	12-Apr-19	*50*	610					<0.2	<1	*1*	*1*	*1*	*5*		*1*			*5*
FHPIT	05-Feb-20	*10*	795					<0.1	<1	*1*	*1*	*1*	*1*		*1*			*5*
FHPIT	20-Mar-20	*10*	646					<0.1	<1	*1*	*1*	*1*	*1*		*1*			*5*
FHPIT	26-Mar-20	*10*	759					<0.1	<1	*1*	*1*	*1*	*1*		*1*			*5*
FHPIT	12-Feb-21	*10*	695					<0.1	<1	*1*	*1*	*1*	1		*1*			*5*
FHPIT	15-Apr-21	*90*	702					<0.1	<1	*1*	*1*	2	109		*1*			*5*
FH1-0	27-Oct-16	2.6	763	20	590		14	<0.02	<0.1	0.08	0.27	0.14	4.82		0.14	0.2		3.1
FH1-10	27-Oct-16	3.3	753	13	650		14.5	<0.02	<0.1	0.21	0.24	0.18	411		0.15	<0.2		3.6
FH1-20	27-Oct-16	5.9	730	580	<100		14	<0.02	<0.1	0.08	0.21	0.15	318		0.19	<0.2		4.5
FH1-30	27-Oct-16	1.3	723	570	<100		15	<0.02	<0.1	0.06	0.14	0.08	329		0.13	<0.2		10.7
FH1-40	27-Oct-16	2.6	717	570	100		14	<0.02	<0.1	0.06	0.13	0.09	329		0.15	<0.2		2.8
FH1-50	27-Oct-16	78	725	570	<100		14	0.04	0.2	0.21	0.71	4.65	372		0.31	<0.2		4.7
FH2-0	27-Oct-16	2.9	741	13	660		14.5	<0.02	<0.1	0.07	0.31	0.13	4.49		0.15	0.2		3
FH2-10	27-Oct-16	1.9	762	22	640		14	<0.02	<0.1	0.21	0.26	0.11	397		0.18	<0.2		1.2
FH2-20	27-Oct-16	1.8	564	580	<100		13.5	<0.02	<0.1	0.13	0.05	0.03	439		0.15	<0.2		0.8
FH2-30	27-Oct-16	1.8	740	570	<100		13.5	<0.02	<0.1	0.13	0.16	0.05	434		0.18	<0.2		1.6
FH2-40	27-Oct-16	2.3	677	580	<100		14	<0.02	<0.1	0.14	0.08	0.05	433		0.16	<0.2		8.6
FHPITE	26-Feb-09	113	288			<0.5	15	<0.2	3	1.3	7.1	*0.5*	8.5	<0.1	*1*	<0.1	<0.1	
FHPITE	02-Jun-11	3.1	713								1.57		1.33					0.9
FHPITE	13-Jul-12	3	532			<0.5	15	<0.2	<1	0.3	1.2	0.1	11.9	<0.2	0.5	<2	<0.5	2
FHPITE	03-Oct-12	5	474			<0.5	20	<0.2	<1	*0.1*	1.1	0.6	1.9	<0.2	0.4	<2	<0.5	3
FHPITE	14-Nov-13	1.6	563								0.76		1.28					0.6
FHPITW	26-Feb-09	48	156			<0.5	15	<0.2	<1	0.2	12.5	*0.5*	30	<0.1	*1*	<0.1	<0.1	

Note: Values in italics were less than detection limits and have been assigned a value equal to the detection limit for statistical analysis

NA: No trigger value available.

* Low reliability trigger value.

For inorganic mercury.

† Default trigger value adjusted for hard water (120 to 179 mg CaCO3/L) as per Table 3.4.4 of ANZECC/ARMCANZ (2000).

Table 6 – Existing Dam General Water Quality Parameters

Guideline		Electrical Conductivity (uS/cm)	Hardness (mg $CaCO_3$/L)	Total Alkalinity (mg $CaCO_3$/L)	Calcium- (mg/L)	Chloride (mg/L)	Magnesium- (mg/L)	Potassium- (mg/L)	Sodium - (mg/L)	Sulphate (mg/L)
ANZECC/ARMCANZ (2000) Short-term Trigger Value for Irrigation and General Water Use		650[#]	60 to 350**	NA	NA	350[†]	NA	NA	230[†]	NA
Livestock Drinking Water Guidelines ANZECC/ARMCANZ (2000)		0 to 2,680*	NA	NA	1,000	NA	NA	NA	NA	1,000
ANZECC/ARMCANZ (2000) Default Trigger Values for Slightly Disturbed Rivers in Tropical Australia		20 to 250	NA	NA	NA	NA	NA	NA	NA	NA
Sample Site	**Sample Date**									
N/E DAM 1	05-Mar-20	36	11	<20	<0.5	17	2.3	0.7	2.3	<5
N/E DAM 2	05-Mar-20	47	10	26	<0.5	34	2.3	0.6	2.4	<5
N/E DAM 3	05-Mar-20	33	10	<20	<0.5	37	2.3	0.5	2.3	<5

NA: No trigger value available.

* Based on total dissolved solids conversion provided in ANZECC/ARMCANZ (2000).

[#] Trigger value for irrigation of sorghum.

[†] Upper tolerance for moderately tolerant crops (e.g., lucerne and sorghum).

** For fouling and corrosion.

Table 7 – Existing Dam Total Metals and Metalloids (µg/L)

Guideline		Arsenic	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Zinc
ANZECC/ARMCANZ (2000) Short-term Trigger Value for Irrigation and General Water Use		2,000	500	4,000 to 6,000*	50	1,000	100	5,000	5,000	10,000	2	2,000	50	5,000
Livestock Drinking Water Guidelines ANZECC/ARMCANZ (2000)		500	NA	5,000	10	1,000	1,000	1,000*	100	10,000	2	1,000	20	20,000
Sample Site	**Sample Date**													
N/E Dam 1	04-Mar-20	18	<1	5	<0.2	3	<1	2	2	21	<0.1	2	<1	<5
N/E Dam 2	04-Mar-20	19	<1	<5	<0.2	3	<1	2	2	15	<0.1	1	<1	<5
N/E Dam 3	04-Mar-20	17	<1	<5	<0.2	2	<1	2	2	1	<0.1	1	<1	<5

NA: No trigger value available.

* Guideline for beef cattle.

Trigger value for irrigation of sorghum.

Table 8 – Existing Dam Dissolved Metals and Metalloids (ug/L)

Guideline		Arsenic	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Zinc
ANZECC/ARMCANZ (2000) Trigger Value for Slightly to Moderately Disturbed Ecosystem		13 (As(V))	NA	37	0.2	1 (Cr(VI))	1.4[#]	1.4	3.4	1,900	0.06[†]	11	11	8
Sample Site	**Sample Date**													
N/E Dam 1	04-Mar-20	6	<1	<5	<0.2	<1	<1	<1	<1	13	<0.1	<1	<1	<5
N/E Dam 2	04-Mar-20	5	<1	<5	<0.2	<1	<1	<1	<1	13	<0.1	<1	<1	<5
N/E Dam 3	04-Mar-20	6	<1	<5	<0.2	<1	<1	<1	<1	9	<0.1	<1	<1	<5

NA: No trigger value available.

