

## 1 Monitoring Data

All monitoring data is presented in tabular form, see attached. The sonde data is also presented graphically.

### 1.1 Rainfall Data

The weather data now being reported is generated by the on-site weather station.

Date	1-Apr-05	2-Apr-05	3-Apr-05	4-Apr-05	5-Apr-05	6-Apr-05	7-Apr-05
Rainfall (mm)	4.2	0	1.4	7.4	10.2	11.8	5.2

### 1.2 Summary

Environment	Comments
Surface Water	<p>An organic growth was identified, on the 30-03-05, in the drains next to the TCF. This material was also identified at D22. Preliminary findings have shown this to be a bacterial growth probably triggered by increased phosphate levels in the leachate from the felled and buried trees under the TCF.</p> <p>The presence of this growth on and around the sonde resulted in high perceived turbidity levels in D22. Since this date remediation measures put in place have caused a marked reduction in the presence of this growth on site.</p>
Groundwater	Laboratory results are detailed in the table below.
Noise	<p><math>L_{Aeq}</math> at N1 recorded between 52.6 and 62.5dB</p> <p><math>L_{Aeq}</math> at N2 recorded between 39.9 and 49.9 dB</p>
Vibration	Max Pk Disp 0.73 mm with an associated acceleration 0.027 g*
Dust	Dust Gauges were collected on the 1 <sup>st</sup> April 2005 and shipped to Complete Lab Solutions for analysis, the results are due next week.
Weather	There was a total of 40.2 mm of rainfall during the reporting period, with a temperature range of 2.3 to 16.9 °C

\* The data defined above uses different parameters than those outlined in the Environmental Monitoring Plan (velocity in mm/sec). The Environmental Monitoring Plan will be updated to show this change.

## **2 Environmental Incidents/Near misses/Complaints**

There was a single environmental complaint regarding noise being generated in the area of the settlement ponds during the morning of Thursday 6<sup>th</sup> April. This complaint is being followed up by Shell's Local Liaison Officer and Shell's environmental officer.

## **3 Other**

- The TSS analyser was calibrated using results reported by Complete Lab Solutions.
- The phosphate analyser reset itself to a more frequent sampling system last week, this completely used up the system reagents. The new reagents arrived in site on the 6-04-05 and the phosphate analyser was recalibrated and is now running as required.
- The surface water sondes were removed on the 6-04-05 for calibration.
- The groundwater sondes were removed on the 7-04-05 for calibration. As there was a problem with removing the casings to allow calibration, the sondes were not returned to their locations until the 9-04-05.

Surface Water Monitoring Record Sheet											no...	1	of	2					
Conducted by					Approved by														
Name: Sandra Barber					Signed					Name Leslie Finnegan					Signed				
Determinant Results																			
	Date	Cond.	Temp	Turbidity	DO	TSS*	Nitrate	Phosphate	pH	Ortho-phosphate* as P	Ammonia	*Comments							
		µS	°C	NTU	% Sat	mg l <sup>-1</sup>	mg l <sup>-1</sup>	mg l <sup>-1</sup> PO <sub>4</sub>		mg l <sup>-1</sup>	mg l <sup>-1</sup>								
D12	24-Mar-05	224	9.6	21.6	78		0	< 10	5.92			No results yet from CLS.							
D16	24-Mar-05	269	10.3	4.3	64		0	< 10	5.93										
DS1	24-Mar-05	226	11.6	14.3	91		0	< 10	5.18										
D12	29-Mar-05	232	9.8	5.9	82	4	0	< 10	6.3	0.033	0.379								
D16	29-Mar-05	275	9.6	3.9	64	< 4	0	< 10	6.41	0.048	0.157								
DS1	29-Mar-05	229	9.4	3.8	89	< 4	0	< 10	6.85	< 0.01	0.016								
D12	30-Mar-05	266	9.1	6.8	80	< 4	0	< 10	7.01	0.063	0.137								
D16	30-Mar-05	191	8.8	38.0	65	25	0	< 10	6.1	0.044	0.269								
DS1	30-Mar-05	202	8.7	9.8	89	< 4	0	< 10	6.41	0.011	0.011								
D22	30-Mar-05	301	10.1	4.4	55	5	0	< 10	6.66	0.334	0.007								
D12	31-Mar-05	213	8.6	11.0	86	6	0	< 10	5.09	0.044	0.313								
D16	31-Mar-05	252	9.1	5.6	60	< 4	0	< 10	6.03	0.064	0.134								
DS1	31-Mar-05	227	8.4	6.9	84	< 4	0	< 10	6.84	<0.01	0.013								
D22	31-Mar-05	328	8.3	3.6	54	4	0	< 10	6.57	0.477	0.009								

The data above details the results from daily analyses (Except weekly grab sample 23-03-05) carried out by Complete Lab Solutions for the previous reporting period.

