

Environmental ReportPeriod Ending: 31st December 2010

Compiled By: Catriona King

Approved By: Aoife Reynolds

1 Monitoring Data

1.1 Monitoring Equipment

Axonics	– The Axonic's plant was operational as required during the reporting period.
PO4	– The orthophosphate sampler was operational during the reporting period. – The composite sampler was in place to cover any shortfalls in the PO ₄ analyser.
TSS	– The TSS analyser was operational during the reporting period.
Composite	– The composite sampler was operational during the reporting period. – Where there is loss of continuous monitoring data due to instrument faults or other issues composite sample data is provided on the graphs.
Noise	– There is a single noise monitoring location currently being used – N1.
Sondes	– The results are displayed graphically. o Any unusual values are explained on the relevant graph.
Weather Station	– The data used for this reporting period was taken from the on-site meteorological station.
Weirs	– The results are displayed graphically

1.2 Rainfall Data

Date	Rainfall mm	Date	Rainfall mm	Date	Rainfall mm
01/12/2010	0.00	12/12/2010	0.00	23/12/2010	0.20
02/12/2010	0.40	13/12/2010	0.00	24/12/2010	0.00
03/12/2010	20.00	14/12/2010	1.40	25/12/2010	0.40
04/12/2010	7.20	15/12/2010	1.40	26/12/2010	14.80
05/12/2010	4.40	16/12/2010	2.20	27/12/2010	5.80
06/12/2010	4.20	17/12/2010	4.60	28/12/2010	9.20
07/12/2010	1.40	18/12/2010	0.00	29/12/2010	15.60
08/12/2010	2.00	19/12/2010	0.20	30/12/2010	0.20
09/12/2010	1.20	20/12/2010	0.00	31/12/2010	0.00
10/12/2010	1.60	21/12/2010	0.00		
11/12/2010	0.80	22/12/2010	0.00		
Total Rainfall 99.2mm					

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1.3 Summary

Environment	Comments
Surface Water	The surface water data (Sonde) is within anticipated ranges. Any unusual results have explanations on the corresponding graphs. Elevated conductivity readings shown on the SP3 graph as a result of salt application during cold weather. The cold weather also resulted in some equipment ceasing to operate such as the weir at SP3, the orthophosphate meter and the composite sampler. Normal operation has resumed.
Groundwater	The groundwater data (Sonde) is within anticipated ranges. MP1 sonde malfunctioned and was sent to the manufacturer for repair. No sonde in place at MP1 during the reporting period.
Dust	Dust results were in anticipated range.
Weather	There was a total of 99.20mm of rainfall during the reporting period, with a temperature range of -10.7°C to 11.1°C.
Noise	Noise levels were all within the permitted noise ranges.

Note: All laboratory data generated on site should be considered indicative only.

2 Environmental Exceedances / Incidents / Complaint

No exceedance during the reporting period.

Surface Water Monitoring Record Sheet: Accredited Laboratory Results														
	Date	Cond.	Turbidity	pH	TSS	Ortho-phosphate as P	Nitrate as NO ₃	Total Phosphorus as P	Ammonia as NH ₃ -N	Nitrite as NO ₂	Aluminium (dissolved)	Aluminium (total)	Phosphate as PO ₄ -P	TDS
		µS/cm	NTU	pH units	mg l ⁻¹	µg l ⁻¹	mg l ⁻¹	mg l ⁻¹	mg l ⁻¹	mg l ⁻¹	µg l ⁻¹	µg l ⁻¹	mg l ⁻¹	mg l ⁻¹
Action Limits		400	150.0	<3.5 or >7.5	25	40	4.00		0.200	0.025	100	135		
Target Limits		500	200.0	<3 or >8	35	70	6.00		0.500	0.050	150	200		
SP1	02/12/2010	288	1.0	7.0	<2	<10	0.72	<0.05	<0.005	<0.017	62	80	<0.03	145
SP3	02/12/2010	300	1.2	7.0	2	<10	1.44	<0.05	<0.005	<0.017	48	135	<0.03	150
SP1	08/12/2010	242	1.5	7.0	<2	<10	0.64	<0.05	0.020	<0.017	98	116	<0.03	125
SP3	08/12/2010	336	0.9	7.1	<2	<10	1.80	<0.05	0.050	0.024	92	151	<0.03	169
SP1	14/12/2010	346	1.6	6.9	<2	<10	0.68	<0.05	<0.005	<0.017	57	82	<0.03	172
SP3	14/12/2010	540	0.6	7.0	<2	10	2.17	0.06	0.066	0.041	59	70	0.03	274
SP1	20/12/2010	333	0.9	7.2	<2	<10	1.14	<0.05	<0.005	<0.017	43	49	<0.03	165
SP3	20/12/2010	379	0.8	6.9	<2	<10	2.84	<0.05	0.043	0.019	35	137	<0.03	189
Axonics Monitoring														
Pre Axonics	02/12/2010	293	54.6	6.9	72	<10	0.94	0.12	<0.005	<0.017	45	7668	<0.03	146
Post Axonics	02/12/2010	302	1.3	6.9	<2	<10	0.92	<0.05	<0.005	<0.017	26	400	<0.03	151
Pre Axonics	08/12/2010	328	35.3	7.1	111	<10	1.07	0.06	<0.005	<0.017	44	1499	<0.03	165
Post Axonics	08/12/2010	338	0.7	6.5	2	<10	1.12	<0.05	0.010	<0.017	138	246	<0.03	170
Pre Axonics	14/12/2010	486	23.1	7.1	80	<10	1.07	0.06	<0.005	<0.017	44	8717	<0.03	250
Post Axonics	14/12/2010	519	1.5	6.7	<2	<10	1.11	0.06	<0.005	<0.017	15	407	<0.03	266
Pre Axonics	20/12/2010	Axonics not operational												
Post Axonics	20/12/2010	Axonics not operational												
Additional Monitoring														
D22	14/12/2010	280	0.6	6.8	12	<10	<0.44	0.05	0.013	<0.017	66	84	<0.03	141
D62	14/12/2010	153	1.6	4.8	<2	<10	<0.44	<0.05	<0.005	<0.017	49	49	<0.03	79
I.P.	= In Progress													
< LOD	= Below Limit of Detection													
> LOD	= Above Limit of Detection													
On site laboratory results included in Appendix 1														
Grey shaded areas denote parameters that cannot or were not analysed on-site or the lab.														

Groundwater Monitoring Record Sheet																									
Location	Date	DO	Temp	Cond.	pH	TDS	BOD	TSS	Total Hardness	Nitrite as NO ₂	Nitrate as NO ₃	Phosphate as PO ₄	Arsenic	Mercury	Lead	Aluminium (total)	Zinc	Chromium	Copper	Cadmium	Iron	Tin	Ammonia	Aluminium, dissolved	Manganese, total
		% Sat	°C	uS/cm	pH Units	mg l ⁻¹	mg l ⁻¹	mg l ⁻¹	mg/l CaCO ₃	mg l ⁻¹	mg l ⁻¹	mg l ⁻¹	ug l ⁻¹	ug l ⁻¹	ug l ⁻¹	ug l ⁻¹	ug l ⁻¹	ug l ⁻¹	ug l ⁻¹	ug l ⁻¹	ug l ⁻¹	ug l ⁻¹	mg l ⁻¹	ug l ⁻¹	ug l ⁻¹
MP 1	02/12/2010	20	7.3	299	6.1	151	10	3	59.4	<0.017	<0.44	1.598	5	<0.5	<5	175	<50	<5	<10	<5	28380	18	1.919	6	777
MP 2	02/12/2010	15	6.8	298	6.2	150	1	41	70.4	<0.017	<0.44	0.058	<5	<0.5	<5	1091	<50	<5	<10	<5	23350	20	3.163	14	452
MP 3	02/12/2010	19	8.8	310	6.2	156	<1	277	60.4	<0.017	<0.44	1.937	<5	<0.5	<5	2297	<50	<5	<10	<5	26300	<5	1.940	72	439
MP 4	02/12/2010	21	6.8	400	6.2	202	1	213	63.7	<0.017	<0.44	<0.030	<5	<0.5	13	4295	<50	8	15	<5	77420	7	0.546	18	1761
MP 5	02/12/2010	14	7.5	294	6.2	148	6	16	66.7	<0.017	<0.44	0.496	<5	<0.5	<5	469	<50	<5	<10	<5	24470	12	2.813	120	555
MP 6	02/12/2010	14	7.3	425	6.4	215	<1	12	101.5	<0.017	<0.44	1.277	9	<0.5	<5	127	<50	<5	12	<5	57790	13	1.633	5	1544
MP 7	02/12/2010	10	7.6	325	6.4	165	12	14	80.9	<0.017	<0.44	0.662	<5	<0.5	<5	276	<50	<5	<10	<5	37140	32	1.888	15	699
MP 10a	02/12/2010	20	7.8	335	5.9	171	6	44	62.9	<0.017	<0.44	0.100	<5	<0.5	<5	336	<50	<5	<10	<5	21320	11	0.012	7	3431
MP 11	02/12/2010	14	8.1	344	5.5	174	<1	<2	60.7	<0.017	<0.44	0.078	<5	<0.5	<5	90	<50	<5	<10	<5	695	15	0.011	29	2272

Graphs provided for MP1, MP2, MP4, MP6 and MP7: Temperature, Conductivity, and pH.

