

1 Monitoring Data

1.1 Monitoring Equipment

| | |
|---------------------|---|
| Noise | Two noise monitoring locations are currently being used – AN2 and NSR1. The sound meter records in the 1/3 octave band. |
| Weather Station | The data used for this reporting period was taken from the Terminal Site meteorological station. |
| TSS | There are TSS meters on the each of discharges on the Siltbuster. |
| Sondes | The results are displayed graphically. |
| Discharge pipe flow | The results are displayed graphically. |

1.2 Rainfall Data

| Date | Rainfall mm |
|------------|-------------|
| 10/11/2011 | 0.0 |
| 11/11/2011 | 1.6 |
| 12/11/2011 | 3.0 |
| 13/11/2011 | 0.4 |
| 14/11/2011 | 0.0 |
| 15/11/2011 | 0.0 |
| 16/11/2011 | 1.4 |
| Total | 6.4 |

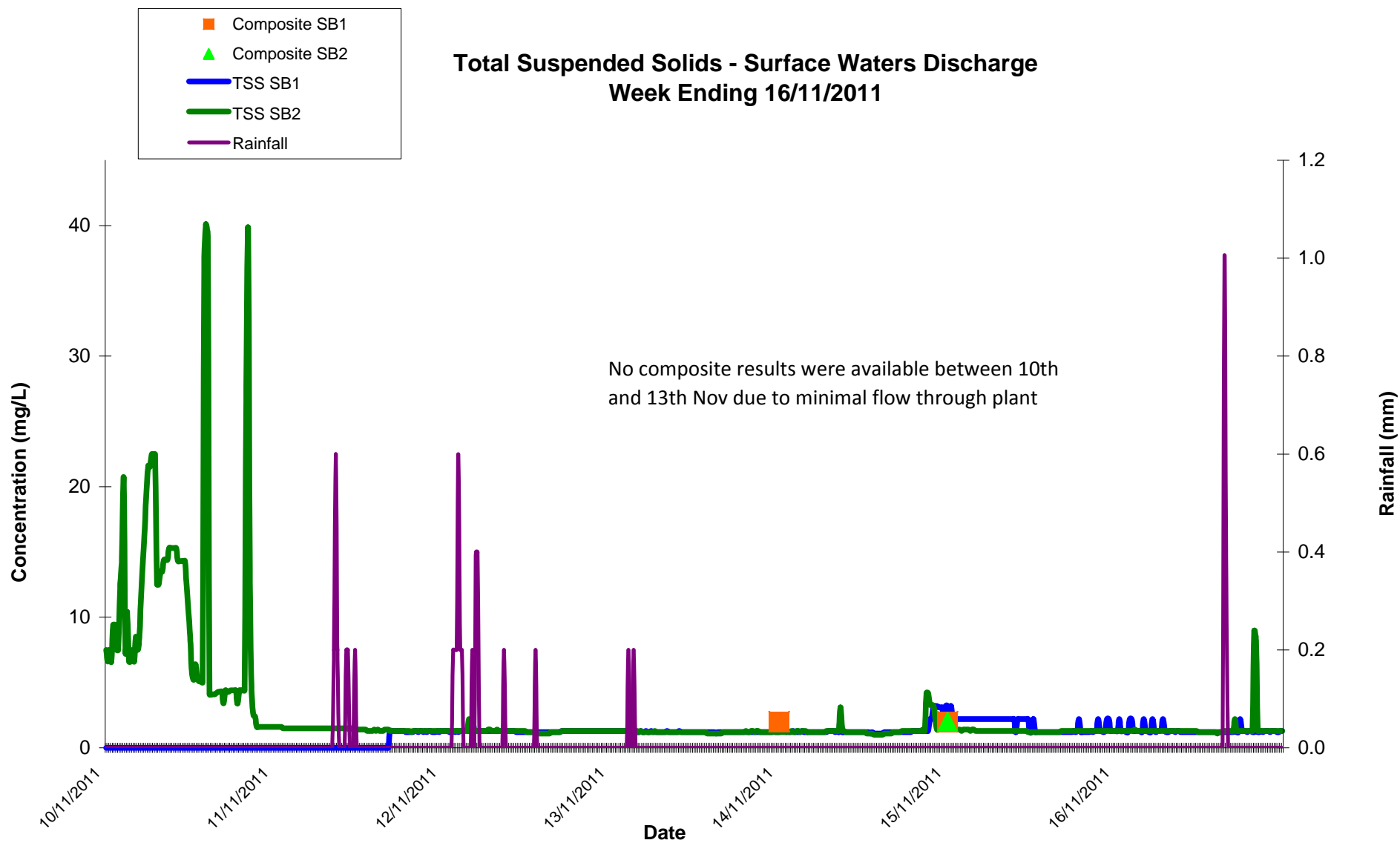
1.3 Summary

| Environment | Comments |
|---------------|--|
| Weather | There was a total of 6.4mm of rainfall during the reporting period, with a temperature range of 6.4°C to 15.5°C. |
| Noise | There were no noise level exceedences during the reporting period. |
| Surface Water | There were no identified surface water exceedences during the reporting period from the siltbuster. |