NR = Not Recorded

Surface Water Monitoring Record Sheet										no...	2	of	2				
Conducted by					Approved by												
Name: Sandra Barber					Signed					Name Leslie Finnegan				Signed			
Determinant Results																	
	Date	Cond.	Temp	Turbidity	DO	TSS* <sup>§</sup>	Nitrate	Phosphate	pH	Ortho-phosphate as P * <sup>§</sup>	Ammonia	*Comments					
		µS	°C	NTU	% Sat	mg l <sup>-1</sup>	mg l <sup>-1</sup>	mg l <sup>-1</sup> PO <sub>4</sub>		mg l <sup>-1</sup>	mg l <sup>-1</sup>						
D12	01-Apr-05	174	10.4	25.3	84	12	0	< 10	6.3	0.034	0.133						
D16	01-Apr-05	214	10.2	13.3	74	7	0	< 10	6.33	0.056	0.086						
D22	01-Apr-05	335	10.0	8.3	32	5	0	< 10	6.41	0.013	0.017						
DS1	01-Apr-05	190	10.2	5.7	86		0	< 10	5.32								
D12	02-Apr-05	215	12.3	16.8	41		0	< 10	6.37								
D16	02-Apr-05	236	10.8	4.4	32		0	< 10	6.18								
D22	02-Apr-05	267	12.4	3.9	30		0	< 10	6.64								
DS1	02-Apr-05	205	12.8	2.6	43		0	< 10	6.91								
D12	04-Apr-05	229	7.2	5.5	43		0	< 10	5.39								
D16	04-Apr-05	249	7.3	3.7	26		0	< 10	6.05								
D22	04-Apr-05	273	7.2	7.8	31		0	< 10	6.53								
DS1	04-Apr-05	222	7.2	2.2	42		0	< 10	6.86								
D12	05-Apr-05	200	8.1	5.4	42		0	< 10	5.77								
D16	05-Apr-05	246	8.2	3.5	32		0	< 10	6.21								
DS1	05-Apr-05	198	8.2	4.8	40		0	< 10	6.54								
D12	06-Apr-05	176	7.3	48.8	41		0	< 10	5.92								
D16	06-Apr-05	204	7.8	46.1	38		0	< 10	6.18								
DS1	06-Apr-05	168	8.0	14.0	40		0	< 10	6.23								
D12	07-Apr-05	231	6.9	54.0	40		0	< 10	5.44								
D16	07-Apr-05	210	7.7	46.0	40		0	< 10	6.29								
DS1	07-Apr-05	175	7.5	19.3	40		0	< 10	6.43								

\* Carried out at CLS labs

§ Data not presented will be included in the next weekly report (Week ending Thursday 7th April 2005).

Groundwater Monitoring Record Sheet										no... 1 of ... 1		
Conducted by					Approved by							
Name: Sandra Barber					Signed			Name Leslie Finnegan			Signed	
Determinant Results												
Location	Date	Cond. uS/cm	Temp °C	BOD mg l <sup>-1</sup>	DO % Sat	TSS* mg l <sup>-1</sup>	Phosphate as P mg l <sup>-1</sup>	pH	Total Hardness mg/l caco3	Nitrite as NO <sub>2</sub> mg l <sup>-1</sup>	Nitrate as NO <sub>3</sub> mg l <sup>-1</sup>	Phosphate as PO <sub>4</sub> mg l <sup>-1</sup>
MP 1												
MP 2												
MP 3	29-Mar-05	470	10		28			5.71				
MP 4												
MP 5	29-Mar-05	505	10.3	13	11.5		0.45	5.97	164.8	< 0.017	< 0.44	1.382
MP 6												
MP 7												
MP 8	29-Mar-05	500	10.4	3	18		< 0.01	6.21	134.2	< 0.017	< 0.44	< 0.03
MP 9	29-Mar-05	275	10.8	< 1	15		0.107	5.79	70.2	< 0.017	< 0.44	0.329
MP 10												

Location	Date	TDS mg l <sup>-1</sup>	Arsenic ug l <sup>-1</sup>	Mercury ug l <sup>-1</sup>	Lead ug l <sup>-1</sup>	Aluminium ug l <sup>-1</sup>	Zinc ug l <sup>-1</sup>	Chromium ug l <sup>-1</sup>	Copper ug l <sup>-1</sup>	Cadmium ug l <sup>-1</sup>	Iron ug l <sup>-1</sup>	Tin ug l <sup>-1</sup>
MP 1												
MP 2												
MP 3	29-Mar-05											
MP 4												
MP 5	29-Mar-05	227	< 2	< 0.05	< 50	< 0.05	< 5	< 10	< 5	< 4	5364	< 50
MP 6												
MP 7												
MP 8	29-Mar-05	237	< 2	< 0.05	< 5	< 0.05	16	< 1	< 5	< 0.4	6	< 5
MP 9	29-Mar-05	131	< 2	< 0.05	< 5	< 0.05	23	< 1	< 5	< 0.4	2	5
MP 10												

MP1, MP2, MP4, MP6 and MP7 have been installed with in-situ monitoring devices, these results are presented in attached tables.  
 MP10 was absorbed by the TCF area. This will be reinstated when an appropriate rig is on site.

**Results recorded on site are detailed above, the remaining parameters will be included when the results are issued by CLS.**

Noise Monitoring Record Sheet										no... 1	of ... 1	
Conducted by					Approved by							
Name: Sandra Barber			Signed		Name: Leslie Finnegan			Signed				
Determinant Results												
Location	Start Date	Time	Duration	Serial No.	Wind		Results dB			*Comments		
					Speed (m/s)*	Direction (Degrees)	L <sub>Aeq</sub>	L <sub>AFmin</sub>	L <sub>AFmax</sub>			
N1	01/04/2005	07:46:46	26:49:09	2343754	3.43	62	52.8	43.2	102.4			
N1	02/04/2005	10:37:06	04:02:33	2343754	2.34	184	52.6	38.9	81.5	Saturday - Short Day		
N1	04/04/2005	07:38:19	10:17:02	2343754	5.05	67	57.5	43.6	88.9			
N1	05/04/2005	07:44:26	22:34:12	2343754	4.48	36	63.4	46	101.7			
N1	06/04/2005	07:19:39	11:21:35	2343754	6.06	91	62.1	47.1	91.8			
N1	07/04/2005	07:22:23	10:58:12	2343754	8.46	157	62.5	47.4	92.2			
N2	01/04/2005	07:20:04	26:24:16	2343753	3.43	62	41.9	< 30	72.5			
N2	02/04/2005	09:45:17	05:06:28	2343753	2.34	184	39.8	< 30	67.3	Saturday - Short Day		
N2	04/04/2005	07:13:01	10:37:11	2343753	5.05	67	49.1	< 30	87.7			
N2	05/04/2005	07:22:15	10:52:00	2343753	4.48	36	47.8	< 30	71			
N2	07/04/2005	06:54:50	10:17:40	2343753	8.46	157	49.9	34.2	83.6			

