



Element, Unit C6, Emery Court, The Embankment Business Park, Heaton Mersey, Stockport, SK4 3GL

Your Element Contact: [REDACTED]  
E: [REDACTED]

**Stack Emissions Testing Report Commissioned by**  
Thalia Waste Management

**Installation Name & Address**  
Thalia Waste Management  
Allerton Park Quarry  
Moor Lane  
Knaresborough  
HG5 0SD

EPR Permit: EPR/KP3808PN/V003

**Stack Reference**  
A2 - Line 1

**Dates of the Monitoring Campaign**  
10th October 2025

**Job Reference Number**  
EMT14687

| Report Written by                                                             |
|-------------------------------------------------------------------------------|
| [REDACTED]<br>Site Manager<br>MCERTS Level 2<br>MM 13 1215<br>TE1 TE2 TE3 TE4 |

| Report Approved by                                                                 |
|------------------------------------------------------------------------------------|
| [REDACTED]<br>Reporting Manager<br>MCERTS Level 2<br>MM 18 1494<br>TE1 TE2 TE3 TE4 |

| Report Date       |
|-------------------|
| 31st October 2025 |

| Version   |
|-----------|
| Version 1 |

| Signature of Report Approver |
|------------------------------|
| [REDACTED]                   |

TITLE PAGE

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### MONITORING OBJECTIVES

Thalia Waste Management, Knaresborough

A2 - Line 1

10th October 2025

#### Overall Aim of the Monitoring Campaign

Element were commissioned by Thalia Waste Management to carry out stack emissions testing on the A2 - Line 1 at Knaresborough.

The aim of the monitoring campaign was to to comply with the requirements of the UK Waste Incineration BAT Conclusions Interpretation Document (UK WI BATCs ID).

#### Special Requirements

There were no special requirements.

#### Target Parameters

Dioxins & Furans, PCBs

## Executive Summary

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### MONITORING RESULTS

Thalia Waste Management, Knaresborough

A2 - Line 1

10th October 2025

where MU = Measurement Uncertainty associated with the Result

| Parameter                                                                | Concentration                   |          |           |       | Mass Emission |        |           |       |
|--------------------------------------------------------------------------|---------------------------------|----------|-----------|-------|---------------|--------|-----------|-------|
|                                                                          | Units                           | Result   | MU<br>+/- | Limit | Units         | Result | MU<br>+/- | Limit |
| <b>Dioxins &amp; Furans Upper Limit (worst case where &lt;LOD = LOD)</b> |                                 |          |           |       |               |        |           |       |
| Dioxins & Furans (NATO I-TEQ)                                            | <sup>1</sup> ng/m <sup>3</sup>  | 0.0132   | 0.0037    | -     | µg/hr         | 0.17   | 0.05      | -     |
| Dioxins & Furans (WHO TEQ Humans / Mammals)                              | <sup>1</sup> ng/m <sup>3</sup>  | 0.0133   | 0.0037    | -     | µg/hr         | 0.17   | 0.05      | -     |
| Dioxins & Furans (WHO TEQ Fish)                                          | <sup>1</sup> ng/m <sup>3</sup>  | 0.0149   | 0.0042    | -     | µg/hr         | 0.19   | 0.06      | -     |
| Dioxins & Furans (WHO TEQ Birds)                                         | <sup>1</sup> ng/m <sup>3</sup>  | 0.0319   | 0.0089    | -     | µg/hr         | 0.40   | 0.12      | -     |
| <b>Dioxins &amp; Furans Lower Limit (best case where &lt;LOD = 0)</b>    |                                 |          |           |       |               |        |           |       |
| Dioxins & Furans (NATO I-TEQ)                                            | <sup>1</sup> ng/m <sup>3</sup>  | 0.0083   | 0.0023    | -     | µg/hr         | 0.10   | 0.03      | -     |
| Dioxins & Furans (WHO TEQ Humans / Mammals)                              | <sup>1</sup> ng/m <sup>3</sup>  | 0.0063   | 0.0018    | -     | µg/hr         | 0.08   | 0.02      | -     |
| Dioxins & Furans (WHO TEQ Fish)                                          | <sup>1</sup> ng/m <sup>3</sup>  | 0.0074   | 0.0021    | -     | µg/hr         | 0.09   | 0.03      | -     |
| Dioxins & Furans (WHO TEQ Birds)                                         | <sup>1</sup> ng/m <sup>3</sup>  | 0.0253   | 0.0070    | -     | µg/hr         | 0.32   | 0.09      | -     |
| <b>PCBs Upper Limit (worst case where &lt;LOD = LOD)</b>                 |                                 |          |           |       |               |        |           |       |
| PCBs (WHO TEQ Humans / Mammals)                                          | <sup>1</sup> ng/m <sup>3</sup>  | 0.002247 | 0.000626  | -     | µg/hr         | 0.03   | 0.008     | -     |
| PCBs (WHO TEQ Fish)                                                      | <sup>1</sup> ng/m <sup>3</sup>  | 0.000140 | 0.000039  | -     | µg/hr         | 0.002  | 0.001     | -     |
| PCBs (WHO TEQ Birds)                                                     | <sup>1</sup> ng/m <sup>3</sup>  | 0.014024 | 0.003908  | -     | µg/hr         | 0.18   | 0.053     | -     |
| <b>PCBs Lower Limit (best case where &lt;LOD = 0)</b>                    |                                 |          |           |       |               |        |           |       |
| PCBs (WHO TEQ Humans / Mammals)                                          | <sup>1</sup> ng/m <sup>3</sup>  | 0.002179 | 0.000607  | -     | µg/hr         | 0.03   | 0.008     | -     |
| PCBs (WHO TEQ Fish)                                                      | <sup>1</sup> ng/m <sup>3</sup>  | 0.000140 | 0.000039  | -     | µg/hr         | 0.002  | 0.001     | -     |
| PCBs (WHO TEQ Birds)                                                     | <sup>1</sup> ng/m <sup>3</sup>  | 0.014021 | 0.003908  | -     | µg/hr         | 0.18   | 0.053     | -     |
| Oxygen                                                                   | % v/v                           | Dry 18.4 | 0.45      |       |               |        |           |       |
| Water Vapour                                                             | % v/v                           | 3.1      | 0.16      |       |               |        |           |       |
| Stack Gas Temperature                                                    | °C                              | 130      |           |       |               |        |           |       |
| Stack Gas Velocity                                                       | m/s                             | 7.9      | 0.79      |       |               |        |           |       |
| Volumetric Flow Rate (ACTUAL)                                            | m <sup>3</sup> /hr              | 72017    | 7956      |       |               |        |           |       |
| Volumetric Flow Rate (REF)                                               | <sup>1</sup> m <sup>3</sup> /hr | 12508    | 1382      |       |               |        |           |       |

NOTE: VOLUMETRIC FLOW RATE & VELOCITY DATA TAKEN FROM AN AVERAGE OF ALL OF THE ISOKINETIC RUNS.

<sup>1</sup> Reference Conditions (REF) are: 273K, 101.3kPa, dry gas, 11% oxygen.

## Executive Summary

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### MONITORING DATE(S) & TIMES

Thalia Waste Management, Knaresborough

A2 - Line 1

10th October 2025

| Parameter         |           | Units             | Concentration | Units | Mass Emission | Sampling Date(s) | Sampling Times | Duration mins |
|-------------------|-----------|-------------------|---------------|-------|---------------|------------------|----------------|---------------|
| Dioxins & Furans  | (NATO) R1 | ng/m <sup>3</sup> | 0.0132        | µg/hr | 0.17          | 10/10/2025       | 16:00 - 21:00  | 300           |
| PCBs              | R1        | ng/m <sup>3</sup> | 0.0022        | µg/hr | 0.03          | 10/10/2025       | 16:00 - 21:00  | 300           |
| Oxygen            | R1        | % v/v             | 18.39         |       |               | 10/10/2025       | 16:00 - 21:00  | 300           |
| Velocity Traverse | R1        |                   |               |       |               | 10/10/2025       | 15:30 - 15:45  |               |

All results are expressed at the respective reference conditions.

**PROCESS DETAILS**

Thalia Waste Management, Knaresborough  
A2 - Line 1  
10th October 2025

**Standard Operating Conditions**

| Parameter                            | Value                                         |
|--------------------------------------|-----------------------------------------------|
| Process Status                       | Shutdown Operation                            |
| Capacity (of 100%) and Tonnes / Hour | Shutdown                                      |
| Continuous or Batch Process          | Continuous                                    |
| Feedstock (if applicable)            | Municipal Waste                               |
| Abatement System                     | Bag Filtration with Carbon and Lime Injection |
| Abatement System Running Status      | On                                            |
| Fuel                                 | Natural Gas                                   |
| Plume Appearance                     | No Plume Visible                              |

## MONITORING & ANALYTICAL METHODS

Thalia Waste Management, Knaresborough

A2 - Line 1

10th October 2025

| Parameter                 | Monitoring       |                     |                 |             | Analysis                                |                      |                 |              | Overall Status | LOD (Average)             |
|---------------------------|------------------|---------------------|-----------------|-------------|-----------------------------------------|----------------------|-----------------|--------------|----------------|---------------------------|
|                           | Standard         | Technical Procedure | Sampling Status | Testing Lab | Analytical Procedure                    | Analytical Technique | Analysis Status | Analysis Lab |                |                           |
| Dioxins & Furans          | EN 1948          | MD 007              | MCERTS          | EET         | PM137, TM201                            | GC-HRMS              | MCERTS          | ELD          | MCERTS         | 0.0075 ng/m <sup>3</sup>  |
| PCBs                      | EN 1948          | MD 007              | MCERTS          | EET         | PM137, TM201                            | GC-HRMS              | MCERTS          | ELD          | MCERTS         | 0.00032 ng/m <sup>3</sup> |
| Water Vapour              | EN 14790         | MD 005              | MCERTS          | EET         | MD 005                                  | Gravimetric          | MCERTS          | EET          | MCERTS         | 0.10 % v/v                |
| Oxygen                    | EN 14789         | MD 039              | MCERTS          | EET         | Dry Paramagnetic Cell by Horiba PG-350E |                      |                 |              | MCERTS         | 0.1 %                     |
| Velocity & Vol. Flow Rate | EN 16911-1 (MID) | MD 041              | MCERTS          | EET         | Pitot Tube and Thermocouple             |                      |                 |              | MCERTS         | 1.8 m/s                   |

## ANALYSIS LABORATORIES

(with short name reference as appears in the table above)

|                               |                                           |
|-------------------------------|-------------------------------------------|
| Element (Stockport Lab - EET) | ISO 17025 Accreditation Number: UKAS 4279 |
| Element (Deeside Lab - ELD)   | ISO 17025 Accreditation Number: UKAS 4225 |

## SUMMARY OF SAMPLING DEVIATIONS

| Parameter | Run | Deviation                                                      |
|-----------|-----|----------------------------------------------------------------|
| All       | All | There are no deviations associated with the sampling employed. |

## SUITABILITY OF SAMPLING LOCATION

### Duct Characteristics

| Parameter           | Units          | Value     |
|---------------------|----------------|-----------|
| Type                | -              | Circular  |
| Depth               | m              | 1.80      |
| Width               | m              | -         |
| Area                | m <sup>2</sup> | 2.54      |
| Port Depth          | cm             | 25        |
| Orientation of Duct | -              | Vertical  |
| Number of Ports     | -              | 2         |
| Sample Port Size    | -              | 5" Flange |

### Location of Sampling Platform

| General Platform Information   | Value     |
|--------------------------------|-----------|
| Permanent / Temporary Platform | Permanent |
| Inside / Outside               | Outside   |

### Platform Details

| EA Technical Guidance Note M1 / EN 15259 Platform Requirements                    | Value |
|-----------------------------------------------------------------------------------|-------|
| Sufficient working area to manipulate probe and operate the measuring instruments | Yes   |
| Platform has 2 levels of handrails (approx. 0.5m & 1.0m high)                     | Yes   |
| Platform has vertical base boards (approx. 0.25m high)                            | Yes   |
| Platform has chains / self closing gates at top of ladders                        | N/A   |
| There are no obstructions present which hamper insertion of sampling equipment    | Yes   |
| Safe Access Available                                                             | Yes   |
| Easy Access Available                                                             | Yes   |

### Sampling Location / Platform Improvement Recommendations

The sampling location meets all the requirements specified in EA Guidance Note M1 and EN 15259, and therefore there are no improvement recommendations.

### EN 15259 Homogeneity Test Requirements

There is no requirement to perform a EN 15259 Homogeneity Test on this Stack.

