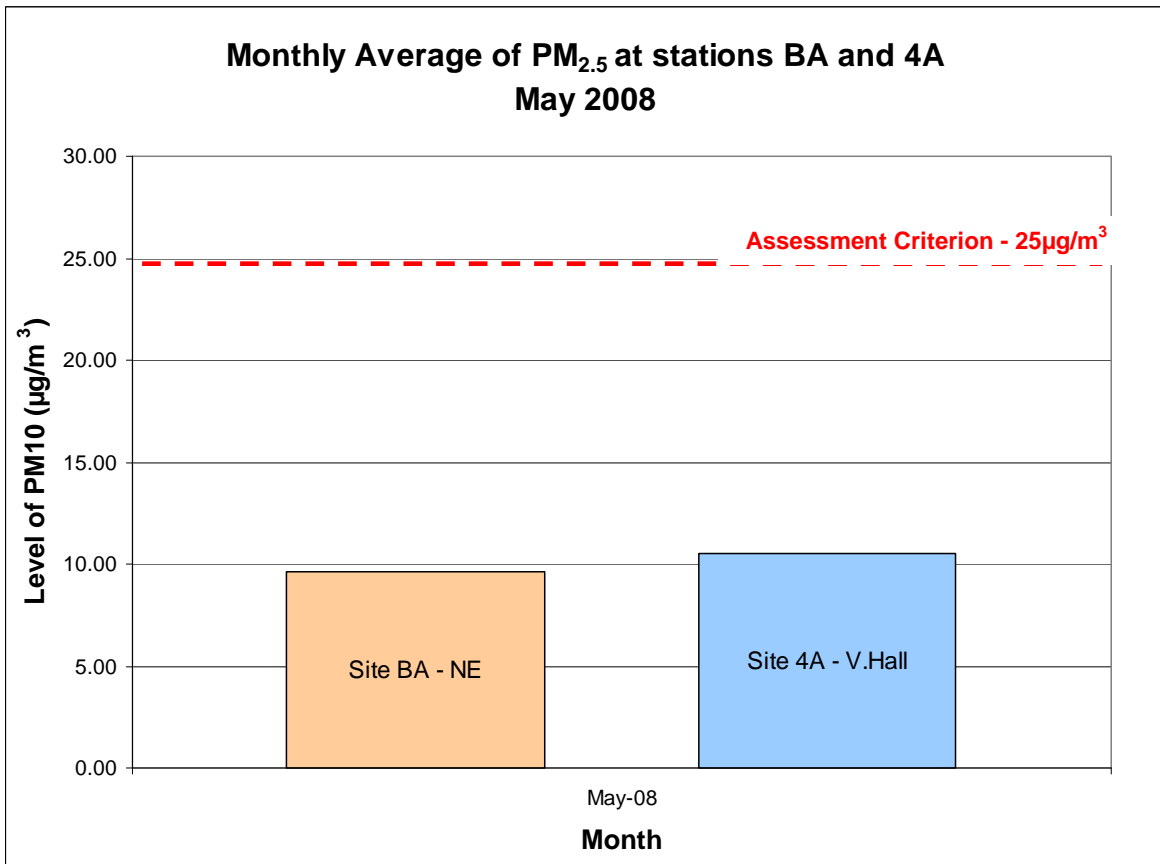


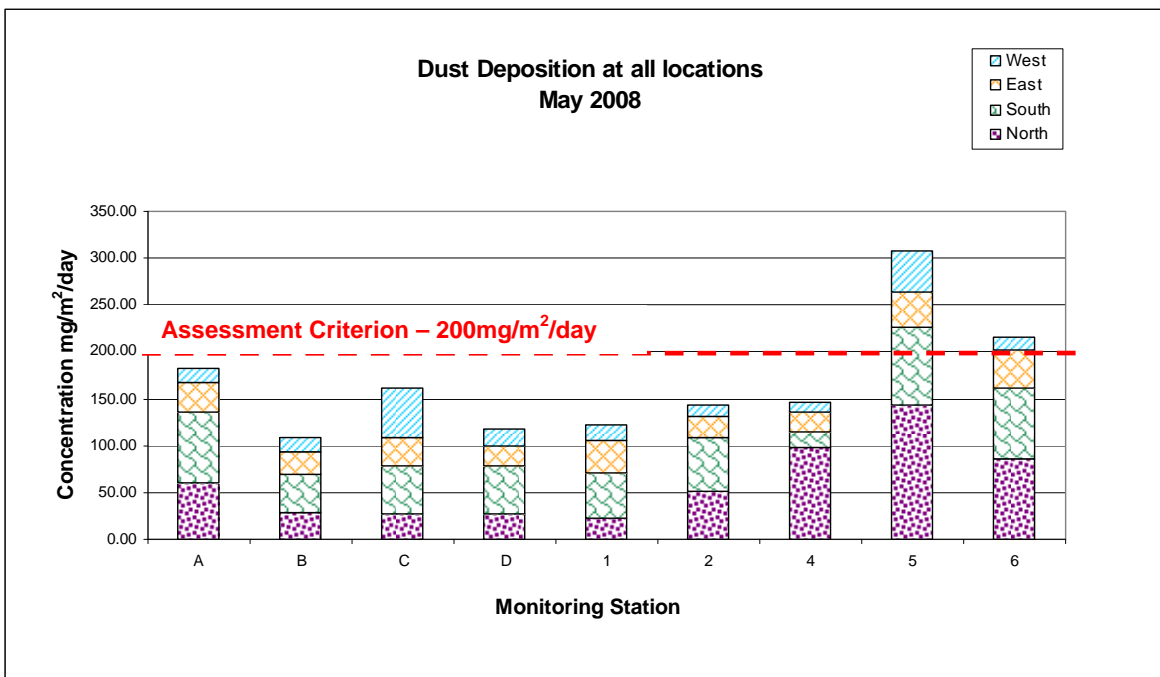
1.2.2 PM_{2.5} Levels

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 9.64µg/m³ for station B, and 10.53µg/m³ for station 4.



1.2.3 Deposited Dust

The assessment criterion level of 200mg/m²/day was exceeded at stations 5 and 6 during the month with the results being 308 and 215mg/m²/day respectively.



Petrographic analysis of dust at station 5 indicates that that collected from the east comprised 30% calcium rich material, 25% plant and animal fragments, 20% silicon rich material, 18% amorphous dirt, 5% unburnt coal material, and 2% iron rich material; from the west the dust comprised 43% silicon rich

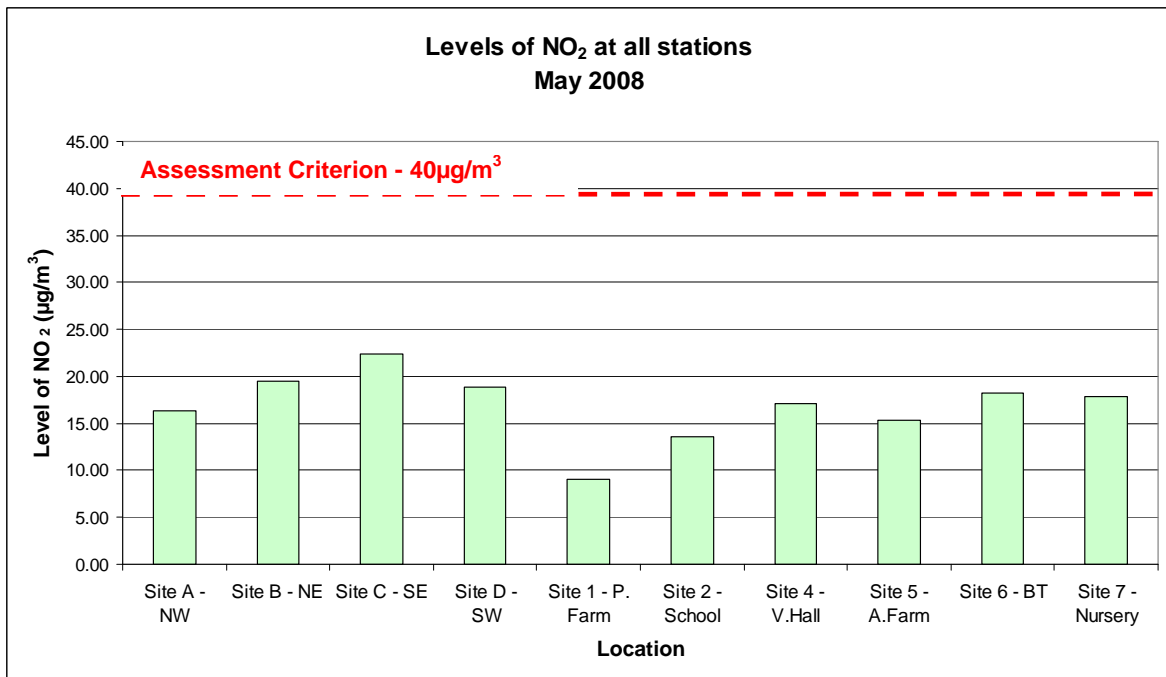
material, 20% plant and animal fragments, 20% amorphous dirt, 10% unburnt coal material, and 7% calcium rich material.

Analysis of dust at station 6 indicates that that collected from the north comprised 33% plant and animal fragments, 25% silicon rich material, 22% unburnt coal material, 15% amorphous dirt, and 5% calcium rich material; from the south the dust comprised 33% plant and animal fragments, 23% amorphous dirt, 22% unburnt coal material, 20% silicon rich material, and 2% calcium rich material.

No on-site stations recorded elevated dust levels and no activities took place that would be expected to liberate dust. Therefore, none of the available information points to the Avenue site being the source of the dust, and it is therefore considered that the exceedances were due to conditions or activities local to stations 5 and 6 (e.g. building works in the vicinity of station 6).