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

Dust Monitoring Record Sheet						no... 1 of ... 1	
Conducted by				Approved by			
Name: Sandra Barber		Signed		Name: Leslie Finnegan		Signed	
Determinant Results							
	Date Positioned	Date Removed	Ref. Number	Date Dispatched	Date Returned	Weight	Comments
D1	31/01/2005	02/03/2005	59793	02/03/2005	24/03/2005	36	
D2	31/01/2005	02/03/2005	59794	02/03/2005	24/03/2005	10	
D3	31/01/2005	02/03/2005	59795	02/03/2005	24/03/2005	25	
D4	31/01/2005	02/03/2005	59796	02/03/2005	24/03/2005	22	
D1	02/03/2005	01/04/2005					Results will be available next week
D2	02/03/2005	01/04/2005					
D3	02/03/2005	01/04/2005					
D4	02/03/2005	01/04/2005					
D1							
D2							
D3							
D4							
D1							
D2							
D3							
D4							
D1							
D2							
D3							
D4							
<b>Consent Limit: 350 mg m<sup>2</sup> d<sup>-1</sup> on as a 30 day average</b>							

Monitoring Points are numbered clockwise through the Cardinal Marks (N, E, S, W)

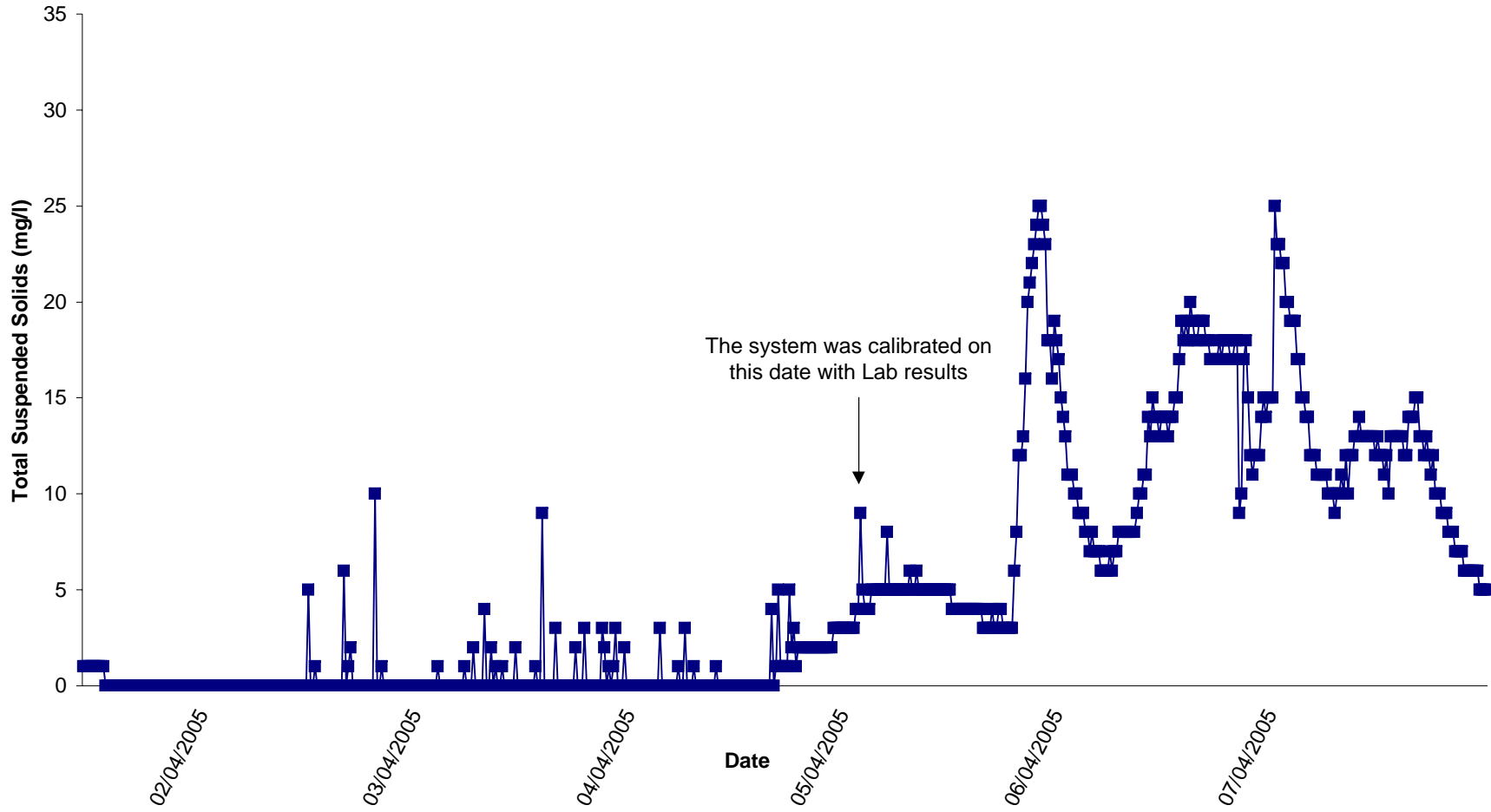
Vibration Monitoring Record Sheet				No...1	of...2
Conducted by			Approved by		
Name: Sandra Barber		Signed	Name: Leslie Finnegan		Signed
Determinant Results					
Location	Date Positioned	Date Removed	Event Time	Pk Disp (mm)	Accel (g)
V2	01/04/2005	02/04/2005	16:05:10	0.43	0.013
V2	01/04/2005	02/04/2005	16:05:10	0.16	0.013
V2	01/04/2005	02/04/2005	16:05:10	0.35	0.013
V1	02/04/2005	02/04/2005	11:39:02	0.088	0.066
V1	02/04/2005	02/04/2005	11:39:02	0.27	0.04
V1	02/04/2005	02/04/2005	11:39:02	0.067	0.04
V1	02/04/2005	02/04/2005	11:39:39	0.23	0.11
V1	02/04/2005	02/04/2005	11:39:39	0.038	0.08
V1	02/04/2005	02/04/2005	11:39:39	0.27	0.08
V1	02/04/2005	02/04/2005	12:37:50	0.002	0.52
V1	02/04/2005	02/04/2005	12:37:50	0.045	0.76
V1	02/04/2005	02/04/2005	12:37:50	0.013	0.19
V1	02/04/2005	02/04/2005	15:52:53	0.001	0.093
V1	02/04/2005	02/04/2005	15:52:53	0.049	0.27
V1	02/04/2005	02/04/2005	15:52:53	0.018	0.12
V2	04/04/2005	05/04/2005	08:41:47	0.065	0.15
V2	04/04/2005	05/04/2005	08:41:47	0.11	0.49
V2	04/04/2005	05/04/2005	08:41:47	0.17	0.066
V2	04/04/2005	05/04/2005	16:27:46	0.066	0.027
V2	04/04/2005	05/04/2005	16:27:46	0.15	0.053
V2	04/04/2005	05/04/2005	16:27:46	0.08	0.04
V2	04/04/2005	05/04/2005	16:28:12	0.28	0.013
V2	04/04/2005	05/04/2005	16:28:12	0.12	0.013
V2	04/04/2005	05/04/2005	16:28:12	0.45	0.027
V2	04/04/2005	05/04/2005	16:28:28	0.47	0.013
V2	04/04/2005	05/04/2005	16:28:28	0.13	0.013
V2	04/04/2005	05/04/2005	16:28:28	0.55	0.013
V2	04/04/2005	05/04/2005	16:30:01	0.11	0.013
V2	04/04/2005	05/04/2005	16:30:01	0.16	0.013
V2	04/04/2005	05/04/2005	16:30:01	0.54	0.013
V2	04/04/2005	05/04/2005	16:30:14	0.63	0.027
V2	04/04/2005	05/04/2005	16:30:14	0.24	0.013
V2	04/04/2005	05/04/2005	16:30:14	0.66	0.027
V2	04/04/2005	05/04/2005	16:30:27	0.73	0.027
V2	04/04/2005	05/04/2005	16:30:27	0.33	0.027
V2	04/04/2005	05/04/2005	16:30:27	0.47	0.027
V2	04/04/2005	05/04/2005	16:31:29	0.54	0.013
V2	04/04/2005	05/04/2005	16:31:29	0.13	0.013
V2	04/04/2005	05/04/2005	16:31:29	0.24	0.013
V2	04/04/2005	05/04/2005	18:36:02	0.06	0.027
V2	04/04/2005	05/04/2005	18:36:02	0.13	0.027
V2	04/04/2005	05/04/2005	18:36:02	0.043	0.013
V2	04/04/2005	05/04/2005	18:37:12	0.15	0.013
V2	04/04/2005	05/04/2005	18:37:12	0.32	0.027
V2	04/04/2005	05/04/2005	18:37:12	0.12	0.027
V2	04/04/2005	05/04/2005	18:37:56	0.11	0.04
V2	04/04/2005	05/04/2005	18:37:56	0.25	0.04
V2	04/04/2005	05/04/2005	18:37:56	0.093	0.027
V2	04/04/2005	05/04/2005	18:57:50	0.45	0.9
V2	04/04/2005	05/04/2005	18:57:50	0.13	0.72
V2	04/04/2005	05/04/2005	18:57:50	0.088	0.28
V2	06/04/2005	07/04/2005	07:37:25	0.23	0.3
V2	06/04/2005	07/04/2005	07:37:25	0.037	0.13