2 Environmental Exceedances / Incidents / Near miss

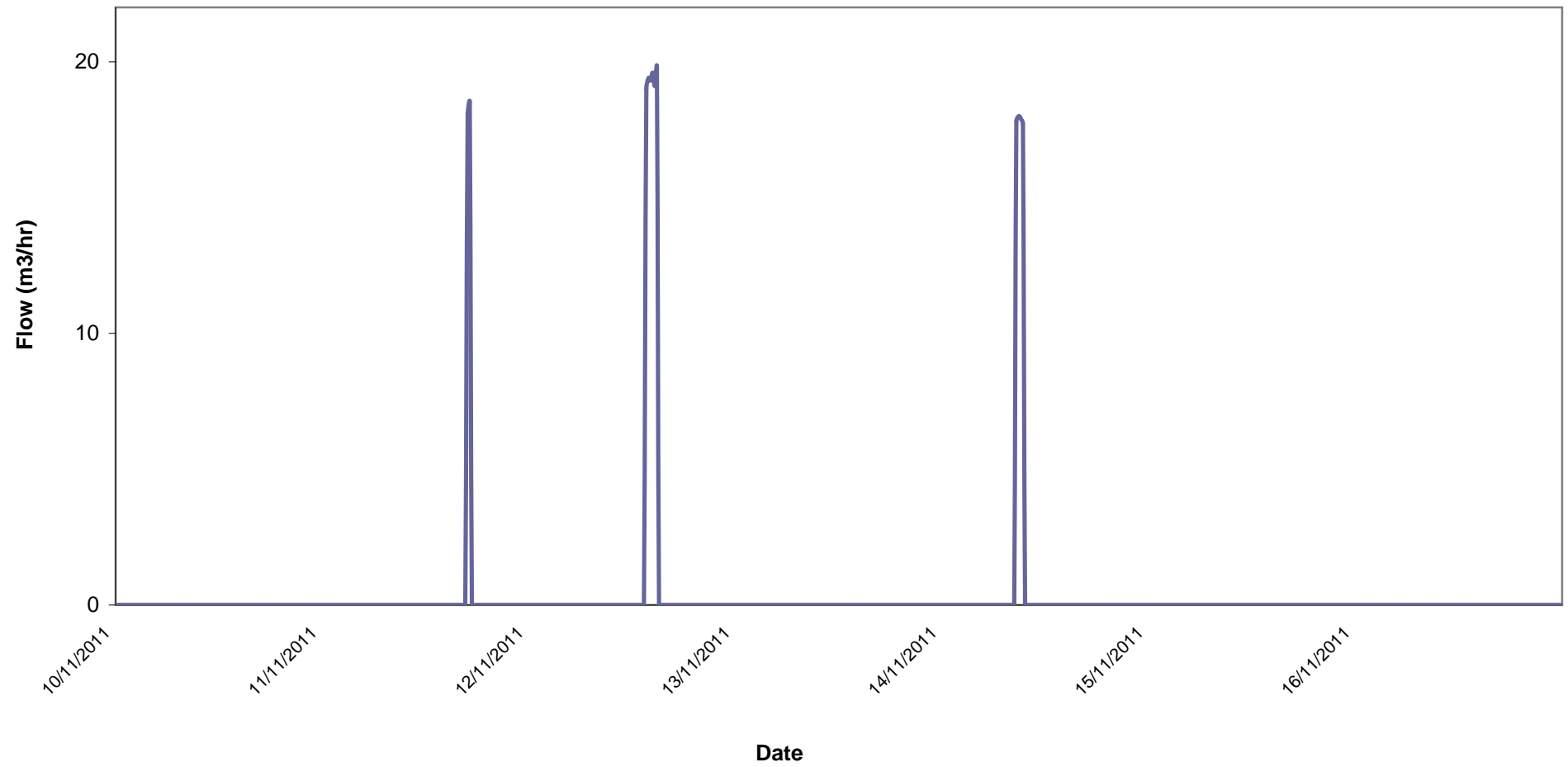
| Date and Time | September |
|--------------------|--|
| Location | Surface Water Discharge in North Eastern & Northern Area of Site in Aughooose. |
| Nature of Incident | Surface water was discharging in the north eastern area and northern part of the site. This surface water was not being treated by the Siltbuster treatment system. The SEPIL EMP currently requires that all surface water discharging from site is treated via Siltbuster and is monitored as per the Environmental Monitoring Programme. These areas are the lowest areas of the site and form a natural drainage pathway for surface water runoff. |
| Actions Taken | <ul style="list-style-type: none">• Surface water in the northern and north eastern area of the site in Aughooose will be pumped back to the main settlement pond. From there it will be treated in the Siltbuster Surface water system and discharged from the site via DL2• These works were completed on 18/11/2011. |
| Category | Environmental Near miss |
| Status | Open |

