ESG Environmental Scientifics Group

UKAS TESTING 1015

OCCUPATIONAL HYGIENE AND ENVIRONMENTAL MONITORING LABORATORY

TEST REPORT

Site:

Client:

Job Number: 11

Report Number: FD/ 05

Report Date: 25/09/2013

Method N°. FD01: The determination of Fugitive Dust Based on BS 872: 2005 (Mass of dust (mg) is the UKAS accredited test.)

Method N°. FD03: The detemination of fugitive dust based on BS 2690, part 109 (1984) and BS 6068 : Section 2.35 (1989)
(Volume (l), pH (units) and Conductivity ($\mu S.cm^{-1}$) are the UKAS accredited results reported.)

Environmental Scientifics Group Limited is not UKAS accredited for environmental dust gauge sampling.
The dust samples will be retained at the laboratory for a period of 6 months in case extended analysis is required in future. Liquids associated with dust samples are not normally retained at the laboratory.

Report Comment:

Authorised by:

HE Latham

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Helen Latham, Senior Analyst
Occupational Hygiene & Environmental Monitoring
Direct Dial: 01283 554486

Approved by:

.....

N J Fenwick, Technical Manager
Occupational Hygiene & Environmental Monitoring
Direct Dial: 01283 554487

TEST REPORT

1015

Report Number FD/ 053 Job Number 11 ID Number 065
Site Description
Sample 1
Date Received 03/09/2013 Sampling Period 03/08/2013 to 31/08/2013 28 Days

Method FD01 **Gauge Type** Frisbee deposit gauge

Dust mass (mg) 632
Deposition (mg.m^{-2}d^{-1}) 568

Detection Limit (mg) 0.5 Date Tested 16/09/2013

Method FD03

Result Volume **LOD** 0.1 **Date Tested** 03/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
Volume	2.4	litres	2.4	litres

Result pH **LOD** 0.1 **Date Tested** 06/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
pH	6.8	units	6.8	units

Result TDS **LOD** 0.5 **Date Tested** 06/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
DS	72	µS.cm^{-1}	116.0	mg
Conductivity	72	µS.cm^{-1}	104.0	mg.m^{-2}d^{-1}

TEST REPORT

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Report Number FD/ 053 Job Number 11 ID Number 065
Site Description
Sample 2
Date Received 03/09/2013 Sampling Period 03/08/2013 to 31/08/2013 28 Days

Method FD01 **Gauge Type** Frisbee deposit gauge

Dust mass (mg) 76
Deposition (mg.m^{-2}d^{-1}) 68

Detection Limit (mg) 0.5 Date Tested 16/09/2013

Method FD03

Result Volume **LOD** 0.1 **Date Tested** 03/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
Volume	2.3	litres	2.3	litres

Result pH **LOD** 0.1 **Date Tested** 06/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
pH	6.5	units	6.5	units

Result TDS **LOD** 0.5 **Date Tested** 06/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
DS	62	µS.cm^{-1}	96.0	mg
Conductivity	62	µS.cm^{-1}	86.0	mg.m^{-2}d^{-1}

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Report Number FD/ 053 Job Number 11 ID Number 065
Site Description
Sample 3
Date Received 03/09/2013 Sampling Period 03/08/2013 to 31/08/2013 28 Days

Method FD01 **Gauge Type** Frisbee deposit gauge

Dust mass (mg) 95
Deposition (mg.m^{-2}d^{-1}) 85

Detection Limit (mg) 0.5 Date Tested 16/09/2013

Method FD03

Result Volume **LOD** 0.1 **Date Tested** 03/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
Volume	2.6	litres	2.6	litres

Result pH **LOD** 0.1 **Date Tested** 06/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
pH	6.6	units	6.6	units

Result TDS **LOD** 0.5 **Date Tested** 06/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
DS	67	µS.cm^{-1}	117.0	mg
Conductivity	67	µS.cm^{-1}	105.0	mg.m^{-2}d^{-1}

TEST REPORT

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Report Number FD/ 05 Job Number 11 ID Number 065
Site Description
Sample 4
Date Received 03/09/2013 Sampling Period 03/08/2013 to 31/08/2013 28 Days

Method FD01 **Gauge Type** Frisbee deposit gauge

Dust mass (mg) 67
Deposition (mg.m^{-2}d^{-1}) 60

Detection Limit (mg) 0.5 Date Tested 16/09/2013

Method FD03

Result Volume **LOD** 0.1 **Date Tested** 03/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
Volume	2.7	litres	2.7	litres

Result pH **LOD** 0.1 **Date Tested** 06/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
pH	6.6	units	6.6	units

Result TDS **LOD** 0.5 **Date Tested** 06/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
DS	49	µS.cm^{-1}	89.0	mg
Conductivity	49	µS.cm^{-1}	80.0	mg.m^{-2}d^{-1}

TEST REPORT

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Report Number FD/ 05 Job Number 11 ID Number 065
Site Description
Sample 5
Date Received 03/09/2013 Sampling Period 03/08/2013 to 31/08/2013 28 Days