[#] Low reliability trigger value.

[†] For inorganic mercury.

Table 9 – Fountain Head Lake General Water Quality Parameters

Guideline		pH	Electrical conductivity (uS/cm)	Hardness (mgCaCO3/L)	Total Alkalinity as CaCO3 (mg/L)	Total Suspended Solids (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)
ANZECC/ARMCANZ (2000) Short-term Trigger Value for Irrigation and General Water Use		6.0 to 9.0	650*	60 to 350†	NA	NA	NA	350**	NA	NA	230**	NA
Livestock Drinking Water Guidelines ANZECC/ARMCANZ (2000)		5.0 to 9.0	0 to 2,680#	NA	NA	NA	1,000	NA	NA	NA	NA	1,000
ANZECC/ARMCANZ (2000) Default Trigger Values for Slightly Disturbed Rivers in Tropical Australia		6.0 to 8.0	20 to 250	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sample Site	**Sample Date**											
FHLAKE	26-Feb-09	7.5	71				3.8		5.8			*0.1*
FHLAKE	02-Jun-11	8.1	209				10.5	*5*	11.3	0.8	9.7	61.5
FHLAKE	01-Jan-12	8.2	399									
FHLAKE	28-Jan-12	6.8	115	41	37	*5*	6.7	1	5.8	1.1	5.4	30
FHLAKE	19-Feb-12	6.9	95									
FHLAKE	04-Mar-12	6.9	81	19	35	*5*	2.8	*1*	3	0.9	4	10
FHLAKE	11-Mar-12	6.4	71	18	37	*5*	1.9	1	3.2	0.8	6.5	9
FHLAKE	03-Apr-12	7.2	127	30	34	6	3	2	5.5	0.9	8.9	17
FHLAKE	18-May-12	7.5	171	46	34	*5*	4.5	3	8.4	1.4	14	33
FHLAKE	09-Jun-12	7.2	239	56	33	6	6.6	3	9.6	1	12	52
FHLAKE	01-Jul-12	7.7	237	68	34	*5*	8.1	3	12	0.9	13	60
FHLAKE	03-Oct-12	6.4	371				15.5	5	19.7	1.4	21.6	119
FHLAKE	08-Dec-12	7.5		150	66	8	20	130	25	1.4	24	16
FHLAKE	21-Dec-12	6.9	519									
FHLAKE	06-Jan-13	7.6	599	180	55	*5*	26	5	28	1.3	21	150
FHLAKE	06-Jan-13	7.6	599									
FHLAKE	27-Jan-13	8.3	601	190	55	6	27	4	29	1	20	180
FHLAKE	11-Feb-13	8.3	591	7	18	1000	0.8	1	1.2	0.8	5.9	*1*
FHLAKE	01-Mar-13	8.1	653	200	48	*5*	29	4	31	1	19	200
FHLAKE	08-Mar-13	7.5	581									
FHLAKE	13-Apr-13			25	36	6	3	3	4.3	1.5	6.2	15
FHLAKE	10-May-13	7.5	151	39	28	*5*	4.6	1	6.6	0.6	7.8	27
FHLAKE	23-Sep-13	7.8	483	130	54	*5*	18	6	22	1.6	24	120
FHLAKE	05-Oct-13	7.9	354	97	35	*5*	13	3	16	0.8	13	98
FHLAKE	18-Dec-13	8.1	262	74	18	*5*	9.5	2	12	2.4	7.4	74
FHLAKE	23-Jan-14	7.0	63	15	18	6	2.1	1	2	1	5	5
FHLAKE	26-Feb-14	6.4	248				5.8	*5*	12	1	11	60
FHLAKE	22-Mar-14	7.1	264	72	22	34	8.7	2	12	2.2	12	67
FHLAKE	04-Jun-14	7.0	509	160	48	13	20	4	27	3.3	20	150
FHLAKE	15-Jul-14	7.3	589	210	59	44	26	3	35	4	25	180
FHLAKE	30-Sep-14	8.1	1007	395	109	37	51	6	65	6	48	302
FHLAKE	22-Oct-14	8.6	1306	510	130	28	61	10	86	8	59	440
FHLAKE	12-Nov-14	7.8	1578	660	140	28	75	14	120	9	88	590
FHLAKE	06-Feb-15			22	24	*10*	2.9	1	3.7	0.9	4.7	11
FHLAKE	13-Mar-15			18	25	*10*	2.3	2	3	1.3	4.5	9
FHLAKE	16-Apr-15			38	32	*10*	4.9	*1*	6.1	0.8	5.9	20
FHLAKE	01-Jun-15			49	30	*10*	6.8	*1*	7.8	0.9	7.1	34
FHLAKE	06-Jul-15			53	36	*10*	7.4	*1*	8.4	1	6.9	45
FHLAKE	24-Jul-15	5.9	177	59	31	9	8.3	*1*	9.4	1	8.4	51
FHLAKE	03-Sep-15	8.3	241	69	42	*10*	9.6	1	11	1.4	9.2	55
FHLAKE	02-Oct-15	8.0	274	77	44	*10*	10	1	12	1.5	11	59
FHLAKE	07-Nov-15	8.1	276	84	45	*10*	12	*1*	13	0.9	12	60
FHLAKE	20-Feb-16	8.0	142	43	25	21	6.2	1	6.7	0.8	5.4	33
FHLAKE	07-May-16	6.9	203	70	45	*5*	9.1	*1*	11	0.6	6.6	59
FHLAKE	06-Jun-16	7.6	214	80	29	*10*	10	*1*	13	*0.5*	8.5	60
FHLAKE	12-Apr-19	6.4	93	29	41	5.5	3.4	10	4.9	1	5.7	28
FHLAKE	05-Feb-20	7.4	293	99	29	14	10	3	18	*1*	14	93
FHLAKE	20-Mar-20	6.8	30	17	16	*5*	2	1	3	1	4	8
FHLAKE	26-Mar-20			17	23	11	2	1	3	2	4	*1*
FHLAKE	12-Feb-21	6.8	100	39	21	*5*	4	*1*	7	*1*	6	28
FHLAKE	15-Apr-21	9.7	70	21	23	6	2	1	4	*1*	5	10

Note: Values in italics were less than the laboratory limit of reporting but were assigned a value equal to the laboratory limiit of reporting for statistical analyses.

NA: No trigger value available.

* Trigger value for irrigation of sorghum.

Based on total dissolved solids conversion provided in ANZECC/ARMCANZ (2000).

