



AEROSOL MONITORING CERTIFICATE OF ANALYSIS



CLIENT CHRIS THOMPSON, TFL ENGINEERING, TEST DATE 28/01/19
ADDRESS 7TH FLOOR, 5 ENDEAVOUR SQUARE, PAGE No 1 OF 3
WESTFIELD AVENUE, STRATFORD,
LONDON E20 1JN JOB No 183260
SITE/LOCATION CRANSTON CLOSE CAR PARK CERTIFICATE No. C183260/280119/02
PROCESS BEING MONITORED AM DURING LOCOMOTIVE MOVEMENT RUISLIP
SAMPLES STATIC/~~PERSONAL~~ ANALYST (S) VC
ANALYSIS LOCATION BALANCE ROOM, MAIN LABORATORY NO. OF SAMPLES 3 + Blanks

TEST PROCEDURES

TEST METHOD CARRIED OUT IN ACCORDANCE WITH MDHS 14/4 AND IN-HOUSE TEST PROCEDURE 4R-E206. SAMPLING STRATEGY CARRIED OUT IN GENERAL ACCORDANCE WITH HSG 173 MONITORING STRATEGIES FOR TOXIC SUBSTANCES.

TWA: 8-HOUR TIME WEIGHTED AVERAGE

| FILTER NUMBER | SAMPLE TYPE * | SAMPLE LOCATION | START TIME | BREAKS IN SAMPLING (IF APPLICABLE) | | FINISH TIME | FLOW RATE / (l/min) | VOLUME OF A R / (litres) | CALC. DUST CONC ⁿ / (mg/m ³) | TWA. / (mg/m ³) |
|---------------|---------------|---------------------|------------|------------------------------------|---------|-------------|---------------------|--------------------------|---|-----------------------------|
| | | | | TIME OFF | TIME ON | | | | | |
| 183260/04 | R | P1 – Car Park A LHS | 22:00 | - | - | 00:30 | 2.2 | 319.76 | <0.02 | - |
| 183260/05 | R | P2 – Car Park A RHS | 22:00 | - | - | 00:30 | 2.2 | 319.76 | 0.11 | - |
| 183260/06 | R | P3 – Car Park B | 22:02 | - | - | 00:31 | 2.2 | 317.63 | <0.02 | - |
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* RESPIRABLE: R, THORACIC: T, INHALABLE: I

TEMPERATURE: 1.0 °C

PRESSURE: 1009 MILLIBARS

UNCERTAINTY OF MEASUREMENT

THE LOWER LIMIT OF DETECTION IS CALCULATED TO BE 0.02MG. THE OVERALL ACCURACY OF MEASUREMENT IS DEPENDANT ON THE SAMPLING VOLUME: THE GREATER THE SAMPLING VOLUME, THE LOWER THE LIMIT OF ACCURATE MEASUREMENT.

HSE WORKPLACE EXPOSURE LIMIT (EH40/05): RESPIRABLE DUST : 4 MG/M³ (8-HOUR TWA)
INHALABLE DUST: 10 MG/M³ (8-HOUR TWA)

SAMPLES TAKEN ARE HELD IN THE MAIN LABORATORY AND WILL DISPOSED OF AFTER A MINIMUM PERIOD OF SIX MONTHS.

CERTIFICATE PREPARED BY
GRAVIMETRIC ANALYSIS CARRIED OUT BY:
CERTIFIED BY

SIGNED
SIGNED
SIGNED
ISSUE DATE

12th February 2019

Head Office: Unit 3, Metro Centre, Britannia Way, London, NW10 7PA
Laboratory: Unit 11, Ironbridge Close, Great Central Way, London, NW10 0UF
T: +44(0)20 8955 9680 F: +44(0)20 8955 9689 E-mail: enquiries@4-rail.com
VAT Registration Number: 691 5975 82 Company Registration No.: 3256863

| FILTER NUMBER | HEAD/ PUMP NO. | START FLOW RATE / (l/min) | START TIME | FINAL FLOW RATE / (l/min) | FINISH TIME | FLOW RATE CHECK / (l/min) | TIME | FLOW RATE CHECK / (l/min) | TIME | FLOW RATE CHECK / (l/min) | TIME | FLOW RATE CHECK / (l/min) | TIME |
|---------------|----------------|---------------------------|------------|---------------------------|-------------|---------------------------|------|---------------------------|------|---------------------------|------|---------------------------|------|
| 183260/04 | 4RS62/410 138 | 2.2 | 22:00 | 2.2 | 00:30 | - | - | - | - | - | - | - | - |
| 183260/05 | 4RS63/411 05 | 2.2 | 22:00 | 2.2 | 00:30 | - | - | - | - | - | - | - | - |
| 183260/06 | 4RS65/410 818 | 2.2 | 22:02 | 2.2 | 00:31 | - | - | - | - | - | - | - | - |
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ENVIRONMENTAL CONDITIONS