### Sampling Plane Validation Criteria (from EN 15259)

| Criteria in EN 15259         | Units | Traverse 1 | Required | Compliant |
|------------------------------|-------|------------|----------|-----------|
| Lowest Differential Pressure | Pa    | 47.1       | > 5 Pa   | Yes       |
| Mean Velocity                | m/s   | 8.43       | -        | -         |
| Lowest Gas Velocity          | m/s   | 8.38       | -        | -         |
| Highest Gas Velocity         | m/s   | 8.56       | -        | -         |
| Ratio of Above               | : 1   | 1.02       | < 3 : 1  | Yes       |
| Maximum Angle of Swirl       | °     | 8.00       | < 15°    | Yes       |
| No Local Negative Flow       | -     | Yes        | -        | Yes       |

## PLANT PHOTOS

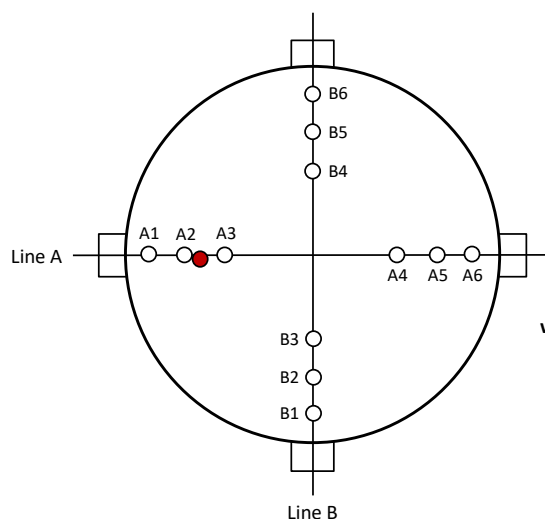
Photo 1



Photo 2



## SAMPLE POINTS



where

- = isokinetic point sampled at
- = isokinetic point not sampled at
- = combustion gases sample point
- = non-isokinetic sample point

## APPENDIX CONTENTS

APPENDIX 1 - Stack Emissions Monitoring Personnel, List of Equipment & Methods and Technical Procedures Used

APPENDIX 2 - Summaries, Calculations, Raw Data and Charts

## STACK EMISSIONS MONITORING PERSONNEL

| Position    | Name        | MCERTS Accreditation | MCERTS Number | Technical Endorsements |
|-------------|-------------|----------------------|---------------|------------------------|
| Team Leader | Ian Lamb    | MCERTS Level 2       | MM 13 1215    | TE1 TE2 TE3 TE4        |
| Technician  | Joshua Shaw | MCERTS Level 1       | MM 24 1857    | None                   |

## LIST OF EQUIPMENT

| Extractive Sampling      |                | Instrumental Analysers         |                | Miscellaneous Items              |                |
|--------------------------|----------------|--------------------------------|----------------|----------------------------------|----------------|
| Equipment Type           | Equipment I.D. | Equipment Type                 | Equipment I.D. | Equipment Type                   | Equipment I.D. |
| Control Box DGM (1)      | CAT 7.170      | Horiba PG-350E                 | CAT 39.32      | Digital Manometer (1)            | -              |
| Control Box DGM (2)      | -              | Horiba PG-250                  | -              | Digital Manometer (2)            | -              |
| Box Thermocouples (1)    | CAT 3.149      | Servomex 4900                  | -              | Digital Temperature Meter        | -              |
| Box Thermocouples (2)    | -              | Ankersmid AOX210               | -              | Stopwatch                        | CAT 14.53      |
| Umbilical (1)            | CAT 3.62       | ABB AO2020-URAS26              | -              | Barometer                        | -              |
| Umbilical (2)            | -              | Testo 350 XL                   | -              | Stack Thermocouple (1)           | -              |
| Oven Box (1)             | CAT 12.166     | JCT JCC P1 Cooler              | CAT 4.1124     | Stack Thermocouple (2)           | -              |
| Oven Box (2)             | -              | Gasmet DX4000                  | -              | Stack Thermocouple (3)           | -              |
| Heated Probe (1)         | -              | Gasmet Sampling System         | -              | 1m Heated Line (1)               | -              |
| Heated Probe (2)         | -              | Sick 3006                      | -              | 1m Heated Line (2)               | -              |
| Heated Probe (3)         | -              | M&C PSS                        | CAT 12.177     | 1m Heated Line (3)               | -              |
| S-Pitot (1)              | CAT 21P.168    | Mass Flow Controller (1)       | CAT 6.67       | 5m Heated Line (1)               | -              |
| S-Pitot (2)              | -              | Mass Flow Controller (2)       | CAT 6.68       | 15m Heated Line (1)              | -              |
| L-Pitot                  | -              | Mass View (1)                  | -              | 20m Heated Line (1)              | CAT 20.231     |
| Site Balance             | CAT 17.54      | Mass View (2)                  | -              | 20m Heated Line (2)              | -              |
| 500g / 1Kg Check Weights | CAT 17.54      | Easylogger EN-EL-12 Bit        | -              | Dual Channel Heater Controller   | -              |
| Last Impinger Arm        | CAT 4.0034     | Hioki 5043 (V)                 | -              | Single Channel Heater Controller | CAT 20.231     |
| Callipers                | -              | Bioaerosols Temperature Logger | -              | Laboratory Balance               | -              |
| Tubes Kit Thermocouple   | -              | Electronic Refrigerator        | -              | Tape Measure                     | CAT 16.24      |

## METHODS & TECHNICAL PROCEDURES USED

| Parameter                 | Standard         | Technical Procedure |
|---------------------------|------------------|---------------------|
| Dioxins & Furans          | EN 1948          | MD 007              |
| PCBs                      | EN 1948          | MD 007              |
| Water Vapour              | EN 14790         | MD 005              |
| Oxygen                    | EN 14789         | MD 039              |
| Velocity & Vol. Flow Rate | EN 16911-1 (MID) | MD 041              |

## PRELIMINARY STACK SURVEY: CALCULATIONS

### General Stack Details

| Stack Details (from Traverse)                              | Units              | Value  |
|------------------------------------------------------------|--------------------|--------|
| Stack Diameter / Depth, D                                  | m                  | 1.80   |
| Stack Width, W                                             | m                  | -      |
| Stack Area, A                                              | m <sup>2</sup>     | 2.54   |
| Average Stack Gas Temperature, T <sub>a</sub>              | °C                 | 129.0  |
| Average Stack Gas Pressure                                 | mmH <sub>2</sub> O | 4.9    |
| Average Stack Static Pressure, P <sub>static</sub>         | kPa                | -0.355 |
| Average Barometric Pressure, P <sub>b</sub>                | kPa                | 103.2  |
| Average Pitot Tube Calibration Coefficient, C <sub>p</sub> | -                  | 0.81   |

### Stack Gas Composition & Molecular Weights

| Component                   | Conc<br>ppm | Conc<br>Dry<br>% v/v | Conc<br>Wet<br>% v/v | Volume<br>Fraction<br>r | Molar<br>Mass<br>M | Density<br>kg/m <sup>3</sup><br>p | Conc<br>kg/m <sup>3</sup><br>p <sub>i</sub> |
|-----------------------------|-------------|----------------------|----------------------|-------------------------|--------------------|-----------------------------------|---------------------------------------------|
| CO <sub>2</sub> (Estimated) | -           | 1.62                 | 1.57                 | 0.0162                  | 44.01              | 1.9635                            | 0.03181                                     |
| O <sub>2</sub>              | -           | 18.39                | 17.81                | 0.1839                  | 32.00              | 1.4277                            | 0.26259                                     |
| N <sub>2</sub>              | -           | 79.99                | 77.47                | 0.7999                  | 28.01              | 1.2498                            | 0.99972                                     |
| Moisture (H <sub>2</sub> O) | -           | -                    | 3.14                 | 0.0314                  | 18.02              | 0.8037                            | 0.02526                                     |

Where:  $p = M / 22.41$

$p_i = r \times p$

### Calculation of Stack Gas Densities

| Determinand                                        | Units             | Result |
|----------------------------------------------------|-------------------|--------|
| Dry Density (STP), P <sub>STD</sub>                | kg/m <sup>3</sup> | 1.294  |
| Wet Density (STP), P <sub>STW</sub>                | kg/m <sup>3</sup> | 1.279  |
| Dry Density (Actual), P <sub>Actual</sub>          | kg/m <sup>3</sup> | 0.892  |
| Average Wet Density (Actual), P <sub>ActualW</sub> | kg/m <sup>3</sup> | 0.882  |

Where: P<sub>STD</sub> = sum of component concentrations, kg/m<sup>3</sup> (not including water vapour)

P<sub>STW</sub> = sum of all wet concentrations / 100 x density, kg/m<sup>3</sup> (including water vapour)

$P_{Actual} = P_{STD} \times (T_{STP} / (P_{STP})) \times ((P_{static} + P_b) / T_a)$

$P_{ActualW} \text{ (at each sampling point)} = P_{STW} \times (T_s / P_s) \times (P_a / T_a)$

### Calculation of Stack Gas Volumetric Flowrate, Q

| Duct gas flow conditions | Units | Actual | REF <sup>1</sup> |
|--------------------------|-------|--------|------------------|
| Temperature              | °C    | 129.0  | 0.0              |
| Total Pressure           | kPa   | 102.8  | 101.3            |
| Moisture                 | %     | 3.14   | 0.00             |
| Oxygen (Dry)             | %     | 18.4   | 11.0             |

| Gas Volumetric Flowrate (from Traverse)  | Units              | Result |
|------------------------------------------|--------------------|--------|
| Gas Volumetric Flowrate (Actual)         | m <sup>3</sup> /hr | 77205  |
| Gas Volumetric Flowrate (STP, Wet)       | m <sup>3</sup> /hr | 53230  |
| Gas Volumetric Flowrate (STP, Dry)       | m <sup>3</sup> /hr | 51557  |
| Gas Volumetric Flowrate REF <sup>1</sup> | m <sup>3</sup> /hr | 13443  |

# PRELIMINARY STACK SURVEY: VELOCITY TRAVERSE TO EN 16911-1 (MID)

(1 of 1)

| Parameter                       | Units                                      | Value         |
|---------------------------------|--------------------------------------------|---------------|
| Date of Survey                  | -                                          | 10/10/2025    |
| Time of Survey                  | -                                          | 15:30 - 15:45 |
| Atmospheric Pressure            | kPa                                        | 103.2         |
| Average Stack Static Pressure   | Pa                                         | -355          |
| Result of Pitot Stagnation Test | -                                          | Pass          |
| Are Water Droplets Present?     | -                                          | No            |
| Device Used                     | S-Type Pitot with Liquid Incline Manometer |               |

| Parameter                  | Units | Value    |
|----------------------------|-------|----------|
| Initial Pitot Leak Check   | -     | Pass     |
| Final Pitot Leak Check     | -     | Pass     |
| Orientation of Duct        | -     | Vertical |
| Pitot Tube, C <sub>p</sub> | -     | 0.81     |
| Number of Lines Available  | -     | 2        |
| Number of Lines Used       | -     | 2        |

| Sampling Line A    |         |                       |         |                               |              |         | Sampling Line B       |         |                               |              |         |
|--------------------|---------|-----------------------|---------|-------------------------------|--------------|---------|-----------------------|---------|-------------------------------|--------------|---------|
| Traverse Point     | Depth m | ΔP mmH <sub>2</sub> O | Temp °C | Wet Density kg/m <sup>3</sup> | Velocity m/s | Swirl ° | ΔP mmH <sub>2</sub> O | Temp °C | Wet Density kg/m <sup>3</sup> | Velocity m/s | Swirl ° |
| STATIC (Units: Pa) |         | -355.0                |         |                               |              |         | -355.0                |         |                               |              |         |
| Mean               |         | 4.9                   | 129.0   | 0.882                         | 8.47         |         | 4.8                   | 129.0   | 0.882                         | 8.38         |         |
| 1                  | 0.08    | 5.0                   | 129.0   | 0.882                         | 8.56         | 7.0     | 4.8                   | 129.0   | 0.882                         | 8.38         | 8.0     |
| 2                  | 0.26    | 5.0                   | 129.0   | 0.882                         | 8.56         | 7.0     | 4.8                   | 129.0   | 0.882                         | 8.38         | 7.0     |
| 3                  | 0.53    | 5.0                   | 129.0   | 0.882                         | 8.56         | 5.0     | 4.8                   | 129.0   | 0.882                         | 8.38         | 6.0     |
| 4                  | 1.27    | 4.8                   | 129.0   | 0.882                         | 8.38         | 6.0     | 4.8                   | 129.0   | 0.882                         | 8.38         | 8.0     |
| 5                  | 1.54    | 4.8                   | 129.0   | 0.882                         | 8.38         | 5.0     | 4.8                   | 129.0   | 0.882                         | 8.38         | 7.0     |
| 6                  | 1.72    | 4.8                   | 129.0   | 0.882                         | 8.38         | 8.0     | 4.8                   | 129.0   | 0.882                         | 8.38         | 7.0     |