Method FD01 **Gauge Type** Frisbee deposit gauge

Dust mass (mg) 46
Deposition (mg.m^{-2}d^{-1}) 41

Detection Limit (mg) 0.5 Date Tested 16/09/2013

Method FD03

Result Volume **LOD** 0.1 **Date Tested** 03/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
Volume	2.3	litres	2.3	litres

Result pH **LOD** 0.1 **Date Tested** 06/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
pH	5.8	units	5.8	units

Result TDS **LOD** 0.5 **Date Tested** 06/09/2013

Test / Direction	Measured Value	Units	Reported Result	Units
DS	43	µS.cm^{-1}	66.0	mg
Conductivity	43	µS.cm^{-1}	60.0	mg.m^{-2}d^{-1}

Environmental Scientifics Group

UKAS TESTING
1015

TEST REPORT
EXAMINATION BY SCANNING ELECTRON MICROSCOPY-ENERGY DISPERSIVE X-RAY ANALYSIS (SEM-EDS)

Client:
Mr
H
Ltd
Plant
W
G
E
D

Job Number: OHEM 1
Report Number: OHEM/1/SEM/0001 (Revision 0)

Date Received: 03 September 2013

Analysis Completed By: 25 September 2013

Date Reported: 25 September 2013

Identification of Dust Gauge / Environmental Deposits by SEM-EDS Method Number SEMDG7

The examination procedure is based on an assessment of fifty individual particles selected at random.
The estimated percentage is based on a comparison of the relative number of particles counted in each category.
Environmental Scientifics Group Limited is not UKAS accredited for environmental dust gauge sampling.
Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation.

Analysed by: **D A Cowper**
Senior SEM Analyst

Authorised By: ----------
N J Fenwick, Technical Manager
Occupational Hygiene & Environmental Monitoring
Direct Dial: 01 283 554487