| Day Time Noise Monitoring / Max Hourly L_{Aeq} Record Sheet | | | | | | | | | | |
|--|--------------------|--------------------|---------------------|----------|-----------------|------------------------|-------------|------------|------------|-----------------------------------|
| Determinant Results | | | | | | | | | | |
| Location | Air Temp. (Min) | Air Temp. (Max) | Start Date and Time | Duration | Wind | | Results dB | | | *Comments |
| | | | | | Speed (m/s)* | Direction (Degrees) | L_{Aeq} | L_{Amax} | L_{Amin} | |
| Action Limit | | | | | | | 60.0 | | | |
| Target Limit | | | | | | | 65.0 | | | |
| AN2 | 8.1 | 13.2 | 10/11/2011 12:00:00 | 01:00 | 5.0 | 143.2 | 53.5 | 75.8 | 35.1 | |
| NSR1 | | | 10/11/2011 12:00:00 | 01:00 | | | 58.2 | 74.5 | 38.0 | |
| AN2 | 9.7 | 14.2 | 11/11/2011 09:00:00 | 01:00 | 7.2 | 133.1 | 58.6 | 83.0 | 39.0 | |
| NSR1 | | | 11/11/2011 | 01:00 | | | | | | Loss of data due to power failure |
| AN2 | 8.4 | 15.5 | 14/11/2011 | 01:00 | 4.6 | 139.6 | | | | Loss of data due to power failure |
| NSR1 | | | 14/11/2011 | 01:00 | | | | | | Loss of data due to power failure |
| AN2 | 7.6 | 11.1 | 15/11/2011 12:00:00 | 01:00 | 3.0 | 137.2 | 52.2 | 71.9 | 35.8 | |
| NSR1 | | | 15/11/2011 11:00:00 | 01:00 | | | 58.9 | 76.2 | 40.6 | |
| AN2 | 6.4 | 12.3 | 16/11/2011 15:00:00 | 01:00 | 3.3 | 151.4 | 55.6 | 74.4 | 31.5 | |
| NSR1 | | | 16/11/2011 12:00:00 | 01:00 | | | 61.2 | 75.0 | 44.1 | |
| * Wind speeds in excess of 5 m/s negatively impact noise readings (as per EPA Guidance Note on Noise Measurement). | | | | | | | | | | |
| ** Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005)) | | | | | | | | | | |
| The results show the maximum L_{Aeq} (1hr) for each day of monitoring | | | | | | | | | | |