START TEMPERATURE 1.0 °C

START PRESSURE 1009 MILLIBARS

FINAL TEMPERATURE 1.0 °C

FINAL PRESSURE 1009 MILLIBARS

BALANCE
SERIAL NO.CALIBRATION
DUE DATETIME KEEPING
EQUIPMENT

460034

CALIBRATION
DUE DATE

08/07/19

FLOWMETER
REF. NO.

410287

CALIBRATION
DUE DATE

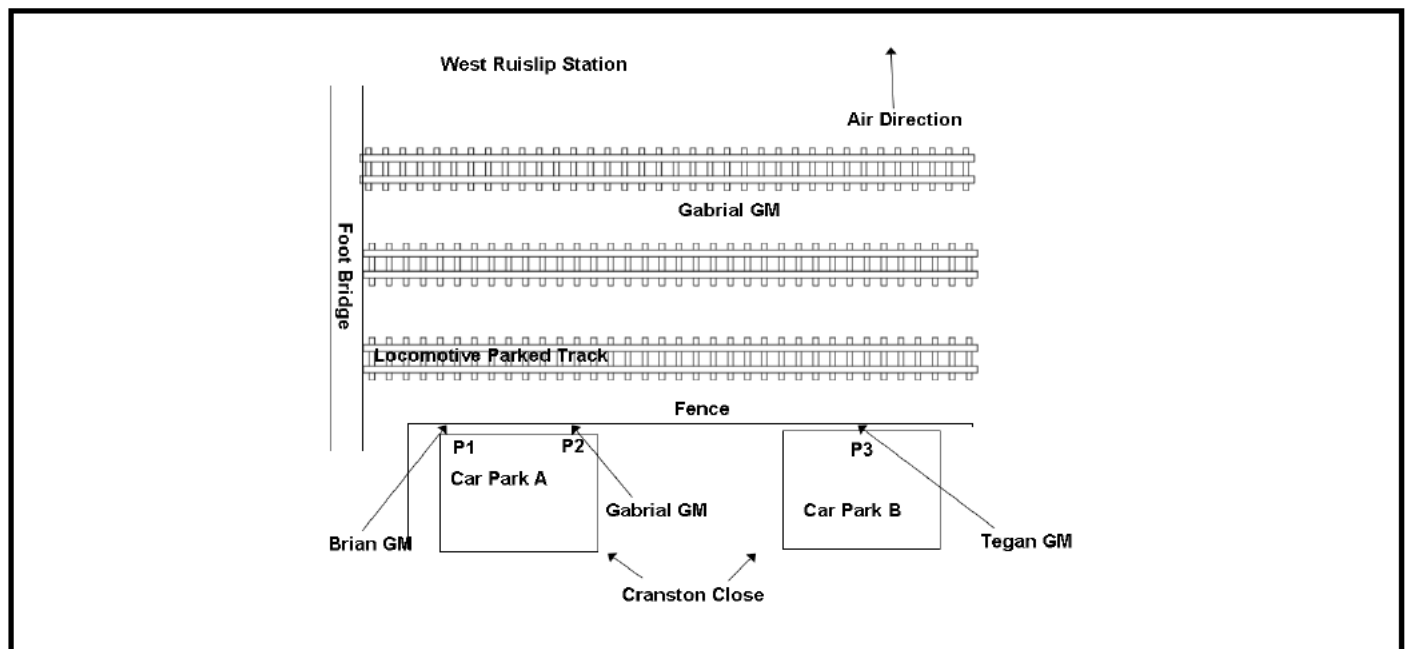
24/2/19

TEMPERATURE
GAUGE. NO.

402616

CALIBRATION DUE
DATE

18/07/19

SITE DIAGRAM

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THE OPINIONS AND INTERPRETATIONS EXPRESSED HEREIN ARE OUTSIDE THE SCOPE OF THE UKAS ACCREDITATION

AIR DIRECTION, IF REQUIRED :

[illegible]

VOLUME CORRECTED FOR TEMPERATURE CHANGE

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