


**Appendix 9.3 - Baseline Surface Water Hydro-Chemistry & Discharge Rate Database.**

(Minerex File Ref. 3188-011.xls)

				<b>LIMITS re EIA (Ref. NRA)</b> Indicative Limits Re.: Bathing, Drinking Surface Water reg's.			
Sample Details		Sampling Event (Date Sampled)		SW1	SW2	SW3	SW4
Sample ID	ALL			A2-Inchamore	A2-Inchamore	A2-Inchamore	A2-Inchamore
Site	ALL			3188-028-COC1	3188-028-COC1	3188-028-COC1	3188-028-COC1
Project COC Reference - SW R1	12/08/2020		Dry / Low Flow	3188-028-COC2	3188-028-COC2	3188-028-COC2	3188-028-COC2
Project COC Reference - SW R2	26/08/2020		Wet / High Flow	3188-028-COC4	3188-028-COC4	3188-028-COC4	3188-028-COC4
Project COC Reference - SW R3	24/02/2021		Wet / High Flow	3188-028-COC3	3188-028-COC3	3188-028-COC3	3188-028-COC3
Project COC Reference - SW R4	16/03/2021		Dry / Low Flow	Surface Water	Surface Water	Surface Water	Surface Water
Sample Type	ALL	Medium		513031.2, 578569.0	513613.1, 577809.8	513338.0, 577571.8	512057.7, 577399.8
Grid Reference for Sampling Location	ALL	Inish Grid					
Field Data - Discharge							
Surface Water Feature	ALL	Type		Ditch	Drain	Drain	Ditch
Description of sample location	ALL	Type		Alongside feature	Road bridge	Road bridge	Road bridge
Width of Water Body	ALL	m		<1.0	1.5	2	3
Depth (d)	ALL	m		<0.2	<0.25	<0.25	<0.5
Total Rain 3 Days Prior (Table 9.11)	12/08/2020	mm/72hours			0.0		
Total Rain 3 Days Prior (Table 9.11)	26/08/2020	mm/72hours			59.7		
Total Rain 3 Days Prior (Table 9.11)	24/02/2021	mm/72hours			47.8		
Total Rain 3 Days Prior (Table 9.11)	16/03/2021	mm/72hours			8.1		
Estimated Discharge Rate (Q)	12/08/2020	l/sec		1 to 2	6 to 8	6 to 8	30
Estimated Discharge Rate (Q)	26/08/2020	l/sec		5 to 6	8 to 10	20 to 25	50 to 60
Estimated Discharge Rate (Q)	24/02/2021	l/sec		5 to 6	10 to 15	20 to 25	50 to 60
Estimated Discharge Rate (Q)	16/03/2021	l/sec		2 to 4	6 to 8	6 to 8	10
Laboratory Data - Hydrochemistry							
Alkalinity, Bicarbonate as CaCO3	12/08/2020	mg/l		9.11	22.5	18	16
Alkalinity, Bicarbonate as CaCO3	26/08/2020	mg/l		4.5	7.5	9	18.6
Alkalinity, Bicarbonate as CaCO3	24/02/2021	mg/l		2.5	4	2	3.5
Alkalinity, Bicarbonate as CaCO3	16/03/2021	mg/l		5.5	7.5	5.5	10.3
Alkalinity, Total as CaCO3	12/08/2020	mg/l		9.11	22.5	18	16
Alkalinity, Total as CaCO3	26/08/2020	mg/l		4.5	7.5	9	18.6
Alkalinity, Total as CaCO3	24/02/2021	mg/l		2.5	4	2	3.5
Alkalinity, Total as CaCO3	16/03/2021	mg/l		5.5	7.5	5.5	10.3
Ammoniacal Nitrogen as N (low level)	12/08/2020	mg/l	0.02	0.0245	0.0121	0.0243	0.028
