

Interim Environmental Report

Period Ending: 3rd September 2008

Compiled By: Aoife Reynolds, Siobhán Quinn, Catriona King & Thomas McGlynn

Approved By: Tony Doyle

1 Monitoring Data

1.1 Monitoring Equipment

Axonics	– Axonics plant operated as required for the majority of the reporting period.
PO ₄	<ul style="list-style-type: none"> – The PO₄ analyser was operational during the reporting period. – The composite sampler was in place to cover any shortfalls in the PO₄ analyser.
TSS	<ul style="list-style-type: none"> – The TSS analyser was operational during the reporting period. – The composite sampler was in place to cover any shortfalls in the TSS analyser.
Composite	– The composite sampler was operational during the reporting period.
Noise	<ul style="list-style-type: none"> – There is a single noise monitoring location currently being used – N1. – The other location is visible from off-site and because of current protestor action it cannot be guaranteed that the equipment remains undisturbed.
Vibration	<ul style="list-style-type: none"> – There is a single vibration monitoring location currently being used – V1. – The other location is visible from off-site and because of current protestor action it cannot be guaranteed that the equipment remains undisturbed.
Sondes	<ul style="list-style-type: none"> – The results are displayed graphically. <ul style="list-style-type: none"> ○ 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	– Weirs were operational during the reporting period.

1.2 Rainfall Data

21/08/08	0.00	28/08/08	2.34
22/08/08	0.00	29/08/08	2.54
23/08/08	12.68	30/08/08	5.27
24/08/08	2.93	31/08/08	7.22
25/08/08	3.32	01/09/08	6.63
26/08/08	2.93	02/09/08	2.73
27/08/08	1.56	03/09/08	11.31
Total Rainfall 61.43mm			

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1.3 Summary

Environment	Comments
Surface Water	There was no exceedance during the reporting period.
Groundwater	The groundwater data (Sonde) is within anticipated ranges.
Dust	Awaiting dust results.
Weather	There was a total of 61.43mm of rainfall during the reporting period, with a temperature range of 9.4°C to 18.7°C
Noise	All noise levels were within the set limits.
Vibration	Results were within limits.

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

2 Environmental Exceedences / Incidents / Complaints

There was no exceedance during the reporting period.

Surface Water Monitoring Record Sheet: Accredited Laboratory Results																		
	Date	Cond.	Temp	Turbidity	DO	pH	TSS	Ortho-phosphate as P	Nitrate as N	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	°C	NTU	% Sat	pH units	mg l ⁻¹	µg l ⁻¹	mg 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		<3.5 or >7.5	25	40	1.5	4.0		0.2	0.025	100	135			
Target Limits		500		200		<3 or >8	35	70	2.6	6.0		0.5	0.05	150	200			
SP1	21/08/2008	326		2.1		7.4	2	21		0.762	0.230	<0.005	0.020	33	71	0.063	151	
SP3	21/08/2008	342		1.0		6.9	<2	18		1.124	0.042	<0.005	0.022	<20	38	0.056	159	
SP1	28/08/2008	308		1.4		8.1	<2	<10		<0.440	0.240	<0.005	0.024	27	48	<0.030	143	
SP3	28/08/2008	322		1.8		7.6	<2	<10		0.734	0.019	<0.005	0.032	21	61	<0.030	150	
SP1	02/09/2008	I.P.		I.P.		I.P.	I.P.	I.P.		I.P.	I.P.	I.P.	I.P.	I.P.	I.P.	I.P.	I.P.	
SP3	02/09/2008	I.P.		I.P.		I.P.	I.P.	I.P.		I.P.	I.P.	I.P.	I.P.	I.P.	I.P.	I.P.	I.P.	
Additional Monitoring																		
D22	21/08/2008	290		1.4		6.6	4	40		<0.440	0.060	<0.005	<0.017	58	59	0.124	135	
D62	21/08/2008	218		0.4		4.6	<2	19		<0.440	0.023	0.007	0.025	61	67	0.058	104	
Axonics Monitoring																		
Pre Axonics	21/08/2008	337		23.8		6.8	23	25		1.000	1.578	0.108	0.024	<20	510	0.076	156	
Post Axonics	21/08/2008	347		6.8		6.4	9	18		1.587	0.041	0.118	0.032	<20	1027	0.056	161	
Pre Axonics	02/09/2008	I.P.		I.P.		I.P.	I.P.	I.P.		I.P.	I.P.	I.P.	I.P.	I.P.	I.P.	I.P.	I.P.	
Post Axonics	02/09/2008	I.P.		I.P.		I.P.	I.P.	I.P.		I.P.	I.P.	I.P.	I.P.	I.P.	I.P.	I.P.	I.P.	
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		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		
MP 1																									
MP 2																									
MP 3																									
MP 4																									
MP 5																									
MP 6																									
MP 7																									
MP 8																									
MP 10a																									
MP 11																									

Graphs provided for MP1, MP2,MP4, MP6 and MP7 for: Temperature, Conductivity, and pH.
No Groundwater Monitoring Undertakend during The Reporting Period

Determinant Results										*Comments			
Location	Air Temp. (Max)	Air Temp. (Min)	Start Date	Time	Duration	Serial No.	Wind		Results dB				
							Speed (m/s)*	Direction (Degrees)	L _{Aeq}			L _{Amax}	L _{Amin}
Action Limit									60				
Target Limit									65				
N1	13.8	9.5	21/08/2008	08:00:00	14:00:00	2539533	3.1	158.3	47.5	86.5	33.6		
N1	14.6	12.6	22/08/2008	08:00:00	14:00:00	2539533	3.0	118.8	45.3	72.4	<LOD		
N1	15.4	13.7	25/08/2008	08:00:00	14:00:00	2539533	5.3	55.5	49.5	78.3	32.6		
N1	15.1	12.2	26/08/2008	08:00:00	14:00:00	2539533	4.7	40.1	50.2	81.3	35.0		
N1	15.2	14.8	27/08/2008	08:00:00	14:00:00	2539533	3.8	52.6	48.2	73.3	31.4		
N1	15.7	14.6	28/08/2008	08:00:00	14:00:00	2539533	3.6	56.2	47.9	81.5	<LOD		
N1	16.2	14.4	29/08/2008	08:00:00	14:00:00	2539533	4.1	42.9	49.1	72.7	<LOD		
N1	12.2	9.6	01/09/2008	08:00:00	14:00:00	2539533	3.2	94.8	50.3	85.7	36.4		
N1	12.3	10.4	02/09/2008	08:00:00	14:00:00	2539533	4.1	196.3	47.5	69.1	31.1		
N1	12.3	9.5	03/09/2008	08:00:00	14:00:00	2539533	4.8	119.5	45.8	70.1	34.7		

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

* 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	
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
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89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