Vibration Monitoring Record Sheet				No...2	of...2
Conducted by			Approved by		
Name: Sandra Barber		Signed	Name: Leslie Finnegan		Signed
Determinant Results					
Location	Date Positioned	Date Removed	Event Time	Pk Disp (mm)	Accel (g)
V2	06/04/2005	07/04/2005	07:37:25	0.017	0.093
V2	06/04/2005	07/04/2005	08:16:53	0.083	0.69
V2	06/04/2005	07/04/2005	08:16:53	0.11	0.62
V2	06/04/2005	07/04/2005	08:16:53	0.12	0.16
V1	07/04/2005	07/04/2005	07:23:11	0.11	0.11
V1	07/04/2005	07/04/2005	07:23:11	0.038	0.08
V1	07/04/2005	07/04/2005	07:23:11	0.017	0.04
V1	07/04/2005	07/04/2005	07:23:25	0.45	0.066
V1	07/04/2005	07/04/2005	07:23:25	0.14	0.04
V1	07/04/2005	07/04/2005	07:23:25	0.19	0.053
V1	07/04/2005	07/04/2005	07:58:40	0.16	1.07
V1	07/04/2005	07/04/2005	07:58:40	0.47	1.56
V1	07/04/2005	07/04/2005	07:58:40	0.037	0.34