Dust Monitoring Record Sheet							
	Date Positioned	Date Removed	Ref. Number	Date Dispatched	Date Returned	Weight (mg/m ² /day)	Comments
Target (Consent) Limit: 350 mg m² d⁻¹ on as a 30 day average							
D1	18/06/2010	19/07/2010	269368	20/07/2010	22/07/2010	58	
D2	18/06/2010	19/07/2010	269369	20/07/2010	22/07/2010	54	
D3	18/06/2010	19/07/2010	269370	20/07/2010	22/07/2010	43	
D4	18/06/2010	19/07/2010	269371	20/07/2010	22/07/2010	75	
D1	19/07/2010	18/08/2010	273926	20/08/2010	24/08/2010	127	
D2	19/07/2010	18/08/2010	273927	20/08/2010	24/08/2010	405	Elevated value due to algal growth
D3	19/07/2010	18/08/2010	273928	20/08/2010	24/08/2010	72	
D4	19/07/2010	18/08/2010	273929	20/08/2010	24/08/2010	53	
D1	18/08/2010	17/09/2010	277774	17/09/2010	21/09/2010	109	
D2	18/08/2010	17/09/2010	277775	17/09/2010	21/09/2010	118	
D3	18/08/2010	17/09/2010	277776	17/09/2010	21/09/2010	67	
D4	18/08/2010	17/09/2010	277777	17/09/2010	21/09/2010	85	
D1	17/09/2010	18/10/2010	284610	20/10/2010	29/10/2010	140	
D2	17/09/2010	18/10/2010	284611	20/10/2010	29/10/2010	176	
D3	17/09/2010	18/10/2010	284612	20/10/2010	29/10/2010	137	
D4	17/09/2010	18/10/2010	284613	20/10/2010	29/10/2010	79	
D1	18/10/2010	18/11/2010	288779	19/11/2010	22/11/2010	155	
D2	18/10/2010	18/11/2010	288780	19/11/2010	22/11/2010	196	
D3	18/10/2010	18/11/2010	288781	19/11/2010	22/11/2010	165	
D4	18/10/2010	18/11/2010	288782	19/11/2010	22/11/2010	242	
D1	18/11/2010	19/12/2010	293478	23/12/2010	04/01/2011	84	
D2	18/11/2010	19/12/2010	293479	23/12/2010	04/01/2011	74	
D3	18/11/2010	19/12/2010	293480	23/12/2010	04/01/2011	85	
D4	18/11/2010	19/12/2010	293481	23/12/2010	04/01/2011	89	
NDP = No Determination Possible							
Monitoring Points are numbered clockwise through the Cardinal Marks (N, E, S, W)							
Monitoring Results will be presented monthly							

Day Time Noise Monitoring Record Sheet

Determinant Results

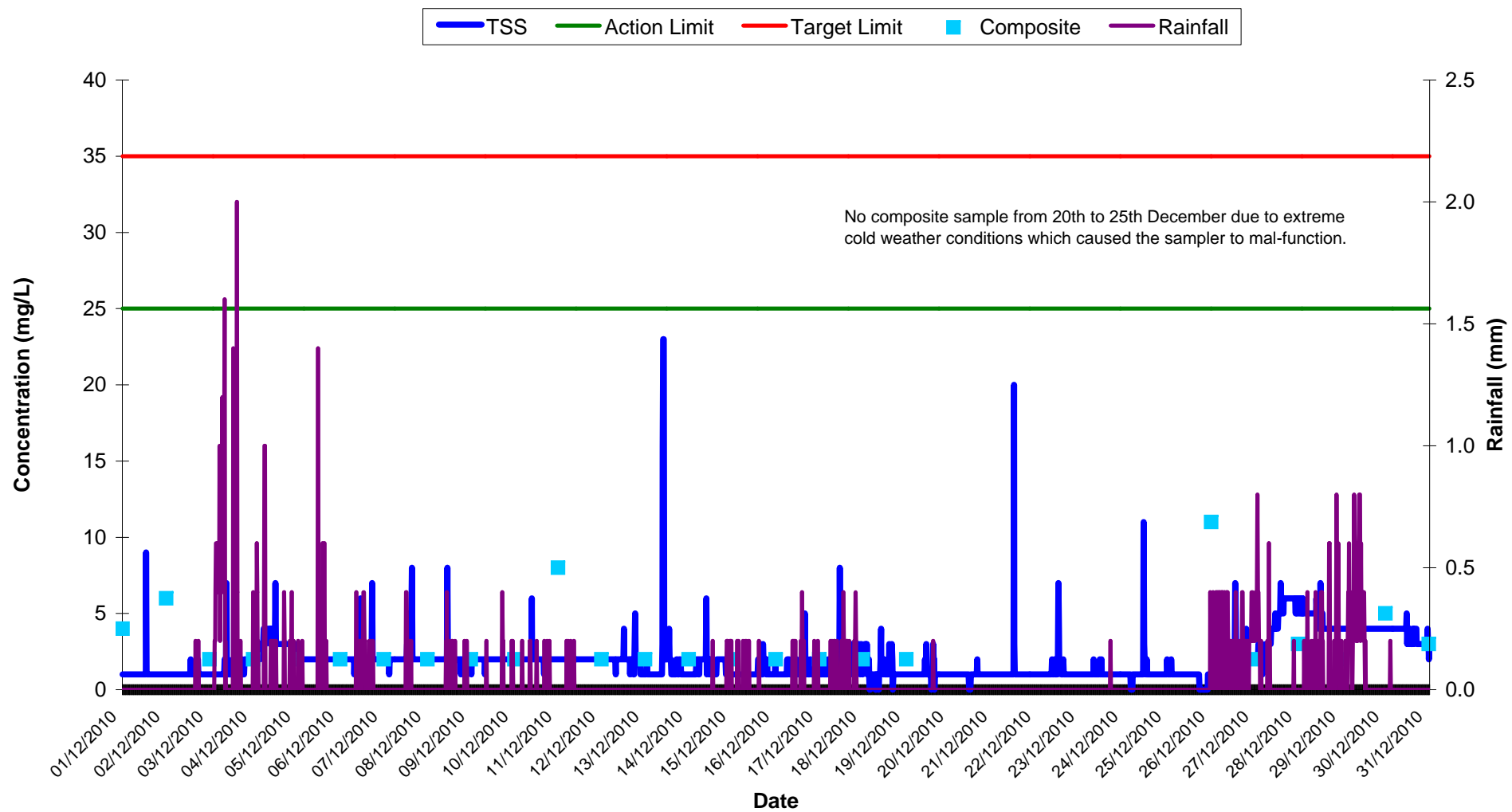
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date	Time	Duration	Wind		Results dB			*Comments
						Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}	
Action Limit								60			
Target Limit								65			
N1	-6.1	2.6	01/12/2010	08:00:00	14:00:00	0.5	129.5	48.8	90.5	30.0	
N1	-7.9	2.6	02/12/2010	08:00:00	14:00:00	1.0	170.6	41.4	72.5	30.0	
N1	0.1	5.2	03/12/2010	08:00:00	14:00:00	2.6	221.8	47.0	86.5	30.0	
N1	-0.3	5.2	04/12/2010	08:00:00	14:00:00	0.9	202.9	44.8	64.8	36.5	
N1	-1.4	4.9	05/12/2010	08:00:00	14:00:00	1.0	194.4	39.7	66.5	32.0	
N1	-1.4	4.9	06/12/2010	08:00:00	14:00:00	2.1	133.3	47.2	72.6	31.8	
N1	-3.1	4.1	07/12/2010	08:00:00	14:00:00	0.6	207.0	45.2	86.1	31.0	
N1	-2.8	5.8	08/12/2010	08:00:00	14:00:00	1.1	213.1	45.4	70.3	30.0	
N1	0.3	8.1	09/12/2010	08:00:00	14:00:00	3.3	2.0	47.8	85.3	30.0	
N1	6.2	8.3	10/12/2010	08:00:00	14:00:00	3.3	1.9	47.1	87.5	30.0	
N1	4.5	8.5	11/12/2010	08:00:00	14:00:00	1.4	0.6	47.8	72.4	30.0	
N1	1.7	6.8	12/12/2010	08:00:00	14:00:00	4.5	2.6	49.7	79.0	30.0	
N1	0.3	3.9	13/12/2010	08:00:00	14:00:00	2.3	160.1	51.2	85.3	30.0	
N1	-3.7	7.0	14/12/2010	08:00:00	14:00:00	0.5	241.2	51.4	72.0	30.0	
N1	1.0	7.7	15/12/2010	08:00:00	14:00:00	1.4	225.4	50.8	65.3	30.0	
N1	0.1	9.1	16/12/2010	08:00:00	14:00:00	6.3	284.8	54.4	89.5	32.7	
N1	-0.3	2.2	17/12/2010	08:00:00	14:00:00	5.9	320.2	51.9	90.0	30.0	
N1	-2.3	1.6	18/12/2010	08:00:00	14:00:00	2.6	203.4	40.7	69.0	30.0	
N1	-6.4	1.7	19/12/2010	08:00:00	14:00:00	1.4	129.2	39.0	70.7	30.0	
N1	-8.9	2.6	20/12/2010	08:00:00	14:00:00	0.5	184.3	41.4	85.6	30.0	
N1	-8.3	0.2	21/12/2010	08:00:00	14:00:00	1.0	215.7	46.0	86.7	30.0	
N1	-10.7	0.1	22/12/2010	08:00:00	14:00:00	0.5	200.7	37.6	71.6	30.0	
N1	-9.5	2.1	23/12/2010	08:00:00	14:00:00	0.5	247.8	37.9	62.7	30.0	
N1	-10.5	0.5	24/12/2010	08:00:00	14:00:00	0.6	205.3	32.8	68.8	30.0	
N1	-8.3	1.9	25/12/2010	08:00:00	14:00:00	1.9	186.8	36.5	69.3	30.0	
N1	1.1	5.8	26/12/2010	08:00:00	14:00:00	6.7	152.0	46.9	71.8	34.5	
N1	5.5	9.5	27/12/2010	08:00:00	14:00:00	3.6	152.8	43.3	68.0	34.5	
N1	8.4	10.4	28/12/2010	08:00:00	14:00:00	4.9	172.5	51.0	77.8	35.0	
N1	6.9	9.1	29/12/2010	08:00:00	14:00:00	3.3	182.8	49.1	85.0	38.6	
N1	3.9	11.1	30/12/2010	08:00:00	14:00:00	1.2	147.7	47.7	82.3	33.6	
N1	2.6	7.9	31/12/2010	08:00:00	14:00:00	0.4	243.2	47.4	69.4	35.9	

* Wind speeds in excess of 5 m/s negatively impact noise readings (as per EPA Guidance Note on Noise Measurement).