Determinant Results												
Location	Air Temp. (Max)	Air Temp. (Min)	Start Date	Time	Duration	Serial No.	Wind		Results dB			*Comments
							Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}	
Action Limit									50			
Target Limit									55			
N1	13.8	9.5	21/08/2008	22:00:00	10:00:00	2539533	3.1	158.3	40.5	67.4	32.5	
N1	14.6	12.6	22/08/2008	22:00:00	10:00:00	2539533	3.0	118.8	43.2	77.3	<LOD	
N1	15.4	13.7	25/08/2008	22:00:00	10:00:00	2539533	5.3	55.5	42.7	69.6	<LOD	
N1	15.1	12.2	26/08/2008	22:00:00	10:00:00	2539533	4.7	40.1	44.4	71.6	32.4	
N1	15.2	14.8	27/08/2008	22:00:00	10:00:00	2539533	3.8	52.6	43.6	75.7	31.7	
N1	15.7	14.6	28/08/2008	22:00:00	10:00:00	2539533	3.6	56.2	42.9	66.1	<LOD	
N1	16.2	14.4	29/08/2008	22:00:00	10:00:00	2539533	4.1	42.9	44.6	80.6	31.0	
N1	12.2	9.6	01/09/2008	22:00:00	10:00:00	2539533	3.2	94.8	46.5	73.3	36.7	
N1	12.3	10.4	02/09/2008	22:00:00	10:00:00	2539533	4.1	196.3	46.3	73.4	31.1	
N1	12.3	9.5	03/09/2008	22:00:00	10:00:00	2539533	4.8	119.5	41.4	67.6	33.1	

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

Flow Weir Record Sheet**Determinant Results**

Date	SP1			SP3		
	Max (l/s)	Min (l/s)	Avg (l/s)	Max (l/s)	Min (l/s)	Avg (l/s)
21/08/2008	9.66	0.36	5.74	6.74	4.48	6.13
22/08/2008	9.48	3.32	8.08	6.26	4.69	5.33
23/08/2008	21.20	7.24	11.06	9.55	2.38	5.69
24/08/2008	19.03	11.70	13.84	7.47	4.48	6.35
25/08/2008	19.03	7.39	13.07	11.22	4.69	7.03
26/08/2008	13.76	3.80	8.26	5.57	1.89	4.45
27/08/2008	10.93	3.14	8.43	6.74	3.87	5.03
28/08/2008	11.90	3.23	7.71	7.98	1.03	3.83
29/08/2008	8.48	1.06	4.74	4.91	0.28	1.79
30/08/2008	15.33	8.00	9.50	6.26	3.87	4.97
31/08/2008	15.56	9.31	12.52	7.47	3.47	5.77
01/09/2008	41.39	12.30	18.80	9.55	3.28	5.90
02/09/2008	14.64	6.39	11.16	6.74	2.21	3.78
03/09/2008	66.17	7.85	24.13	15.76	2.56	6.86

Note: Negative values indicate low flow conditions.