Vibration meter was moved between V1 and V2 daily

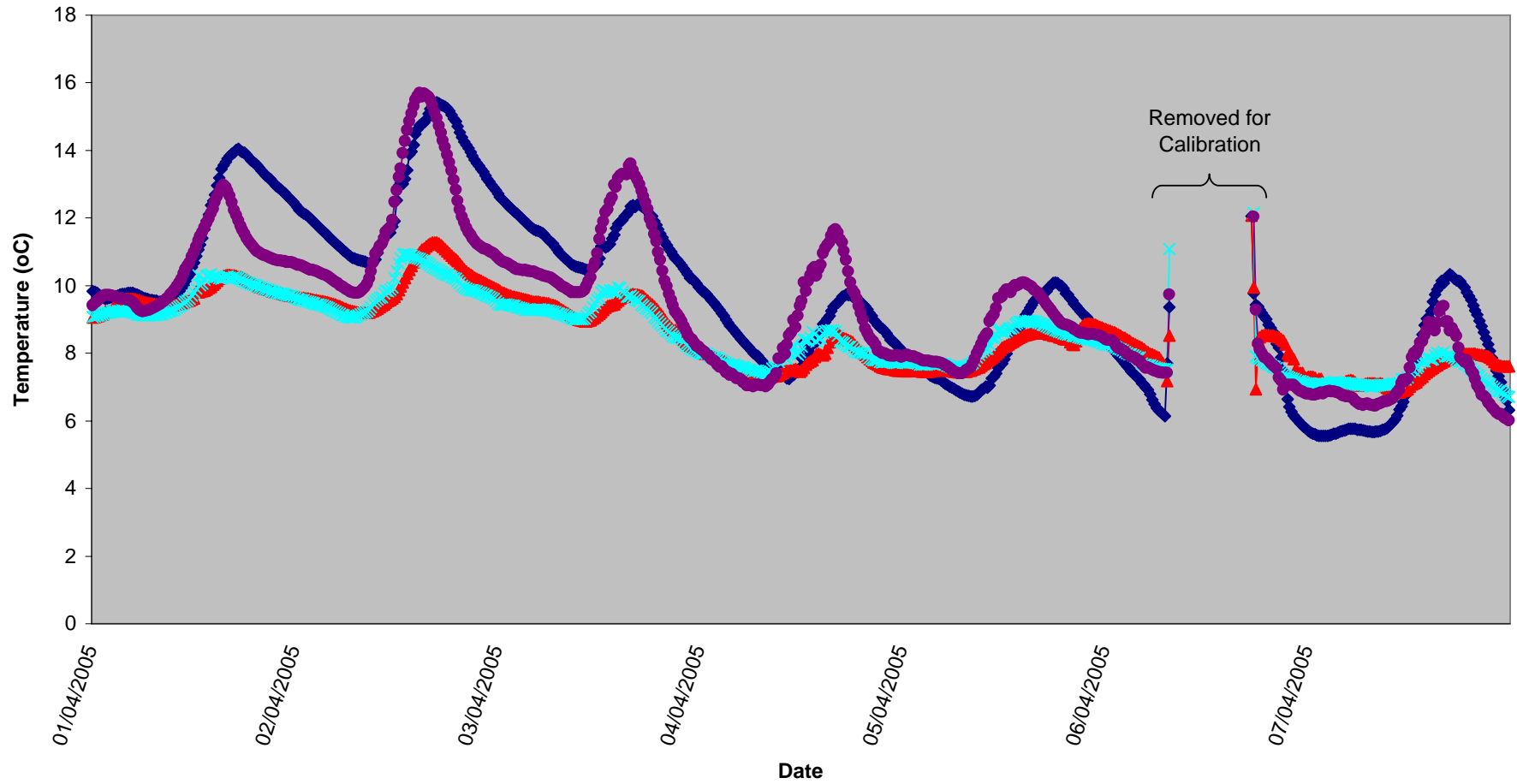


**Surface Water (D12)  
Total Suspended Solids, Week 14 2005**