TEST REPORT

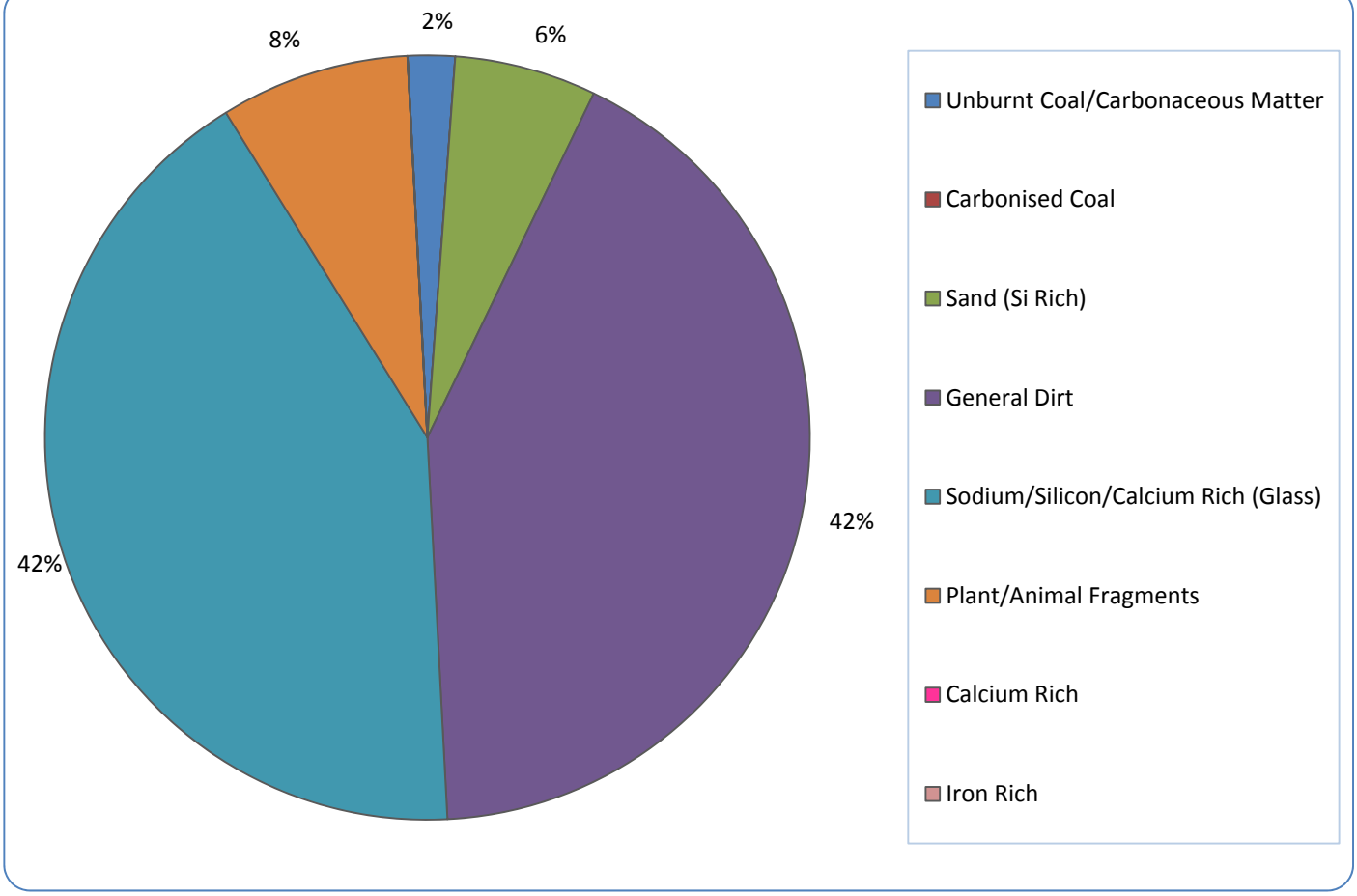
UKAS TESTING 1015

OCCUPATIONAL HYGIENE & ENVIRONMENTAL MONITORING LABORATORY

RESULTS OF SEM-EDS EXAMINATION

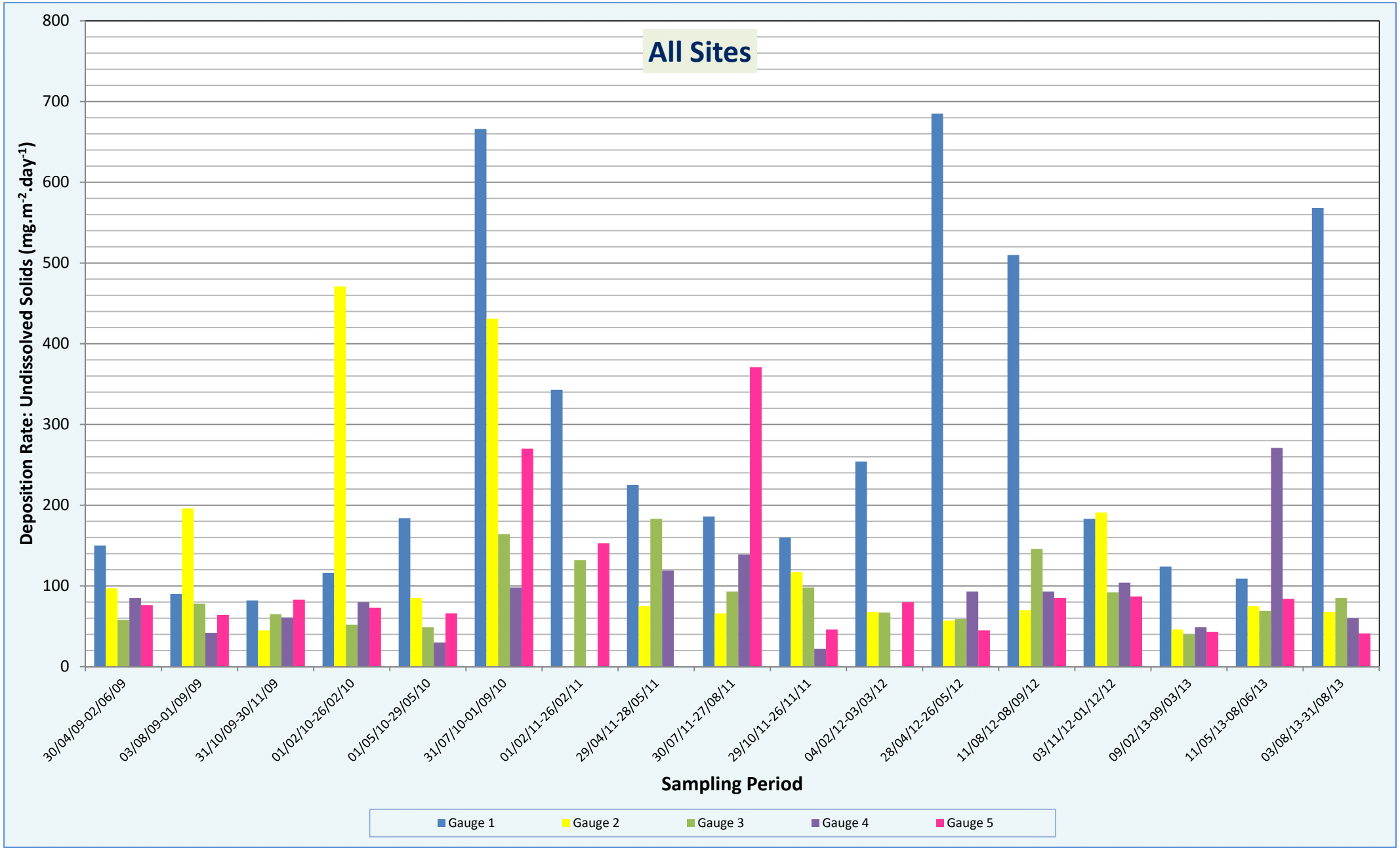
Report Number: OHEM/1/SEM/0001

Location	
Sampling Period	03/08/2013 – 31/08/2013
ESG OHEM LIMS Sample ID Number	06
Date Analysed	25 September 2013



-END OF REPORT-

Environmental Dust Monitoring
Frisbee Deposit Gauge Results Comparison



Environmental Dust Monitoring
Frisbee Deposit Gauge Results Comparison