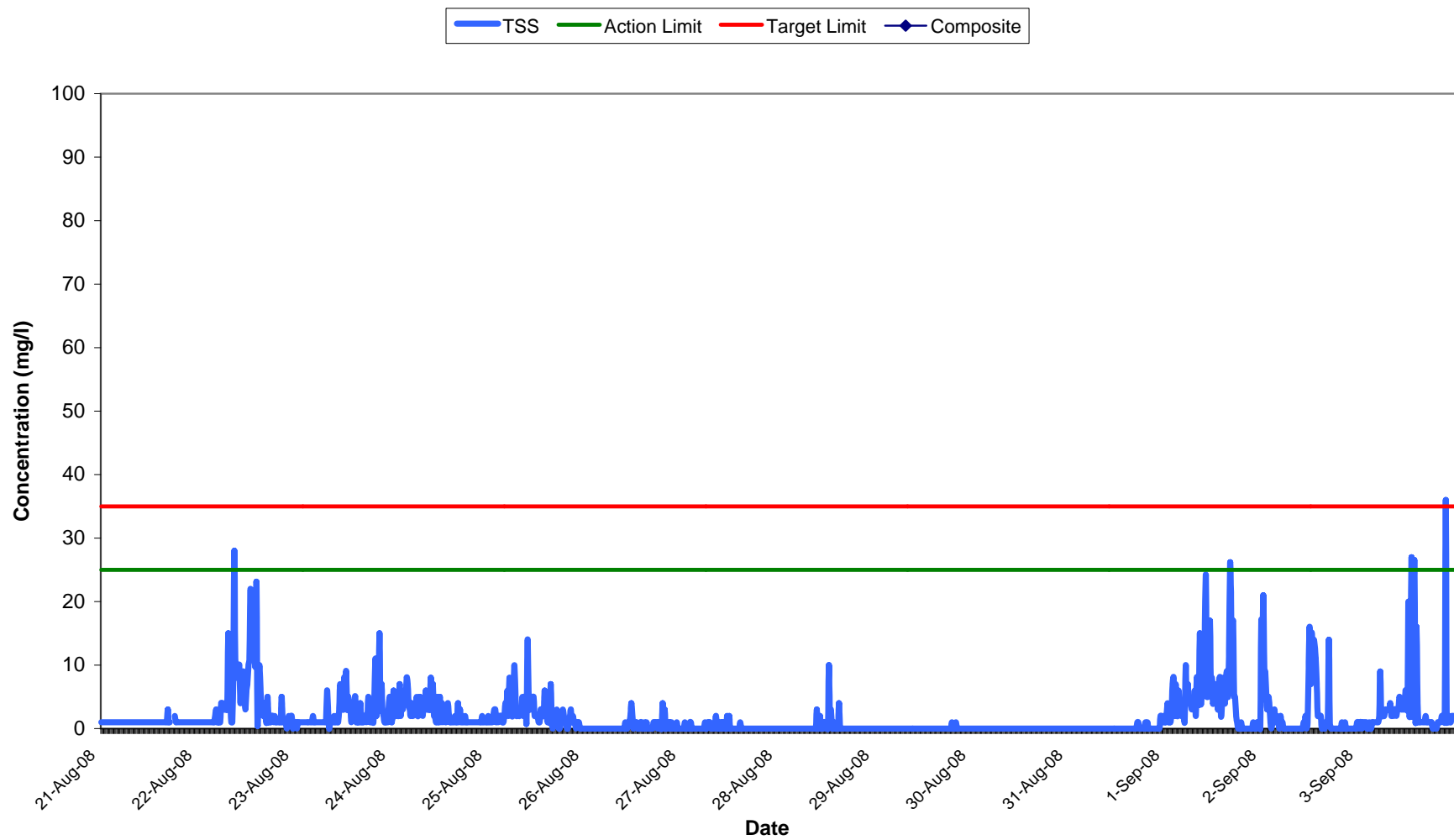
Vibration Monitoring Record Sheet

Determinant Results							

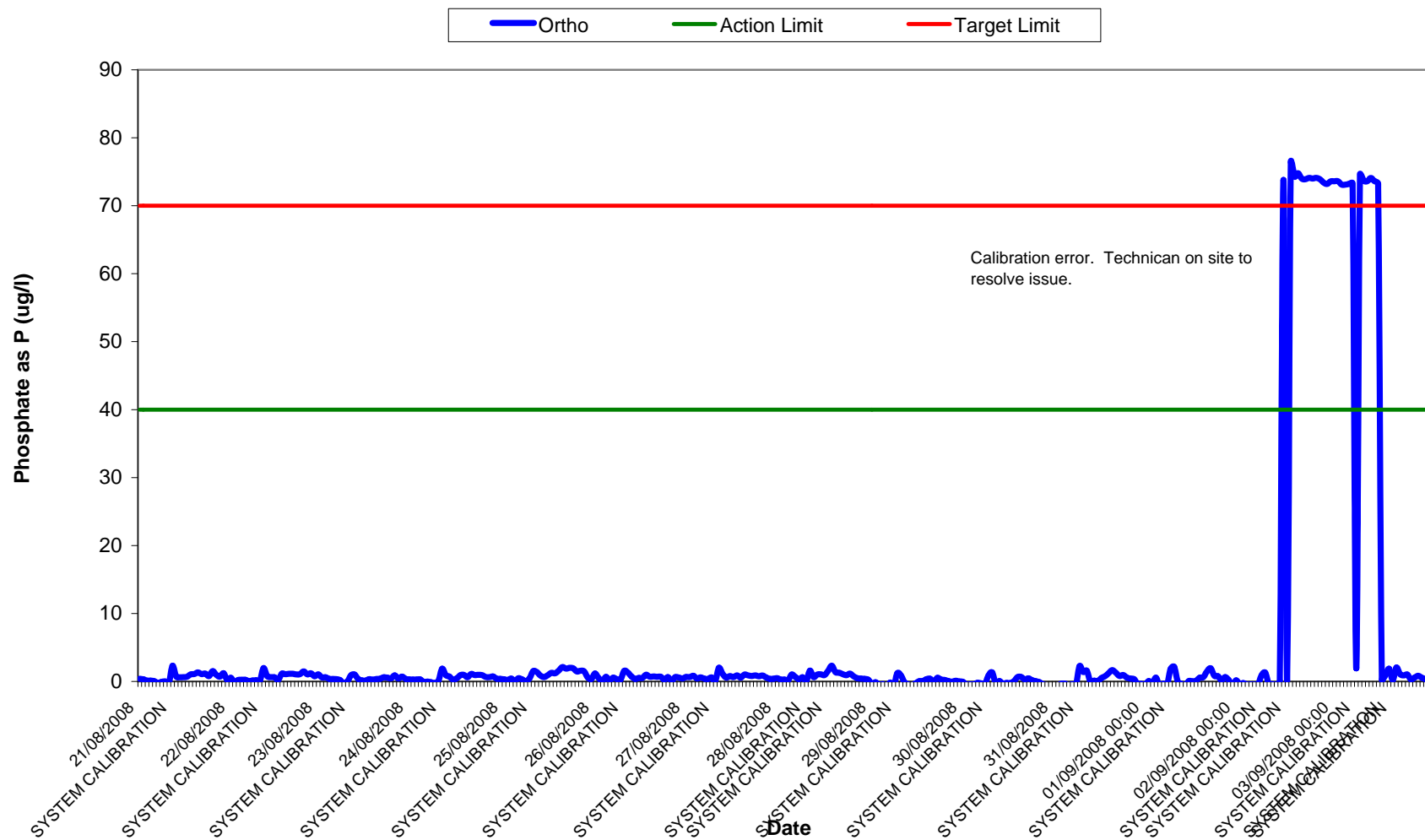
[illegible]

Vibration meter was located at V1 only.

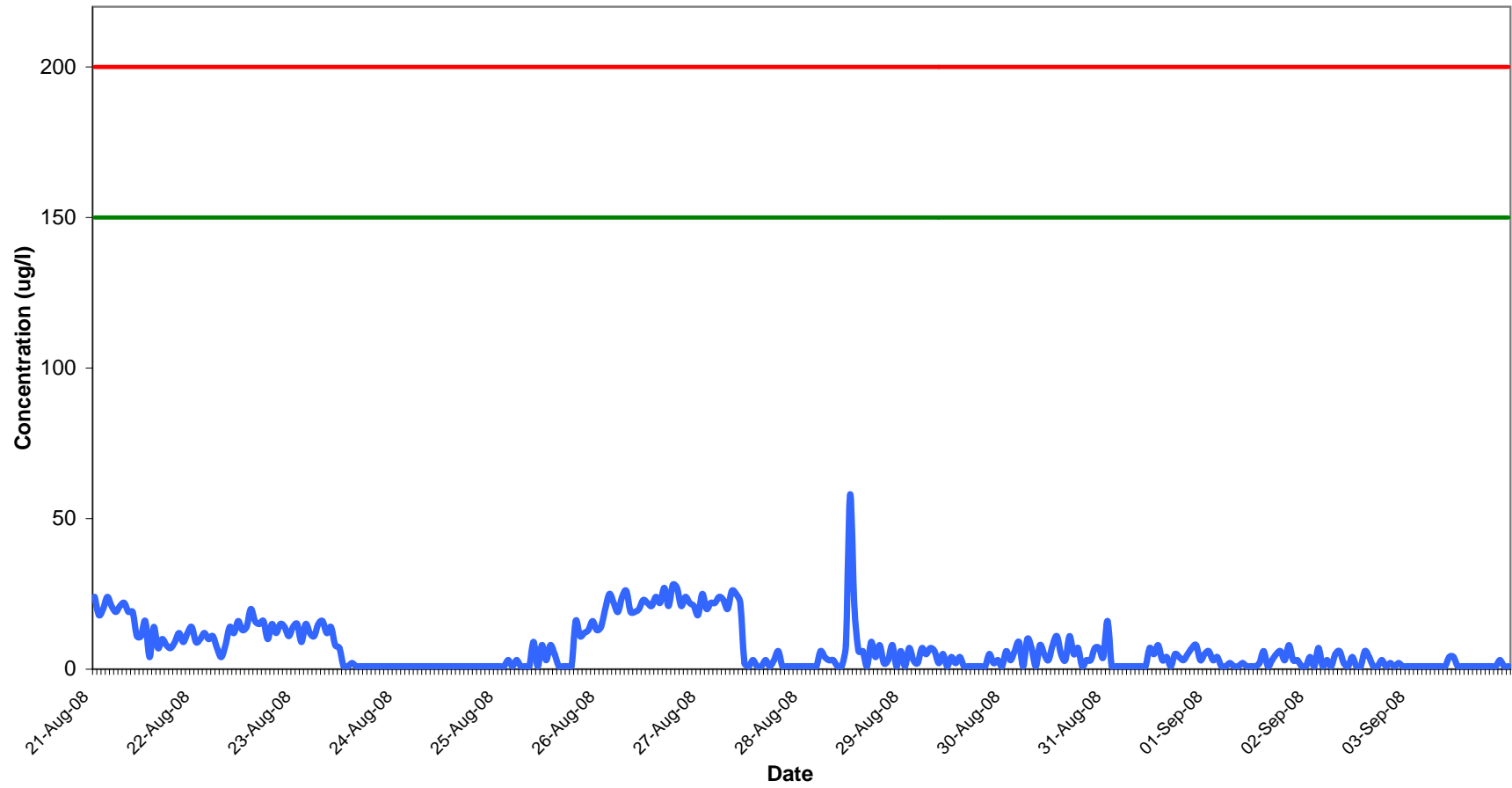
**Total Suspended Solids Results at SP1
Wk 35-36**