Night Time Noise Monitoring Record Sheet											
Determinant Results											
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date	Time	Duration	Wind		Results dB			*Comments
						Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}	
Action Limit								50			
Target Limit								55			
N1	-6.1	2.6	01/12/2010	22:00:00	10:00:00	0.5	129.5	38.0	61.4	30.0	
N1	-7.9	2.6	02/12/2010	22:00:00	10:00:00	1.0	170.6	42.6	66.5	30.0	
N1	0.1	5.2	03/12/2010	22:00:00	10:00:00	2.6	221.8	40.8	62.2	34.7	
N1	-0.3	5.2	04/12/2010	22:00:00	10:00:00	0.9	202.9	40.3	64.2	33.5	
N1	-1.4	4.9	05/12/2010	22:00:00	10:00:00	1.0	194.4	37.4	67.2	30.0	
N1	-1.4	4.9	06/12/2010	22:00:00	10:00:00	2.1	133.3	38.7	64.5	33.6	
N1	-3.1	4.1	07/12/2010	22:00:00	10:00:00	0.6	207.0	38.1	70.2	30.0	
N1	-2.8	5.8	08/12/2010	22:00:00	10:00:00	1.1	213.1	37.0	56.8	30.0	
N1	0.3	8.1	09/12/2010	22:00:00	10:00:00	3.3	2.0	39.5	66.7	30.0	
N1	6.2	8.3	10/12/2010	22:00:00	10:00:00	3.3	1.9	40.2	61.2	31.7	
N1	4.5	8.5	11/12/2010	22:00:00	10:00:00	1.4	0.6	40.0	68.3	30.0	
N1	1.7	6.8	12/12/2010	22:00:00	10:00:00	4.5	2.6	40.8	65.2	30.0	
N1	0.3	3.9	13/12/2010	22:00:00	10:00:00	2.3	160.1	39.3	60.9	30.0	
N1	-3.7	7.0	14/12/2010	22:00:00	10:00:00	0.5	241.2	40.1	64.6	30.0	
N1	1.0	7.7	15/12/2010	22:00:00	10:00:00	1.4	225.4	47.1	78.7	30.0	
N1	0.1	9.1	16/12/2010	22:00:00	10:00:00	6.3	284.8	60.0	74.7	34.6	Elevated readings due to high wind speeds
N1	-0.3	2.2	17/12/2010	22:00:00	10:00:00	5.9	320.2	39.2	68.5	30.0	
N1	-2.3	1.6	18/12/2010	22:00:00	10:00:00	2.6	203.4	32.1	52.9	30.0	
N1	-6.4	1.7	19/12/2010	22:00:00	10:00:00	1.4	129.2	33.4	62.5	30.0	
N1	-8.9	2.6	20/12/2010	22:00:00	10:00:00	0.5	184.3	31.0	55.4	30.0	
N1	-8.3	0.2	21/12/2010	22:00:00	10:00:00	1.0	215.7	55.7	68.1	30.0	Marginal noise elevation. No works undertaken onsite to cause this increase.
N1	-10.7	0.1	22/12/2010	22:00:00	10:00:00	0.5	200.7	32.0	59.0	30.0	
N1	-9.5	2.1	23/12/2010	22:00:00	10:00:00	0.5	247.8	32.8	68.8	30.0	
N1	-10.5	0.5	24/12/2010	22:00:00	10:00:00	0.6	205.3	33.3	68.5	30.0	
N1	-8.3	1.9	25/12/2010	22:00:00	10:00:00	1.9	186.8	46.7	70.5	32.1	
N1	1.1	5.8	26/12/2010	22:00:00	10:00:00	6.7	152.0	46.6	65.9	38.2	
N1	5.5	9.5	27/12/2010	22:00:00	10:00:00	3.6	152.8	51.6	73.2	37.5	
N1	8.4	10.4	28/12/2010	22:00:00	10:00:00	4.9	172.5	44.5	68.7	38.0	
N1	6.9	9.1	29/12/2010	22:00:00	10:00:00	3.3	182.8	49.1	85.0	38.6	
N1	3.9	11.1	30/12/2010	22:00:00	10:00:00	1.2	147.7	43.8	70.9	38.5	
N1	2.6	7.9	31/12/2010	22:00:00	10:00:00	0.4	243.2	43.2	64.0	38.1	

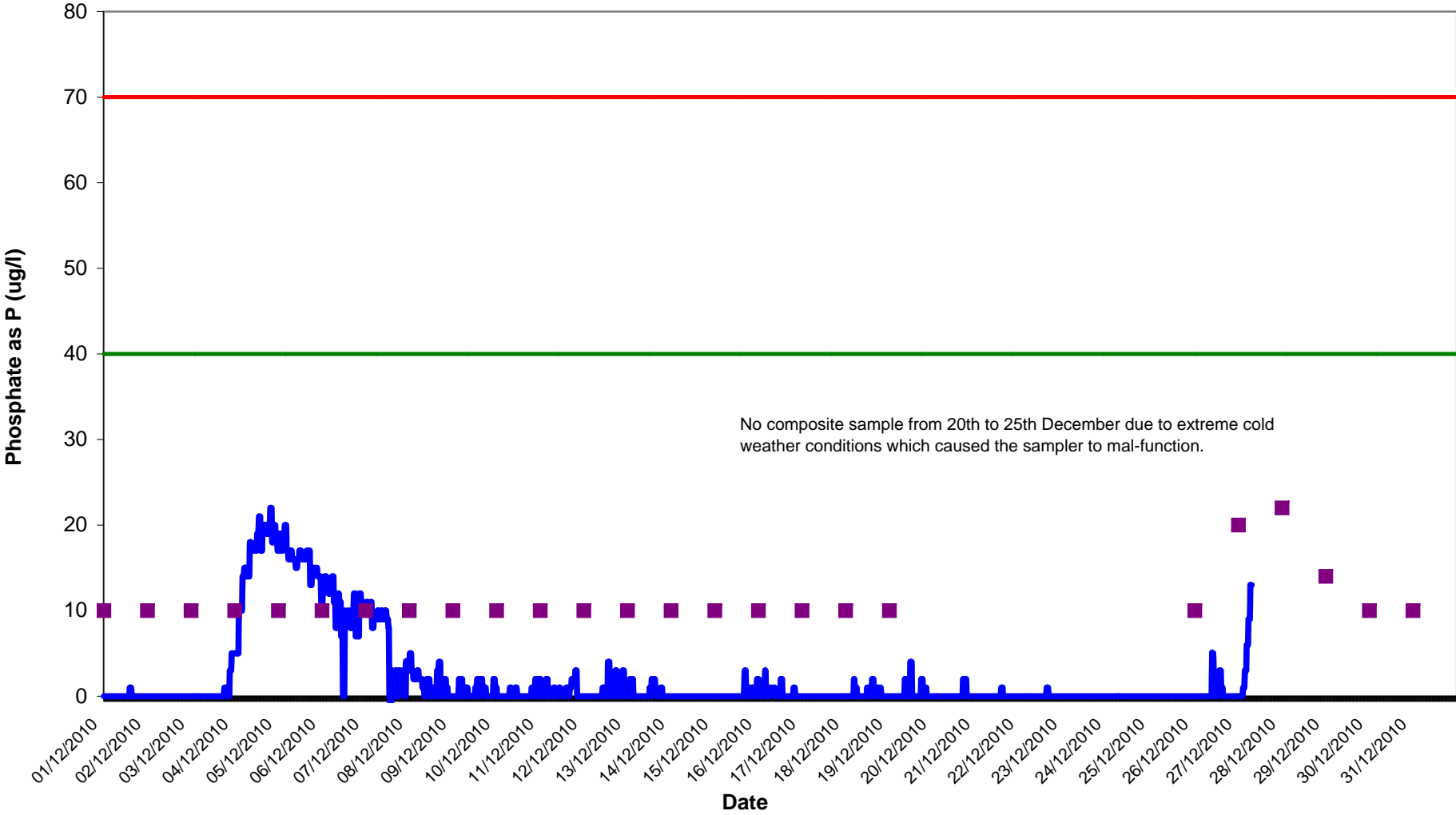
* Wind speeds in excess of 5 m/s negatively impact noise readings (as per EPA Guidance Note on Noise Measurement)

