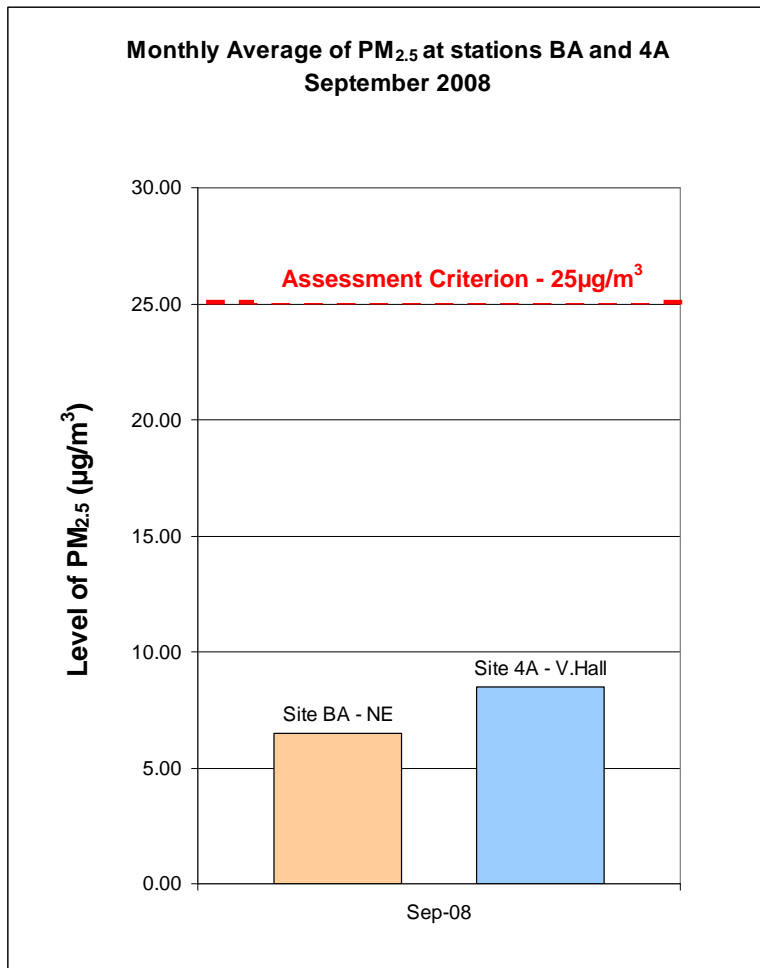


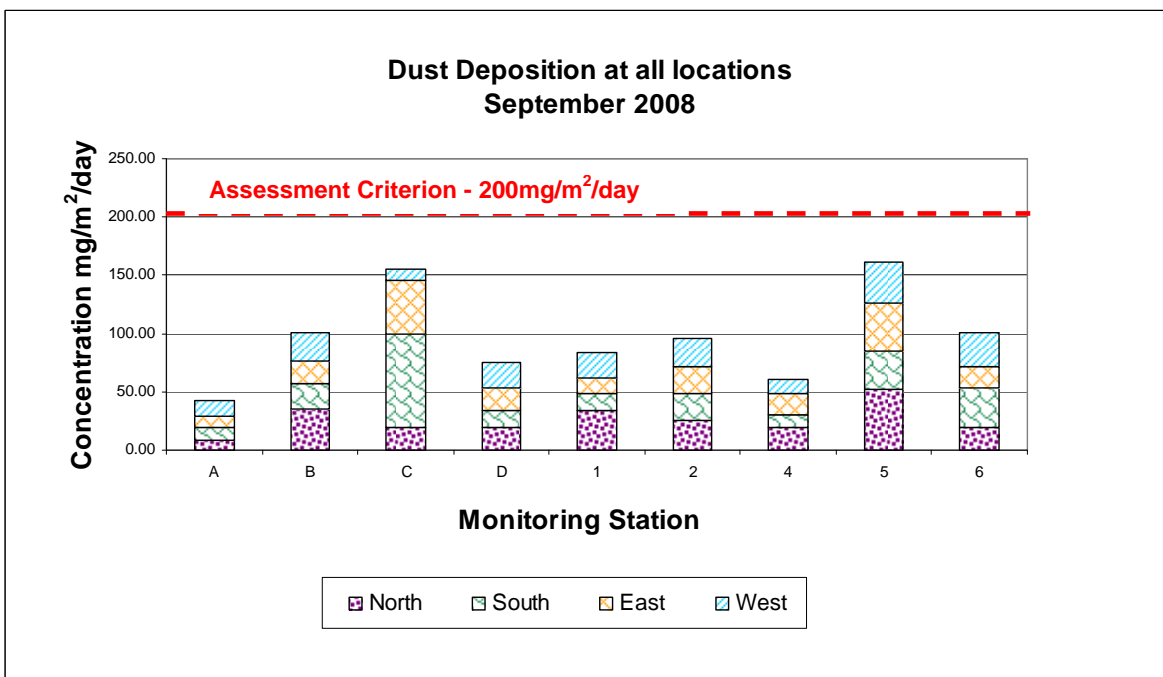
1.2.2 PM_{2.5} Levels

The assessment level of 25µg/m³ was not exceeded at on-site station B or off-site station 4 during the month, with the monthly mean result being 6.48µg/m³ for station B, and 8.48µg/m³ for station 4.



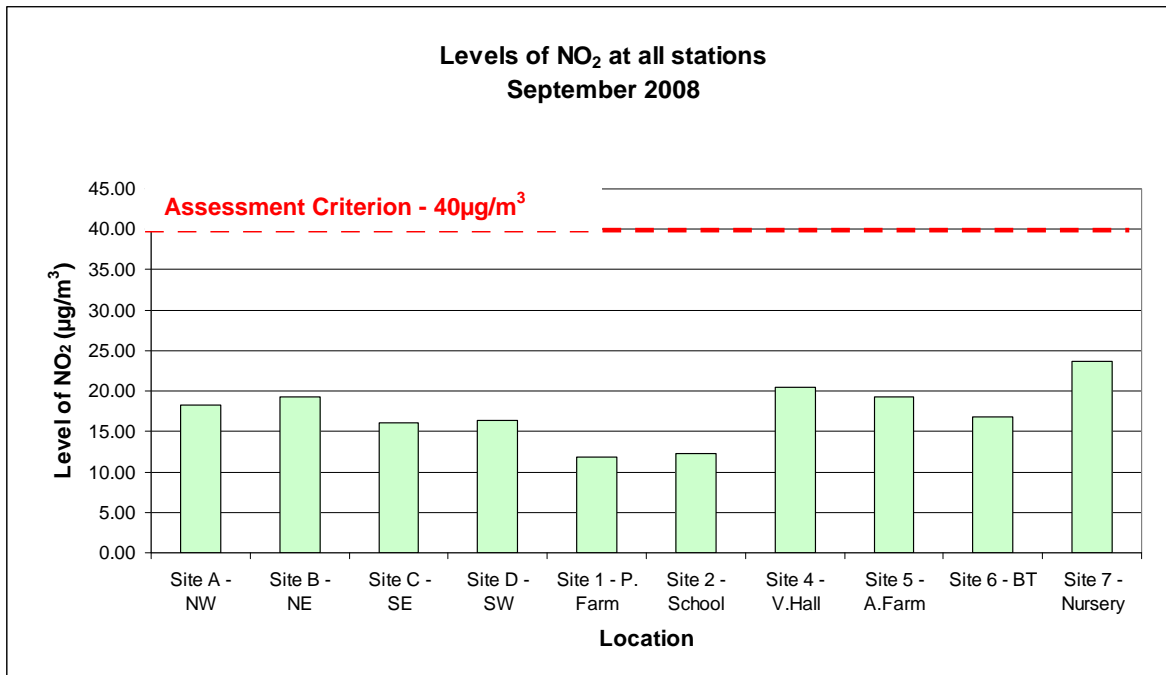
1.2.3 Deposited Dust

The assessment criterion level of 200mg/m²/day was not exceeded during the month, with the highest result being 161mg/m²/day recorded at station 5.