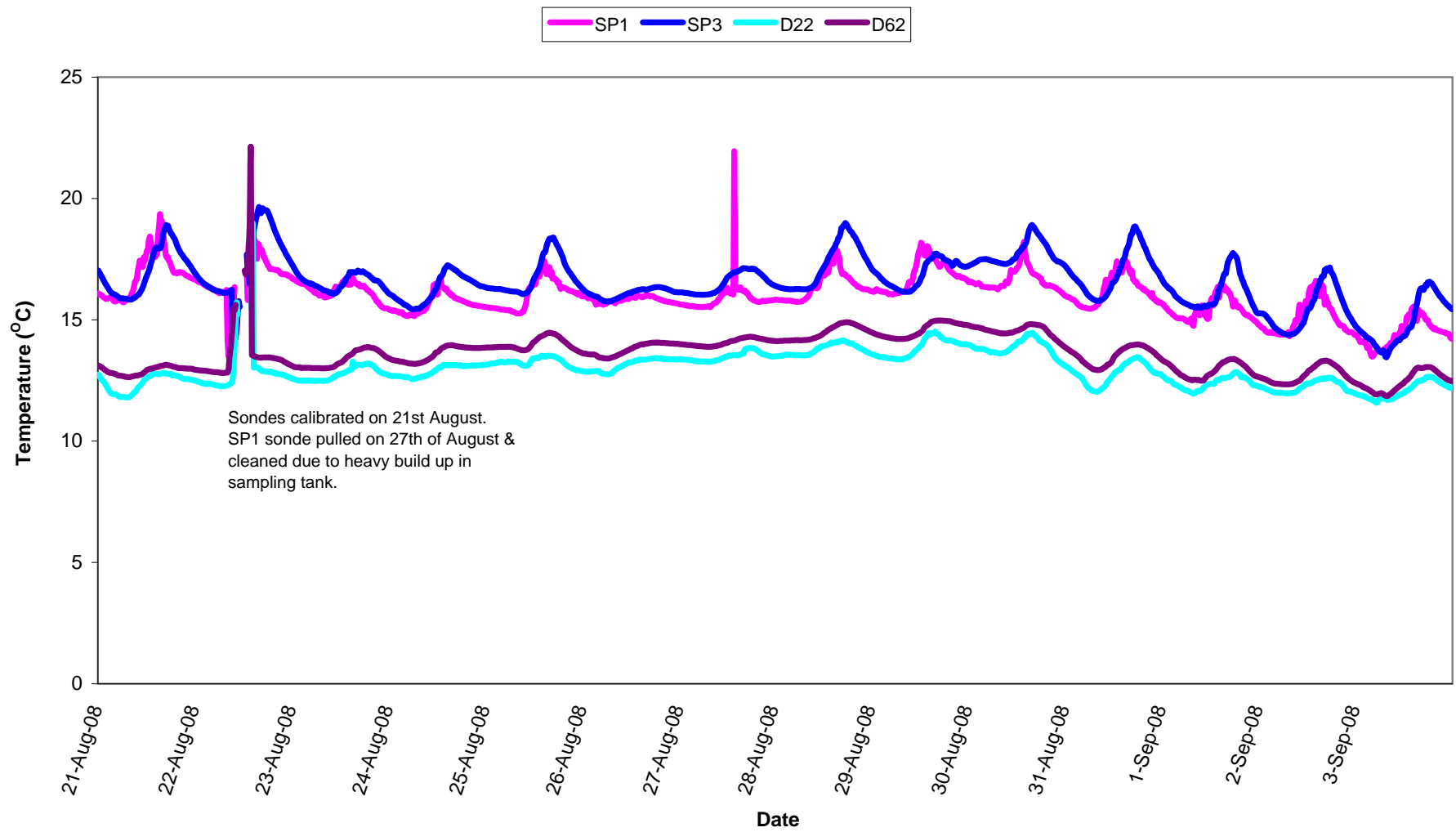
Orthophosphate Results at SP1 Wk 35-36



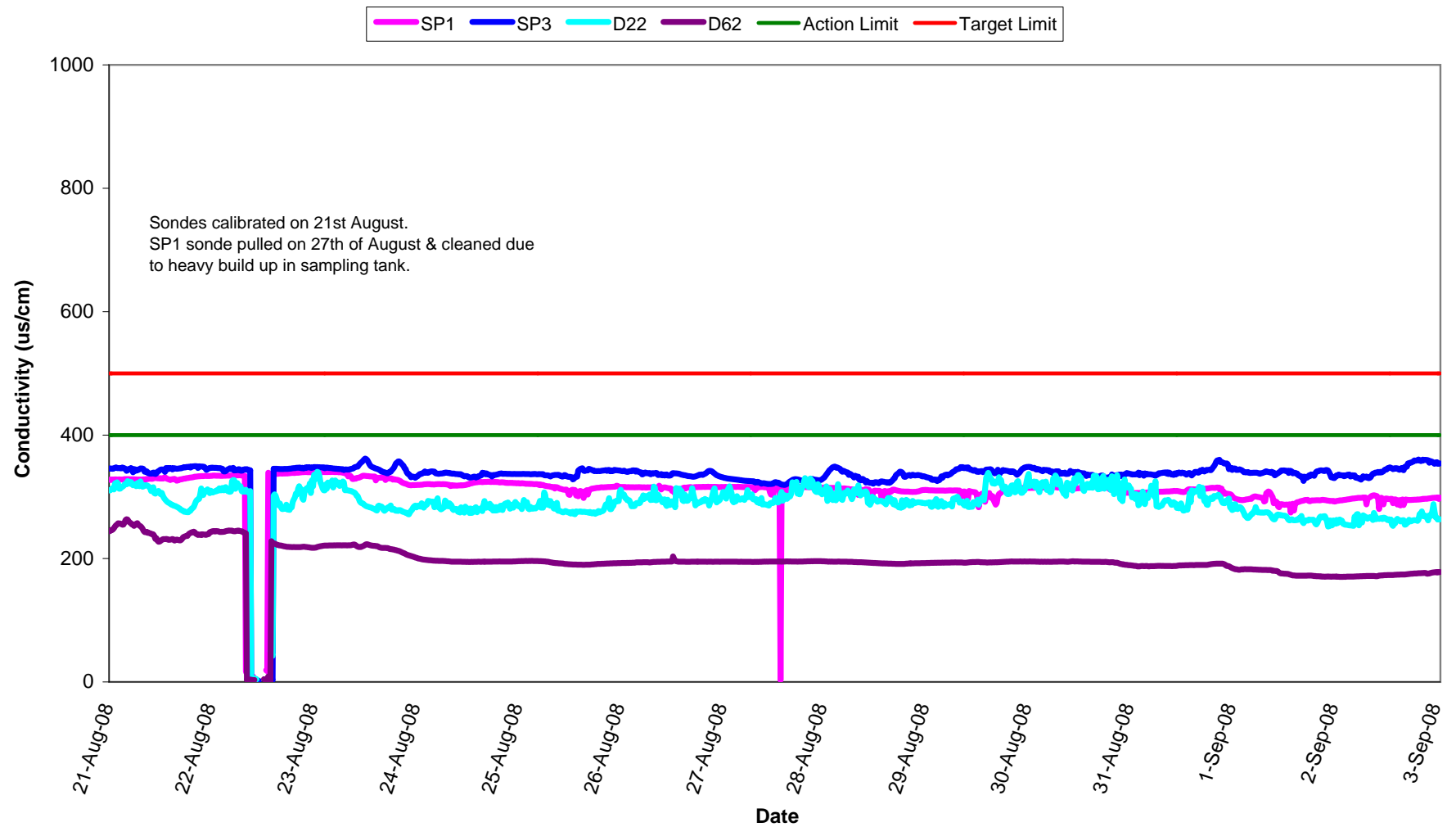
**Aluminium Concentration at SP1
Wk 35-36**