# PRELIMINARY STACK SURVEY: VELOCITY TRAVERSE TO EN 16911-1 (MID) - MEASUREMENT UNCERTAINTY

(1 of 1)

| Performance characteristics (Uncertainty Components)                                 | Uncertainty        | Value    | Units              |
|--------------------------------------------------------------------------------------|--------------------|----------|--------------------|
| Standard Uncertainty on the coefficient of the Pitot Tube                            | $u(k)$             | 0.005    | -                  |
| Standard Uncertainty associated with the mean local dynamic pressures                | $u(\Delta p_i)$    | 1.722    | Pa                 |
| - Resolution                                                                         | $u(res)$           | 0.52154  |                    |
| - Calibration                                                                        | $u(cal)$           | 0.236    |                    |
| - Drift                                                                              | $u(drift)$         | 1.096    |                    |
| - Lack of Fit                                                                        | $u(fit)$           | 0.113    |                    |
| - Overall corrections to dynamic measurements                                        | $u(C_f)$           | 1.966    |                    |
| Standard uncertainty associated with the molar mass of the gas                       | $u(M)$             | 0.00003  | -                  |
| - $\varphi_{O_2,w}$                                                                  | -                  | 17.814   |                    |
| - $\varphi_{CO_2,w}$                                                                 | -                  | 1.569    |                    |
| - Oxygen, dry                                                                        | $u(\phi_{O_2,d})$  | 0.563    |                    |
| - Carbon Dioxide, dry                                                                | $u(\phi_{CO_2,d})$ | 0.050    |                    |
| - Water Vapour                                                                       | $u(\phi_{H_2O})$   | 0.160    |                    |
| - Oxygen, wet                                                                        | $u(\phi_{O_2,w})$  | 0.546    |                    |
| - Carbon Dioxide, wet                                                                | $u(\phi_{CO_2,w})$ | 0.048    |                    |
| Standard uncertainty associated with the stack temperature                           | $u(T_c)$           | 2.051    | K                  |
| Standard uncertainty associated with the absolute pressure in the duct               | $u(p_c)$           | 175.696  | Pa                 |
| - Atmospheric Pressure                                                               | $u(p_{atm})$       | 175.692  |                    |
| - Static Pressure                                                                    | $u(p_{stat})$      | 1.218    |                    |
| Standard uncertainty associated with the density in the duct                         | $u(\rho)$          | 0.00482  | -                  |
| Standard uncertainty associated with the local velocities                            | $u(v_i)$           | 1.497    | Pa                 |
| Standard uncertainty associated with the mean velocity                               | $u(\bar{v})$       | 0.433    | m/s                |
| Standard uncertainty associated with the mean velocity (95% Confidence)              | $U_c(v)$           | 0.849    | m/s                |
| Standard uncertainty associated with the mean velocity (95% Confidence), relative    | $U_{c,rel}(v)$     | 10.08    | %                  |
| Standard uncertainty associated with the volume flow rate (95% Confidence)           | $U_c(qV,w)$        | 8528.7   | m <sup>3</sup> /hr |
| - $u^2(a)/a^2$                                                                       | -                  | 0.00053  |                    |
| - $u^2(qV,w)/q^2V,w$                                                                 | -                  | 0.00318  |                    |
| - $u^2(qV,w)$                                                                        | -                  | 18934681 |                    |
| - $u(qV,w)$                                                                          | -                  | 4351.4   |                    |
| Standard uncertainty associated with the volume flow rate (95% Confidence), relative | $U_{c,rel}(qV,w)$  | 11.05    | %                  |

## DIOXINS & FURANS: RESULTS SUMMARY

(PAGE 1 OF 4)

Thalia Waste Management, Knaresborough  
A2 - Line 1

### TEQ1 - UPPER LIMITS (worst case where <LOD = LOD)

#### Sample Runs (UPPER NATO I-TEQ)

| Parameter     | Units              | Run 1  | Mean   |
|---------------|--------------------|--------|--------|
| Concentration | ng/m <sup>3</sup>  | 0.0132 | 0.0132 |
| Uncertainty   | ±ng/m <sup>3</sup> | 0.0037 | 0.0037 |
| Mass Emission | µg/hr              | 0.17   | 0.17   |
| Uncertainty   | ±µg/hr             | 0.05   | 0.05   |

#### Sample Runs (UPPER WHO TEQ Humans / Mammals)

| Parameter     | Units              | Run 1  | Mean   |
|---------------|--------------------|--------|--------|
| Concentration | ng/m <sup>3</sup>  | 0.0133 | 0.0133 |
| Uncertainty   | ±ng/m <sup>3</sup> | 0.0037 | 0.0037 |
| Mass Emission | µg/hr              | 0.17   | 0.17   |
| Uncertainty   | ±µg/hr             | 0.05   | 0.05   |

#### Sample Runs (UPPER WHO TEQ Fish)

| Parameter     | Units              | Run 1  | Mean   |
|---------------|--------------------|--------|--------|
| Concentration | ng/m <sup>3</sup>  | 0.0149 | 0.0149 |
| Uncertainty   | ±ng/m <sup>3</sup> | 0.0042 | 0.0042 |
| Mass Emission | µg/hr              | 0.19   | 0.19   |
| Uncertainty   | ±µg/hr             | 0.06   | 0.06   |

#### Sample Runs (UPPER WHO TEQ Birds)

| Parameter     | Units              | Run 1  | Mean   |
|---------------|--------------------|--------|--------|
| Concentration | ng/m <sup>3</sup>  | 0.0319 | 0.0319 |
| Uncertainty   | ±ng/m <sup>3</sup> | 0.0089 | 0.0089 |
| Mass Emission | µg/hr              | 0.40   | 0.40   |
| Uncertainty   | ±µg/hr             | 0.12   | 0.12   |

# DIOXINS & FURANS: RESULTS SUMMARY

(PAGE 2 OF 4)

Thalia Waste Management, Knaresborough  
A2 - Line 1

TEQ2 - LOWER LIMITS (best case where <LOD = 0)

## Sample Runs (LOWER NATO I-TEQ)

| Parameter     | Units              | Run 1  | Mean   |
|---------------|--------------------|--------|--------|
| Concentration | ng/m <sup>3</sup>  | 0.0083 | 0.0083 |
| Uncertainty   | ±ng/m <sup>3</sup> | 0.0023 | 0.0023 |
| Mass Emission | µg/hr              | 0.10   | 0.10   |
| Uncertainty   | ±µg/hr             | 0.03   | 0.03   |

## Sample Runs (LOWER WHO TEQ Humans / Mammals)

| Parameter     | Units              | Run 1  | Mean   |
|---------------|--------------------|--------|--------|
| Concentration | ng/m <sup>3</sup>  | 0.0063 | 0.0063 |
| Uncertainty   | ±ng/m <sup>3</sup> | 0.0018 | 0.0018 |
| Mass Emission | µg/hr              | 0.08   | 0.08   |
| Uncertainty   | ±µg/hr             | 0.02   | 0.02   |

## Sample Runs (LOWER WHO TEQ Fish)

| Parameter     | Units              | Run 1  | Mean   |
|---------------|--------------------|--------|--------|
| Concentration | ng/m <sup>3</sup>  | 0.0074 | 0.0074 |
| Uncertainty   | ±ng/m <sup>3</sup> | 0.0021 | 0.0021 |
| Mass Emission | µg/hr              | 0.09   | 0.09   |
| Uncertainty   | ±µg/hr             | 0.03   | 0.03   |

## Sample Runs (LOWER WHO TEQ Birds)

| Parameter     | Units              | Run 1  | Mean   |
|---------------|--------------------|--------|--------|
| Concentration | ng/m <sup>3</sup>  | 0.0253 | 0.0253 |
| Uncertainty   | ±ng/m <sup>3</sup> | 0.0070 | 0.0070 |
| Mass Emission | µg/hr              | 0.32   | 0.32   |
| Uncertainty   | ±µg/hr             | 0.09   | 0.09   |

## DIOXINS & FURANS: RESULTS SUMMARY

(PAGE 3 OF 4)

Thalia Waste Management, Knaresborough  
A2 - Line 1

### TEQ1 - UPPER LIMITS (worst case where <LOD = LOD)

#### Blank Runs (UPPER NATO I-TEQ)

| Parameter     | Units             | Blank 1 | Maximum |
|---------------|-------------------|---------|---------|
| Concentration | ng/m <sup>3</sup> | 0.0033  | 0.0033  |

#### Blank Runs (UPPER WHO TEQ Humans / Mammals)

| Parameter     | Units             | Blank 1 | Maximum |
|---------------|-------------------|---------|---------|
| Concentration | ng/m <sup>3</sup> | 0.0041  | 0.0041  |

#### Blank Runs (UPPER WHO TEQ Fish)

| Parameter     | Units             | Blank 1 | Maximum |
|---------------|-------------------|---------|---------|
| Concentration | ng/m <sup>3</sup> | 0.0045  | 0.0045  |

#### Blank Runs (UPPER WHO TEQ Birds)

| Parameter     | Units             | Blank 1 | Maximum |
|---------------|-------------------|---------|---------|
| Concentration | ng/m <sup>3</sup> | 0.0058  | 0.0058  |

### TEQ2 - LOWER LIMITS (best case where <LOD = 0)

#### Blank Runs (LOWER NATO I-TEQ)

| Parameter     | Units             | Blank 1  | Maximum  |
|---------------|-------------------|----------|----------|
| Concentration | ng/m <sup>3</sup> | 0.000007 | 0.000007 |

#### Blank Runs (LOWER WHO TEQ Humans / Mammals)

| Parameter     | Units             | Blank 1  | Maximum  |
|---------------|-------------------|----------|----------|
| Concentration | ng/m <sup>3</sup> | 0.000002 | 0.000002 |

#### Blank Runs (LOWER WHO TEQ Fish)

| Parameter     | Units             | Blank 1  | Maximum  |
|---------------|-------------------|----------|----------|
| Concentration | ng/m <sup>3</sup> | 0.000001 | 0.000001 |

#### Blank Runs (LOWER WHO TEQ Birds)

| Parameter     | Units             | Blank 1  | Maximum  |
|---------------|-------------------|----------|----------|
| Concentration | ng/m <sup>3</sup> | 0.000001 | 0.000001 |

## DIOXINS & FURANS: RESULTS SUMMARY

(PAGE 4 OF 4)

Thalia Waste Management, Knaresborough  
A2 - Line 1

| Parameter    | Units  | Run 1 | Mean |
|--------------|--------|-------|------|
| Water Vapour | % v/v  | 3.1   | 3.1  |
| Uncertainty  | ±% v/v | 0.16  | 0.16 |

### General Sampling Information

| Parameter                         | Value              |                                       |
|-----------------------------------|--------------------|---------------------------------------|
| Standard                          | EN 1948            |                                       |
| Technical Procedure               | MD 007             |                                       |
| Name of Analytical Laboratory     | ELD                |                                       |
| Analytical Laboratory's Procedure | PM137, TM201       |                                       |
| ISO 17025 Accredited Analysis?    | MCERTS             |                                       |
| Date of Sample Analysis           | 24/10/2025         |                                       |
| Probe Material                    | Borosilicate Glass |                                       |
| Filter Housing Material           | Borosilicate Glass |                                       |
| Glassware Material                | Borosilicate Glass |                                       |
| Absorption Material               | XAD-2              |                                       |
| Positioning of Filter             | Out Stack          |                                       |
| Filter Size and Material          | 90mm Quartz Fibre  |                                       |
| Number of Sampling Lines Used     | 2 / 2              | FORMAT: Number Used / Number Required |
| Number of Sampling Points Used    | 12 / 12            | FORMAT: Number Used / Number Required |
| Sample Point I.D.'s               | A1 - A6, B1 - B6   |                                       |

### Reference Conditions

Reference Conditions are: 273K, 101.3kPa, dry gas, 11% oxygen.