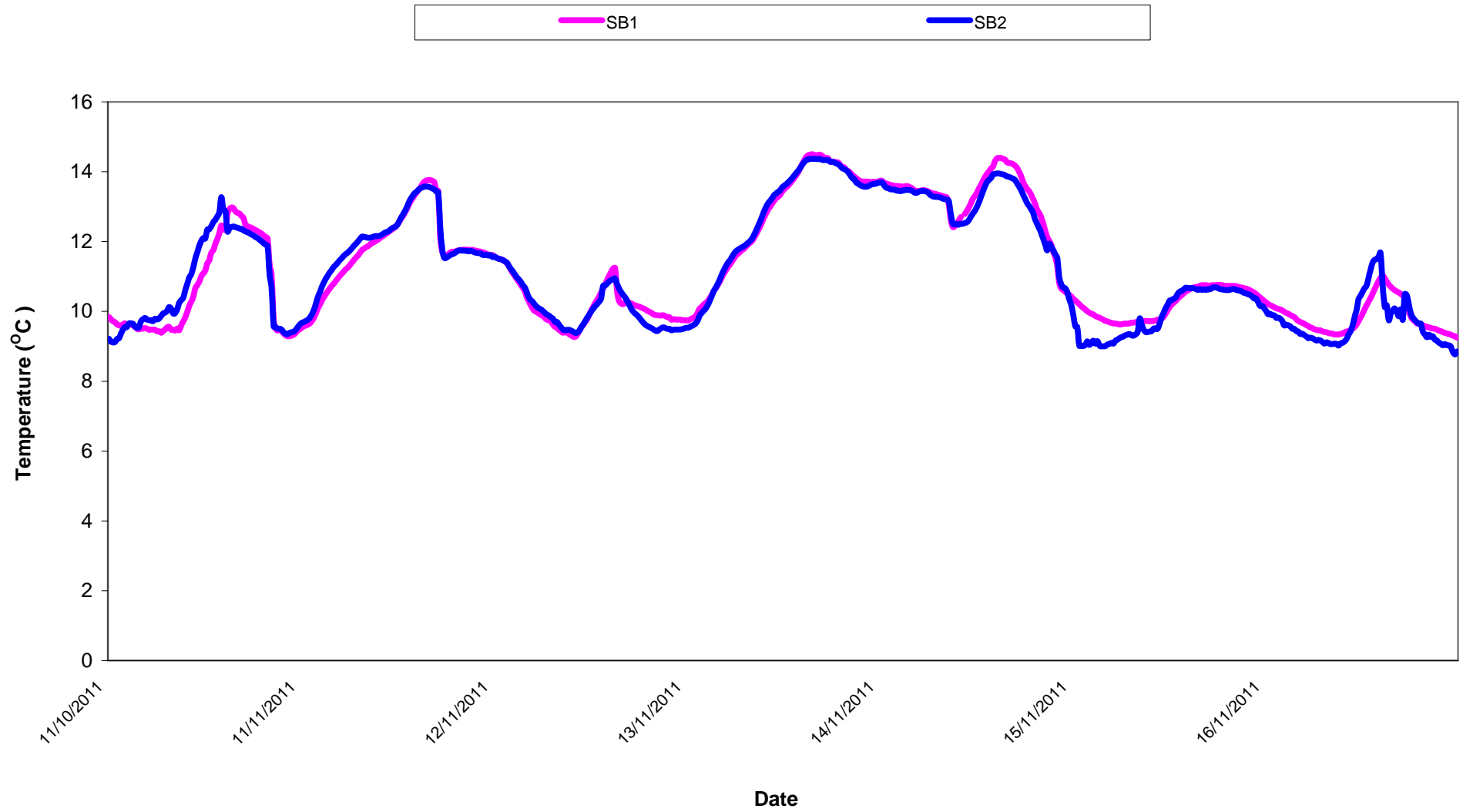


Flow - Surface Waters Discharge