† For fouling and corrosion.

Table 10 – Fountain Head Lake Total Metals and Metalloids (µg/L)

Guideline		Aluminium	Arsenic	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Uranium	Vanadium	Zinc
ANZECC/ARMCANZ (2000) Short-term Trigger Value for Irrigation and General Water Use		20,000	2,000	500	4,000 to 6,000*	50	1,000	100	5,000	10,000	5,000	10,000	2	2,000	50	NA	100	NA	5,000
Livestock Drinking Water Guidelines ANZECC/ARMCANZ (2000)		5,000	500	NA	5,000	10	1,000	1,000	1,000#	NA	100	NA	2	1,000	20	NA	200	NA	20,000
Sample Site	**Sample Date**																		
FHLAKE	28-Jan-12	1600	8			<0.1	<1	<1	4	880	13	6		<1					4
FHLAKE	04-Mar-12	870	6			<0.1	<1	<1	3	770	2	17		<1					7
FHLAKE	11-Mar-12	320	7			<0.1	<1	<1	2	700	2	11		<1					5
FHLAKE	03-Apr-12	94	8			0.1	<1	<1	1	560	2	19		<1					3
FHLAKE	18-May-12	81	5			<0.1	<1	<1	2	160	3	11		<1					2
FHLAKE	09-Jun-12	59	6			<0.1	<1	<1	2	100	*1*	10		<1					19
FHLAKE	01-Jul-12	100	5			<0.1	<1	<1	1	83	*1*	5		<1					*1*
FHLAKE	03-Oct-12	278	6	<0.5	20	<0.2	<1	0.2	3	240	1.2	12.2	<0.2	0.9	<2	<0.5	2.57	*0.5*	4
FHLAKE	08-Dec-12	82	7			<0.1	<1	<1	4	99	*1*	15		<1					3
FHLAKE	06-Jan-13	110	8			<0.1	<1	<1	2	73	*1*	7		<1					11
FHLAKE	06-Jan-13	110	7			<0.1	<1	<1	2	74	*1*	7		<1					11
FHLAKE	27-Jan-13	27	9			0.1	<1	<1	1	58	*1*	5		<1					7
FHLAKE	11-Feb-13	20,000	3			<0.1	41	9	29	26,000	14	260		16					44
FHLAKE	01-Mar-13	55	8			<0.1	<1	<1	*1*	62	*1*	6		<1					9
FHLAKE	13-Apr-13	600	13			<0.1	<1	<1	4	590	2	29		1					86
FHLAKE	10-May-13	110	11			<0.1	<1	<1	3	200	2	10		<1					3
FHLAKE	23-Sep-13	110	9			<0.1	<1	<1	2	230	*1*	10		<1					18
FHLAKE	05-Oct-13	40	5			<0.1	<1	<1	2	47	*1*	8		<1					16
FHLAKE	18-Dec-13	100	12			<0.1	<1	<1	1	200	1	23		<1					22
FHLAKE	23-Jan-14	650	7			<0.1	1	<1	2	680	1	11		<1					34
FHLAKE	26-Feb-14	8,100	27.5	<0.5	15	<0.2	6	3	11	5,950	9.7	79	<0.2	4	<2	<0.5	1.91	7.5	12
FHLAKE	22-Mar-14	440	12			0.1	<1	1	4	970	3	68		2					50
FHLAKE	04-Jun-14	110	5			<0.1	<1	<1	3	180	*1*	19		<1					8
FHLAKE	15-Jul-14	730	11			0.1	1	2	5	750	3	67		2					89
FHLAKE	30-Sep-14	435	22			<0.1	1	1	3	693	2.0	65		16					24
FHLAKE	22-Oct-14	480	40			0.1	<1	1	3	600	2	42		2					17
FHLAKE	12-Nov-14	670	54			<0.1	<1	3	3	820	2	83		4					73
FHLAKE	06-Feb-15	370	10			<0.1	<1	<1	2	870	2	12		<1					11
FHLAKE	13-Mar-15	240	8			<0.1	<1	<1	2	470	2	10		<1					17
FHLAKE	16-Apr-15	100	9			<0.1	<1	<1	2	190	3	13		<1					12
FHLAKE	06-Jul-15	120	6			<0.1	<1	<1	2	130	*1*	8		<1					30
FHLAKE	24-Jul-15	560	9			<0.1	<1	<1	3	790	2	24		1					34
FHLAKE	03-Sep-15	120	6			<0.1	<1	<1	5	180	1	16		2					98
FHLAKE	02-Oct-15	120	8			<0.1	<1	<1	3	230	*1*	22		1	<1				24
FHLAKE	07-Nov-15	60	9			<0.1	<1	<1	1	100	*1*	5		<1					28
FHLAKE	20-Feb-16	30	11			<0.1	<1	<1	2	83	*1*	7		<1					7
FHLAKE	07-May-16	30	8			<0.1	<1	<1	*1*	47	*1*	7		<1					5
FHLAKE	06-Jun-16	30	9			<0.1	<1	<1	1	72	*1*	12		<1					33
FHLAKE	12-Apr-19	130	12			<0.2	<1	<1	4	330	3	26		<1					7
FHLAKE	05-Feb-20	50	6			<0.1	<1	<1	<1	110	*1*	17		<1					*5*
FHLAKE	20-Mar-20	330	12			<0.1	<1	<1	4	400	8	35		<1					6
FHLAKE	26-Mar-20	240	21			<0.1	<1	<1	3	810	*7*	180		<1					6
FHLAKE	12-Feb-21	110	7			<0.1	<1	<1	<1	200	*4*	4		<1					*5*
FHLAKE	15-Apr-21	*0.01*	7			<0.1	<1	<1	<1	90	4	4		<1					*5*

Note: Values in italics were less than the laboratory limit of reporting but were assigned a value equal to the laboratory limiit of reporting for statistical analyses.

NA: No trigger value available.

* Trigger value for irrigation of sorghum.

Guideline for beef cattle.