Ammoniacal Nitrogen as N (low level)	26/08/2020	mg/l	0.02	0.0164	0.0177	0.0321	0.018
Ammoniacal Nitrogen as N (low level)	24/02/2021	mg/l	0.02	0.037	0.036	0.024	0.032
Ammoniacal Nitrogen as N (low level)	16/03/2021	mg/l	0.02	0.04	0.042	0.029	0.042
Apparent Colour	12/08/2020	mg/l Pt/Co		30.8	31.2	97	65.8
Apparent Colour	26/08/2020	mg/l Pt/Co		96	62.7	165	79.3
Apparent Colour	24/02/2021	mg/l Pt/Co		37.4	75.2	52	61.3
Apparent Colour	16/03/2021	mg/l Pt/Co		20.4	35.9	20.9	27.8
Conductivity @ 20 deg.C	12/08/2020	mS/cm	2.5	0.0578	0.057	0.0757	0.0625
Conductivity @ 20 deg.C	26/08/2020	mS/cm	2.5	0.0427	0.0304	0.063	0.0526
Conductivity @ 20 deg.C	24/02/2021	mS/cm	2.5	0.025	0.0377	0.0281	0.0293
Conductivity @ 20 deg.C	16/03/2021	mS/cm	2.5	0.0539	0.0706	0.0568	0.0634
Nitrate as NO3	12/08/2020	mg/l		0.539	<0.3	<0.3	<0.3
Nitrate as NO3	26/08/2020	mg/l		0.374	<0.3	<0.3	0.456
Nitrate as NO3	24/02/2021	mg/l		<0.3	0.384	<0.3	<0.3
Nitrate as NO3	16/03/2021	mg/l		<0.3	<0.3	<0.3	<0.3
Nitrite as NO2	12/08/2020	mg/l	0.05	<0.05	<0.05	<0.05	<0.05
Nitrite as NO2	26/08/2020	mg/l	0.05	<0.05	<0.05	<0.05	<0.05
Nitrite as NO2	24/02/2021	mg/l	0.05	0.273	<0.05	<0.05	<0.05
Nitrite as NO2	16/03/2021	mg/l	0.05	<0.05	<0.05	<0.05	<0.05
pH	12/08/2020	pH Units	>6 & <9	6.88	7.08	7.13	7.13
pH	26/08/2020	pH Units	>6 & <9	5.73	6.59	6.35	6.96
pH	24/02/2021	pH Units	>6 & <9	6.69	6.74	6.47	7.03
pH	16/03/2021	pH Units	>6 & <9	6.75	6.97	7.38	7.25
Phosphate (Ortho as P)	12/08/2020	mg/l		<0.02	<0.02	<0.02	<0.02
Phosphate (Ortho as P)	26/08/2020	mg/l		<0.02	<0.02	<0.02	<0.02
Phosphate (Ortho as P)	24/02/2021	mg/l		<0.02	<0.02	<0.02	<0.02
Phosphate (Ortho as P)	16/03/2021	mg/l		<0.02	<0.02	<0.02	<0.02
Phosphorus (tot.unfilt)	12/08/2020	µg/l		<20	<20	24.1	<20
Phosphorus (tot.unfilt)	26/08/2020	µg/l		<20	<20	23.1	<20
Phosphorus (tot.unfilt)	24/02/2021	µg/l		<20	<20	<20	<20
Phosphorus (tot.unfilt)	16/03/2021	µg/l		<20	<20	<20	<20
Suspended solids, Total	12/08/2020	mg/l	25	<2	<2	<2	<2
Suspended solids, Total	26/08/2020	mg/l	25	<2	<2	<2	<2
Suspended solids, Total	24/02/2021	mg/l	25	<2	2.55	<2	<2
Suspended solids, Total	16/03/2021	mg/l	25	<2	<2	<2	<2
True Colour	12/08/2020	mg/l Pt/Co		24.7	21.1	76.6	48.3
True Colour	26/08/2020	mg/l Pt/Co		84.7	51.9	143	66.3
True Colour	24/02/2021	mg/l Pt/Co		31.4	61.2	44.2	51.4
True Colour	16/03/2021	mg/l Pt/Co		13.8	26.8	14.2	20.2
Turbidity	12/08/2020	ntu		0.54	0.674	2.06	1.17
Turbidity	26/08/2020	ntu		1.28	0.562	1.53	0.885
Turbidity	24/02/2021	ntu		0.561	3.65	1.62	2.22
Turbidity	16/03/2021	ntu		0.805	1.28	0.694	0.452