Week ending 16/11/2011

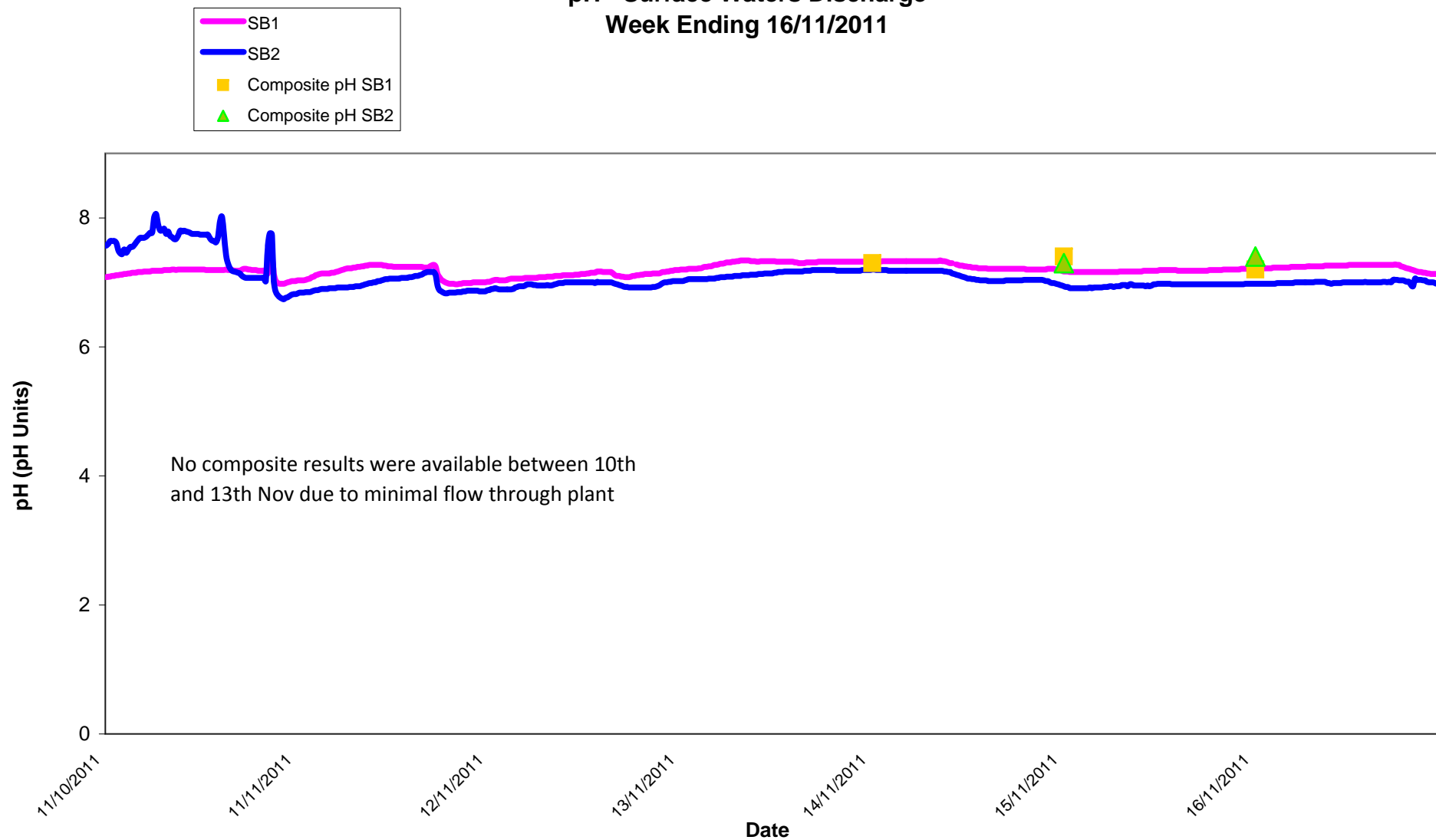
Discharge