Total Suspended Solids at SP1 December 2010

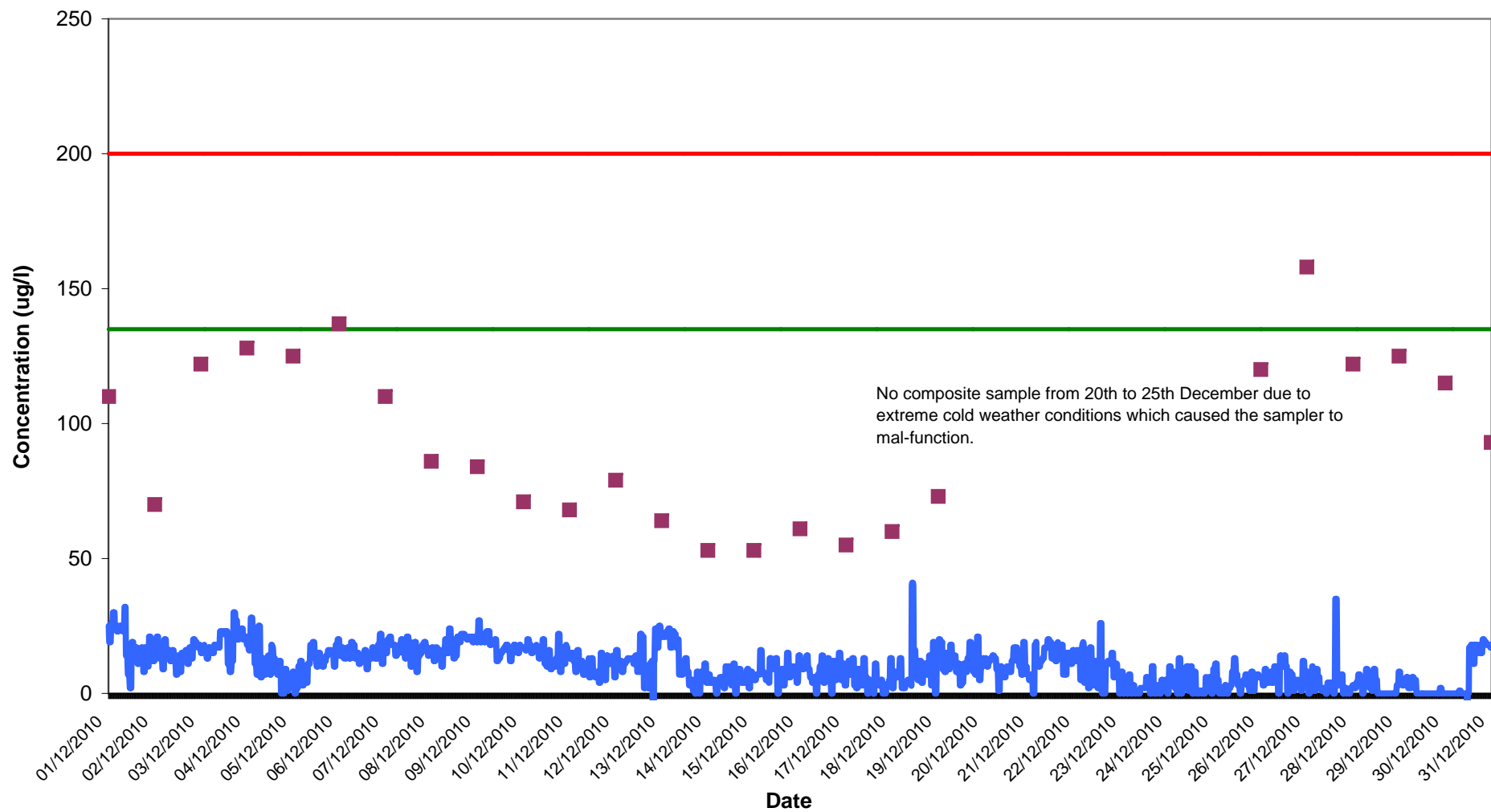


Orthophosphate Results at SP1 December 2010

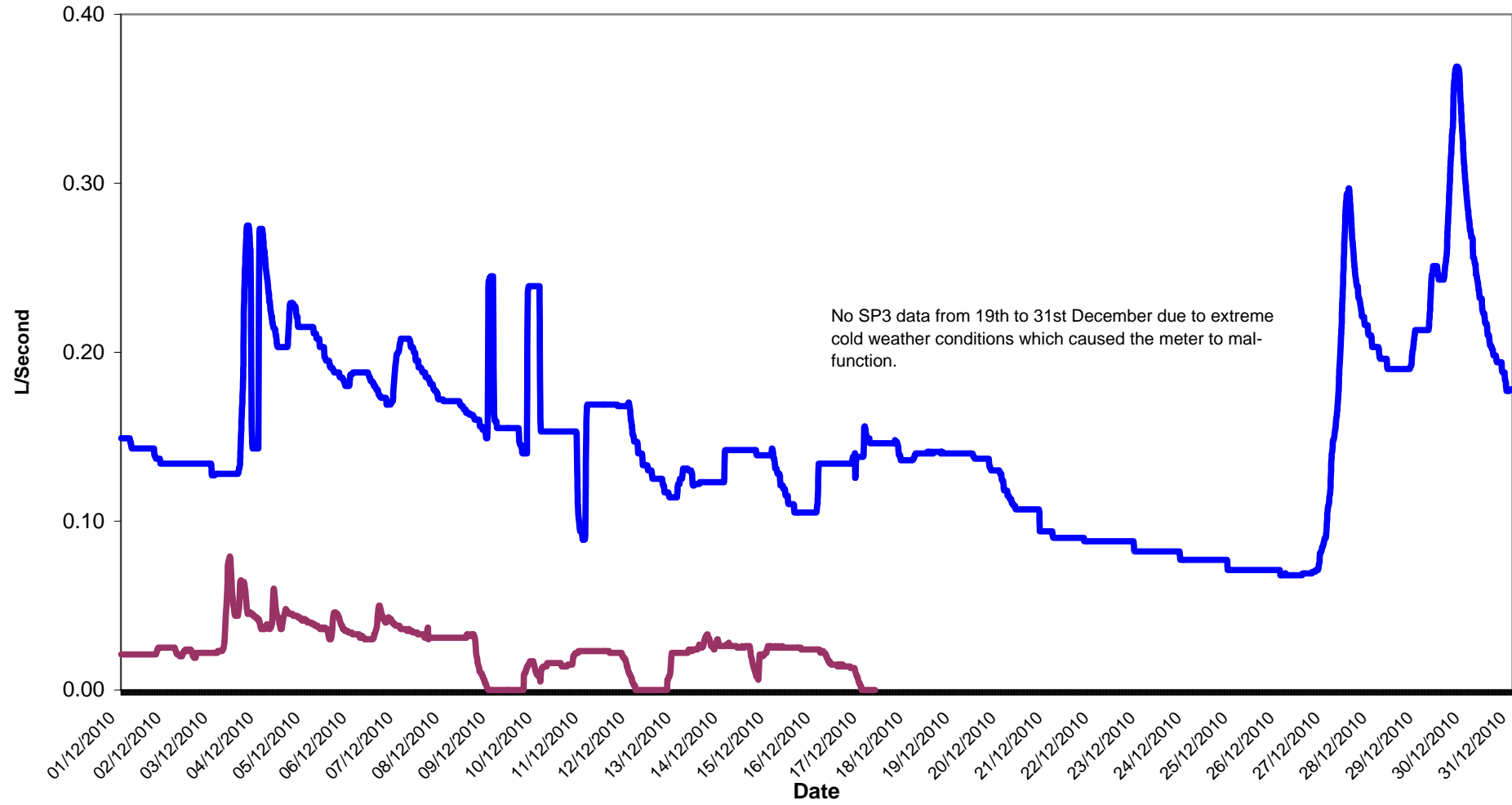
Ortho Action Limit Target Limit Composite



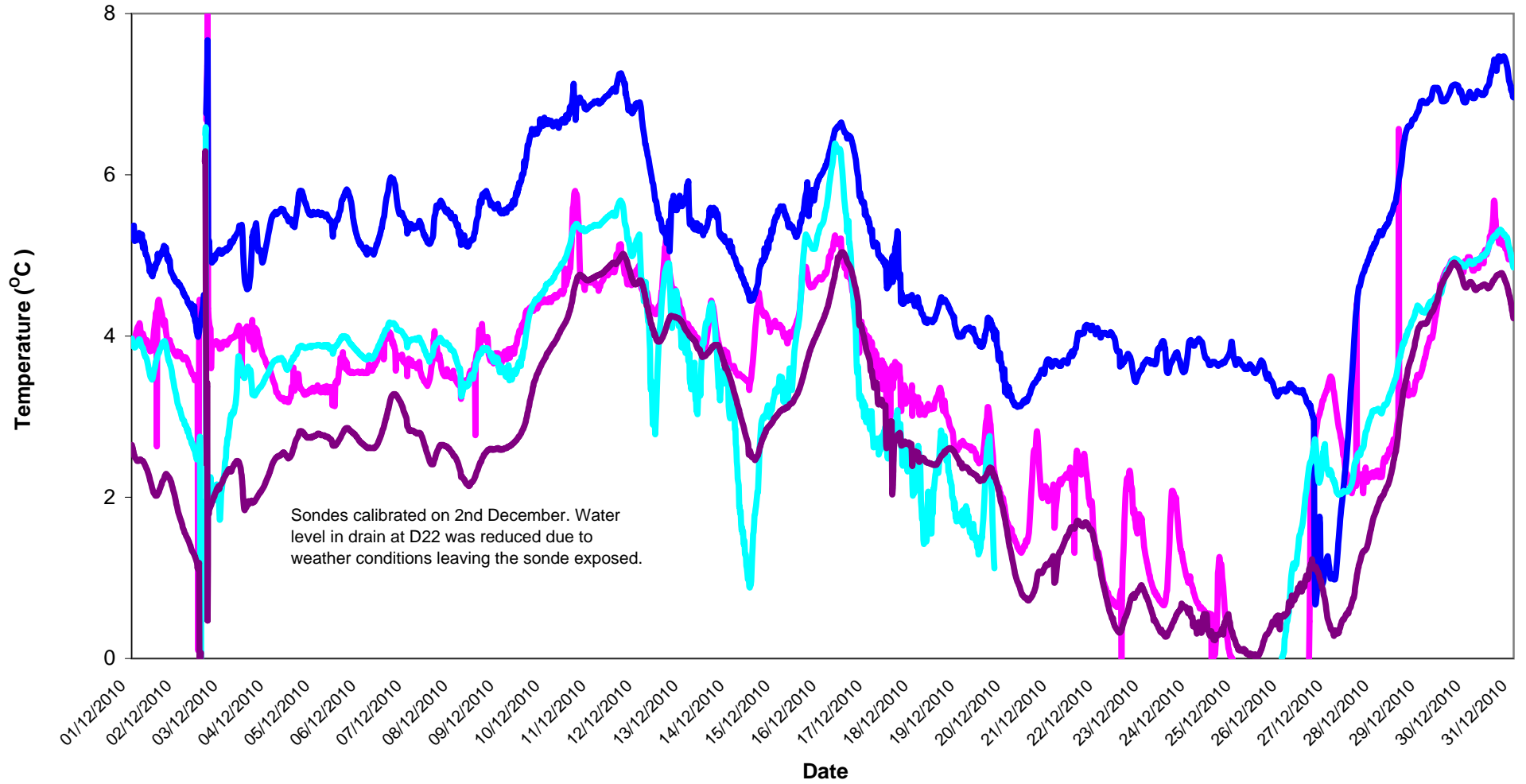
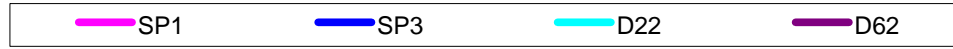
Aluminium Concentration at SP1 December 2010