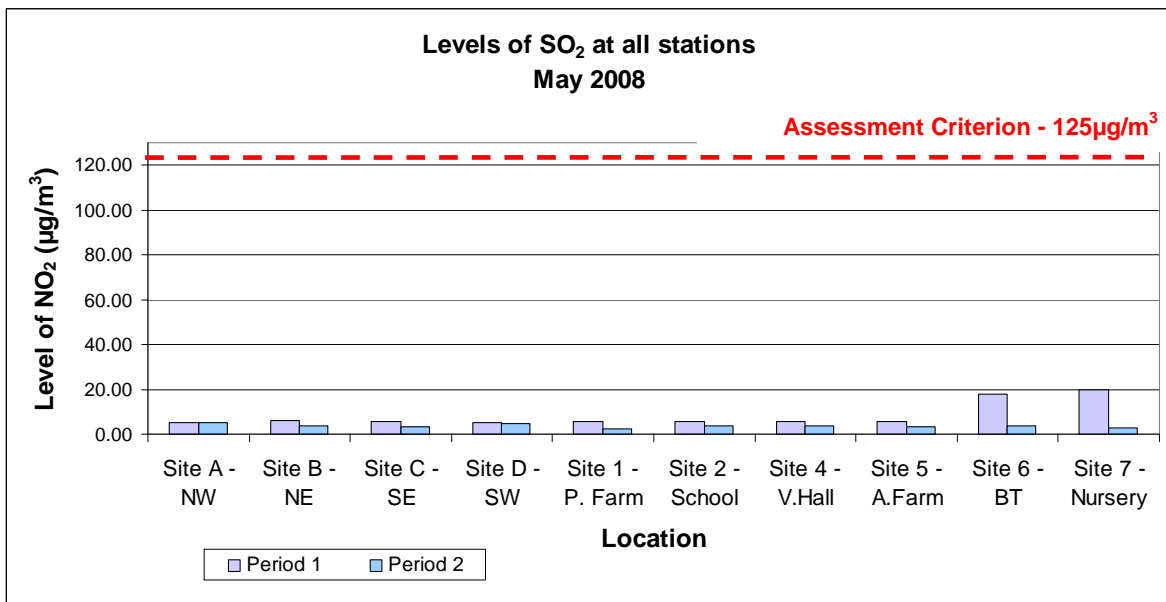
1.2.4 Nitrogen Dioxide

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 22.37µg/m³ at station C.



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 19.72µg/m³, recorded at station 7 in the first monitoring period.



1.2.6 BTEX Compounds

The assessment criteria limits for benzene and toluene are $5\mu\text{g}/\text{m}^3$ and $1.9\text{mg}/\text{m}^3$ per fortnight, respectively. No stations recorded levels of benzene or toluene above the LOD during the month.

1.2.7 Metals

The only metal currently falling under the control of the UK Air Quality Strategy is lead, at a maximum concentration $0.5\mu\text{g}/\text{m}^3$ (annual mean). The highest level of lead was $0.04\mu\text{g}/\text{m}^3$, recorded at stations 4 and 7 in the first period.

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 was $0.04\mu\text{g}/\text{m}^3$ recorded at stations C and 7 during the first monitoring 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 May 2008. The highest concentration of total coal tar pitch volatiles was $0.00954\mu\text{g}/\text{m}^3$ and the highest naphthalene result was $0.0068\mu\text{g}/\text{m}^3$, both recorded at station A 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 May 2008 are as follows:

Media Blanks

The analysis of media blanks indicated no problems with the contamination of media used for the collection of samples during May 2008.

Duplicates

Duplicate PM_{10} samples taken at station A correlated well with original data during the month, with duplicate results ranging between 90% and 140% of original results.

Duplicate PAH results from station 1 correlated well with original data for both monitoring periods, with the exception of the benzo(a)anthracene duplicate result being 207% 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 well with original data for both monitoring periods.

Duplicate metals results from station A correlated well with original data during the second monitoring period, but less well during the first period; the duplicate result for chromium and lead were both 233% of the original during the first period.

Duplicate BTEX results recorded at station 6 correlated well with original results during both monitoring periods.

Both the duplicate NO_2 and SO_2 results from station B correlated well with the 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

There were three records of odour at intensity 4 detected during the month:

- Two 'smoky' odours were recorded on 15 May and 20 May at locations approximately 1.5km east and 0.5km west of the Avenue site respectively.
- One 'floral' odour was recorded on 16 May approximately 0.6km south of the site.

No odours of odour intensity 5 or 6 were detected during the month.

None of the odours detected were recorded when the wind was from the direction of the Avenue, and as such will not be assessed further (as they are not considered to be attributable to the Avenue site).

1.4.2 Sensory Field Odour Surveys

Three records of 'medium' odour annoyance impact were recorded during the month:

- A 'rural' odour of 'neutral' pleasantness was recorded at off-site station 1 on 8 May.
- A 'paint' odour described as 'unpleasant' was recorded at off-site station 2 on 8 May.
- A 'chemical' odour described as 'unpleasant' was recorded at off-site station 6 on 15 May.

The wind was not from the direction of the Avenue at the time of the records and they will therefore not be assessed further (as they are not considered to be attributable to the Avenue site).

1.4.3 Complaints

No odour-related complaints were received during May 2008.