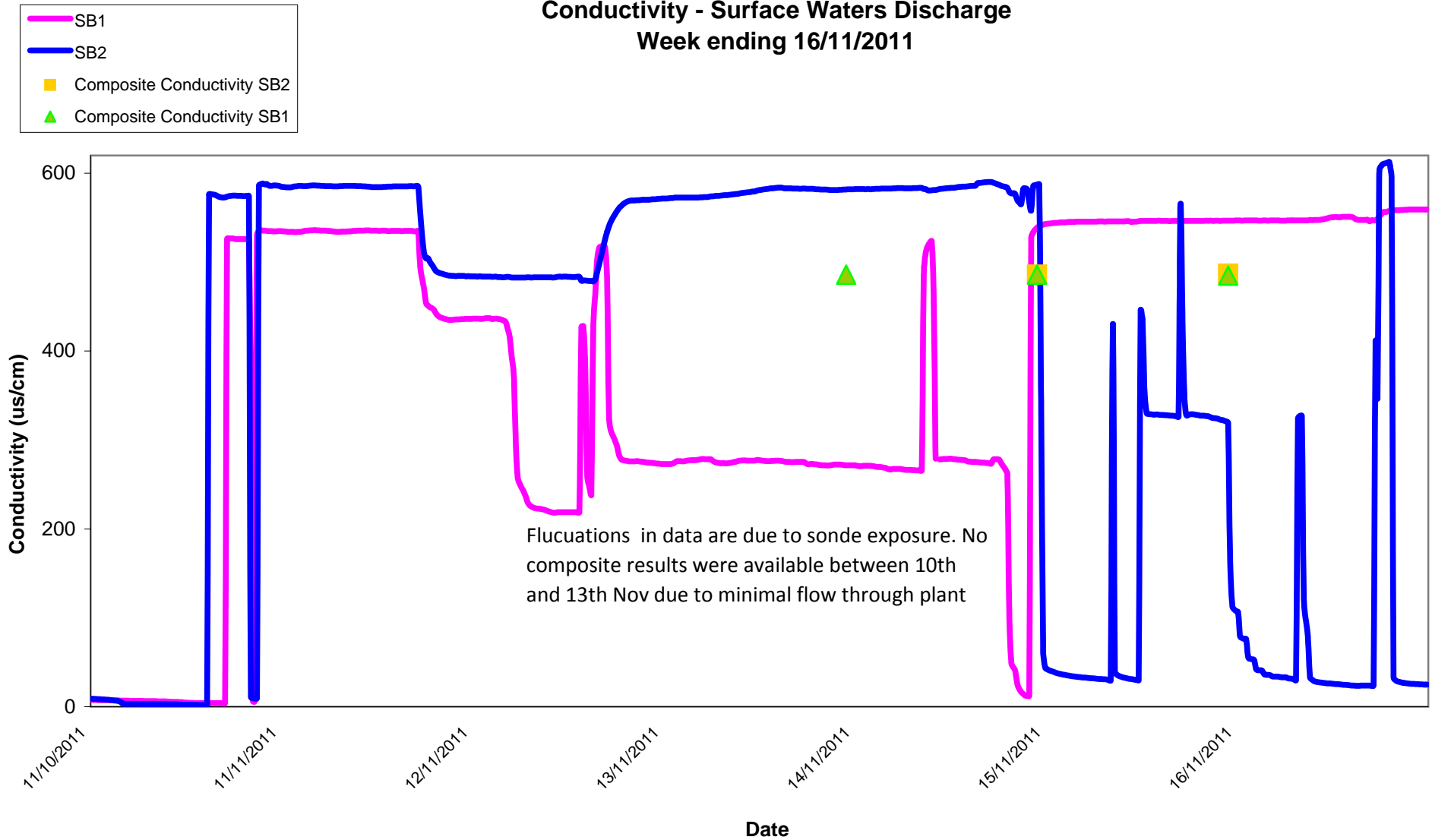
Temperature - Surface Waters Discharge
Week ending 16/11/2011