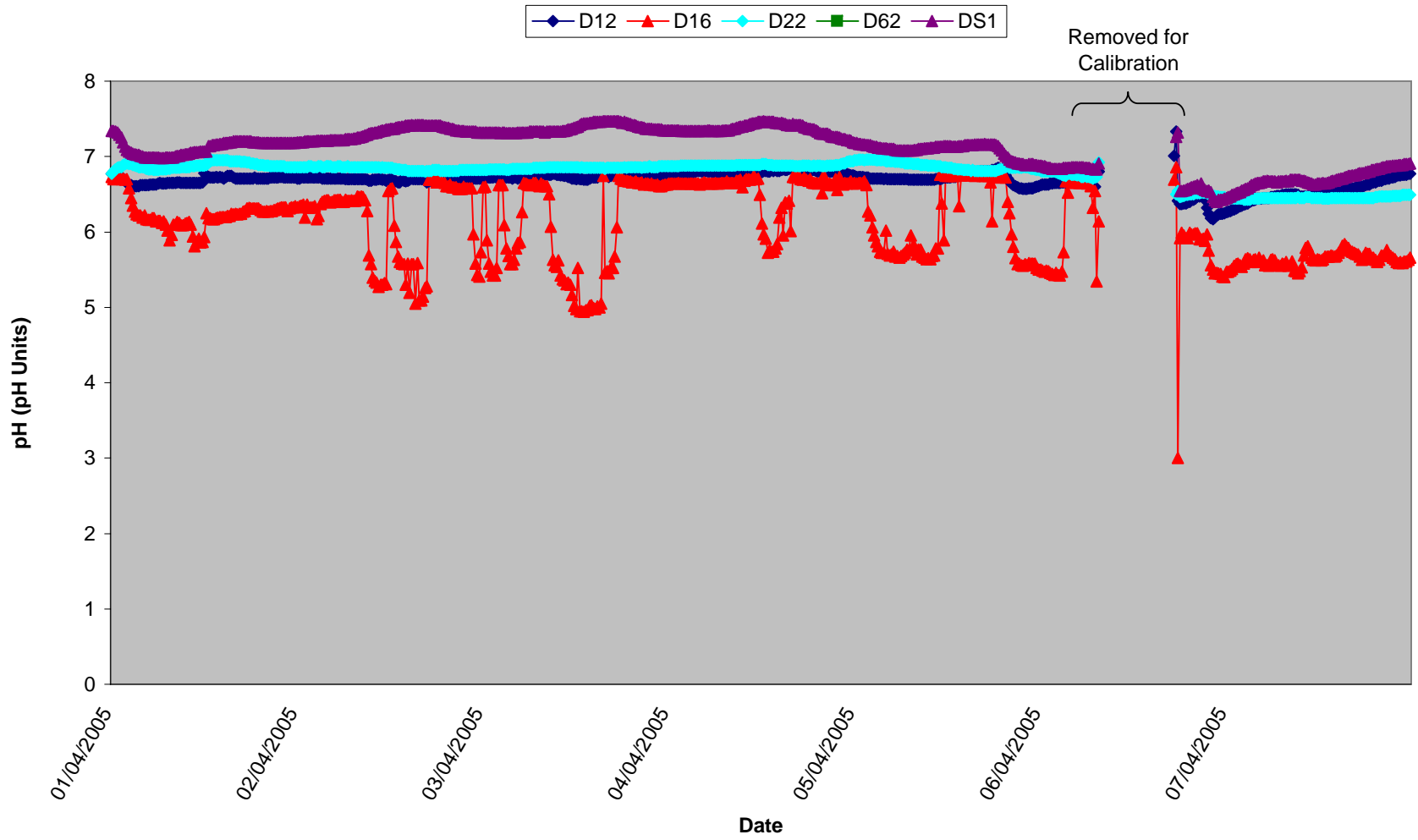


### Surface Waters Temperature, Week 14 2005

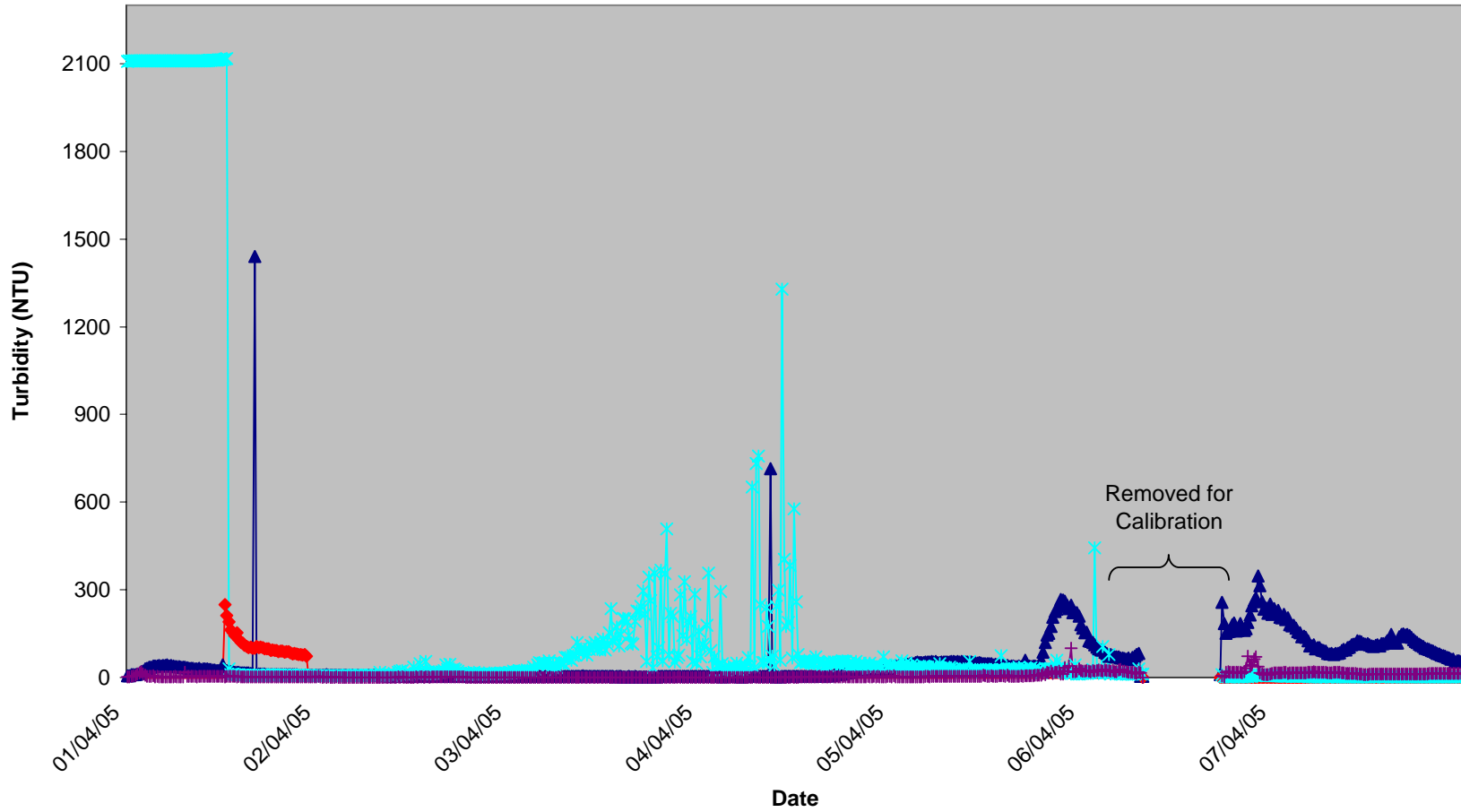
◆ D12 ▲ D16 ✕ D22 \* D62 ● DS1



### Surface Waters pH, Week 14 2005