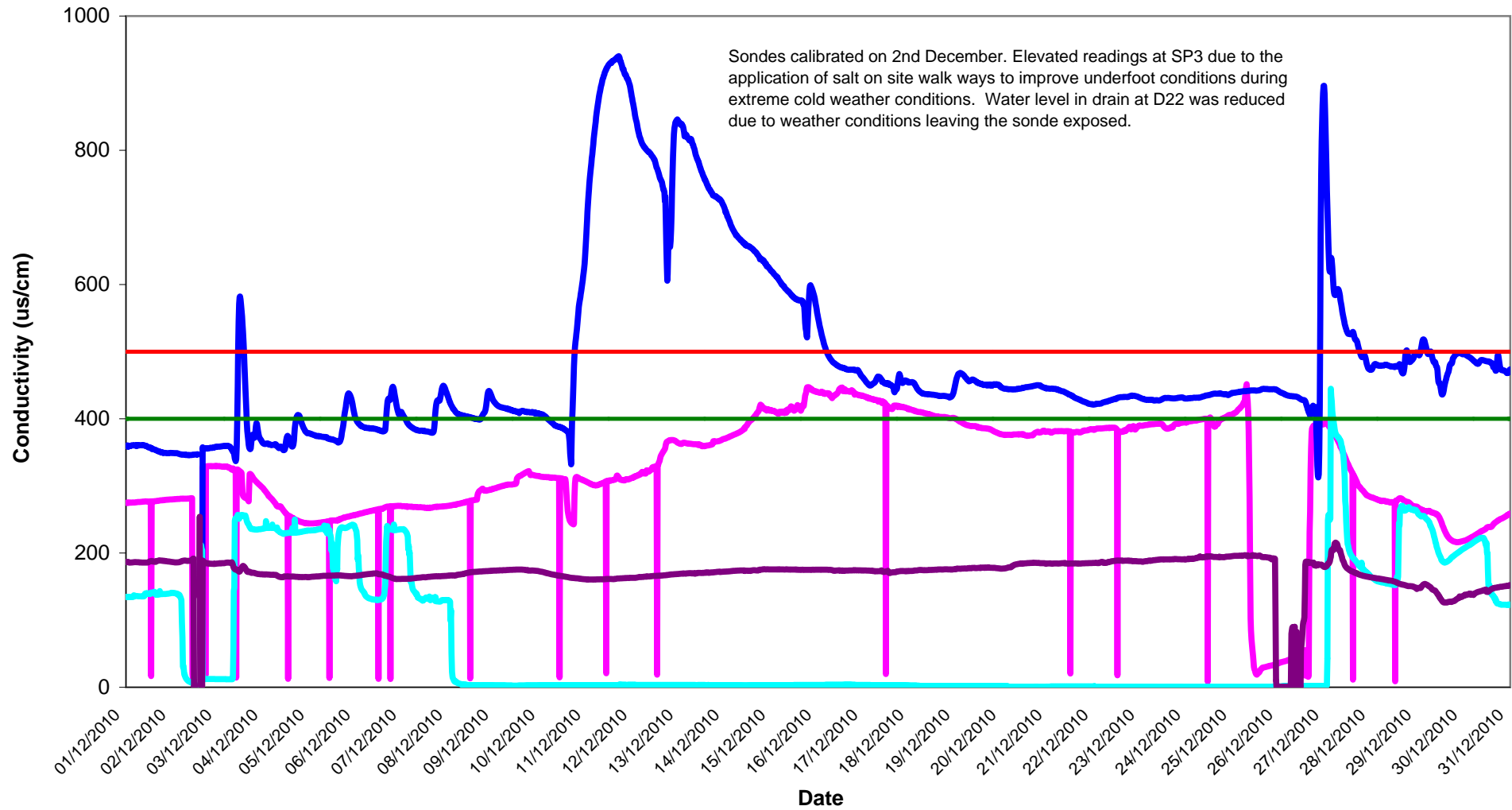
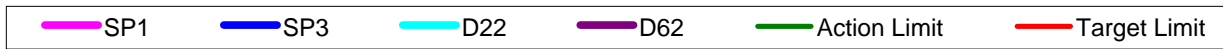
Surface Water Flow
Weir Flow
December 2010



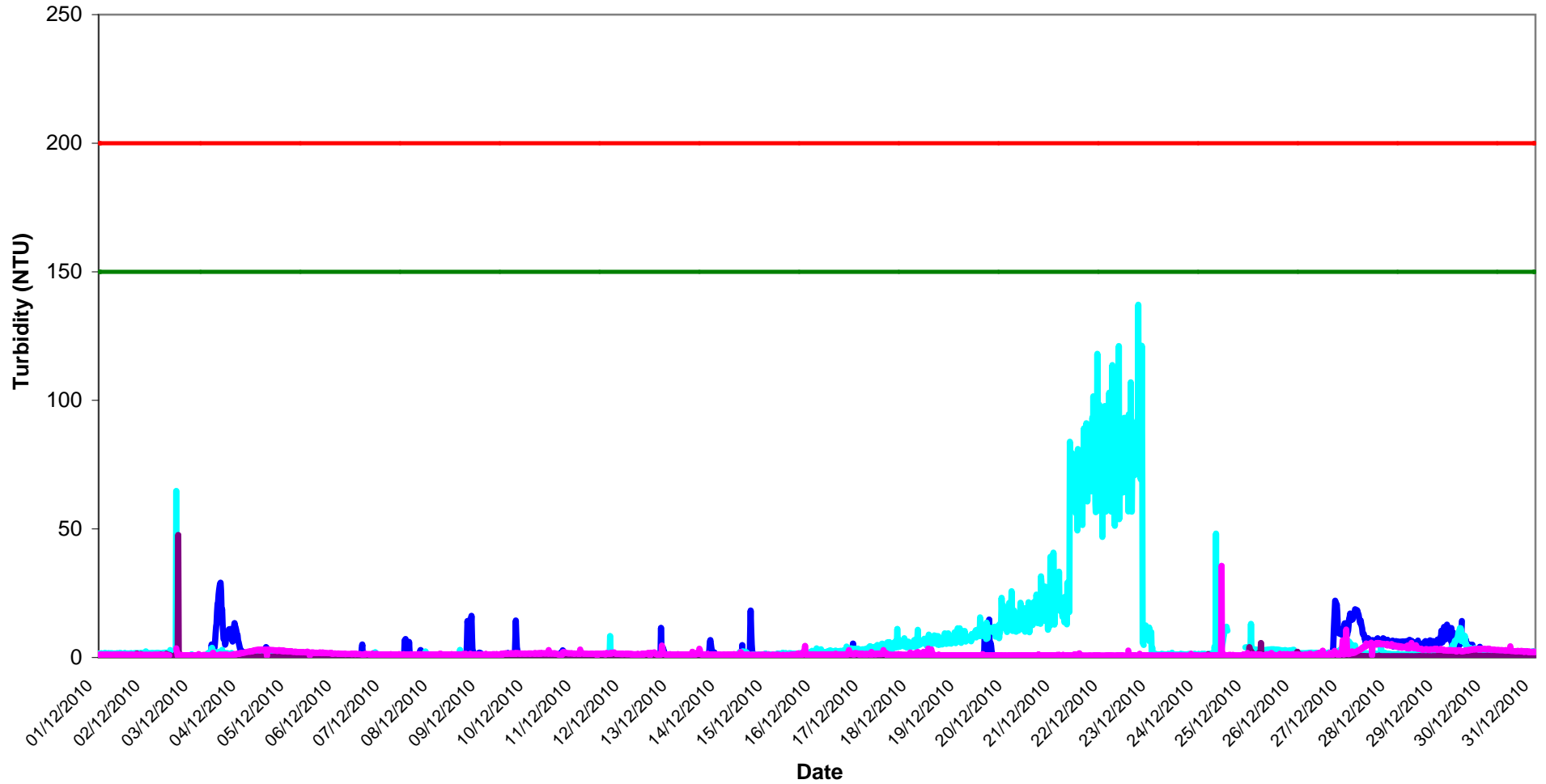
Temperature - Surface Waters December 2010