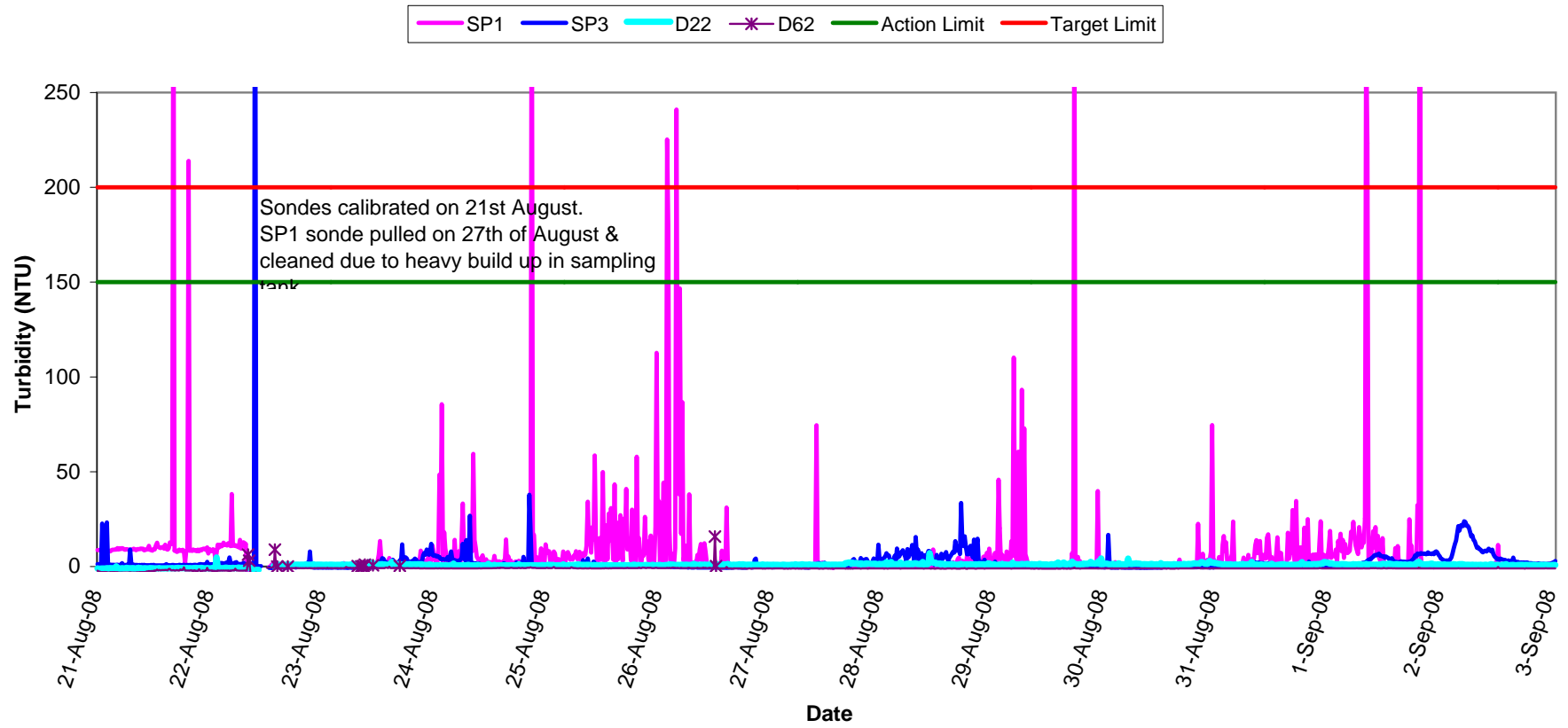
Temperature - Surface Waters Wk 35-36



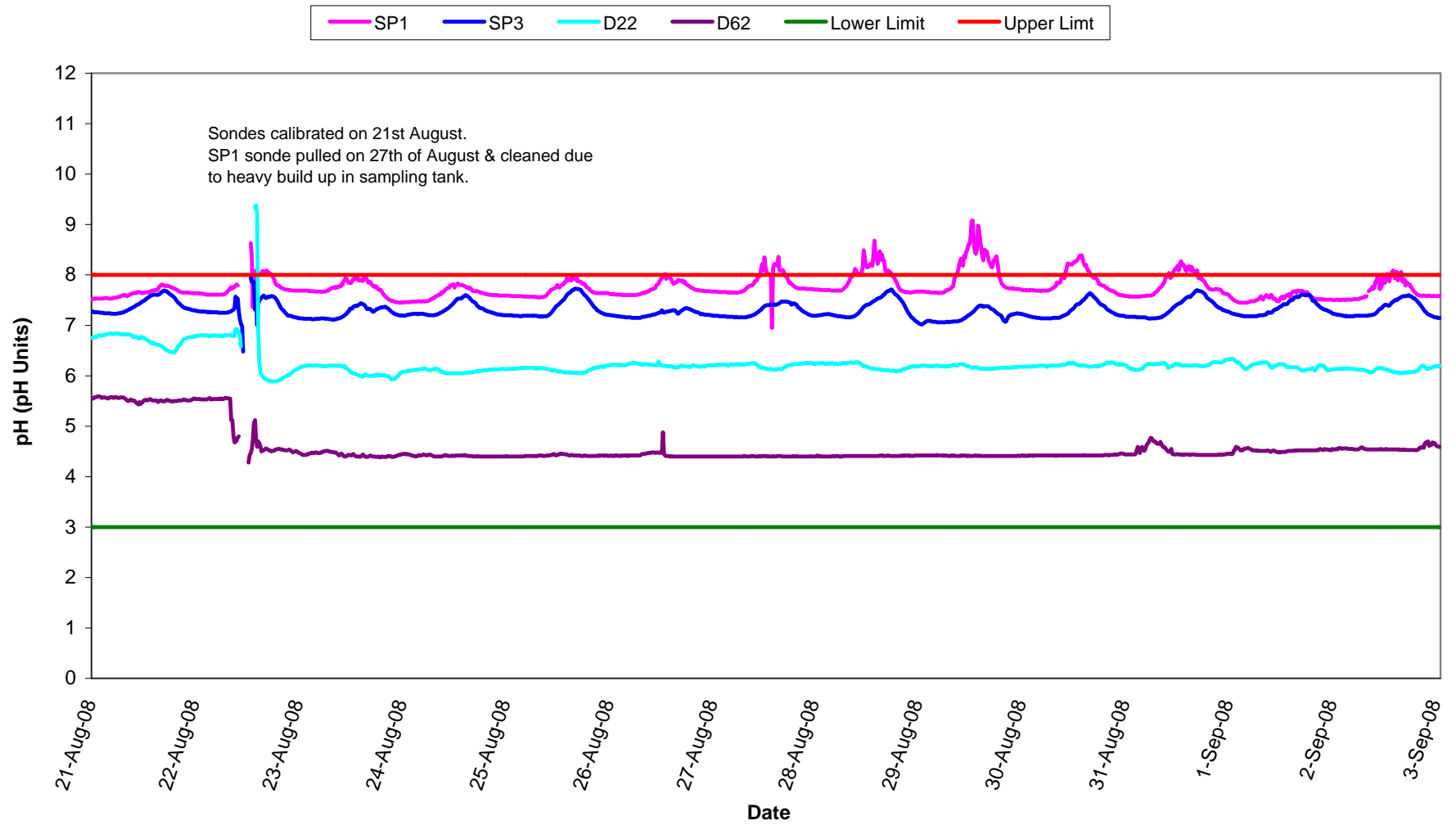