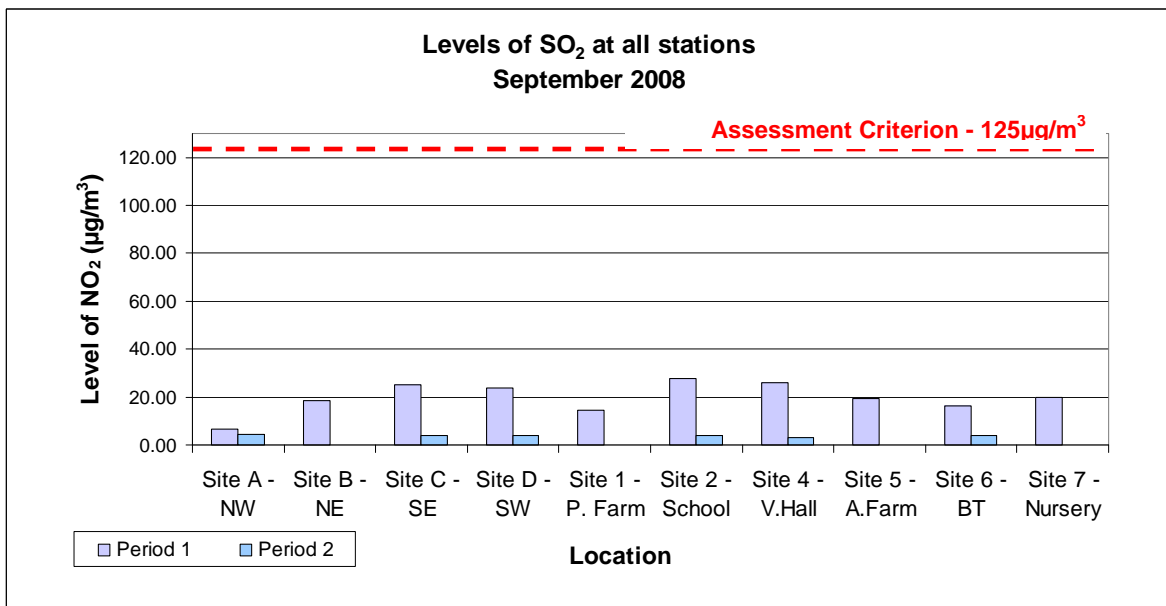
1.2.4 Nitrogen Dioxide

The assessment criteria level developed for NO₂ is 40µg/m³. No stations recorded NO₂ in exceedance of this level, with the highest NO₂ result being 23.74µg/m³, recorded at station 7



1.2.5 Sulphur Dioxide

The assessment criteria levels developed for SO₂ is 125µg/m³. No stations recorded SO₂ in exceedance of this level, with the highest SO₂ level being 27.67µg/m³ at station 2 in the first monitoring period.



1.2.6 BTEX Compounds

The assessment criteria limits for benzene and toluene are 5µg/m³ and 1.9mg/m³ per fortnight, respectively. No stations recorded levels of benzene above the LOD during the month. The highest level of toluene was 0.085mg/m³, recorded at station B during the first period.

1.2.7 Metals

The only metal currently falling under the control of the UK Air Quality Strategy is lead, at a maximum concentration 0.5µg/m³ (annual mean). The highest level of lead recorded at any on-site station was 0.09µg/m³, recorded at station 4 in the first monitoring period.

Cadmium was recorded at levels around the applicable LOD (0.005µg/m³) at station 5 during the second monitoring period, due to the smaller sample volume as a result of downtime experienced at the station.

All other metals were below the assessment criteria developed for the site, and in many cases below LODs.