# DIOXINS & FURANS: ISOKINETIC SAMPLING CALCULATIONS

| Test                                                                                                                                                                                                                | Units               | Run 1  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------|--|
| <b>Absolute pressure of stack gas, <math>P_s</math></b>                                                                                                                                                             |                     |        |  |
| Barometric pressure, $P_b$                                                                                                                                                                                          | mmHg                | 774.1  |  |
| Stack static pressure, $P_{static}$                                                                                                                                                                                 | mmH <sub>2</sub> O  | -36.2  |  |
| $P_s = (P_b + (P_{static} / 13.6))$                                                                                                                                                                                 | mmHg                | 771.4  |  |
| <b>Volume of water vapour collected, <math>V_{wstd}</math></b>                                                                                                                                                      |                     |        |  |
| Total mass collected in impingers (liquid trap)                                                                                                                                                                     | g                   | 92.6   |  |
| Total mass collected in impingers (silica trap)                                                                                                                                                                     | g                   | 30.2   |  |
| Total mass of liquid collected, $V_{lc}$                                                                                                                                                                            | g                   | 122.8  |  |
| $V_{wstd} = (0.001246)(V_{lc})$                                                                                                                                                                                     | m <sup>3</sup>      | 0.1530 |  |
| <b>Volume of gas metered dry, <math>V_{mstd}</math></b>                                                                                                                                                             |                     |        |  |
| Volume of gas sample through gas meter, $V_m$                                                                                                                                                                       | m <sup>3</sup>      | 5.0880 |  |
| Gas meter correction factor, $Y_d$                                                                                                                                                                                  | -                   | 0.9740 |  |
| Average dry gas meter temperature, $T_m$                                                                                                                                                                            | °C                  | 19.9   |  |
| Average pressure drop across orifice, $\Delta H$                                                                                                                                                                    | mmH <sub>2</sub> O  | 24.3   |  |
| $V_{mstd} = ((0.3592)(V_m)(P_b + (\Delta H/13.6))(Y_d)) / (T_m + 273)$                                                                                                                                              | m <sup>3</sup>      | 4.7152 |  |
| <b>Moisture content, <math>B_{wo}</math> &amp; <math>R_{wv}</math></b>                                                                                                                                              |                     |        |  |
| $B_{wo} = V_{wstd} / (V_{mstd} + V_{wstd})$                                                                                                                                                                         | m <sup>3</sup>      | 0.0314 |  |
| $B_{wo}$ as a percentage                                                                                                                                                                                            | % v/v               | 3.14   |  |
| Reported Water Vapour, checked with Tables in EN 14790, $R_{wv}$                                                                                                                                                    | % v/v               | 3.14   |  |
| <b>Volume of gas metered wet, <math>V_{mstw}</math></b>                                                                                                                                                             |                     |        |  |
| $V_{mstw} = (V_{mstd})(100/(100 - R_{wv}))$                                                                                                                                                                         | m <sup>3</sup>      | 4.8682 |  |
| <b>Volume of gas metered at Oxygen Reference Conditions, <math>V_{mstd@X\%O_2}</math> &amp; <math>V_{mstw@X\%O_2}</math></b>                                                                                        |                     |        |  |
| IED & Incinerates Hazardous Material? (Yes = no positive O <sub>2</sub> correction)                                                                                                                                 | -                   | No     |  |
| % wet oxygen measured in gas stream, ACT%O <sub>2w</sub>                                                                                                                                                            | % v/v               | 17.81  |  |
| % dry oxygen measured in gas stream, ACT%O <sub>2d</sub>                                                                                                                                                            | % v/v               | 18.39  |  |
| % oxygen reference condition, REF%O <sub>2</sub>                                                                                                                                                                    | % v/v               | 11.00  |  |
| O <sub>2</sub> Reference Factor wet ( $O_{2REFw} = (21 - REF\%O_2) / (21 - ACT\%O_{2w})$ )                                                                                                                          | -                   | 3.14   |  |
| O <sub>2</sub> Reference Factor dry ( $O_{2REFd} = (21 - REF\%O_2) / (21 - ACT\%O_{2d})$ )                                                                                                                          | -                   | 3.84   |  |
| $V_{mstw@X\%oxygen} = (V_{mstw}) / (O_{2REFw})$                                                                                                                                                                     | m <sup>3</sup>      | 1.5508 |  |
| $V_{mstd@X\%oxygen} = (V_{mstd}) / (O_{2REFd})$                                                                                                                                                                     | m <sup>3</sup>      | 1.2295 |  |
| <b>Molecular weight of dry gas stream, <math>M_d</math></b>                                                                                                                                                         |                     |        |  |
| CO <sub>2</sub> (Estimated)                                                                                                                                                                                         | % v/v               | 9.00   |  |
| O <sub>2</sub>                                                                                                                                                                                                      | % v/v               | 18.39  |  |
| Total                                                                                                                                                                                                               | % v/v               | 27.39  |  |
| N <sub>2</sub>                                                                                                                                                                                                      | % v/v               | 72.61  |  |
| $M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%N_2)$                                                                                                                                                                    | g/gmol              | 30.18  |  |
| <b>Molecular weight of stack gas (wet), <math>M_s</math></b>                                                                                                                                                        |                     |        |  |
| $M_s = M_d(1 - (R_{wv}/100)) + 18(R_{wv}/100)$                                                                                                                                                                      | g/gmol              | 29.79  |  |
| <b>Velocity of stack gas, <math>V_s</math></b>                                                                                                                                                                      |                     |        |  |
| Pitot tube velocity constant, $K_p$                                                                                                                                                                                 | -                   | 34.97  |  |
| Velocity pressure coefficient, $C_p$                                                                                                                                                                                | -                   | 0.81   |  |
| Average of velocity heads, $\Delta P_{avg}$                                                                                                                                                                         | mmH <sub>2</sub> O  | 4.36   |  |
| Average square root of velocity heads, $\sqrt{\Delta P}$                                                                                                                                                            | √mmH <sub>2</sub> O | 2.09   |  |
| Average stack gas temperature, $T_s$                                                                                                                                                                                | °C                  | 129.9  |  |
| $V_s = ((K_p)(C_p)(\sqrt{\Delta P})(T_s + 273)) / (V(M_s)(P_s))$                                                                                                                                                    | m/s                 | 7.86   |  |
| <b>Total flow of stack gas: Actual (<math>Q_a</math>), Wet (<math>Q_{stw}</math>), Dry (<math>Q_{std}</math>), Wet@O<sub>2REF</sub> (<math>Q_{stw@O_2}</math>), Dry@O<sub>2REF</sub> (<math>Q_{std@O_2}</math>)</b> |                     |        |  |
| Area of stack, $A_s$                                                                                                                                                                                                | m <sup>2</sup>      | 2.54   |  |
| $Q_a = (60)(A_s)(V_s)$                                                                                                                                                                                              | m <sup>3</sup> /min | 1200.3 |  |
| Conversion factor (K/mm.Hg), $C_f$                                                                                                                                                                                  | -                   | 0.3592 |  |
| $Q_{stw} = ((Q_a)(P_s)(C_f)) / ((T_s) + 273)$                                                                                                                                                                       | m <sup>3</sup> /min | 825.5  |  |
| $Q_{std} = ((Q_a)(P_s)(C_f)(1 - (R_{wv}/100))) / ((T_s) + 273)$                                                                                                                                                     | m <sup>3</sup> /min | 799.5  |  |
| $Q_{stw@O_2} = ((Q_a)(P_s)(C_f)) / ((T_s) + 273) / (O_{2REFw})$                                                                                                                                                     | m <sup>3</sup> /min | 263.0  |  |
| $Q_{std@O_2} = ((Q_a)(P_s)(C_f)(1 - (R_{wv}/100))) / ((T_s) + 273) / (O_{2REFd})$                                                                                                                                   | m <sup>3</sup> /min | 208.5  |  |
| <b>Percent isokinetic, %I</b>                                                                                                                                                                                       |                     |        |  |
| Nozzle diameter, $D_n$                                                                                                                                                                                              | mm                  | 8.00   |  |
| Nozzle area, $A_n$                                                                                                                                                                                                  | mm <sup>2</sup>     | 50.27  |  |
| Total sampling time, $q$                                                                                                                                                                                            | min                 | 300    |  |
| $\%I = (4.6398E^6)(T_s + 273)(V_{mstd}) / (P_s)(V_s)(A_n)(q)(1 - (R_{wv}/100))$                                                                                                                                     | %                   | 99.5   |  |

# DIOXINS & FURANS: SAMPLING DETAILS

## RUN 1

| Parameter            | Units          | Value         |
|----------------------|----------------|---------------|
| Sampling Times       | -              | 16:00 - 21:00 |
| Sampling Dates       | -              | 10/10/2025    |
| Sampling Device      | -              | ISO           |
| Volume Sampled (REF) | m <sup>3</sup> | 1.2295        |

**Where:** ISO stands for Manual Isokinetic Sampling Train

| Parameter           | Units             | Result | DL     | NATO I-TEQ |        | WHO Humans / Mammals |        | WHO Fish |        | WHO Birds |        | % Rec |
|---------------------|-------------------|--------|--------|------------|--------|----------------------|--------|----------|--------|-----------|--------|-------|
|                     |                   |        |        | TEQ1       | TEQ2   | TEQ1                 | TEQ2   | TEQ1     | TEQ2   | TEQ1      | TEQ2   |       |
| 2378-TCDD           | ng                | ND     | 0.0022 | 0.0022     | 0.0000 | 0.0022               | 0.0000 | 0.0022   | 0.0000 | 0.0022    | 0.0000 | 90    |
| 12378-PeCDD         | ng                | ND     | 0.0050 | 0.0025     | 0.0000 | 0.0050               | 0.0000 | 0.0050   | 0.0000 | 0.0050    | 0.0000 | 85    |
| 123478-HxCDD        | ng                | ND     | 0.0032 | 0.0003     | 0.0000 | 0.0003               | 0.0000 | 0.0016   | 0.0000 | 0.0002    | 0.0000 | 92    |
| 123678-HxCDD        | ng                | ND     | 0.0033 | 0.0003     | 0.0000 | 0.0003               | 0.0000 | 0.0000   | 0.0000 | 0.0000    | 0.0000 | 91    |
| 123789-HxCDD        | ng                | ND     | 0.0031 | 0.0003     | 0.0000 | 0.0003               | 0.0000 | 0.0000   | 0.0000 | 0.0003    | 0.0000 | -     |
| 1234678-HPeCDD      | ng                | 0.0192 | 0.0021 | 0.0002     | 0.0002 | 0.0002               | 0.0002 | 0.0000   | 0.0000 | 0.0000    | 0.0000 | 80    |
| OCDD                | ng                | 0.0506 | 0.0040 | 0.0001     | 0.0001 | 0.0000               | 0.0000 | 0.0000   | 0.0000 | 0.0000    | 0.0000 | 84    |
| Total Dioxins       | ng                | 0.0697 | -      | 0.0059     | 0.0002 | 0.0084               | 0.0002 | 0.0089   | 0.0000 | 0.0077    | 0.0000 | -     |
| 2378-TCDF           | ng                | 0.0170 | 0.0040 | 0.0017     | 0.0017 | 0.0017               | 0.0017 | 0.0009   | 0.0009 | 0.0170    | 0.0170 | 71    |
| 12378-PeCDF         | ng                | 0.0104 | 0.0035 | 0.0005     | 0.0005 | 0.0003               | 0.0003 | 0.0005   | 0.0005 | 0.0010    | 0.0010 | 94    |
| 23478-PeCDF         | ng                | 0.0107 | 0.0033 | 0.0053     | 0.0053 | 0.0032               | 0.0032 | 0.0053   | 0.0053 | 0.0107    | 0.0107 | 85    |
| 123478-HxCDF        | ng                | 0.0067 | 0.0029 | 0.0007     | 0.0007 | 0.0007               | 0.0007 | 0.0007   | 0.0007 | 0.0007    | 0.0007 | 78    |
| 123678-HxCDF        | ng                | 0.0071 | 0.0028 | 0.0007     | 0.0007 | 0.0007               | 0.0007 | 0.0007   | 0.0007 | 0.0007    | 0.0007 | 79    |
| 234678-HxCDF        | ng                | 0.0074 | 0.0030 | 0.0007     | 0.0007 | 0.0007               | 0.0007 | 0.0007   | 0.0007 | 0.0007    | 0.0007 | 73    |
| 123789-HxCDF        | ng                | ND     | 0.0038 | 0.0004     | 0.0000 | 0.0004               | 0.0000 | 0.0004   | 0.0000 | 0.0004    | 0.0000 | 104   |
| 1234678-HPeCDF      | ng                | 0.0243 | 0.0025 | 0.0002     | 0.0002 | 0.0002               | 0.0002 | 0.0002   | 0.0002 | 0.0002    | 0.0002 | 73    |
| 1234789-HPeCDF      | ng                | ND     | 0.0027 | 0.0000     | 0.0000 | 0.0000               | 0.0000 | 0.0000   | 0.0000 | 0.0000    | 0.0000 | 87    |
| OCDF                | ng                | 0.0398 | 0.0024 | 0.0000     | 0.0000 | 0.0000               | 0.0000 | 0.0000   | 0.0000 | 0.0000    | 0.0000 | 73    |
| Total Furans        | ng                | 0.1233 | -      | 0.0104     | 0.0100 | 0.0080               | 0.0076 | 0.0095   | 0.0091 | 0.0315    | 0.0311 | -     |
| Totals              | ng                | 0.1931 | -      | 0.0162     | 0.0102 | 0.0163               | 0.0078 | 0.0184   | 0.0091 | 0.0392    | 0.0311 | -     |
| Total Concentration | ng/m <sup>3</sup> | -      | -      | 0.0132     | 0.0083 | 0.0133               | 0.0063 | 0.0149   | 0.0074 | 0.0319    | 0.0253 | -     |
| Limit of Detection  | ng/m <sup>3</sup> | -      | -      | 0.0075     | -      | 0.0089               | -      | 0.0099   | -      | 0.0135    | -      | -     |