Conductivity - Surface Waters, Wk 35-36



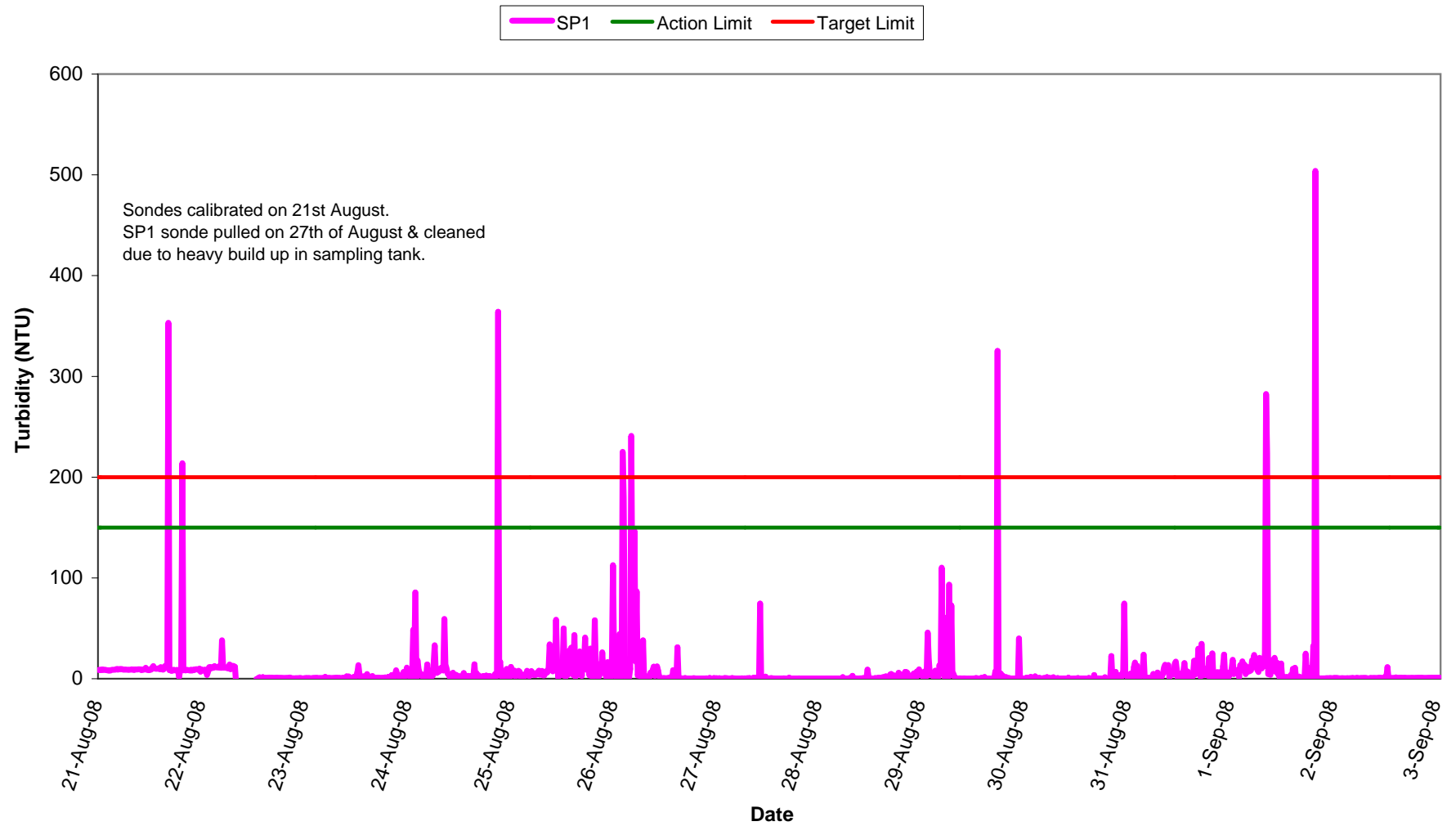
Turbidity - Surface Waters Wk 35-36



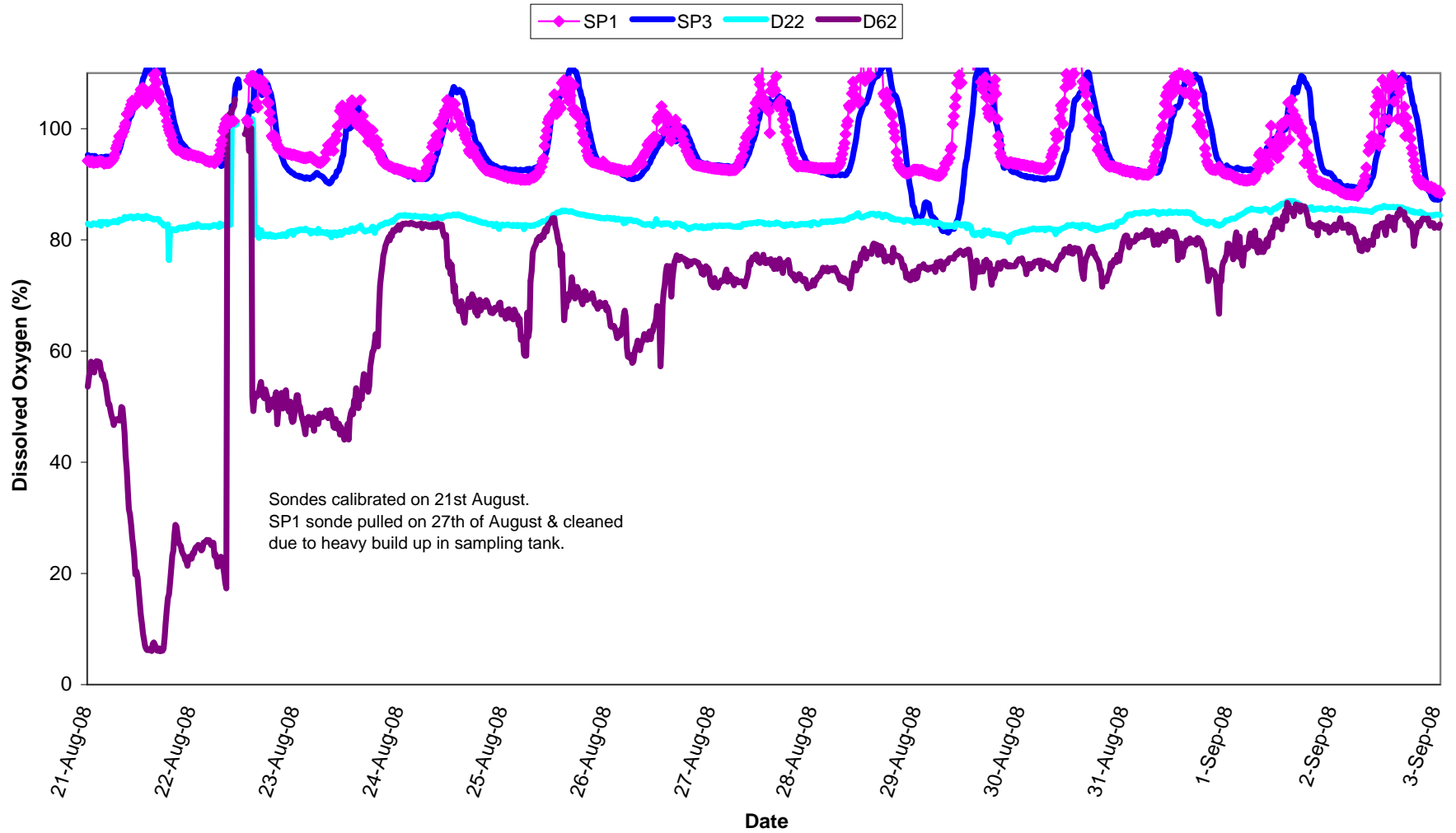