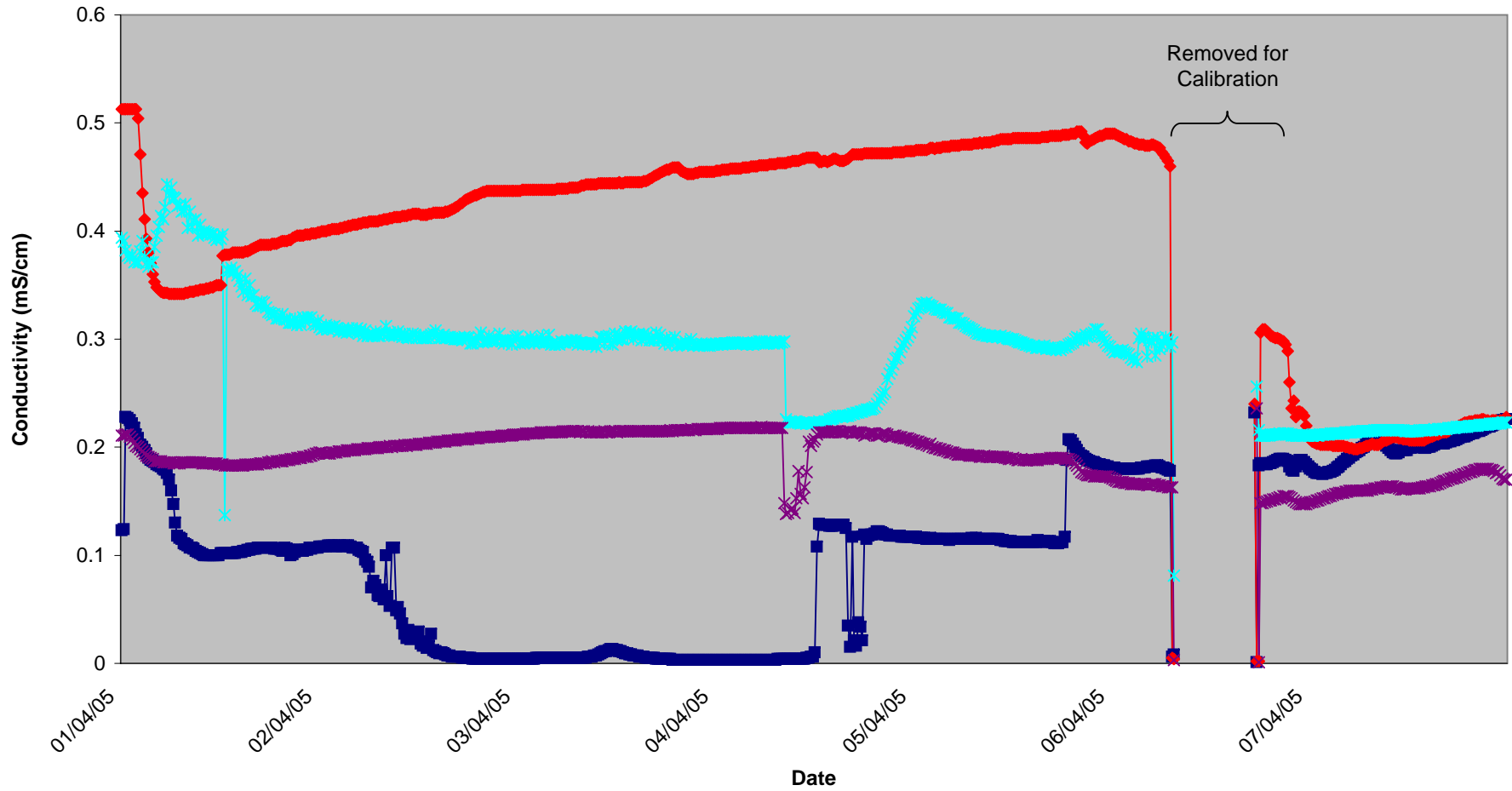


### Surface Waters Turbidity, Week 14 2005



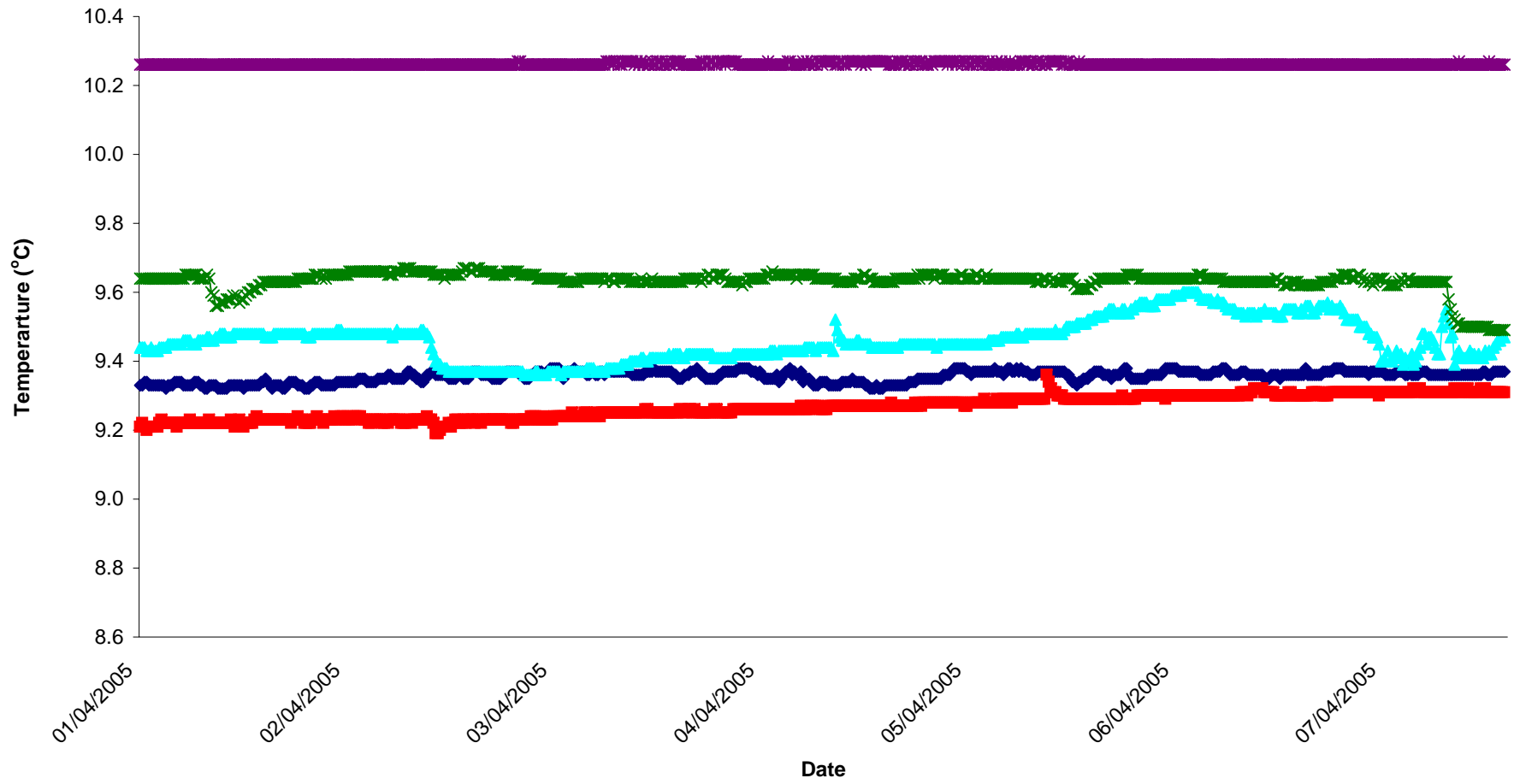
### Surface Waters Conductivity, Week 14 2005