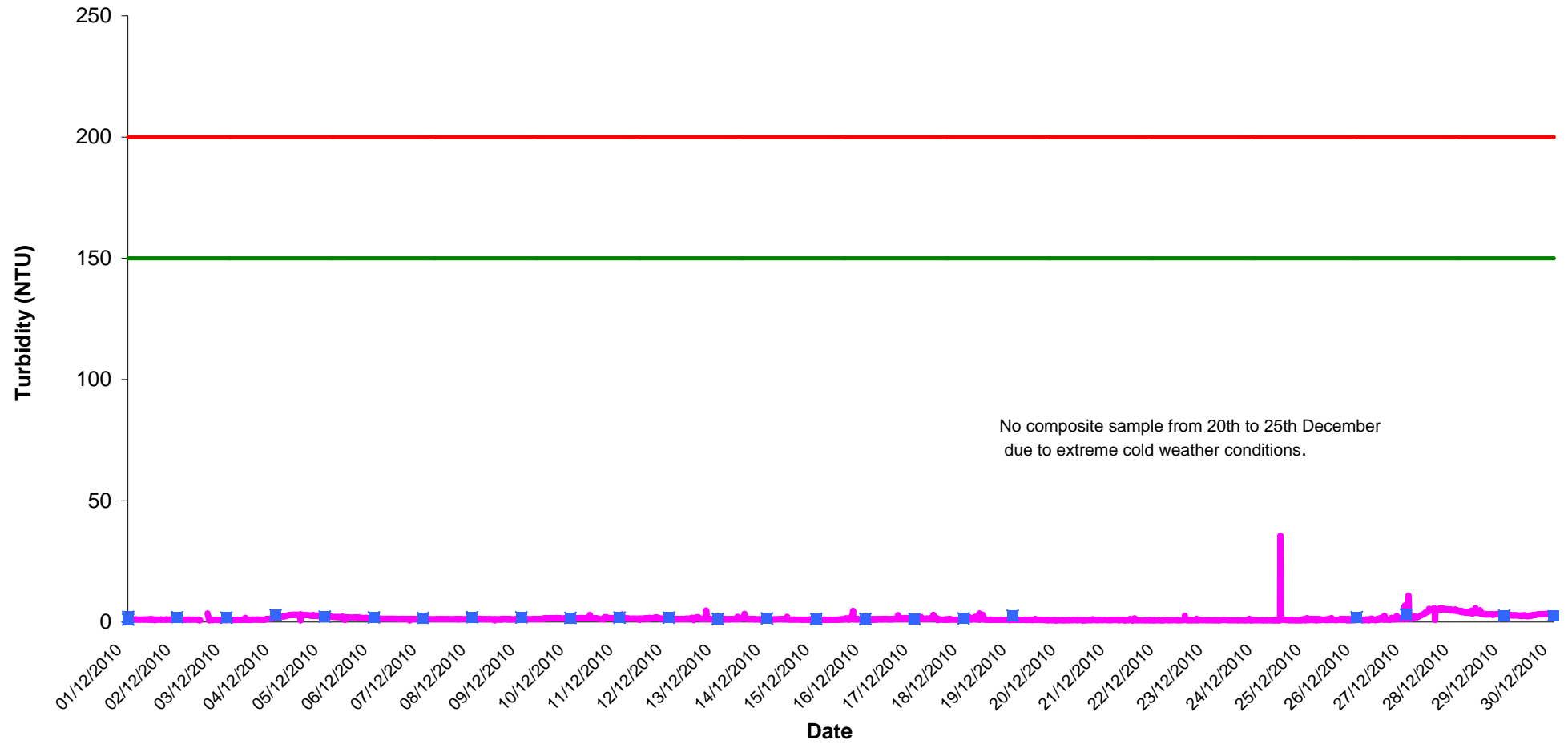
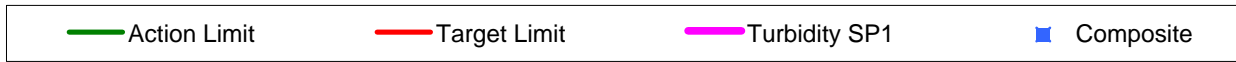
Conductivity - Surface Waters, December 2010



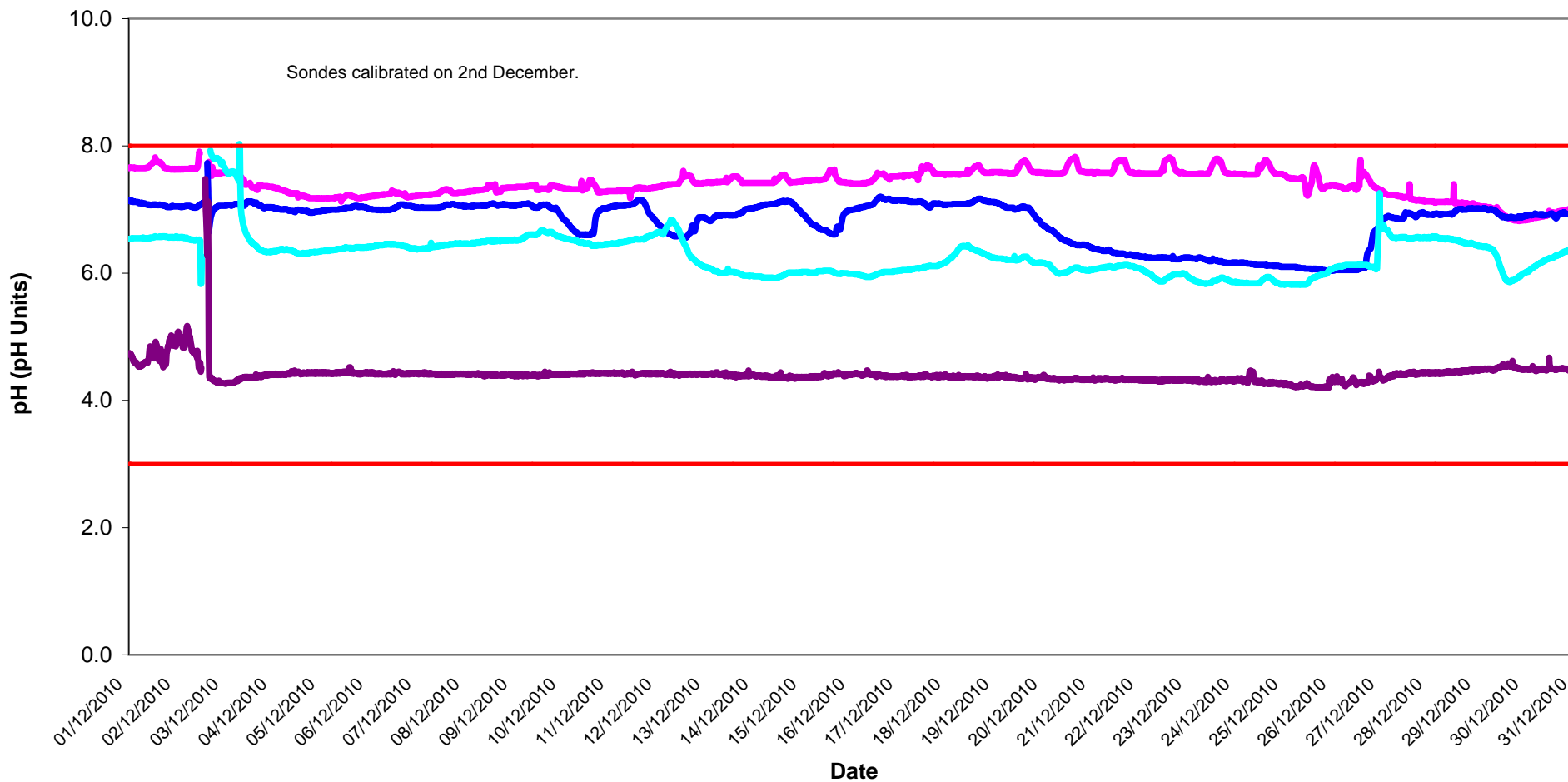
Turbidity - Surface Waters December 2010



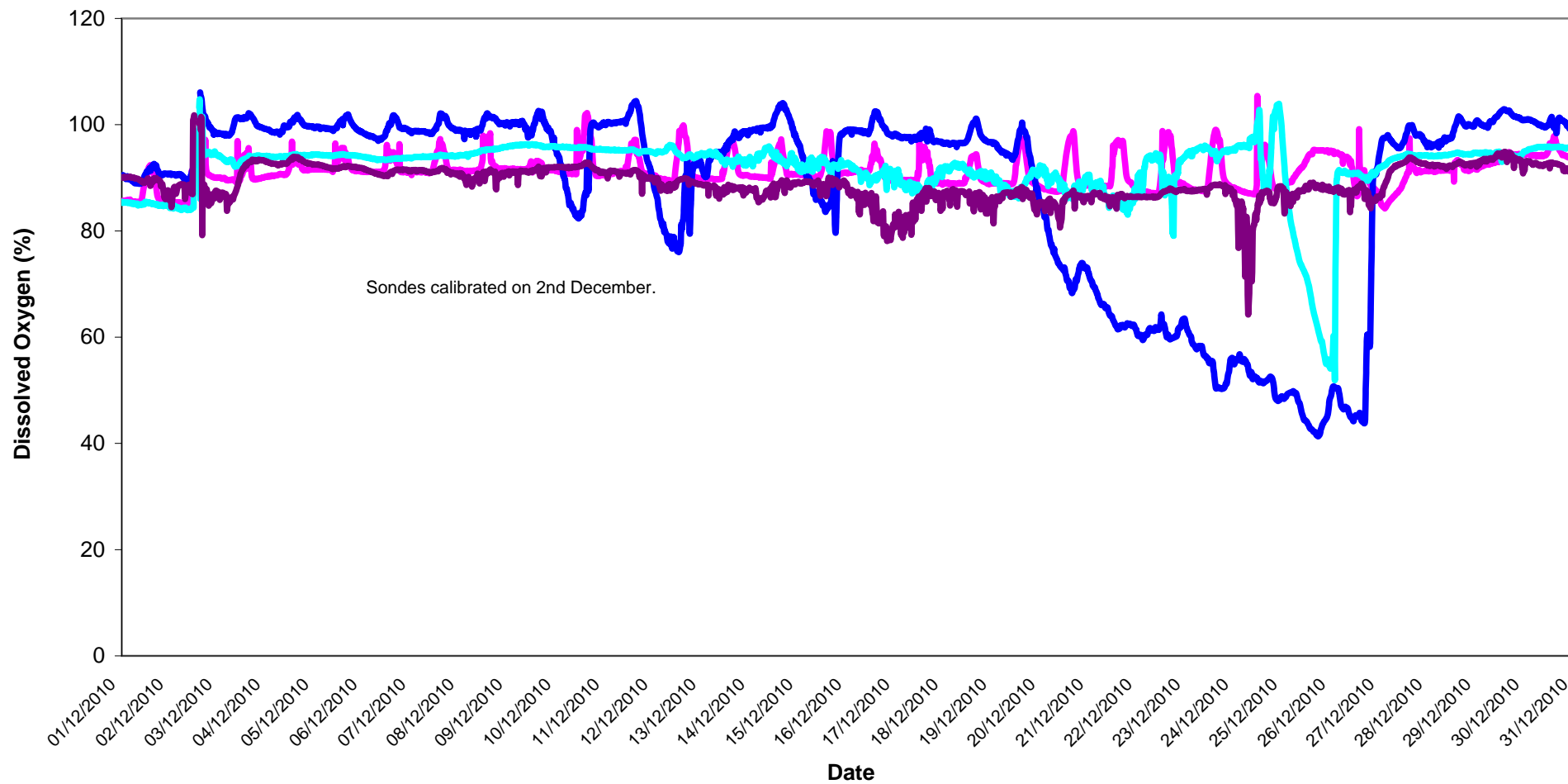
Turbidity - Surface Waters @ SP1 December 2010