pH - Surface Waters Wk 35-36



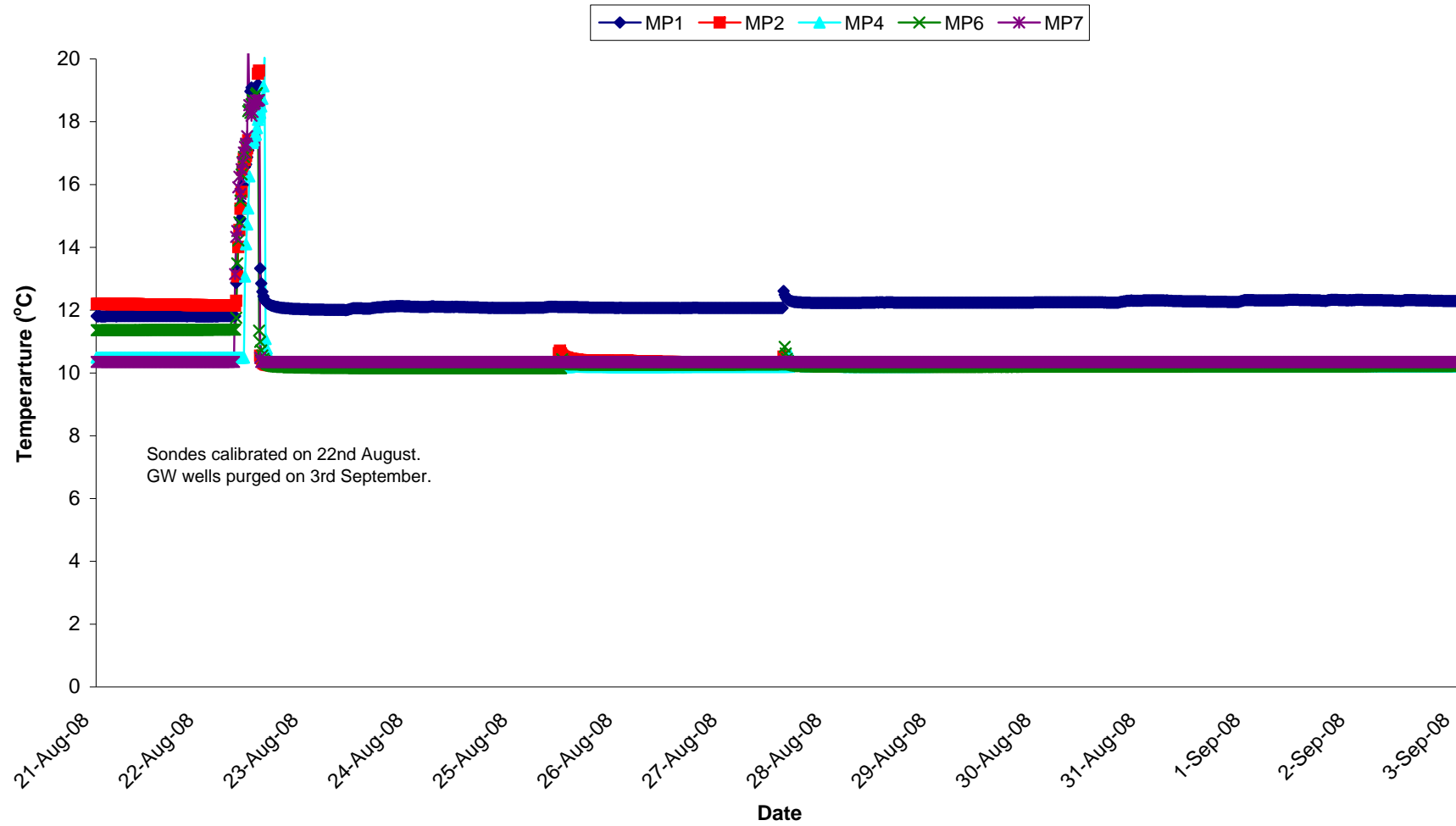
Turbidity - Surface Waters @ SP1, Wk 35-36