1.2.8 Cyanide

No National Air Quality Standard has been developed for cyanide; the assessment criteria suggested for the Avenue is a maximum concentration of $50\mu\text{g}/\text{m}^3$ per fortnight. The highest level of cyanide recorded at any off-site station was $0.04\mu\text{g}/\text{m}^3$ at stations B and 2 during the second period

1.2.9 Phenol(s)

The assessment criteria limits for phenol and cresol are $48\mu\text{g}/\text{m}^3$ and $220\mu\text{g}/\text{m}^3$ per fortnight, respectively. The reporting of phenols is subject to a LOD of $0.2\mu\text{g}/\text{m}^3$ and no results were reported above this level.

1.2.10 PAHs

The maximum allowable fortnightly concentration of Coal Tar Pitch Volatiles is $0.48\mu\text{g}/\text{m}^3$, whilst for naphthalene the figure is $126\mu\text{g}/\text{m}^3$. None of the on or off-site stations recorded concentrations in exceedance of these criteria during September 2008. The highest concentration of total coal tar pitch volatiles was $0.02866\mu\text{g}/\text{m}^3$ at station 6 during the second monitoring period. The highest naphthalene result was $0.00035\mu\text{g}/\text{m}^3$ recorded at station B during the first period.

1.2.11 Quality Control Samples

As part of the routine monitoring programme, quality control samples are submitted in the form of duplicates for all sample media and blanks for phenols, cyanide, metals, PAHs and BTEX. This is to ensure that results generated are accurate and, essentially, reliable. The outcomes for September 2008 are as follows:

Media Blanks

The analysis of media blanks indicated an issue with contamination of media used to collect samples of SO_2 during the first monitoring period. The sample recorded in the blank was $25.51\mu\text{g}/\text{m}^3$ compared to field results of 6.82 to $27.67\mu\text{g}/\text{m}^3$. Thus, it could be concluded that field results are actually relatively low, as the blank, which has had no exposure to air, has yielded a result almost as high as the highest field result.

There was no issue of contamination with the media used to collect samples of SO_2 during the second period.

No other blanks indicated problems with contamination during September 2008.

Duplicates

Duplicate PM_{10} samples taken at station A correlated well with original data during the month, with duplicate results ranging between 84% and 143% of original results.

Duplicate PAH results from station 1 correlated moderately well with original data during both periods. Exceptions during the first period included anthracene and benzo(a)anthracene, for which the duplicate results were 333% and 472% of originals respectively; during the second period the phenanthrene duplicate result was 40% of the original.

Duplicate phenol samples were taken at station 1. No results were reported above the limit of detection (LOD) of $0.2\mu\text{g}/\text{m}^3$ during both monitoring periods, and as a result the duplicate results correlated exactly with original results.

Duplicate cyanide results from station A correlated exactly with original results during both monitoring periods; no results were reported above the LOD.

Duplicate metals results from station A correlated well with original data during both monitoring periods.

Duplicate BTEX results recorded at station 6 correlated well with original results during both monitoring periods, with the exception of the duplicate result for total VOCs, which was 47% of the original.

The duplicate NO_2 and SO_2 results from station B correlated well with original results.

1.3 Results from Targeted Air Monitoring

Targeted monitoring is undertaken around specific site activities considered to have the potential to liberate airborne contaminants and also to monitor ambient conditions when no works are taking place. Due to the lack of potential for site activities to generate or liberate significant amounts of contaminative materials, targeted monitoring was not required during the month.

1.4 Results from Odour Monitoring

1.4.1 Odour Diaries

Three odour diarists responded during the month; no records of odour were reported.

1.4.2 Sensory Field Odour Surveys

Two records of odour, described as 'oil' and 'unpleasant', were recorded at off-site station 1 during the month. One record was at *high* odour annoyance impact, on 19 September, and the other was at *medium* odour annoyance impact, on 25 September.

In both instances, the wind was from the direction of the Avenue. No site activities occurred at the time of this record that would be expected to generate odours of this type. No odours of a similar nature were reported by any odour diarists during the month, or were detected at any on-site stations on the same day. In addition to the fact that station 1 is located approximately 2.6km away from the Avenue site, it is therefore considered that the odours arising are likely to be due to conditions or activities local to station 1 rather than activities or conditions at the Avenue site.

1.4.3 Complaints

No odour-related complaints were received during September 2008.