Table 11 – Fountain Head Lake Dissolved Metals and Metalloids (µg/L)

Guideline		Aluminium	Arsenic	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Zinc
ANZECC/ARMCANZ (2000) Trigger Value for Slightly to Moderately Disturbed Ecosystem		55	13 (As(V))	NA	370	0.54*	1 (Cr(VI))	1.4[#]	3.5*	NA	13.6*	1,900	0.06[†]	27.5*	5	0.05	20*
Sample Site	**Sample Date**																
FHLAKE	26-Feb-09	117	5	<0.5	10	<0.2	3	0.2	4.2		<0.5	1.5	<0.1	<1	<0.1	<0.1	
FHLAKE	02-Jun-11	7	4.5	<0.5	10	<0.2	<1	<0.1	1.3		0.2	1.5	<0.2	0.3	<2	<0.5	1
FHLAKE	28-Jan-12	810	8			<0.1	<1	<1	4		8	*5*		<1			3
FHLAKE	04-Mar-12	580	5			<0.1	<1	<1	1		<1	6		<1			1
FHLAKE	11-Mar-12	61	4			<0.1	<1	<1	1		<1	*5*		<1			4
FHLAKE	03-Apr-12	20	6			0.1	<1	<1	1		1	7		<1			6
FHLAKE	18-May-12	34	5			<0.1	<1	<1	1		<1	*5*		<1			2
FHLAKE	09-Jun-12	16	5			<0.1	<1	<1	2		<1	*5*		<1			5
FHLAKE	01-Jul-12	27	4			<0.1	<1	<1	1		<1	*5*		<1			*1*
FHLAKE	03-Oct-12	10	5	<0.5	20	<0.2	<1	<0.1	1.7		<0.1	0.9	<0.2	0.5	<2	<0.5	1
FHLAKE	08-Dec-12	*10*	7			<0.1	<1	<1	2		<1	*5*		<1			1
FHLAKE	06-Jan-13	10	6			<0.1	<1	<1	1		<1	*5*		<1			5
FHLAKE	06-Jan-13	14	7			<0.1	<1	<1	1		<1	*5*		<1			5
FHLAKE	27-Jan-13	*10*	9			<0.1	<1	<1	*1*		<1	*5*		<1			3
FHLAKE	11-Feb-13	9,300	3			<0.1	9	1	6		1	18		5			10
FHLAKE	01-Mar-13	14	7			<0.1	<1	<1	*1*		<1	*5*		<1			5
FHLAKE	13-Apr-13	460	10			<0.1	<1	<1	3		1	14		1			32
FHLAKE	10-May-13	45	8			<0.1	<1	<1	2		<1	*5*		<1			2
FHLAKE	23-Sep-13	21	6			<0.1	<1	<1	2		<1	*5*		<1			9
FHLAKE	05-Oct-13	*10*	4			<0.1	<1	<1	1		<1	*5*		<1			9
FHLAKE	18-Dec-13	20	8			<0.1	<1	<1	*1*		<1	7		<1			8
FHLAKE	23-Jan-14	330	5			<0.1	<1	<1	2		<1	*5*		<1			21
FHLAKE	26-Feb-14	443	9	<0.5	15	<0.2	<1	0.4	4		0.9	29	<0.2	0.7	<2	<0.5	3
FHLAKE	22-Mar-14	20	4			<0.1	<1	<1	2		<1	18		1			88
FHLAKE	04-Jun-14	*10*	4			<0.1	<1	<1	3		<1	*5*		<1			10
FHLAKE	15-Jul-14	20	5			<0.1	<1	1	2		<1	34		1			36
FHLAKE	30-Sep-14	*10*	16			<0.1	<1	<1	2		<1	12		4			3
FHLAKE	22-Oct-14	10	35			<0.1	<1	<1	2		<1	17		1			6
FHLAKE	12-Nov-14	60	52			<0.1	<1	3	2		<1	49		4			38
FHLAKE	06-Feb-15	540	8			<0.1	<1	<1	2		2	7		<1			27
FHLAKE	13-Mar-15	230	7			<0.1	<1	<1	2		<1	7		<1			11
FHLAKE	16-Apr-15	60	8			<0.1	<1	<1	1		2	6		<1			5
FHLAKE	01-Jun-15	*10*	6			<0.1	<1	<1	1		<1	*5*		<1			1
FHLAKE	06-Jul-15	*10*	5			<0.1	<1	<1	*1*		<1	*5*		<1			4
FHLAKE	24-Jul-15	*10*	5			<0.1	<1	<1	2		<1	9		<1			16
FHLAKE	03-Sep-15	*10*	5			<0.1	<1	<1	2		<1	9		1			58
FHLAKE	02-Oct-15	10	7			<0.1	<1	<1	2		<1	15		<1	<1		21
FHLAKE	07-Nov-15	*10*	10			<0.1	<1	<1	1		<1	*5*		<1			5
FHLAKE	20-Feb-16	*10*	10			<0.1	<1	<1	1		<1	*5*		<1			7
FHLAKE	07-May-16	*10*	8			<0.1	<1	<1	*1*		<1	*5*		<1			2
FHLAKE	06-Jun-16	*10*	8			<0.1	<1	<1	*1*		<1	*5*		<1			26
FHLAKE	12-Apr-19	100	9			<0.2	<1	<1	2		2	17		<1			7
FHLAKE	05-Feb-20	*10*	7			<0.1	<1	<1	<1	*0.05*	<1	*1*		<1			<5
FHLAKE	20-Mar-20	700	9			<0.1	<1	<1	3	0.3	2	3		<1			<5
FHLAKE	26-Mar-20	39	15			<0.1	<1	<1	2	0.14	2	168		<1			<5
FHLAKE	12-Feb-21	10	6			<0.1	<1	<1	<1	0.06	1	2		<1			<5
FHLAKE	15-Apr-21	40	11			<0.1	<1	<1	<1	0.43	4	26		<1			<5

Note: values in italics were less than the laboratory limit of reporting but were assigned a value equal to the laboratory limiit of reporting for statistical analyses.

NA: No trigger value available.

* Default trigger value adjusted for a moderate water hardness (60 to 119 mg CaCO3/L) as per Table 3.4.4 of ANZECC/ARMCANZ (2000).

[#] Low reliability trigger value.

[†] For inorganic mercury.