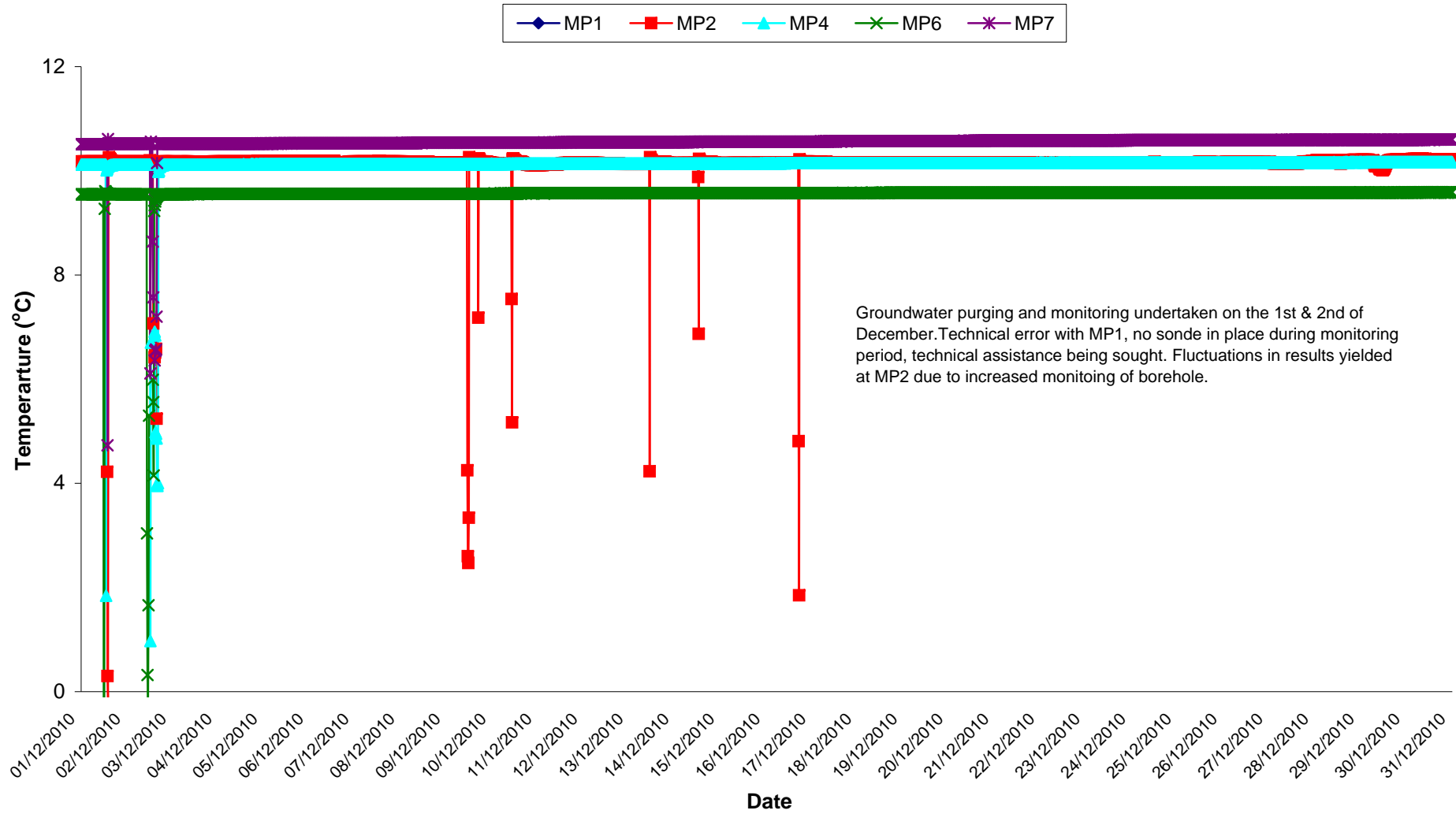
pH - Surface Waters December 2010



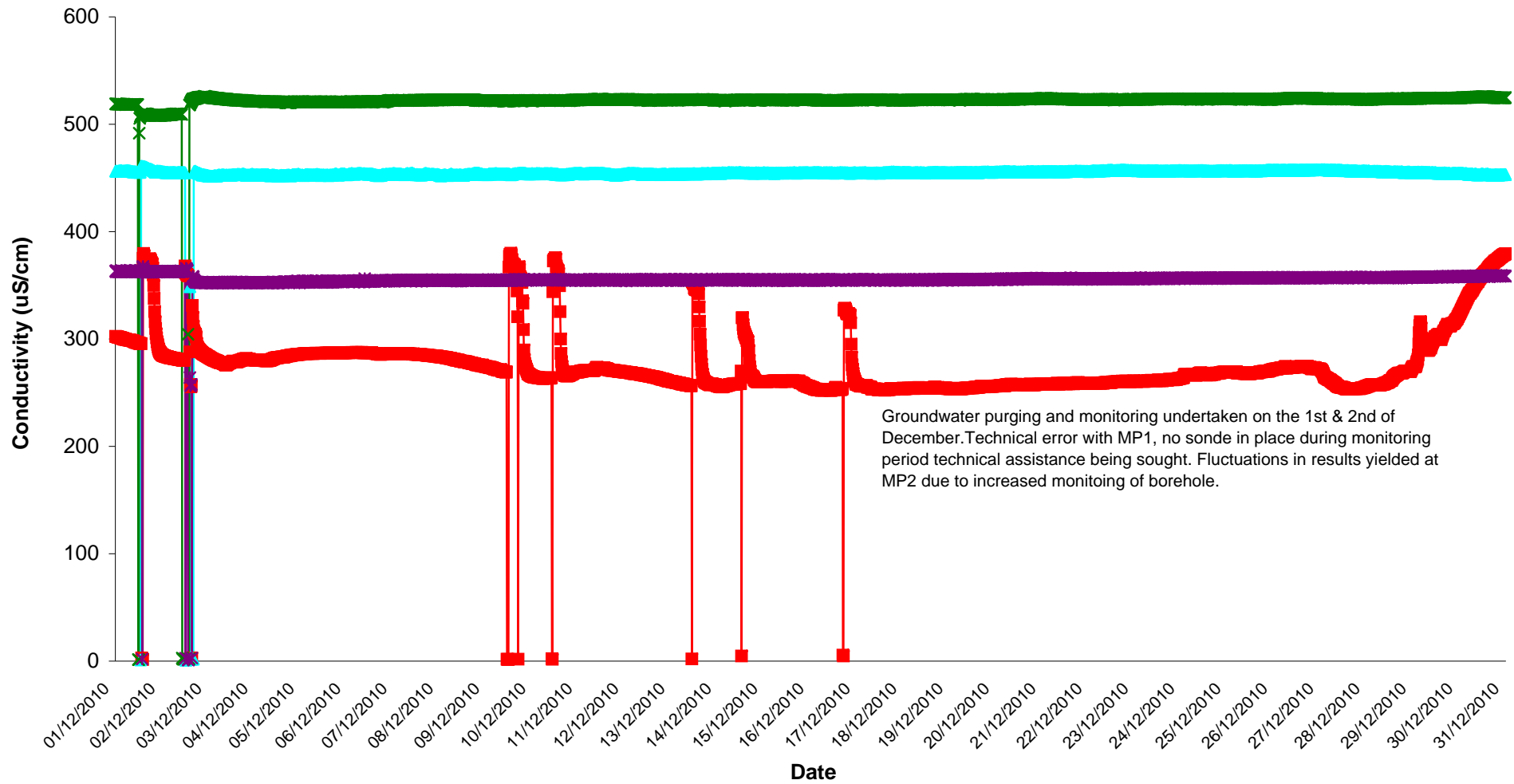
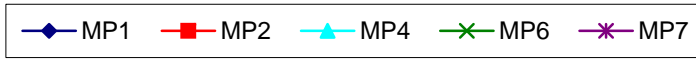
Dissolved Oxygen - Surface Waters December 2010