**Where:** ND stands for Non Detected  
DL stands for Analytical Detection Limit  
TEQ1 refers to Non Detected Congeners at the Detection Limit  
TEQ2 refers to Non Detected Congeners at Zero  
% Rec stands for the Recovery Percentage of the Sample

## DIOXINS & FURANS: SAMPLING DETAILS

(Continued)

### BLANK 1

| Parameter                    | Units          | Value      |
|------------------------------|----------------|------------|
| Sampling Dates               | -              | 09/10/2025 |
| Sampling Device              | -              | ISO        |
| Average Volume Sampled (REF) | m <sup>3</sup> | 1.2295     |

**Where:** ISO stands for Manual Isokinetic Sampling Train

| Parameter           | Units             | Result | DL     | NATO I-TEQ |        | WHO Humans / Mammals |        | WHO Fish |        | WHO Birds |        | % Rec |
|---------------------|-------------------|--------|--------|------------|--------|----------------------|--------|----------|--------|-----------|--------|-------|
|                     |                   |        |        | TEQ1       | TEQ2   | TEQ1                 | TEQ2   | TEQ1     | TEQ2   | TEQ1      | TEQ2   |       |
| 2378-TCDD           | ng                | ND     | 0.0011 | 0.0011     | 0.0000 | 0.0011               | 0.0000 | 0.0011   | 0.0000 | 0.0011    | 0.0000 | 92    |
| 12378-PeCDD         | ng                | ND     | 0.0025 | 0.0012     | 0.0000 | 0.0025               | 0.0000 | 0.0025   | 0.0000 | 0.0025    | 0.0000 | 82    |
| 123478-HxCDD        | ng                | ND     | 0.0012 | 0.0001     | 0.0000 | 0.0001               | 0.0000 | 0.0006   | 0.0000 | 0.0001    | 0.0000 | 94    |
| 123678-HxCDD        | ng                | ND     | 0.0012 | 0.0001     | 0.0000 | 0.0001               | 0.0000 | 0.0000   | 0.0000 | 0.0000    | 0.0000 | 97    |
| 123789-HxCDD        | ng                | ND     | 0.0011 | 0.0001     | 0.0000 | 0.0001               | 0.0000 | 0.0000   | 0.0000 | 0.0001    | 0.0000 | -     |
| 1234678-HPeCDD      | ng                | ND     | 0.0012 | 0.0000     | 0.0000 | 0.0000               | 0.0000 | 0.0000   | 0.0000 | 0.0000    | 0.0000 | 82    |
| OCDD                | ng                | 0.0068 | 0.0018 | 0.0000     | 0.0000 | 0.0000               | 0.0000 | 0.0000   | 0.0000 | 0.0000    | 0.0000 | 89    |
| Total Dioxins       | ng                | 0.0068 | -      | 0.0027     | 0.0000 | 0.0039               | 0.0000 | 0.0042   | 0.0000 | 0.0038    | 0.0000 | -     |
| 2378-TCDF           | ng                | ND     | 0.0014 | 0.0014     | 0.0001 | 0.0000               | 0.0000 | 0.0001   | 0.0000 | 0.0014    | 0.0000 | 74    |
| 12378-PeCDF         | ng                | ND     | 0.0014 | 0.0014     | 0.0001 | 0.0000               | 0.0000 | 0.0001   | 0.0000 | 0.0001    | 0.0000 | 93    |
| 23478-PeCDF         | ng                | ND     | 0.0013 | 0.0013     | 0.0006 | 0.0000               | 0.0000 | 0.0006   | 0.0000 | 0.0013    | 0.0000 | 84    |
| 123478-HxCDF        | ng                | ND     | 0.0012 | 0.0012     | 0.0001 | 0.0000               | 0.0000 | 0.0001   | 0.0000 | 0.0001    | 0.0000 | 86    |
| 123678-HxCDF        | ng                | ND     | 0.0011 | 0.0011     | 0.0001 | 0.0000               | 0.0000 | 0.0001   | 0.0000 | 0.0001    | 0.0000 | 82    |
| 234678-HxCDF        | ng                | ND     | 0.0012 | 0.0012     | 0.0001 | 0.0000               | 0.0000 | 0.0001   | 0.0000 | 0.0001    | 0.0000 | 79    |
| 123789-HxCDF        | ng                | ND     | 0.0015 | 0.0015     | 0.0001 | 0.0000               | 0.0000 | 0.0001   | 0.0000 | 0.0001    | 0.0000 | 99    |
| 1234678-HPeCDF      | ng                | ND     | 0.0012 | 0.0012     | 0.0000 | 0.0000               | 0.0000 | 0.0000   | 0.0000 | 0.0000    | 0.0000 | 78    |
| 1234789-HPeCDF      | ng                | ND     | 0.0013 | 0.0013     | 0.0000 | 0.0000               | 0.0000 | 0.0000   | 0.0000 | 0.0000    | 0.0000 | 83    |
| OCDF                | ng                | 0.0021 | 0.0014 | 0.0014     | 0.0000 | 0.0000               | 0.0000 | 0.0000   | 0.0000 | 0.0000    | 0.0000 | 75    |
| Total Furans        | ng                | 0.0021 | -      | 0.0129     | 0.0014 | 0.0000               | 0.0000 | 0.0013   | 0.0000 | 0.0033    | 0.0000 | -     |
| Totals              | ng                | 0.0089 | -      | 0.0156     | 0.0014 | 0.0039               | 0.0000 | 0.0055   | 0.0000 | 0.0071    | 0.0000 | -     |
| Total Concentration | ng/m <sup>3</sup> | -      | -      | 0.0033     | 0.0000 | 0.0041               | 0.0000 | 0.0045   | 0.0000 | 0.0058    | 0.0000 | -     |

**Where:** ND stands for Non Detected  
DL stands for Analytical Detection Limit  
TEQ1 refers to Non Detected Congeners at the Detection Limit  
TEQ2 refers to Non Detected Congeners at Zero  
% Rec stands for the Recovery Percentage of the Sample

## DIOXINS & FURANS: QUALITY ASSURANCE

(PAGE 1 OF 2)

### Sample Runs

| Leak Test Results                    | Units | Run 1    |  |
|--------------------------------------|-------|----------|--|
| Mean Sampling Rate                   | l/min | 16.5     |  |
| Pre-Sampling Leak Rate               | l/min | 0.12     |  |
| Post-Sampling Leak Rate              | l/min | 0.10     |  |
| Allowable Leak Rate                  | l/min | 0.83     |  |
| Leak Test Acceptable                 | -     | Yes      |  |
| Water Droplets                       | Units | Run 1    |  |
| Are Water Droplets Present           | -     | No       |  |
| MU (Concurrent Water Vapour)         | Units | Run 1    |  |
| Measurement Uncertainty (MU)         | %     | 5.1      |  |
| Allowable MU                         | %     | 20.0     |  |
| MU Acceptable                        | %     | Yes      |  |
| Silica Gel (Concurrent Water Vapour) | Units | Run 1    |  |
| Less than 50% Faded                  | %     | Yes      |  |
| Isokinetic Criterion Compliance      | Units | Run 1    |  |
| Isokinetic Variation                 | %     | 99.5     |  |
| Allowable Isokinetic Range           | %     | 95 - 115 |  |
| Isokineticity Acceptable             | -     | Yes      |  |
| Filter Temperatures                  | Units | Run 1    |  |
| Maximum Filter Temperature           | °C    | 120      |  |
| Maximum Allowable Temperature        | °C    | 125      |  |
| Temperature Acceptable               | -     | Yes      |  |
| Condenser Exit Temperature           | Units | Run 1    |  |
| Maximum Temperature Recorded         | °C    | 18       |  |
| Maximum Allowable Temperature        | °C    | 20       |  |
| Exit Temperature Acceptable          | -     | Yes      |  |
| Test Conditions                      | Units | Run 1    |  |
| Ambient Temperature Recorded?        | -     | Yes      |  |

## DIOXINS & FURANS: QUALITY ASSURANCE

(PAGE 2 OF 2)

### Blank Runs

| Leak Test Results      | Units | Blank 1 |  |
|------------------------|-------|---------|--|
| Expected Sampling Rate | l/min | 20.0    |  |
| Sampling Leak Rate     | l/min | 0.12    |  |
| Allowable Leak Rate    | l/min | 1.00    |  |
| Leak Test Acceptable   | -     | Yes     |  |

| Validity of NATO I-TEQ Blank vs ELV | Units             | Blank 1 |  |
|-------------------------------------|-------------------|---------|--|
| Allowable Blank                     | ng/m <sup>3</sup> | N/A     |  |
| Blank Acceptable                    | -                 | N/A     |  |

### Method Deviations

| Nature of Deviation                                                                                           | Run Number |
|---------------------------------------------------------------------------------------------------------------|------------|
| (x = deviation applies to the associated run, wx = deviation also applies to the concurrent water vapour run) | 1          |
| There are no deviations associated with the sampling employed.                                                | wx         |

## DIOXINS & FURANS (NATO I-TEQ): MEASUREMENT UNCERTAINTY CALCULATIONS

| Measured Quantities     | Value  |        | Standard uncertainty |       |        |
|-------------------------|--------|--------|----------------------|-------|--------|
|                         | Symbol | Run 1  | Symbol               | Units | Run 1  |
| Sampled Volume (Actual) | $V_m$  | 5.0880 | $uV_m$               | $m^3$ | 0.1018 |
| Sampled Gas Temperature | $T_m$  | 292.9  | $uT_m$               | K     | 2.00   |
| Sampled Gas Pressure    | $p_m$  | 102.9  | $up_m$               | kPa   | 0.50   |
| Sampled Gas Humidity    | $H_m$  | 0.00   | $uH_m$               | % v/v | 1.00   |
| Leak                    | L      | 0.61   | uL                   | %     | -      |
| Laboratory Result       | $L_r$  | 10.0   | $uL_r$               | %     | -      |

| Measured Quantities     | Uncertainty as a Percentage |       | Requirement of Standard |
|-------------------------|-----------------------------|-------|-------------------------|
|                         | Units                       | Run 1 |                         |
| Sampled Volume (Actual) | %                           | 2.00  | ≤2%                     |
| Sampled Gas Temperature | %                           | 0.68  | ≤1%                     |
| Sampled Gas Pressure    | %                           | 0.49  | ≤1%                     |
| Sampled Gas Humidity    | %                           | 1.00  | ≤1%                     |
| Leak                    | %                           | 0.61  | ≤5%                     |
| Laboratory Result       | %                           | 10.0  | No Requirement          |

| Measured Quantities  | Uncertainty in Measurement Units |          |        | Sensitivity Coefficient |
|----------------------|----------------------------------|----------|--------|-------------------------|
|                      | Symbol                           | Units    | Run 1  |                         |
| Sampled Volume (STP) | $V_m$                            | $m^3$    | 4.7152 | 0.0028                  |
| Leak                 | L                                | $ng/m^3$ | 0.0000 | 1.00                    |
| Laboratory Result    | $L_r$                            | $ng/m^3$ | 0.0013 | 1.00                    |

| Measured Quantities  | Uncertainty in Result |        |
|----------------------|-----------------------|--------|
|                      | Units                 | Run 1  |
| Sampled Volume (STP) | $ng/m^3$              | 0.0003 |
| Leak                 | $ng/m^3$              | 0.0000 |
| Laboratory Result    | $ng/m^3$              | 0.0013 |

| Measured Quantities                       | Oxygen Correction Part of MU Budget |       |
|-------------------------------------------|-------------------------------------|-------|
|                                           | Units                               | Run 1 |
| O <sub>2</sub> Correction Factor          | -                                   | 3.84  |
| Stack Gas O <sub>2</sub> Content          | % v/v                               | 18.39 |
| MU for O <sub>2</sub> Correction          | -                                   | 0.74  |
| Overall MU For O <sub>2</sub> Measurement | %                                   | 19.18 |

| Parameter                                                               | Units    | Run 1  |
|-------------------------------------------------------------------------|----------|--------|
| Combined uncertainty                                                    | $ng/m^3$ | 0.0014 |
| Expanded uncertainty (95% confidence), without Oxygen Correction        | $ng/m^3$ | 0.0027 |
| Expanded uncertainty (95% confidence), with Oxygen Correction           | $ng/m^3$ | 0.004  |
| Expanded uncertainty (95% confidence), estimated with Method Deviations | $ng/m^3$ | 0.0037 |
| Reported Uncertainty                                                    | $ng/m^3$ | 0.0037 |
| Expanded uncertainty (95% confidence), without Oxygen Correction        | %        | 20.2   |
| Expanded uncertainty (95% confidence), with Oxygen Correction           | %        | 27.9   |
| Expanded uncertainty (95% confidence), estimated with Method Deviations | %        | 27.9   |
| Reported Uncertainty                                                    | %        | 27.9   |
| Reported Uncertainty as % of ELV                                        | %        | N/A    |

## PCBs: RESULTS SUMMARY

(PAGE 1 OF 4)