Table 12 – Groundwater General Water Quality Parameters

Guideline			pH	Electrical Conductivity (uS/cm)	Hardness (mg $CaCO_3$/L)	Total Alkalinity (mg CaCO3/L)	Calcium (mg/L)	Chloride (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)
ANZECC/ARMCANZ (2000) Short-term Trigger Value for Irrigation and General Water Use			6.0 to 8.5	650#	60 to 350**	NA	NA	350†	NA	NA	230†	NA
Livestock Drinking Water Guidelines ANZECC/ARMCANZ (2000)			5.0 to 9.0	0 to 2,680*	NA	NA	1,000	NA	NA	NA	NA	1,000
ANZECC/ARMCANZ (2000) Default Trigger Values for Slightly Disturbed Rivers in Tropical Australia			6.0 to 8.0	20 to 250	NA	NA	NA	NA	NA	NA	NA	NA
Australian Drinking Water Guidelines (NHMRC/NRMMC, 2011)##			6.5 to 8.5††	NA	200††	NA	NA	NA	NA	NA	NA	NA
Sample Site	Sample Date	Surface Water Level (m below top of casing)										
FHMB01	04-Dec-11	15.6	6.9	641	200	280	26	6	32	2.4	30	*1*
FHMB01	05-Feb-12	12.7	7.5	629	200	230	25	6	33	3	34	*1*
FHMB01	12-Apr-12	11.9	7.1	666								
FHMB01	09-Jun-12	12.5	7.9	178	38	54	5.4	3	5.9	2.1	8.8	5
FHMB01	11-Feb-13	13.2										
FHMB01	08-Mar-13	12.9	6.9	844	270	380	44	6	40	3.1	35	*1*
FHMB01	26-Apr-13	12.0	6.7	778	240	310	36	6	37	3.1	35	8
FHMB01	23-Sep-13	13.8	6.7	714	210	290	29	7	34	2.6	31	2
FHMB01	23-Sep-13	13.8	6.7	714	210		29	7	34	2.6	31	2
FHMB01	06-Jul-15				140	200	13	6	26	3.0	29	*1*
FHMB01	21-Nov-15	11.6	7.2	494	200	250	23	6	34	3.0	36	*1*
FHMB01	01-Feb-16	10.4	7.3	560	220	300	30	6	35	2.8	34	*1*
FHMB01	14-Apr-16	10.3	7.1	682	250	350	39	5	36	3.0	38	*1*
FHMB01	08-Jul-16	12.0	7.1	602	240	320	35	8	38	2.8	35	*1*
FHMB01	15-Mar-19	8.3	7.1	393	130	180	10	4	25	2.6	24	10
FHMB01	19-Jul-19		7.7	357	121	157	9	7	24	4.0	26	*1*
FHMB01	13-Nov-19	9.26	8.0	381	125	168	9	7	25	5.0	25	1
FHMB01	08-Sep-20	9.46		377								
FHMB01	02-Dec-20	9.8	6.9	353	121	170	9	4	24	4.0	23	13
FHMB01	12-Feb-21	8.4		397								
FHMB02	04-Dec-11	18.6	6.5	414	110	160	7.5	5	22	1.3	23	3
FHMB02	05-Feb-12	16.1	6.6	440	110	170	7.7	5	22	1.6	28	3
FHMB02	12-Apr-12	14.9	6.6	421								
FHMB02	09-Jun-12	15.5	6.9	133	42	77	3.3	4	8.2	3.7	14	*1*
FHMB02	10-Jun-12	15.5	6.9	133								
FHMB02	08-Mar-13	15.6	6.7	455	130	200	9.2	5	25	1.9	27	5
FHMB02	26-Apr-13	15.0	6.5	422	130	180	8.7	5	25	1.8	28	3
FHMB02	23-Sep-13	15.8	6.6	434	110	180	8.0	5	23	1.7	26	2
FHMB02	23-Sep-13	15.8	6.6	434								
FHMB02	21-Nov-15	13.7	6.6	392	120	170	8.0	5	24	2.0	30	*1*
FHMB02	01-Feb-16	12.5	7.0	404	110	180	7.1	5	23	2.1	32	*1*
FHMB02	14-Apr-16	12.4	7.0	399	100	180	6.7	5	21	1.9	31	*1*
FHMB02	08-Jul-16	12.0	6.7	384	130	180	8.5	6	25	2.0	32	*1*
FHMB02	15-Mar-19	10.3	6.6	640	190	340	12	4	39	1.8	64	7
FHMB02	19-Jul-19		7.0	363	95	154	5.0	6	20	2.0	30	
FHMB02	14-Nov-19		8.0	380	107	172	5.0	7	23	2.0	32	2