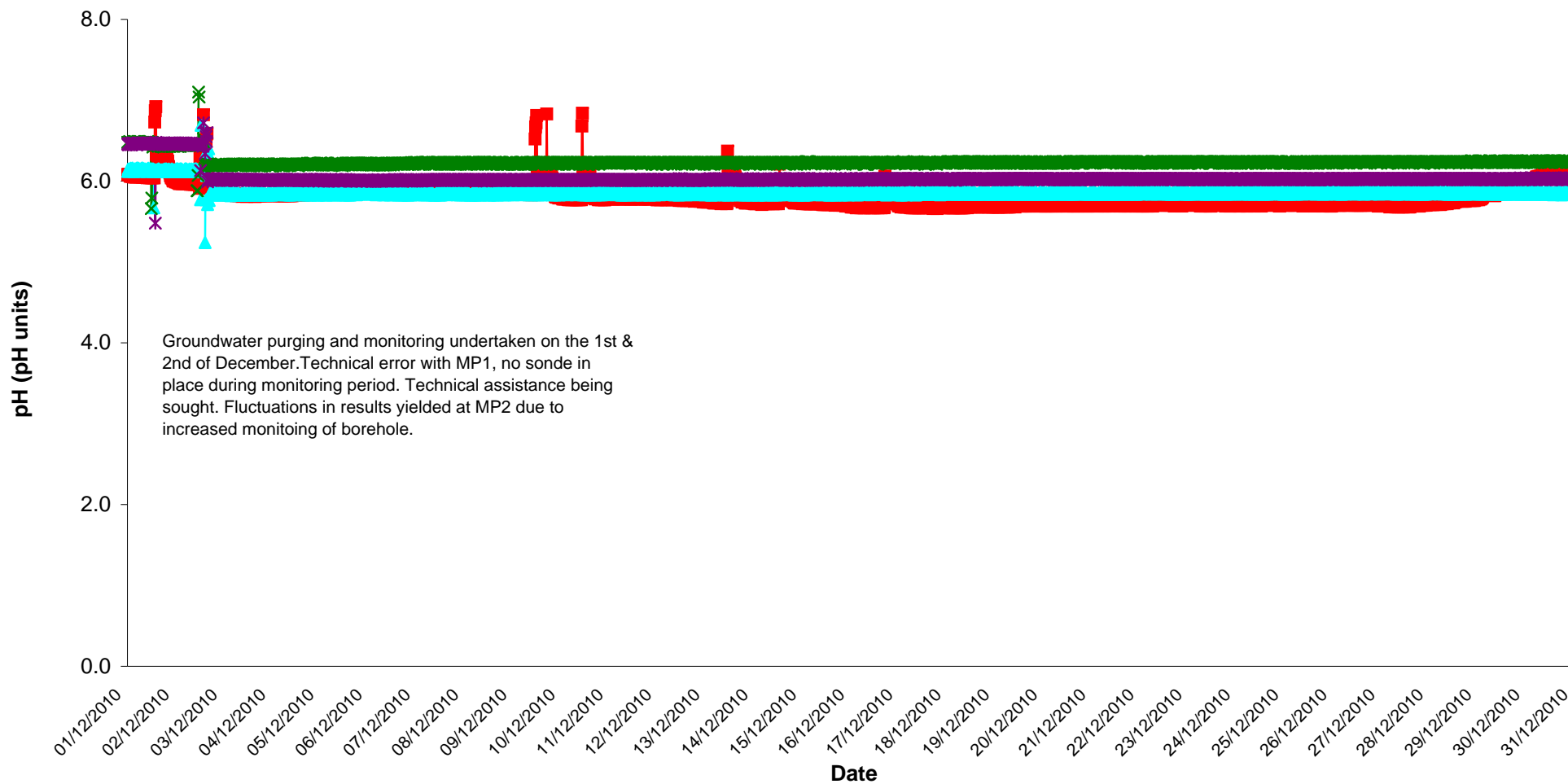
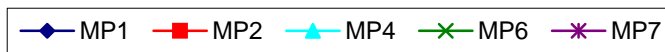
Temperature - Groundwaters December 2010



Conductivity - Groundwaters December 2010



pH - Groundwaters December 2010



Appendix 1

Appendix 1: Surface Water Monitoring Record Sheet- Onsite Monitoring

Location	Date	Temp	DO	Cond.	Turbidity	pH	TDS	Aluminium (Dissolved)	Aluminium (Total)
		C	% Sat	µS/cm	NTU	pH Units		ug/l	ug/l
Settlement Pond Monitoring									
SP1	01/12/2010	4.9	93.3	323	3.1	6.3	259	<LOD	59
SP1	02/12/2010	4.8	95.9	339	3.2	6.6	264	<LOD	77
SP1	03/12/2010	6.0	89.4	316	3.2	6.3	251	<LOD	53
SP1	06/12/2010	5.7	88.9	278	4.3	6.2	223	27	75
SP1	07/12/2010	4.5	89.6	273	4.3	6.9	212	29	72
SP1	08/12/2010	4.7	94.1	292	4.3	6.5	239	23	73
SP1	09/12/2010	5.6	88.4	308	3.6	6.2	249	<LOD	60
SP1	10/12/2010	5.9	86.6	316	5.7	6.2	270	26	97
SP1	13/12/2010	5.0	88.5	354	3.7	6.3	286	<LOD	62
SP1	14/12/2010	4.2	93.9	417	4.6	6.6	289	<LOD	64
SP1	15/12/2010			364	1.2	6.8	185	60	75
SP1	16/12/2010	6.4	88.9	430	4.1	6.4	277	<LOD	40
SP1	17/12/2010	4.4	92.0	433	4.7	6.9	309	<LOD	49
SP1	20/12/2010	3.1	95.3	365	5.5	6.4	249	<LOD	50
SP1	21/12/2010	4.4	81.5	361	5.5	6.4	238	20	57
SP1	22/12/2010	2.9	90.5	371	5.0	6.5	249	28	60
SP1	23/12/2010	1.9	82.8	351	4.5	6.8	234	<LOD	46
SP1	27/12/2010	4.0	91.1	325	21.5	6.7	260	25	64
SP1	29/12/2010	8.9	90.7	250	9.7	6.3	168	<LOD	49
SP1	31/12/2010	8.4	85.8	250	4.1	6.5	166	27	66
Axonics Monitoring									
Location	Date	Temp	DO	Cond.	Turbidity	pH	TDS	Aluminium (Dissolved)	Aluminium (Total)
		C	% Sat	µS/cm	NTU	% Sat		ug/l	ug/l
Pre	01/12/2010			313	78.8	6.7	249	160	
Post	01/12/2010			347	4.1	6.8	273	<LOD	334
Pre	02/12/2010			333	33.8	7.3	265	106	
Post	02/12/2010			376	3.9	7.2	277	<LOD	309
Pre	03/12/2010			374	105.0	6.6	297	258	
Post	03/12/2010			361	3.4	6.4		<LOD	236
Pre	06/12/2010			376	6.7	6.5	295	255	
Post	06/12/2010			379	4.3	6.5	304	25	312
Pre	07/12/2010			356	30.9	6.9	285	109	
Post	07/12/2010			360	4.7	6.9	293	29	423
Pre	08/12/2010			369	52.3	6.6	296	210	
Post	08/12/2010			378	3.5	6.5	305	<LOD	236
Pre	09/12/2010			385	135.0	6.6	308	263	
Post	09/12/2010			402	4.1	6.5	320	<LOD	252
Pre	10/12/2010			657	148.0	6.4	524	213	
Post	10/12/2010			622	4.1	6.5	496	<LOD	212
Pre	13/12/2010			572	99.2	6.6	534	312	
Post	13/12/2010			709	3.6	6.6	565	<LOD	334
Pre	14/12/2010			547	80.0	7.0	359	217	
Post	14/12/2010			539	9.3	7.0	356	26	291

Grey shaded areas denote parameters that cannot or were not analysed
 = Indicative Only
 < LOD = Below Limit of Detection > LOD = Above Limit of Detection

Location	Date	Temp	DO	Cond.	Turbidity	pH	TDS	Aluminium (Dissolved)	Aluminium (Total)	
		oC	% Sat	µS/cm	NTU			ug/l	ug/l	
Settlement Pond Monitoring										
SP3	01/12/2010	5.0	90.1	355	2.7	6.7	279	<LOD		
SP3	02/12/2010	3.4	96.0	343	3.1	7.3	273	<LOD		
SP3	03/12/2010	5.0	93.6	549	3.9	6.4	432	<LOD		
SP3	06/12/2010	6.2	90.5	376	3.7	6.4	295	<LOD		
SP3	07/12/2010	5.2	91.7	365	4.6	6.9	288	20		
SP3	08/12/2010	5.2	92.1	379	2.8	6.4	306	<LOD		
SP3	09/12/2010	6.2	89.5	391	2.6	6.4	316	<LOD		
SP3	10/12/2010	7.1	73.9	366	2.7	6.4	295	<LOD		
SP3	13/12/2010	5.5	87.3	721	6.1	6.3	574	20		
SP3	14/12/2010	4.6	91.3	610	3.7	7.0	393	<LOD		
SP3	15/12/2010			468	0.6	6.7	239	44		
SP3	16/12/2010	7.0	91.1	438	3.2	6.7	290	<LOD		
SP3	17/12/2010	4.6	91.8	413	3.2	6.8	271	<LOD		
SP3	20/12/2010	3.8	75.0	415	3.3	6.5	275	<LOD		
SP3	21/12/2010	4.5	61.1	391	4.3	6.5	258	24		
SP3	22/12/2010	3.5	67.9	405	3.9	7.4	261	<LOD		
SP3	23/12/2010	3.8	52.9	407	10.6	6.5	268	<LOD		
SP3	27/12/2010	5.5	92.0	480	10.0	6.9	309	<LOD		
SP3	29/12/2010	7.6	93.3	442	8.3	6.5	289	<LOD		
SP3	31/12/2010	8.5	88.7	405	5.1	6.4	258	<LOD		
Axonics Monitoring										
Location	Date	Temp	DO	Cond	Turbidity	pH	TDS	Aluminium (Dissolved)	Aluminium (Total)	
		C	% Sat	µS/cm	NTU			ug/l	ug/l	
Pre	15/12/2010			473	45.3	7.0	243	112		
Post	15/12/2010			511	0.8	6.8	261	37	227	
Pre	16/12/2010			410	90.3	6.5	267	196		
Post	16/12/2010			434	4.9	6.9	283	23	284	
Pre	17/12/2010			380	121.0	6.9	248	179		
Post	17/12/2010			409	3.7	6.8	268	31	232	
Pre	20/12/2010			Axonics not operational						
Post	20/12/2010			Axonics not operational						
Pre	21/12/2010			Axonics not operational						
Post	21/12/2010			Axonics not operational						
Pre	22/12/2010			Axonics not operational						
Post	22/12/2010			Axonics not operational						
Pre	23/12/2010			Axonics not operational						
Post	23/12/2010			Axonics not operational						
Pre	27/12/2010			450	81.5	6.8	287	270		
Post	27/12/2010			469	16.1	6.9	296	39	334	
Pre	29/12/2010			434	29.9	6.7	284	105		
Post	29/12/2010			454	5.8	6.7	297	21	405	
Pre	31/12/2010			344	99.6	6.3	220	115		
Post	31/12/2010			417	5.5	6.4	266	<LOD	440	