Thalia Waste Management, Knaresborough  
A2 - Line 1

### TEQ1 - UPPER LIMITS (worst case where <LOD = LOD)

#### Sample Runs (UPPER WHO TEQ Humans / Mammals)

| Parameter     | Units              | Run 1  | Mean   |
|---------------|--------------------|--------|--------|
| Concentration | ng/m <sup>3</sup>  | 0.0022 | 0.0022 |
| Uncertainty   | ±ng/m <sup>3</sup> | 0.0006 | 0.0006 |
| Mass Emission | µg/hr              | 0.03   | 0.03   |
| Uncertainty   | ±µg/hr             | 0.01   | 0.01   |

#### Sample Runs (UPPER WHO TEQ Fish)

| Parameter     | Units              | Run 1   | Mean    |
|---------------|--------------------|---------|---------|
| Concentration | ng/m <sup>3</sup>  | 0.00014 | 0.00014 |
| Uncertainty   | ±ng/m <sup>3</sup> | 0.00004 | 0.00004 |
| Mass Emission | µg/hr              | 0.002   | 0.002   |
| Uncertainty   | ±µg/hr             | 0.001   | 0.001   |

#### Sample Runs (UPPER WHO TEQ Birds)

| Parameter     | Units              | Run 1  | Mean   |
|---------------|--------------------|--------|--------|
| Concentration | ng/m <sup>3</sup>  | 0.0140 | 0.0140 |
| Uncertainty   | ±ng/m <sup>3</sup> | 0.0039 | 0.0039 |
| Mass Emission | µg/hr              | 0.18   | 0.18   |
| Uncertainty   | ±µg/hr             | 0.05   | 0.05   |

## PCBs: RESULTS SUMMARY

(PAGE 2 OF 4)

Thalia Waste Management, Knaresborough  
A2 - Line 1

### TEQ2 - LOWER LIMITS (best case where <LOD = 0)

#### Sample Runs (LOWER WHO TEQ Humans / Mammals)

| Parameter     | Units              | Run 1  | Mean   |
|---------------|--------------------|--------|--------|
| Concentration | ng/m <sup>3</sup>  | 0.0022 | 0.0022 |
| Uncertainty   | ±ng/m <sup>3</sup> | 0.0006 | 0.0006 |
| Mass Emission | µg/hr              | 0.03   | 0.03   |
| Uncertainty   | ±µg/hr             | 0.01   | 0.01   |

#### Sample Runs (LOWER WHO TEQ Fish)

| Parameter     | Units              | Run 1   | Mean    |
|---------------|--------------------|---------|---------|
| Concentration | ng/m <sup>3</sup>  | 0.00014 | 0.00014 |
| Uncertainty   | ±ng/m <sup>3</sup> | 0.00004 | 0.00004 |
| Mass Emission | µg/hr              | 0.002   | 0.002   |
| Uncertainty   | ±µg/hr             | 0.001   | 0.001   |

#### Sample Runs (LOWER WHO TEQ Birds)

| Parameter     | Units              | Run 1  | Mean   |
|---------------|--------------------|--------|--------|
| Concentration | ng/m <sup>3</sup>  | 0.0140 | 0.0140 |
| Uncertainty   | ±ng/m <sup>3</sup> | 0.0039 | 0.0039 |
| Mass Emission | µg/hr              | 0.18   | 0.18   |
| Uncertainty   | ±µg/hr             | 0.05   | 0.05   |

## PCBs: RESULTS SUMMARY

(PAGE 3 OF 4)

Thalia Waste Management, Knaresborough  
A2 - Line 1

### TEQ1 - UPPER LIMITS (worst case where <LOD = LOD)

#### Blank Runs (UPPER WHO TEQ Humans / Mammals)

| Parameter     | Units             | Blank 1 | Maximum |
|---------------|-------------------|---------|---------|
| Concentration | ng/m <sup>3</sup> | 0.0004  | 0.0004  |

#### Blank Runs (UPPER WHO TEQ Fish)

| Parameter     | Units             | Blank 1 | Maximum |
|---------------|-------------------|---------|---------|
| Concentration | ng/m <sup>3</sup> | 0.00002 | 0.00002 |

#### Blank Runs (UPPER WHO TEQ Birds)

| Parameter     | Units             | Blank 1 | Maximum |
|---------------|-------------------|---------|---------|
| Concentration | ng/m <sup>3</sup> | 0.0024  | 0.0024  |

### TEQ2 - LOWER LIMITS (best case where <LOD = 0)

#### Blank Runs (LOWER WHO TEQ Humans / Mammals)

| Parameter     | Units             | Blank 1 | Maximum |
|---------------|-------------------|---------|---------|
| Concentration | ng/m <sup>3</sup> | 0.0003  | 0.0003  |

#### Blank Runs (LOWER WHO TEQ Fish)

| Parameter     | Units             | Blank 1 | Maximum |
|---------------|-------------------|---------|---------|
| Concentration | ng/m <sup>3</sup> | 0.00002 | 0.00002 |

#### Blank Runs (LOWER WHO TEQ Birds)

| Parameter     | Units             | Blank 1 | Maximum |
|---------------|-------------------|---------|---------|
| Concentration | ng/m <sup>3</sup> | 0.0022  | 0.0022  |

## PCBs: RESULTS SUMMARY

(PAGE 4 OF 4)

Thalia Waste Management, Knaresborough

A2 - Line 1

| Parameter    | Units  | Run 1 | Mean |
|--------------|--------|-------|------|
| Water Vapour | % v/v  | 3.1   | 3.1  |
| Uncertainty  | ±% v/v | 0.16  | 0.16 |

### General Sampling Information

| Parameter                         | Value              |                                       |
|-----------------------------------|--------------------|---------------------------------------|
| Standard                          | EN 1948            |                                       |
| Technical Procedure               | MD 007             |                                       |
| Name of Analytical Laboratory     | ELD                |                                       |
| Analytical Laboratory's Procedure | PM137, TM201       |                                       |
| ISO 17025 Accredited Analysis?    | MCERTS             |                                       |
| Date of Sample Analysis           | 24/10/2025         |                                       |
| Probe Material                    | Borosilicate Glass |                                       |
| Filter Housing Material           | Borosilicate Glass |                                       |
| Glassware Material                | Borosilicate Glass |                                       |
| Absorption Material               | XAD-2              |                                       |
| Positioning of Filter             | Out Stack          |                                       |
| Filter Size and Material          | 90mm Quartz Fibre  |                                       |
| Number of Sampling Lines Used     | 2 / 2              | FORMAT: Number Used / Number Required |
| Number of Sampling Points Used    | 12 / 12            | FORMAT: Number Used / Number Required |
| Sample Point I.D.'s               | A1 - A6, B1 - B6   |                                       |

### Reference Conditions

Reference Conditions are: 273K, 101.3kPa, dry gas, 11% oxygen.

## PCBs: ISOKINETIC SAMPLING CALCULATIONS

| Test                                                                                                                                                                                                                | Units               | Run 1  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------|--|
| <b>Absolute pressure of stack gas, <math>P_s</math></b>                                                                                                                                                             |                     |        |  |
| Barometric pressure, $P_b$                                                                                                                                                                                          | mmHg                | 774.1  |  |
| Stack static pressure, $P_{static}$                                                                                                                                                                                 | mmH <sub>2</sub> O  | -36.2  |  |
| $P_s = (P_b + (P_{static} / 13.6))$                                                                                                                                                                                 | mmHg                | 771.4  |  |
| <b>Volume of water vapour collected, <math>V_{wstd}</math></b>                                                                                                                                                      |                     |        |  |
| Total mass collected in impingers (liquid trap)                                                                                                                                                                     | g                   | 92.6   |  |
| Total mass collected in impingers (silica trap)                                                                                                                                                                     | g                   | 30.2   |  |
| Total mass of liquid collected, $V_{lc}$                                                                                                                                                                            | g                   | 122.8  |  |
| $V_{wstd} = (0.001246)(V_{lc})$                                                                                                                                                                                     | m <sup>3</sup>      | 0.1530 |  |
| <b>Volume of gas metered dry, <math>V_{mstd}</math></b>                                                                                                                                                             |                     |        |  |
| Volume of gas sample through gas meter, $V_m$                                                                                                                                                                       | m <sup>3</sup>      | 5.0880 |  |
| Gas meter correction factor, $Y_d$                                                                                                                                                                                  | -                   | 0.9740 |  |
| Average dry gas meter temperature, $T_m$                                                                                                                                                                            | °C                  | 19.9   |  |
| Average pressure drop across orifice, $\Delta H$                                                                                                                                                                    | mmH <sub>2</sub> O  | 24.3   |  |
| $V_{mstd} = ((0.3592)(V_m)(P_b + (\Delta H/13.6))(Y_d)) / (T_m + 273)$                                                                                                                                              | m <sup>3</sup>      | 4.7152 |  |
| <b>Moisture content, <math>B_{wo}</math> &amp; <math>R_{wv}</math></b>                                                                                                                                              |                     |        |  |
| $B_{wo} = V_{wstd} / (V_{mstd} + V_{wstd})$                                                                                                                                                                         | m <sup>3</sup>      | 0.0314 |  |
| $B_{wo}$ as a percentage                                                                                                                                                                                            | % v/v               | 3.14   |  |
| Reported Water Vapour, checked with Tables in EN 14790, $R_{wv}$                                                                                                                                                    | % v/v               | 3.14   |  |
| <b>Volume of gas metered wet, <math>V_{mstw}</math></b>                                                                                                                                                             |                     |        |  |
| $V_{mstw} = (V_{mstd})(100/(100 - R_{wv}))$                                                                                                                                                                         | m <sup>3</sup>      | 4.8682 |  |
| <b>Volume of gas metered at Oxygen Reference Conditions, <math>V_{mstd@X\%O_2}</math> &amp; <math>V_{mstw@X\%O_2}</math></b>                                                                                        |                     |        |  |
| IED & Incinerates Hazardous Material? (Yes = no positive O <sub>2</sub> correction)                                                                                                                                 | -                   | No     |  |
| % wet oxygen measured in gas stream, ACT%O <sub>2w</sub>                                                                                                                                                            | % v/v               | 17.81  |  |
| % dry oxygen measured in gas stream, ACT%O <sub>2d</sub>                                                                                                                                                            | % v/v               | 18.39  |  |
| % oxygen reference condition, REF%O <sub>2</sub>                                                                                                                                                                    | % v/v               | 11.00  |  |
| O <sub>2</sub> Reference Factor wet ( $O_{2REFw} = (21 - REF\%O_2) / (21 - ACT\%O_{2w})$ )                                                                                                                          | -                   | 3.14   |  |
| O <sub>2</sub> Reference Factor dry ( $O_{2REFd} = (21 - REF\%O_2) / (21 - ACT\%O_{2d})$ )                                                                                                                          | -                   | 3.84   |  |
| $V_{mstw@X\%oxygen} = (V_{mstw}) / (O_{2REFw})$                                                                                                                                                                     | m <sup>3</sup>      | 1.5508 |  |
| $V_{mstd@X\%oxygen} = (V_{mstd}) / (O_{2REFd})$                                                                                                                                                                     | m <sup>3</sup>      | 1.2295 |  |
| <b>Molecular weight of dry gas stream, <math>M_d</math></b>                                                                                                                                                         |                     |        |  |
| CO <sub>2</sub> (Estimated)                                                                                                                                                                                         | % v/v               | 9.00   |  |
| O <sub>2</sub>                                                                                                                                                                                                      | % v/v               | 18.39  |  |
| Total                                                                                                                                                                                                               | % v/v               | 27.39  |  |
| N <sub>2</sub>                                                                                                                                                                                                      | % v/v               | 72.61  |  |
| $M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%N_2)$                                                                                                                                                                    | g/gmol              | 30.18  |  |
| <b>Molecular weight of stack gas (wet), <math>M_s</math></b>                                                                                                                                                        |                     |        |  |
| $M_s = M_d(1 - (R_{wv}/100)) + 18(R_{wv}/100)$                                                                                                                                                                      | g/gmol              | 29.79  |  |
| <b>Velocity of stack gas, <math>V_s</math></b>                                                                                                                                                                      |                     |        |  |
| Pitot tube velocity constant, $K_p$                                                                                                                                                                                 | -                   | 34.97  |  |
| Velocity pressure coefficient, $C_p$                                                                                                                                                                                | -                   | 0.81   |  |
| Average of velocity heads, $\Delta P_{avg}$                                                                                                                                                                         | mmH <sub>2</sub> O  | 4.36   |  |
| Average square root of velocity heads, $\sqrt{\Delta P}$                                                                                                                                                            | √mmH <sub>2</sub> O | 2.09   |  |
| Average stack gas temperature, $T_s$                                                                                                                                                                                | °C                  | 129.9  |  |
| $V_s = ((K_p)(C_p)(\sqrt{\Delta P})(T_s + 273)) / (V(M_s)(P_s))$                                                                                                                                                    | m/s                 | 7.86   |  |
| <b>Total flow of stack gas: Actual (<math>Q_a</math>), Wet (<math>Q_{stw}</math>), Dry (<math>Q_{std}</math>), Wet@O<sub>2REF</sub> (<math>Q_{stw@O_2}</math>), Dry@O<sub>2REF</sub> (<math>Q_{std@O_2}</math>)</b> |                     |        |  |
| Area of stack, $A_s$                                                                                                                                                                                                | m <sup>2</sup>      | 2.54   |  |
| $Q_a = (60)(A_s)(V_s)$                                                                                                                                                                                              | m <sup>3</sup> /min | 1200.3 |  |
| Conversion factor (K/mm.Hg), $C_f$                                                                                                                                                                                  | -                   | 0.3592 |  |
| $Q_{stw} = ((Q_a)(P_s)(C_f)) / ((T_s) + 273)$                                                                                                                                                                       | m <sup>3</sup> /min | 825.5  |  |
| $Q_{std} = ((Q_a)(P_s)(C_f)(1 - (R_{wv}/100))) / ((T_s) + 273)$                                                                                                                                                     | m <sup>3</sup> /min | 799.5  |  |
| $Q_{stw@O_2} = ((Q_a)(P_s)(C_f)) / ((T_s) + 273) / (O_{2REFw})$                                                                                                                                                     | m <sup>3</sup> /min | 263.0  |  |
| $Q_{std@O_2} = ((Q_a)(P_s)(C_f)(1 - (R_{wv}/100))) / ((T_s) + 273) / (O_{2REFd})$                                                                                                                                   | m <sup>3</sup> /min | 208.5  |  |
| <b>Percent isokinetic, %I</b>                                                                                                                                                                                       |                     |        |  |
| Nozzle diameter, $D_n$                                                                                                                                                                                              | mm                  | 8.00   |  |
| Nozzle area, $A_n$                                                                                                                                                                                                  | mm <sup>2</sup>     | 50.27  |  |
| Total sampling time, q                                                                                                                                                                                              | min                 | 300    |  |
| $\%I = (4.6398E^6)(T_s + 273)(V_{mstd}) / (P_s)(V_s)(A_n)(q)(1 - (R_{wv}/100))$                                                                                                                                     | %                   | 99.5   |  |