FHMB02	08-Sep-20	11.3	6.3	604								
FHMB02	02-Dec-20	11.7	6.4	439	146	233	9	6	30	3	34	15
FHMB02	12-Feb-21	10.5	6.5	527								
FHMB03	04-Dec-11	5.5	7.3	227	46	84	3.8	3	8.9	1.7	18	4
FHMB03	05-Feb-12	3.4	6.8	291	65	120	5.3	2	12	2.2	27	2
FHMB03	09-Mar-13	5.2	6.8	289	71	130	5.8	2	14	2.4	24	1
FHMB03	26-Apr-13	4.5	6.9	292	55	70	4.3	4	11	3.9	19	3
FHMB03	23-Sep-13	6.4	6.8	296	70	130	5.7	2	13	2.1	24	1
FHMB03	08-Sep-20	47.8	6.5	274								
FHMB03	02-Dec-20	7.2	6.7	312	83	134	7	4	16	3	35	3
FHMB03	12-Feb-21	4.8	6.7	339								
FHMB04	04-Dec-11	20.5	6.0	371	100	160	8.2	5	19	1.2	23	1
FHMB04	05-Feb-12	19.9	6.4	357	100	150	8.5	5	20	1.4	29	1
FHMB04	13-Apr-12	17.4	6.6	346								
FHMB04	09-Jun-12	18.6	6.6	227	99	160	7.8	5	19	1.3	28	1
FHMB04	08-Mar-13	19.0	6.6	441	120	180	10	5	22	1.4	25	1
FHMB04	26-Apr-13	18.5	6.4	380	110	170	9.4	5	22	1.4	28	*1*
FHMB04	23-Sep-13	19.7	6.5	383	110	170	8.5	5	21	1.2	26	1
FHMB04	06-Jul-15				100	160	8.0	5	20	1.5	28	1
FHMB04	21-Nov-15	17.2	6.6	333	120	170	9.2	5	23	1.7	33	2
FHMB04	01-Feb-16	16.1	6.3	332	110	170	8.7	5	22	1.4	29	2
FHMB04	14-Apr-16	16.1	6.3	335	100	170	7.8	5	20	1.3	30	1
FHMB04	08-Jul-16	16.4	6.1	323	110	170	8.8	6	22	1.3	29	1
FHMB04	18-Mar-19	13.8	6.5	330	110	170	8.8	5	22	1.4	30	2
FHMB04	13-Nov-19	14.4	7.5	370	104	174	7	6	21	1	33	2
FHMB04	08-Sep-20	14.8	6.3	364								
FHMB04	02-Dec-20	15.2	6.1	324	117	194	9	6	23	2	28	*1*
FHMB04	12-Feb-21	14.2	6.6	332								
FHMB05	04-Dec-11	22.4	6.5	216	45	82	3.5	2	8.7	0.8	17	
FHMB05	05-Feb-12	20.2	6.3	174	32	63	2.8	2	6.2	0.8	15	
FHMB05	13-Apr-12	19.3	6.4	214	46	92	3.1	2	9.4	0.9	17	
FHMB05	09-Jun-12	20.2	6.7	148	49	93	3.8	3	9.7	1.3	20	
FHMB05	11-Feb-13	20.3										
FHMB05	08-Mar-13	19.3	6.8	330	73	130	7.2	3	13	1.2	23	3
FHMB05	26-Apr-13	19.2	6.2	237	55	100	4.0	3	11	0.9	23	4
FHMB05	23-Sep-13	20.8	6.4	275	63	120	5.9	3	12	0.9	20	3
FHMB05	21-Nov-15	17.3	8.3	296	93	150	8.2	3	17	1.6	33	*1*
FHMB05	01-Feb-16	16.9	6.3	301	89	150	9.8	3	16	1.3	29	*1*
FHMB05	14-Apr-16	16.9	6.3	297	82	150	9.5	3	14	1.2	29	*1*
FHMB05	08-Jul-16	16.6	6.0	292	92	160	11	3	15	1.2	28	*1*
FHMB05	15-Mar-19	13.8	6.3	395	77	150	5.8	4	15	1.1	33	4
FHMB05	13-Nov-19	14.6	7.5	393	87	186	5	5	18	1	49	5
FHMB05	08-Sep-20	14.8	6.3	247								
FHMB05	02-Dec-20	14.9	6.3	259	57	99	3	16	12	*1*	31	13
FHMB05	12-Feb-21	13.8	6.5	250								
FHMB06	13-Apr-12		8.6	38	7	20	0.5	1	1.3	1.1	2.5	*1*
FHMB06	09-Jun-12	13.2	6.7	71	14	11	1.1	7	2.7	5.0	6.0	*1*
FHMB06	06-Jul-15				34	52	2.4	2	6.8	2.8	5.1	*1*
FHMB06	21-Nov-15	13.5	6.8	182	60	83	3.8	2	12	3.5	8.1	*1*
FHMB06	14-Apr-16	13.3	6.4	651	12	29	0.7	*1*	2.4	0.8	5.7	*1*
FHMB06	08-Jul-16	12.7	6.1	92	23	44	1.4	1	4.8	1.3	6.9	*1*
FHMB06	08-Sep-20	11.3	7.1	106								