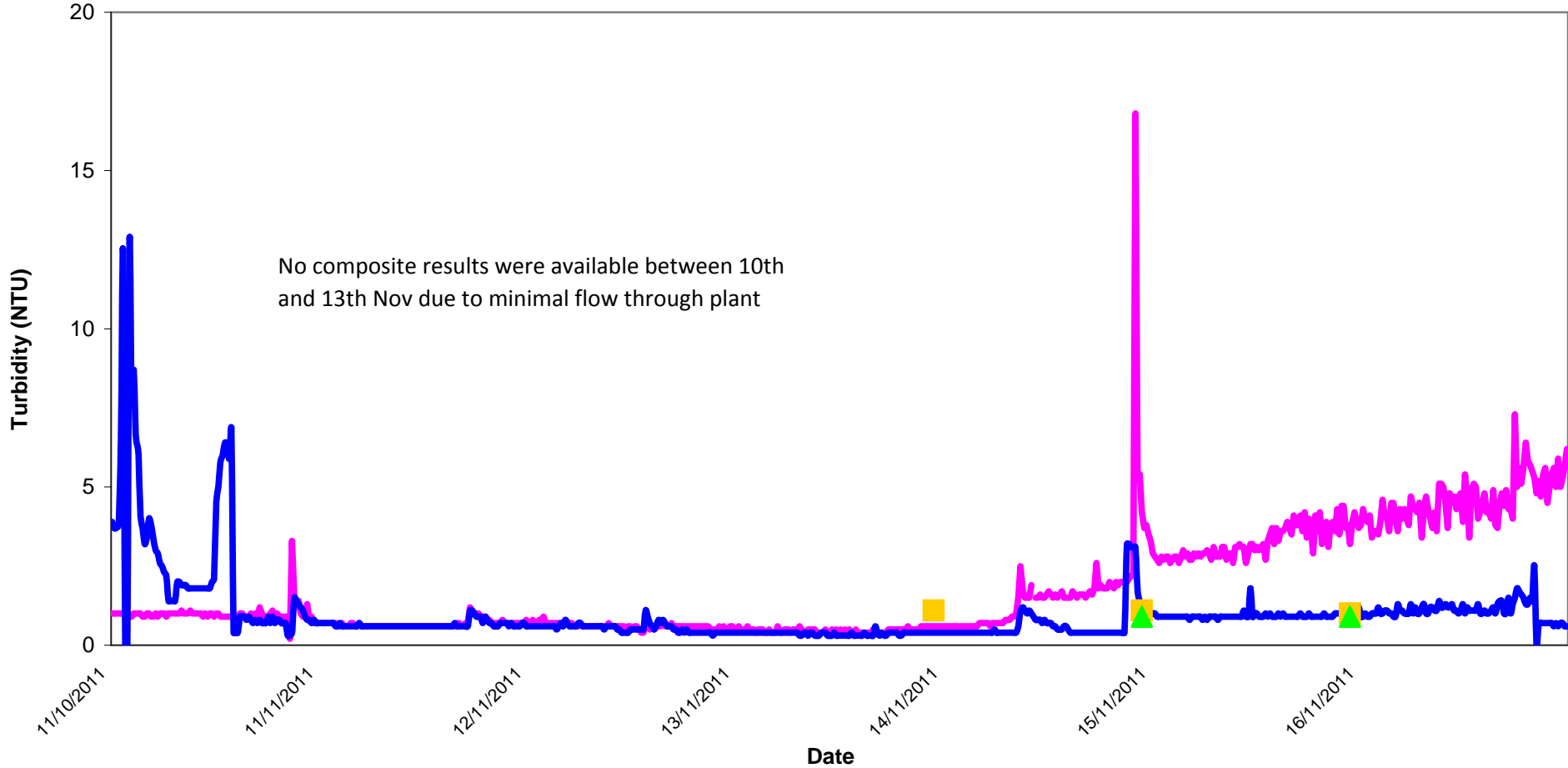
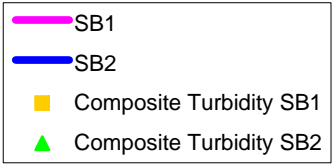
pH - Surface Waters Discharge Week Ending 16/11/2011