■ D12    ◆ D16    ✧ D22    ▲ D62    ✖ DS1



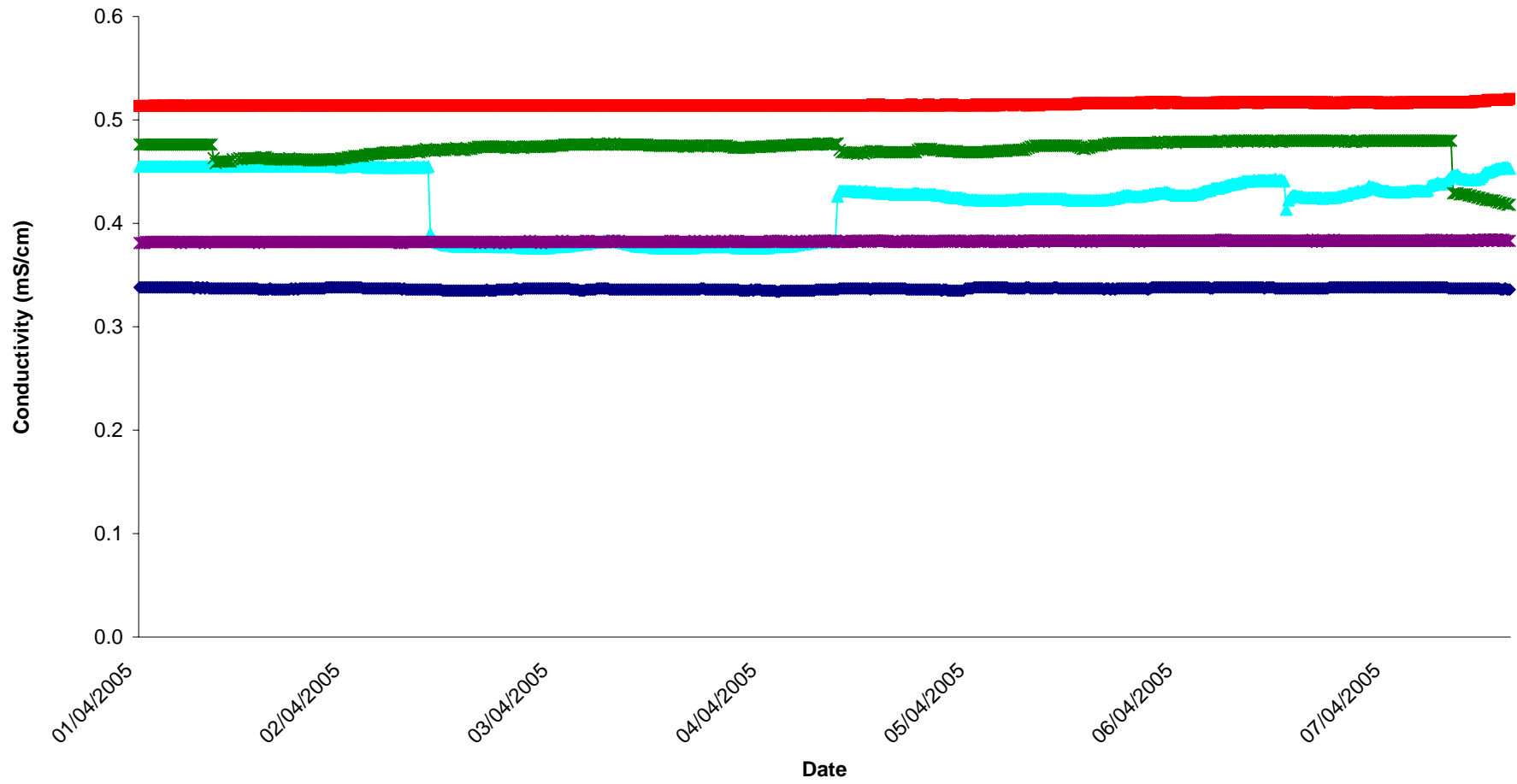
### Groundwaters Temp, Week 14 2005

MP1 MP2 MP4 MP6 MP7



### Groundwaters Conductivity, Week 14 2005

MP1 MP2 MP4 MP6 MP7



### Groundwaters pH, Week 14 2005

MP1 MP2 MP4 MP6 MP7