Note: Values in italics were less than detection limits and have been assigned a value equal to the detection limit for statistical analysis

* Based on total dissolved solids conversion provided in ANZECC/ARMCANZ (2000).

Trigger value for irrigation of sorghum.

† Upper tolerance for moderately tolerant crops (e.g., lucerne and sorghum).

** For fouling and corrosion.

Health-based guideline unless otherwise indicated.

†† Aesthetic-based guideline.

Table 13 – Groundwater Total Metals and Metalloids (µg/L)

Guideline			Aluminium	Arsenic	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium	Zinc
ANZECC/ARMCANZ (2000) Short-term Trigger Value for Irrigation and General Water Use			20,000	2,000	500	4,000 to 6,000*	50	1,000	100	5,000	10,000	5,000	10,000	2	2,000	50	500	5,000
Livestock Drinking Water Guidelines ANZECC/ARMCANZ (2000)			5,000	500 (5000)	NA	5,000	10	1,000	1,000	1,000#	NA	100	10,000	2	1,000	20	NA	20,000
Australian Drinking Water Guidelines (NHMRC/NRMMC, 2011)			NA	10	60	4,000	2	50 (Cr(VI)	NA	1,000† 2,000**	300**	10	500† 100**	1	20	10	NA	3,000**
Sample Site	**Sample Date**	**Surface Water Level (m below top of casing)**																
FHMB01	04-Dec-11	15.55	67	120			*0.1*	1	*1*	1	5200	*1*	73		*1*			4
FHMB01	05-Feb-12	12.69	*10*	47			*0.1*	1	*1*	*1*	4300	*1*	240		*1*			*1*
FHMB01	09-Jun-12	12.53	50	2			*0.1*	*1*	*1*	*1*	1300	*1*	330		*1*			6
FHMB01	08-Mar-13	12.87	28	390			*0.1*	*1*	*1*	*1*	32,000	*1*	510		2			8
FHMB01	26-Apr-13	12	36	390			*0.1*	1	*1*	*1*	18,000	*1*	340		*1*			2
FHMB01	23-Sep-13	13.76	42	320			*0.1*	*1*	*1*	*1*	26,000	*1*	200		1			4
FHMB01	23-Sep-13	13.76	40	340			*0.1*	*1*	*1*	*1*	25,000	*1*	220		1			4
FHMB01	06-Jul-15		*10*	120			*0.1*	*1*	*1*	*1*	3900	*1*	53		*1*			3
FHMB01	21-Nov-15	11.6	*10*	310			*0.1*	*1*	*1*	*1*	6900	*1*	72		*1*			1
FHMB01	01-Feb-16	10.42	*10*	410			*0.1*	*1*	*1*	*1*	9100	*1*	220		*1*			2
FHMB01	14-Apr-16	10.31	*10*	430			*0.1*	*1*	*1*	*1*	13,000	*1*	330		*1*			2
FHMB01	08-Jul-16	11.97	*10*	450			*0.1*	*1*	*1*	*1*	10,000	*1*	87		*1*			2
FHMB01	15-Mar-19	8.3	*20*	250			*0.1*	*1*	*1*	*1*	*13,000*	*1*	*410*		*2*			*9*
FHMB01	19-Jul-19			24	*1*	*50*	*0.1*	*1*	*1*	*12*		*7*	*111*	*0.04*	*2*	*10*	*10*	*34*
FHMB02	04-Dec-11	18.56	19	61			*0.1*	2	*1*	2	7400	*1*	76		3			6
FHMB02	05-Feb-12	16.05	*10*	50			*0.1*	*1*	*1*	*1*	15000	*1*	190		2			3
FHMB02	09-Jun-12	15.52	40	20			*0.1*	*1*	*1*	*1*	12000	2	500		1			11
FHMB02	08-Mar-13	15.6	*10*	160			*0.1*	*1*	1	*1*	4500	*1*	74		5			12
FHMB02	26-Apr-13	15.01	12	100			*0.1*	1	*1*	*1*	5200	*1*	70		2			9
FHMB02	23-Sep-13	15.75	38	77			*0.1*	2	*1*	*1*	11,000	*1*	100		4			11
FHMB02	21-Nov-15	13.74	*10*	91			*0.1*	*1*	*1*	*1*	21,000	*1*	180		*1*			2
FHMB02	01-Feb-16	12.49	10	91			*0.1*	*1*	*1*	*1*	18,000	*1*	150		*1*			3
FHMB02	14-Apr-16	12.4	*10*	87			*0.1*	*1*	*1*	*1*	21,000	*1*	150		*1*			3
FHMB02	08-Jul-16	11.97	*10*	97			*0.1*	*1*	*1*	*1*	19,000	*1*	120		*1*			2
FHMB02	15-Mar-19	10.27	*20*	14			*0.1*	*1*	*1*	*1*	*11,000*	*1*	*860*		*2*			*9*
FHMB02	19-Jul-19				*1*	*50*	*0.1*	*1*	*1*	*40*		*3*	*90*	*0.04*	*1*	*10*	*10*	*50*
FHMB03	04-Dec-11	5.48	75	90			*0.1*	*1*	*1*	*1*	21	7	35		*1*			6
FHMB03	05-Feb-12	3.37	13	120			*0.1*	*1*	*1*	*1*	130	7	120		*1*			*1*
FHMB03	09-Mar-13	5.2	10	140			*0.1*	*1*	*1*	*1*	82	*1*	120		*1*			9
FHMB03	26-Apr-13	4.49	48	130			*0.1*	1	*1*	3	120	20	130		3			27
FHMB03	23-Sep-13	6.42	34	160			*0.1*	1	*1*	1	140	2	110		3			1
FHMB04	04-Dec-11	20.52	81	6			*0.1*	2	*1*	*1*	100	*1*	11		2			5
FHMB04	05-Feb-12	19.85	600	6			0.2	53	1	4	1400	*1*	35		35			7
FHMB04	09-Jun-12	18.56	45	7			*0.1*	*1*	*1*	*1*	160	*1*	15		*1*			6
FHMB04	08-Mar-13	19.04	27	8			*0.1*	*1*	*1*	*1*	330	*1*	9		1			8
FHMB04	26-Apr-13	18.47	11	6			*0.1*	1	*1*	*1*	20	*1*	5		*1*			7
FHMB04	23-Sep-13	19.72	32	5			*0.1*	1	*1*	*1*	42	*1*	5		1			*1*
FHMB04	06-Jul-15		200	7			*0.1*	*1*	*1*	6	420	1	13		1			86
FHMB04	21-Nov-15	17.15	10	25			*0.1*	*1*	*1*	*1*	87	*1*	44		*1*			3
FHMB04	01-Feb-16	16.1	160	9			*0.1*	*1*	*1*	1	170	*1*	23		*1*			4
FHMB04	14-Apr-16	16.05	10	13			*0.1*	*1*	*1*	*1*	190	*1*	21		*1*			*1*
FHMB04	08-Jul-16	16.43	20	11			*0.1*	*1*	*1*	*1*	190	*1*	49		*1*			2
FHMB04	18-Mar-19	13.75	*10*	5			*0.1*	*1*	*1*	*1*	21	*1*	5		*1*			1
FHMB05	04-Dec-11	22.43	2,200	71			0.2	6	2	9	3400	22	130		4			8
FHMB05	05-Feb-12	20.19	13,000	91			0.3	10	2	15	5600	26	89		6			14
FHMB05	13-Apr-12	19.33	690	25			*0.1*	1	1	5	870	4	84		1			10
FHMB05	09-Jun-12	20.22	290	74			*0.1*	*1*	1	3	850	4	130		2			15
FHMB05	08-Mar-13	19.31	260	79			*0.1*	*1*	*1*	1	1200	2	170		3			18
FHMB05	26-Apr-13	19.24	790	24			*0.1*	2	*1*	3	650	4	82		2			8
FHMB05	23-Sep-13	20.82	68	79			*0.1*	*1*	*1*	*1*	1000	*1*	130		*1*			*1*
FHMB05	21-Nov-15	17.34	120	93			*0.1*	*1*	1	1	1400	1	290		1			3
FHMB05	01-Feb-16	16.92	*10*	97			*0.1*	*1*	*1*	*1*	1600	*1*	300		*1*			2
FHMB05	14-Apr-16	16.9	140	92			*0.1*	*1*	*1*	*1*	1900	*1*	280		*1*			8
FHMB05	08-Jul-16	16.55	250	97			*0.1*	*1*	*1*	1	2500	1	290		*1*			8
FHMB05	15-Mar-19	13.81	40	57			*0.1*	*1*	*1*	*1*	1100	*1*	270		1			4
FHMB06	13-Apr-12		280	20			*0.1*	*1*	1	5	2100	2	120		1			22
FHMB06	09-Jun-12	13.22	170	43			*0.1*	*1*	2	2	1400	2	190		2			10
FHMB06	06-Jul-15		40	88			*0.1*	*1*	1	*1*	1100	*1*	310		1			7
FHMB06	21-Nov-15	13.5	2,700	130			*0.1*	3	2	3	3500	3	430		2			7
FHMB06	14-Apr-16	13.26	5,000	53			*0.1*	6	3	8	7000	10	130		5			14
FHMB06	08-Jul-16	12.67	2,300	72			*0.1*	3	1	2	2600	2	150		2			12