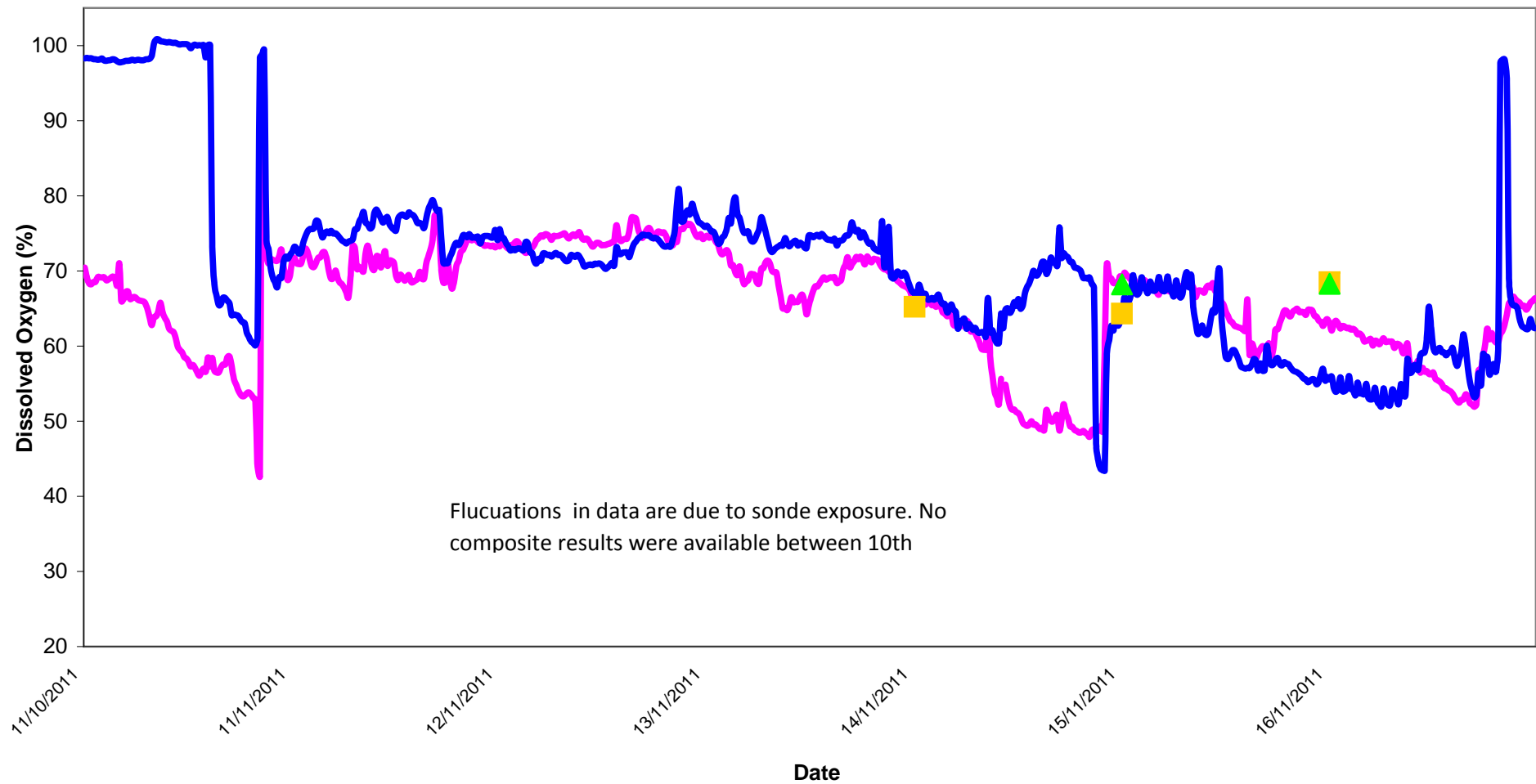
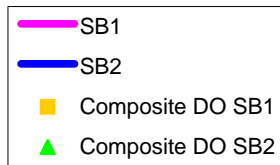
Conductivity - Surface Waters Discharge Week ending 16/11/2011



Turbidity - Surface Waters Discharge
Week Ending 16/11/2011



Dissolved Oxygen - Surface Waters Discharge Week Ending 16/11/2011



Appendix 1

| Appendix 1: Surface Water Monitoring Record Sheet- Onsite Monitoring | | | | | | | |
|--|---|------|-------|-------|----------------------------|----------|-----|
| Location | Date | Temp | DO | Cond. | Turbidity | pH | TDS |
| | | C | % Sat | µS/cm | NTU | pH Units | ppm |
| | | | | | | | |
| DL2 | 10/11/2011 | 9.2 | 19.1 | 295 | 2.8 | 6.0 | 202 |
| DL2 | 11/11/2011 | 11.1 | 27.5 | 354 | 4.0 | 6.0 | 244 |
| DL2 | 14/11/2011 | 12.0 | 46.6 | 397 | 4.7 | 5.9 | 261 |
| DL2 | 15/11/2011 | 10.4 | 18.4 | 345 | 5.2 | 6.0 | 229 |
| DL2 | 16/11/2011 | 11.3 | 15.4 | 323 | 7.7 | 5.8 | 215 |
| | Grey shaded areas denote parameters that cannot or were not analysed on-site (results given are from CLS Labs). | | | | | | |
| | = Indicative Only | | | | | | |
| < LOD | = Below Limit of Detection | | | > LOD | = Above Limit of Detection | | |