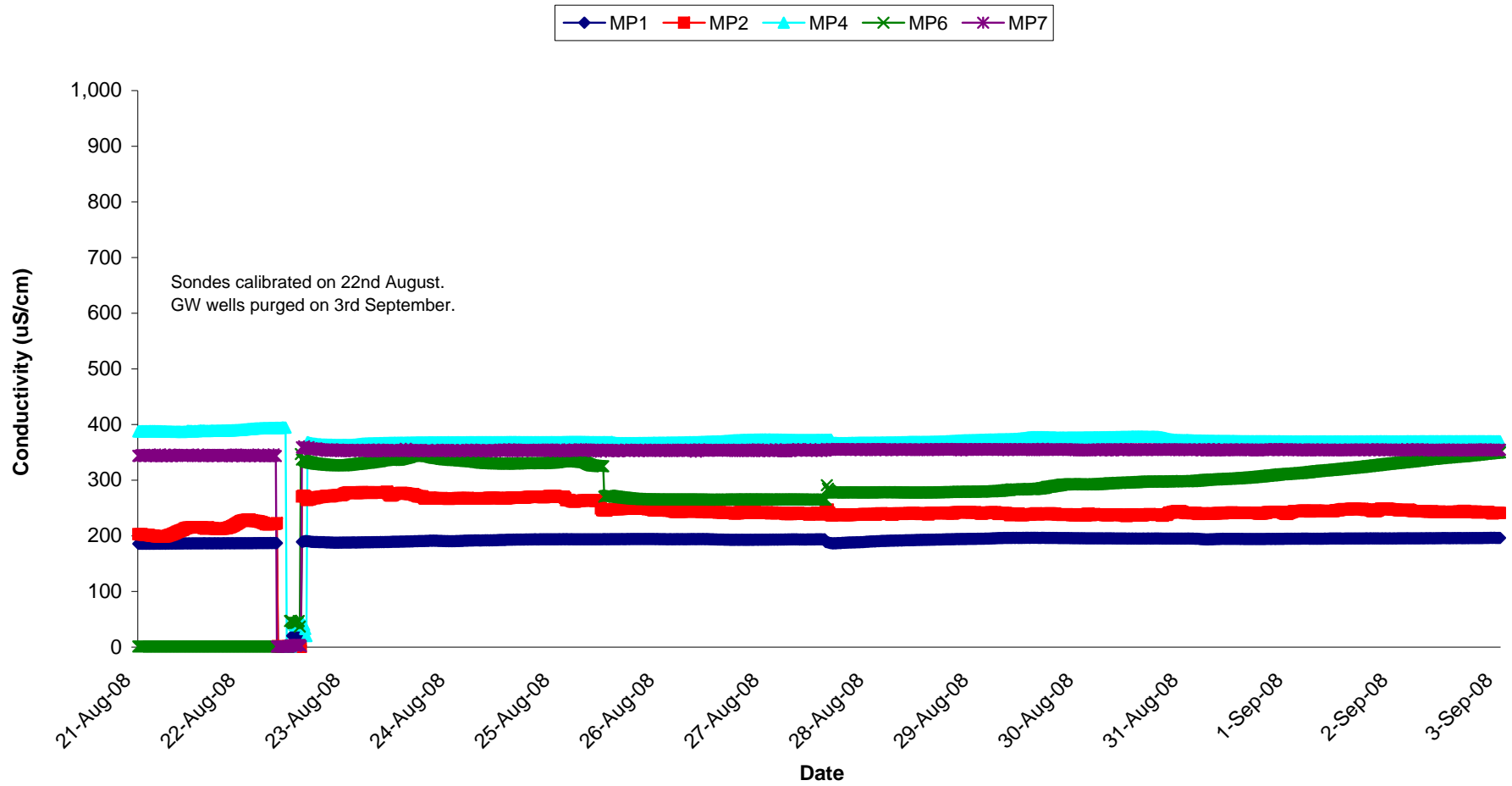
Dissolved Oxygen - Surface Waters, Wk 35-36



Temperature - Groundwaters Wk 35-36

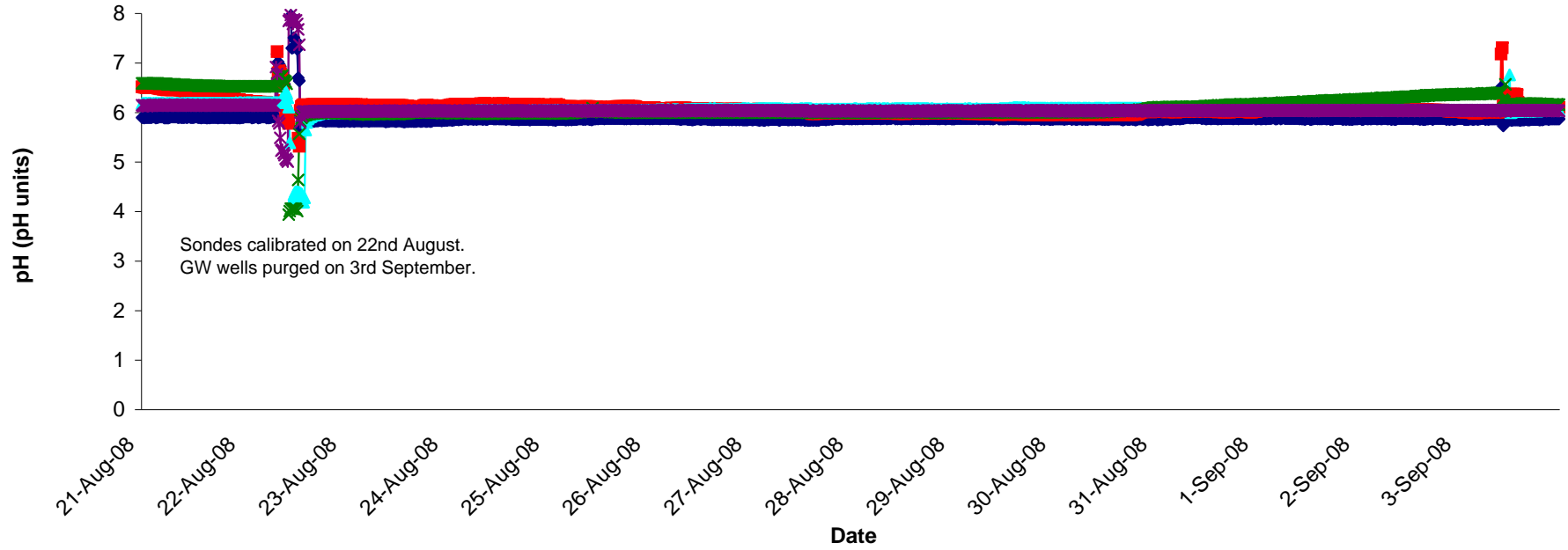


Conductivity - Groundwaters Wk 35-36



pH - Groundwaters Wk 35-36

MP1 MP2 MP4 MP6 MP7



Appendix 1