Note: Values in italics were less than the laboratory limit of reporting but were assigned a value equal to the laboratory limit of reporting for statistical analyses.

NA: No trigger value available.

* Trigger value for irrigation of sorghum.

Guideline for beef cattle.

† Health-based guideline unless otherwise indicated.

** Aesthetic-based guideline.

Table 14 – Groundwater Dissolved Metals and Metalloids (ug/L)

Guideline			Aluminium	Arsenic	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Nickel	Zinc
ANZECC/ARMCANZ (2000) [R013] Trigger Value for Slightly to Moderately Disturbed Ecosystem			55	13	0.54*	1	1.4#	3.5*	NA	13.6*	1,900	27.5*	20*
Sample Site	**Sample Date**	**Surface Water Level (m below top of casing)**											
FHMB01	04-Dec-11	15.55	68	110	<0.1	<1	<1	<1	2,100	<1	67	<1	4
FHMB01	05-Feb-12	12.69	*<10*	47	<0.1	<1	<1	<1	2,700	<1	220	<1	<1
FHMB01	09-Jun-12	12.53	90	3	<0.1	<1	<1	<1	100	<1	310	<1	4
FHMB01	08-Mar-13	12.87	*<10*	250	<0.1	<1	<1	<1	16,000	<1	440	<1	
FHMB01	26-Apr-13	12	*<10*	370	<0.1	<1	<1	<1	18,000	<1	360	<1	
FHMB01	23-Sep-13	13.76	*<10*	33	<0.1	<1	<1	<1	*10*	<1	180	<1	<1
FHMB01	06-Jul-15		*<10*	90	<0.1	<1	<1	<1	1,700	<1	45	<1	
FHMB01	21-Nov-15	11.6	*<10*	290	<0.1	<1	<1	<1	4,600	<1	58	<1	
FHMB01	01-Feb-16	10.42	*<10*	430		<1	<1	<1	6,200	<1	190	<1	
FHMB01	14-Apr-16	10.31	*<10*	430	<0.1	<1	<1	<1	11,000	<1	340	<1	
FHMB01	08-Jul-16	11.97	*<10*	450	<0.1	<1	<1	<1	9,000	<1	79	<1	
FHMB01	15-Mar-19	8.3	*<10*	250	<0.1	<1	<1	<1	12,000	<1	410	<1	
FHMB01	19-Jul-19			18	<0.1	<1	<1	1		<1	98	<1	<5
FHMB01	13-Nov-19	9.26	<10	17	<0.1	<1	<1	<1	130	<1	17	<1	<5
FHMB01	02-Dec-20	9.8	<10	50	<0.1	<1	<1	<1	4760	<1	217	<1	<5
FHMB02	04-Dec-11	18.56	<10	62	<0.1	1	<1	<1	6,300	<1	74	*1*	7
FHMB02	05-Feb-12	16.05	<10	50	<0.1	<1	<1	<1	14,000	<1	190	1	2
FHMB02	09-Jun-12	15.52	<10	17	<0.1	<1	<1	<1	8,900	<1	510	<1	8
FHMB02	08-Mar-13	15.6	<10	150	<0.1	<1	<1	<1	3,900	<1	67	4	
FHMB02	26-Apr-13	15.01	<10	91	<0.1	<1	<1	<1	4,000	<1	73	<1	
FHMB02	23-Sep-13	15.75	<10	71	<0.1	<1	<1	<1	9,300	<1	100	<1	3
FHMB02	21-Nov-15	13.74	<10	83	<0.1	<1	<1	<1	19,000	<1	170	<1	
FHMB02	01-Feb-16	12.49	<10	90	<0.1	<1	<1	<1	18,000	<1	140	<1	
FHMB02	14-Apr-16	12.4	<10	90	<0.1	<1	<1	<1	20,000	<1	150	<1	
FHMB02	08-Jul-16	11.97	<10	95	<0.1	<1	<1	<1	17,000	<1	120	<1	
FHMB02	15-Mar-19	10.27	<10	13	<0.1	<1	<1	<1	11,000	<1	800	<1	
FHMB02	19-Jul-19			3	<0.1	<1	<1	<1		<1	79	<1	
FHMB02	14-Nov-19		<10	15	<0.1	<1	<1	<1	510	<1	81	<1	*5*
FHMB02	02-Dec-20	11.7	<10	15	<0.1	<1	2	<1	3960	<1	502	<1	*5*
FHMB03	04-Dec-11	5.48	68	88	<0.1	<1	<1	<1	13	1	34	*1*	8
FHMB03	05-Feb-12	3.37	<10	120	<0.1	<1	<1	<1	20	3	120	*1*	*1*
FHMB03	09-Mar-13	5.2	<10	140	<0.1	<1	<1	<1	76	*1*	120	*1*	
FHMB03	26-Apr-13	4.49	<10	130	<0.1	<1	<1	1	28	10	140	1	
FHMB03	23-Sep-13	6.42	<10	150	<0.1	<1	<1	<1	83	*1*	110	*1*	*1*
FHMB03	02-Dec-20	7.2	<10	220	<0.1	<1	<1	<1	630	*1*	175	*1*	*5*
FHMB04	04-Dec-11	20.52	68	5	<0.1	1	<1	<1	47	<1	11	1	8
FHMB04	05-Feb-12	19.85	<10	4	0.1	1	<1	<1	130	<1	11	4	2
FHMB04	09-Jun-12	18.56	<10	6	<0.1	<1	<1	<1	*10*	<1	13	*1*	7
FHMB04	08-Mar-13	19.04	<10	11	<0.1	<1	<1	2	280	<1	20	1	
FHMB04	26-Apr-13	18.47	<10	6	<0.1	<1	<1	<1	*10*	<1	*5*	<1	
FHMB04	23-Sep-13	19.72	<10	5	<0.1	<1	<1	<1	19	<1	*5*	<1	*1*
FHMB04	06-Jul-15		<10	5	<0.1	<1	<1	<1	*10*	<1	6	<1	
FHMB04	21-Nov-15	17.15	<10	24	<0.1	<1	<1	<1	16	<1	41	<1	
FHMB04	01-Feb-16	16.1	<10	8	<0.1	<1	<1	<1	12	<1	21	<1	
FHMB04	14-Apr-16	16.05	<10	14	<0.1	<1	<1	<1	180	<1	23	<1	
FHMB04	08-Jul-16	16.43	<10	10	<0.1	<1	<1	<1	120	<1	48	<1	
FHMB04	18-Mar-19	13.75	<10	5	<0.1	<1	<1	<1	*10*	<1	*5*	<1	
FHMB04	13-Nov-19	14.4	20	7	<0.1	<1	<1	<1	*50*	<1	13.00	<1	*5*
FHMB04	02-Dec-20	15.2	<10	8	<0.1	<1	<1	<1	320	<1	37.00	<1	*5*
FHMB05	04-Dec-11	22.43	330	24	<0.1	1	1	<1	260	2	92	*1*	5
FHMB05	05-Feb-12	20.19	430	22	<0.1	<1	<1	2	280	2	38	*1*	*1*
FHMB05	13-Apr-12	19.33	26	19	<0.1	<1	<1	4	39	<1	51	2	17
FHMB05	09-Jun-12	20.22	23	67	<0.1	<1	1	1	360	<1	130	1	15
FHMB05	08-Mar-13	19.31	<10	74	<0.1	<1	<1	<1	710	<1	150	2	
FHMB05	26-Apr-13	19.24	<10	14	<0.1	<1	<1	<1	25	<1	76	1	
FHMB05	23-Sep-13	20.82	<10	75	<0.1	<1	<1	<1	900	<1	130	*1*	2
FHMB05	21-Nov-15	17.34	<10	89	<0.1	<1	<1	<1	1,100	<1	280	*1*	
FHMB05	01-Feb-16	16.92	<10	41	<0.1	<1	<1	<1	130	<1	290	*1*	
FHMB05	14-Apr-16	16.9	<10	100	<0.1	<1	<1	<1	1,900	<1	310	*1*	
FHMB05	08-Jul-16	16.55	*20*	100	<0.1	<1	<1	<1	2,200	<1	290	*1*	
FHMB05	15-Mar-19	13.81	<10	60	<0.1	<1	<1	<1	930	<1	270	2	
FHMB05	13-Nov-19	14.6	<10	52	<0.1	<1	3	<1	230	<1	198	*1*	6
FHMB05	02-Dec-20	14.9	<10	70	<0.1	<1	1	<1	70	<1	126	*1*	*5*
FHMB06	13-Apr-12		40	11	<0.1	<1	<1	4	570	<1	15	1	12
FHMB06	09-Jun-12	13.22	40	30	<0.1	<1	1	1	370	<1	180	1	6
FHMB06	06-Jul-15		*10*	84	<0.1	<1	<1	<1	990	<1	300	1	
FHMB06	21-Nov-15	13.5	*10*	120	<0.1	<1	<1	<1	530	<1	380	*1*	
FHMB06	14-Apr-16	13.26	60	55	<0.1	<1	<1	<1	760	<1	78	*1*	
FHMB06	08-Jul-16	12.67	160	68	<0.1	<1	<1	<1	880	<1	130	*1*	

Note: values in italics were less than the laboratory limit of reporting but were assigned a value equal to the laboratory limiit of reporting for statistical analyses.

NA no trigger value available.

Low reliability trigger value.

* Default trigger value adjusted for a moderate water hardness (60 to 119 mg $CaCO_3$/L) as per Table 3.4.4 of ANZECC/ARMCANZ (2000).