## PCBs: SAMPLING DETAILS

### RUN 1

| Parameter            | Units          | Value         |
|----------------------|----------------|---------------|
| Sampling Times       | -              | 16:00 - 21:00 |
| Sampling Dates       | -              | 10/10/2025    |
| Sampling Device      | -              | ISO           |
| Volume Sampled (REF) | m <sup>3</sup> | 1.2295        |

**Where:** ISO stands for Manual Isokinetic Sampling Train

| Parameter           | Units             | Result | DL     | WHO Humans / Mammals |           | WHO Fish  |           | WHO Birds |           | % Rec |
|---------------------|-------------------|--------|--------|----------------------|-----------|-----------|-----------|-----------|-----------|-------|
|                     |                   |        |        | TEQ1                 | TEQ2      | TEQ1      | TEQ2      | TEQ1      | TEQ2      |       |
| PCB-81              | ng                | 0.0284 | 0.0024 | 0.0000085            | 0.0000085 | 0.0000142 | 0.0000142 | 0.0028440 | 0.0028440 | 80    |
| PCB-77              | ng                | 0.2342 | 0.0017 | 0.0000234            | 0.0000234 | 0.0000234 | 0.0000234 | 0.0117090 | 0.0117090 | 75    |
| PCB-123             | ng                | 0.0307 | 0.0060 | 0.0000009            | 0.0000009 | 0.0000002 | 0.0000002 | 0.0000003 | 0.0000003 | 75    |
| PCB-118             | ng                | ND     | 0.0059 | 0.0000002            | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000001 | 0.0000000 | 73    |
| PCB-114             | ng                | 0.0448 | 0.0059 | 0.0000013            | 0.0000013 | 0.0000002 | 0.0000002 | 0.0000045 | 0.0000045 | 79    |
| PCB-105             | ng                | 0.4590 | 0.0075 | 0.0000138            | 0.0000138 | 0.0000023 | 0.0000023 | 0.0000459 | 0.0000459 | 60    |
| PCB-126             | ng                | 0.0263 | 0.0031 | 0.0026290            | 0.0026290 | 0.0001315 | 0.0001315 | 0.0026290 | 0.0026290 | 76    |
| PCB-167             | ng                | 0.0182 | 0.0028 | 0.0000005            | 0.0000005 | 0.0000001 | 0.0000001 | 0.0000002 | 0.0000002 | 72    |
| PCB-156             | ng                | 0.0451 | 0.0030 | 0.0000014            | 0.0000014 | 0.0000002 | 0.0000002 | 0.0000045 | 0.0000045 | 70    |
| PCB-157             | ng                | 0.0140 | 0.0034 | 0.0000004            | 0.0000004 | 0.0000001 | 0.0000001 | 0.0000014 | 0.0000014 | 62    |
| PCB-169             | ng                | ND     | 0.0028 | 0.0000834            | 0.0000000 | 0.0000001 | 0.0000000 | 0.0000028 | 0.0000000 | 81    |
| PCB-189             | ng                | 0.0074 | 0.0013 | 0.0000002            | 0.0000002 | 0.0000000 | 0.0000000 | 0.0000001 | 0.0000001 | 69    |
| Totals              | ng                | 0.9080 | -      | 0.002763             | 0.002680  | 0.000172  | 0.000172  | 0.017242  | 0.017239  | -     |
| Total Concentration | ng/m <sup>3</sup> | -      | -      | 0.002247             | 0.002179  | 0.000140  | 0.000140  | 0.014024  | 0.014021  | -     |
| Limit of Detection  | ng/m <sup>3</sup> | -      | -      | 0.000321             | -         | 0.000014  | -         | 0.000516  | -         | -     |

**Where:** ND stands for Non Detected  
DL stands for Analytical Detection Limit  
TEQ1 refers to Non Detected Congeners at the Detection Limit  
TEQ2 refers to Non Detected Congeners at Zero  
% Rec stands for the Recovery Percentage of the Sample

## APPENDIX 2

### PCBs: SAMPLING DETAILS

#### BLANK 1

| Parameter            | Units          | Value      |
|----------------------|----------------|------------|
| Sampling Dates       | -              | 09/10/2025 |
| Sampling Device      | -              | ISO        |
| Volume Sampled (REF) | m <sup>3</sup> | 1.2295     |

**Where:** ISO stands for Manual Isokinetic Sampling Train

| Parameter           | Units             | Result | DL     | WHO Humans / Mammals |           | WHO Fish  |           | WHO Birds |           | % Rec |
|---------------------|-------------------|--------|--------|----------------------|-----------|-----------|-----------|-----------|-----------|-------|
|                     |                   |        |        | TEQ1                 | TEQ2      | TEQ1      | TEQ2      | TEQ1      | TEQ2      |       |
| PCB-81              | ng                | ND     | 0.0025 | 0.0000008            | 0.0000000 | 0.0000013 | 0.0000000 | 0.0002540 | 0.0000000 | 82    |
| PCB-77              | ng                | 0.0455 | 0.0029 | 0.0000046            | 0.0000046 | 0.0000046 | 0.0000046 | 0.0022765 | 0.0022765 | 82    |
| PCB-123             | ng                | 0.0080 | 0.0030 | 0.0000002            | 0.0000002 | 0.0000000 | 0.0000000 | 0.0000001 | 0.0000001 | 83    |
| PCB-118             | ng                | 0.1638 | 0.0029 | 0.0000049            | 0.0000049 | 0.0000008 | 0.0000008 | 0.0000016 | 0.0000016 | 82    |
| PCB-114             | ng                | 0.0109 | 0.0030 | 0.0000003            | 0.0000003 | 0.0000001 | 0.0000001 | 0.0000011 | 0.0000011 | 86    |
| PCB-105             | ng                | 0.0873 | 0.0034 | 0.0000026            | 0.0000026 | 0.0000004 | 0.0000004 | 0.0000087 | 0.0000087 | 74    |
| PCB-126             | ng                | 0.0038 | 0.0035 | 0.0003790            | 0.0003790 | 0.0000190 | 0.0000190 | 0.0003790 | 0.0003790 | 90    |
| PCB-167             | ng                | 0.0053 | 0.0014 | 0.0000002            | 0.0000002 | 0.0000000 | 0.0000000 | 0.0000001 | 0.0000001 | 81    |
| PCB-156             | ng                | 0.0095 | 0.0015 | 0.0000003            | 0.0000003 | 0.0000000 | 0.0000000 | 0.0000010 | 0.0000010 | 81    |
| PCB-157             | ng                | 0.0036 | 0.0016 | 0.0000001            | 0.0000001 | 0.0000000 | 0.0000000 | 0.0000004 | 0.0000004 | 73    |
| PCB-169             | ng                | ND     | 0.0015 | 0.0000435            | 0.0000000 | 0.0000001 | 0.0000000 | 0.0000015 | 0.0000000 | 87    |
| PCB-189             | ng                | 0.0018 | 0.0007 | 0.0000001            | 0.0000001 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 77    |
| Totals              | ng                | 0.3395 | -      | 0.000437             | 0.000392  | 0.000026  | 0.000025  | 0.002924  | 0.002668  | -     |
| Total Concentration | ng/m <sup>3</sup> | -      | -      | 0.000355             | 0.000319  | 0.000021  | 0.000020  | 0.002378  | 0.002170  | -     |

**Where:** ND stands for Non Detected  
DL stands for Analytical Detection Limit  
TEQ1 refers to Non Detected Congeners at the Detection Limit  
TEQ2 refers to Non Detected Congeners at Zero  
% Rec stands for the Recovery Percentage of the Sample

## PCBs: QUALITY ASSURANCE

(PAGE 1 OF 2)

### Sample Runs

| Leak Test Results                    | Units | Run 1    |  |
|--------------------------------------|-------|----------|--|
| Mean Sampling Rate                   | l/min | 16.5     |  |
| Pre-Sampling Leak Rate               | l/min | 0.12     |  |
| Post-Sampling Leak Rate              | l/min | 0.10     |  |
| Allowable Leak Rate                  | l/min | 0.83     |  |
| Leak Test Acceptable                 | -     | Yes      |  |
| Water Droplets                       | Units | Run 1    |  |
| Are Water Droplets Present           | -     | No       |  |
| MU (Concurrent Water Vapour)         | Units | Run 1    |  |
| Measurement Uncertainty (MU)         | %     | 5.1      |  |
| Allowable MU                         | %     | 20.0     |  |
| MU Acceptable                        | %     | Yes      |  |
| Silica Gel (Concurrent Water Vapour) | Units | Run 1    |  |
| Less than 50% Faded                  | %     | Yes      |  |
| Isokinetic Criterion Compliance      | Units | Run 1    |  |
| Isokinetic Variation                 | %     | 99.5     |  |
| Allowable Isokinetic Range           | %     | 95 - 115 |  |
| Isokineticity Acceptable             | -     | Yes      |  |
| Filter Temperatures                  | Units | Run 1    |  |
| Maximum Filter Temperature           | °C    | 120      |  |
| Maximum Allowable Temperature        | °C    | 125      |  |
| Temperature Acceptable               | -     | Yes      |  |
| Condenser Exit Temperature           | Units | Run 1    |  |
| Maximum Temperature Recorded         | °C    | 18       |  |
| Maximum Allowable Temperature        | °C    | 20       |  |
| Exit Temperature Acceptable          | -     | Yes      |  |
| Test Conditions                      | Units | Run 1    |  |
| Ambient Temperature Recorded?        | -     | Yes      |  |

## PCBs: QUALITY ASSURANCE

(PAGE 2 OF 2)

### Blank Runs

| Leak Test Results      | Units | Blank 1 |  |
|------------------------|-------|---------|--|
| Expected Sampling Rate | l/min | 20.0    |  |
| Sampling Leak Rate     | l/min | 0.12    |  |
| Allowable Leak Rate    | l/min | 1.00    |  |
| Leak Test Acceptable   | -     | Yes     |  |

| Validity of WHO TEQ H/M Blank vs ELV | Units             | Blank 1 |  |
|--------------------------------------|-------------------|---------|--|
| Allowable Blank                      | ng/m <sup>3</sup> | N/A     |  |
| Blank Acceptable                     | -                 | N/A     |  |

### Method Deviations

| Nature of Deviation                                                                                           | Run Number |
|---------------------------------------------------------------------------------------------------------------|------------|
| (x = deviation applies to the associated run, wx = deviation also applies to the concurrent water vapour run) | 1          |
| There are no deviations associated with the sampling employed.                                                | wx         |

## PCBs (WHO TEQ HUMANS / MAMMALS): MEASUREMENT UNCERTAINTY CALCULATIONS

| Measured Quantities     | Value          |        | Standard uncertainty |                |        |
|-------------------------|----------------|--------|----------------------|----------------|--------|
|                         | Symbol         | Run 1  | Symbol               | Units          | Run 1  |
| Sampled Volume (Actual) | V <sub>m</sub> | 5.0880 | uV <sub>m</sub>      | m <sup>3</sup> | 0.1018 |
| Sampled Gas Temperature | T <sub>m</sub> | 292.9  | uT <sub>m</sub>      | K              | 2.00   |
| Sampled Gas Pressure    | p <sub>m</sub> | 102.9  | up <sub>m</sub>      | kPa            | 0.50   |
| Sampled Gas Humidity    | H <sub>m</sub> | 0.00   | uH <sub>m</sub>      | % v/v          | 1.00   |
| Leak                    | L              | 0.61   | uL                   | %              | -      |
| Laboratory Result       | L <sub>r</sub> | 10.0   | uL <sub>r</sub>      | %              | -      |

| Measured Quantities     | Uncertainty as a Percentage |       | Requirement of Standard |
|-------------------------|-----------------------------|-------|-------------------------|
|                         | Units                       | Run 1 |                         |
| Sampled Volume (Actual) | %                           | 2.00  | ≤2%                     |
| Sampled Gas Temperature | %                           | 0.68  | ≤1%                     |
| Sampled Gas Pressure    | %                           | 0.49  | ≤1%                     |
| Sampled Gas Humidity    | %                           | 1.00  | ≤1%                     |
| Leak                    | %                           | 0.61  | ≤5%                     |
| Laboratory Result       | %                           | 10.0  | No Requirement          |

| Measured Quantities  | Uncertainty in Measurement Units |                   |        | Sensitivity Coefficient |
|----------------------|----------------------------------|-------------------|--------|-------------------------|
|                      | Symbol                           | Units             | Run 1  |                         |
| Sampled Volume (STP) | V <sub>m</sub>                   | m <sup>3</sup>    | 4.7152 | 0.00                    |
| Leak                 | L                                | ng/m <sup>3</sup> | 0.0000 | 1.00                    |
| Laboratory Result    | L <sub>r</sub>                   | ng/m <sup>3</sup> | 0.0002 | 1.00                    |

| Measured Quantities  | Uncertainty in Result |        |
|----------------------|-----------------------|--------|
|                      | Units                 | Run 1  |
| Sampled Volume (STP) | ng/m <sup>3</sup>     | 0.0001 |
| Leak                 | ng/m <sup>3</sup>     | 0.0000 |
| Laboratory Result    | ng/m <sup>3</sup>     | 0.0002 |

| Measured Quantities                       | Oxygen Correction Part of MU Budget |       |
|-------------------------------------------|-------------------------------------|-------|
|                                           | Units                               | Run 1 |
| O <sub>2</sub> Correction Factor          | -                                   | 3.84  |
| Stack Gas O <sub>2</sub> Content          | % v/v                               | 18.39 |
| MU for O <sub>2</sub> Correction          | -                                   | 0.74  |
| Overall MU For O <sub>2</sub> Measurement | %                                   | 19.18 |

| Parameter                                                               | Units             | Run 1  |
|-------------------------------------------------------------------------|-------------------|--------|
| Combined uncertainty                                                    | ng/m <sup>3</sup> | 0.0002 |
| Expanded uncertainty (95% confidence), without Oxygen Correction        | ng/m <sup>3</sup> | 0.0005 |
| Expanded uncertainty (95% confidence), with Oxygen Correction           | ng/m <sup>3</sup> | 0.00   |
| Expanded uncertainty (95% confidence), estimated with Method Deviations | ng/m <sup>3</sup> | 0.0006 |
| Reported Uncertainty                                                    | ng/m <sup>3</sup> | 0.0006 |
| Expanded uncertainty (95% confidence), without Oxygen Correction        | %                 | 20.2   |
| Expanded uncertainty (95% confidence), with Oxygen Correction           | %                 | 27.9   |
| Expanded uncertainty (95% confidence), estimated with Method Deviations | %                 | 27.9   |
| Reported Uncertainty                                                    | %                 | 27.9   |
| Reported Uncertainty as % of ELV                                        | %                 | N/A    |

## OXYGEN: RESULTS SUMMARY

Thalia Waste Management, Knaresborough

A2 - Line 1

### Sample Runs

| Parameter     | Units  | Run 1 | Mean |
|---------------|--------|-------|------|
| Concentration | % v/v  | 18.4  | 18.4 |
| Uncertainty   | ±% v/v | 0.45  | 0.45 |

### General Sampling Information

| Parameter                          | Value                   |
|------------------------------------|-------------------------|
| Standard                           | EN 14789                |
| Technical Procedure                | MD 039                  |
| Probe Material                     | Titanium                |
| Filtration Type / Size             | 0.1µm Glass Fibre       |
| Heated Head Filter Used            | Yes                     |
| Heated Line Temperature            | 180°C                   |
| Span Gas Type                      | Synthetic Air (5 Grade) |
| Span Gas Reference Number          | A009128                 |
| Span Gas Expiry Date               | 05/08/1930              |
| Span Gas Start Pressure (bar)      | 180                     |
| Gas Cylinder Concentration (% v/v) | 21.41                   |
| Span Gas Uncertainty (%)           | 2                       |
| Zero Gas Type                      | Nitrogen (5 Grade)      |
| Number of Sampling Lines Used      | 1 / 1                   |
| Number of Sampling Points Used     | 1 / 1                   |
| Sample Point I.D.'s                | A4                      |

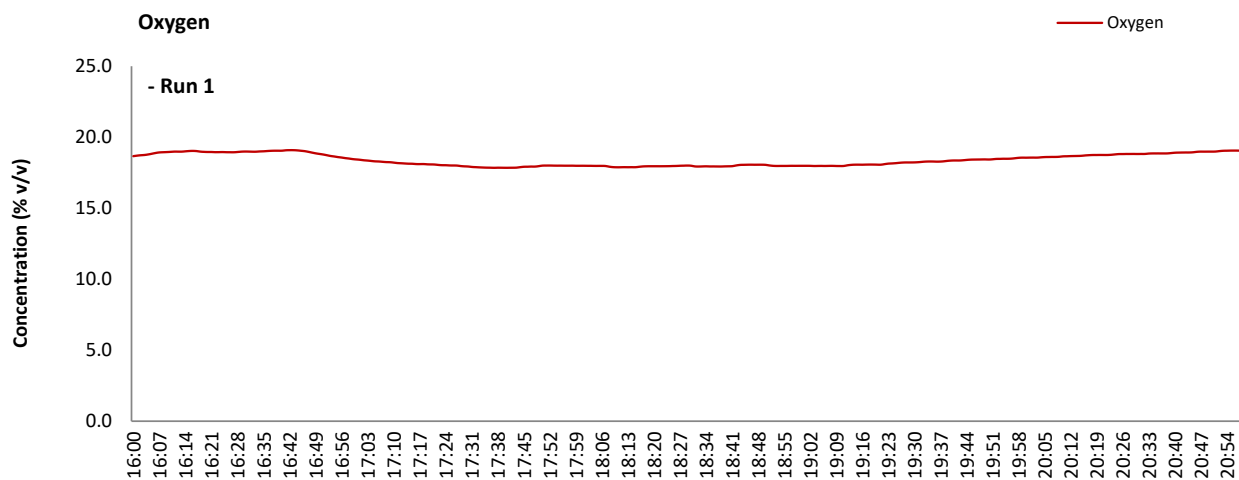
NOTE: Dilution performed to achieve correct span value

FORMAT: Number Used / Number Required

FORMAT: Number Used / Number Required

## OXYGEN: DATA TREND

### Graphical Trend of Data



## OXYGEN: SAMPLING DETAILS & QUALITY ASSURANCE

### Sampling Details

| Parameter        | Units | Run 1         |
|------------------|-------|---------------|
| Sampling Times   | -     | 16:00 - 21:00 |
| Sampling Dates   | -     | 10/10/2025    |
| Instrument Range | % v/v | 25.0          |
| Span Gas Value   | % v/v | 9.0           |

### Quality Assurance

| Conditioning Unit Temperature | Units | Run 1 |
|-------------------------------|-------|-------|
| Average Temperature           | °C    | 2.2   |
| Allowable Temperature         | < °C  | 4.0   |
| Temperature Acceptable        | -     | Yes   |

| Zero Drift               | Units | Run 1 |
|--------------------------|-------|-------|
| Zero at Analyser (Pre)   | % v/v | 0.00  |
| Zero at Analyser (Post)  | % v/v | 0.00  |
| Zero Drift               | % v/v | 0.00  |
| Zero Drift               | %     | 0.00  |
| Drift Correction Applied | 2-5%  | No    |
| Allowable Zero Drift     | ± %   | 5.00  |
| Zero Drift Acceptable    | -     | Yes   |

| Span Drift               | Units | Run 1 |
|--------------------------|-------|-------|
| Span at Analyser (Pre)   | % v/v | 8.76  |
| Span at Analyser (Post)  | % v/v | 8.80  |
| Span Drift               | % v/v | 0.04  |
| Zero Adj. Span Drift     | %     | 0.44  |
| Drift Correction Applied | 2-5%  | No    |
| Allowable Span Drift     | ± %   | 5.00  |
| Span Drift Acceptable    | -     | Yes   |

| Test Conditions               | Units | Run 1  |
|-------------------------------|-------|--------|
| Run Ambient Temperature Range | °C    | 9 - 15 |

### Method Deviations

| Nature of Deviation                                            | Run Number |
|----------------------------------------------------------------|------------|
| (x = deviation applies to the associated run)                  | 1          |
| There are no deviations associated with the sampling employed. | x          |

## OXYGEN: MEASUREMENT UNCERTAINTY CALCULATIONS

| Performance characteristics | RUN 1 |  | Units |
|-----------------------------|-------|--|-------|
| Limit value                 | N/A   |  | %vol  |
| Allowable MU                | 6.0   |  | %     |
| Measured concentration      | 18.39 |  | %vol  |
| Range Used                  | 25.0  |  | %vol  |
| Cal gas conc.               | 21.4  |  | %vol  |

| Performance characteristics        | RUN 1 |  | Units            |
|------------------------------------|-------|--|------------------|
| Response time                      | 41    |  | seconds          |
| Number of readings in measurement  | 300   |  | -                |
| Repeatability at zero              | 0.02  |  | % full scale     |
| Repeatability at span level        | 0.02  |  | % full scale     |
| Deviation from linearity           | 0.05  |  | % of value       |
| Zero drift                         | 0.00  |  | % full scale     |
| Span drift                         | 0.44  |  | % full scale     |
| Volume or pressure flow dependence | 0.10  |  | % of full scale  |
| Atmospheric pressure dependence    | 0.19  |  | % of value/kPa   |
| Ambient temperature dependence     | -0.21 |  | % full scale/10K |
| Combined interference              | 0.00  |  | % range          |
| Dependence on voltage              | 0.02  |  | % full scale/10V |
| Losses in the line (leak)          | 0.67  |  | % of value       |
| Uncertainty of calibration gas     | 2.00  |  | % of value       |

| Performance characteristic                        | RUN 1           |  | Units |
|---------------------------------------------------|-----------------|--|-------|
| Standard deviation of repeatability at zero       | use rep at span |  | %vol  |
| Standard deviation of repeatability at span level | 0.00            |  | %vol  |
| Lack of fit                                       | 0.01            |  | %vol  |
| Drift                                             | 0.05            |  | %vol  |
| Volume or pressure flow dependence                | 0.00            |  | %vol  |
| Atmospheric pressure dependence                   | 0.01            |  | %vol  |
| Ambient temperature dependence                    | -0.03           |  | %vol  |
| Combined interference (from MCERTS Certificate)   | 0.00            |  | %vol  |
| Dependence on voltage                             | 0.00            |  | %vol  |
| Losses in the line (leak)                         | 0.07            |  | %vol  |
| Uncertainty of calibration gas                    | 0.21            |  | %vol  |

|                         |          | RUN 1 |  | Units |
|-------------------------|----------|-------|--|-------|
| Measurement uncertainty | Result   | 18.39 |  | %vol  |
| Combined uncertainty    |          | 0.23  |  | %vol  |
| Expanded uncertainty    | k = 1.96 | 0.45  |  | %vol  |

|                                                               | RUN 1     |  | Units      |
|---------------------------------------------------------------|-----------|--|------------|
| Expanded uncertainty (no O <sub>2</sub> ) - at 95% Confidence | 2.47      |  | % of Value |
| Result of Compliance with Uncertainty Requirement             | COMPLIANT |  | -          |

Requirement for SRM is that Uncertainty should be 0.3% vol absolute or 6% relative whichever is the lower, on a dry gas basis. Source, EN 14789.

## VERSION HISTORY

| Version Number | Record of changes made within this version of the document |
|----------------|------------------------------------------------------------|
| V1             | The original document issued to the client                 |