



MONOLITHIC ENVIRONMENTAL SERVICES LTD.

Drummau Farm,
Drummau Road,
Skewen, West Glamorgan,
SA10 6NW.

enquiries@monolithic.co.uk Telephone: 01792 812023 / 816483. Fax: 01792 321023

Lead Sampling-Report

Tata Steel
Port Talbot Steel Works
MCO HAA Areas
SA13 2NG



Survey No	Date of Survey	Survey Type	Prepared by	Authorised by
5938 SC	22/04/2025	Paint Sampling	Derek Williams	Chris Avery



Paint Inspection Report

Client Details.	TSSP UK
Site Details.	Tata Steel, Port Talbot Works, MCO HAA Areas SA13 2NG
Scope of Survey.	Undertake sampling of paint coatings to confirm/refute the presence of lead content within the paint coatings.
Survey Category.	Paint Sampling.
Commissioned by.	Mr Mike King
Inspection Report No.	5938 SC
Date of Inspection.	22/04/2025
Issue Date.	15/05/2025



Authorised & Reviewed By: Chris Avery



Surveyor:

Derek Williams



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1. SUMMARY OF FINDINGS – LEAD DETECTED/SUSPECTED

Analytical Ref No:	Sample No:	Location	Product Type:	Lead Detected:	IMH/102 6/100* Total Lead (Pb) mg/kg	IHM/102 0.0006/0.01* Total Lead (Pb) % w/w
ASC/66901	EN312290/1	LS01-HAA Building-Box Profile Sheetting-Paint	Paint	Yes	40	0.004
ASC/66901	EN312290/2	LS02-HAA Building-Structural Steel Column	Paint	Yes	6800	0.68
ASC/66901	EN312290/3	LS03-HAA Building-Box Profile Sheetting Rail-Paint	Paint	Yes	1400	0.14
ASC/66901	EN312290/4	LS04-HAA Building-Structural Steel Column-1 st Floor-Paint	Paint	Yes	7100	0.71
ASC/66901	EN312290/5	LS05-HAA Building-Material Handling Chute-1 st Floor-Paint (Orange)	Paint	Yes	33000	3.3
ASC/66901	EN312290/5	VS/LS05a-HAA Building-Material Handling Chute-1 st Floor-Paint (Orange)	Paint	Yes	33000	3.3
ASC/66901	EN312290/5	VS/LS05b-HAA Building-Material Handling Chute-1 st Floor-Paint (Orange)	Paint	Yes	33000	3.3
ASC/66901	EN312290/5	VS/LS05c-HAA Building-Material Handling Chute-1 st Floor-Paint (Orange)	Paint	Yes	33000	3.3
ASC/66901	EN312290/5	VS/LS05d-HAA-Redundant 1290 Conveyor Feed Hoppers-Material Handling Chute-Paint (Orange)	Paint	Yes	33000	3.3
ASC/66901	EN312290/5	VS/LS05e-HAA-Redundant 1290 Conveyor Feed Hoppers-Material Handling Chute-Paint (Orange)	Paint	Yes	33000	3.3
ASC/66901	EN312290/6	LS06-HAA Building-Structural Steel Beam-1 st Floor-Paint	Paint	Yes	710	0.17



ASC/66901	EN312290/7	LS07-HAA Building-Material Handling Chute-Hydraulic Piston-1 st Floor-Paint (Blue)	Paint	Yes	62	0.0062
ASC/66901	EN312290/7	VS/LS07a-HAA Building-Material Handling Chute-Hydraulic Piston-1 st Floor-Paint (Blue)	Paint	Yes	62	0.0062
ASC/66901	EN312290/8	LS08-HAA Building-Material Handling Chute-1 st Floor-Paint	Paint	Yes	66	0.0066
ASC/66901	EN312290/8	VLS08a-HAA Building-Material Handling Chute-1 st Floor-Paint	Paint	Yes	66	0.0066
ASC/66901	EN312290/8	VS/LS08b-HAA-Redundant 1290 Conveyor Feed Hoopers-Paint	Paint	Yes	66	0.0066
ASC/66901	EN312290/9	LS09-HAA Building/Feeder Hoppers-Conveyor 1290-Structural Steel Columns-Paint	Paint	Yes	1700	0.17
ASC/66901	EN312290/9	VS/LS09a-HAA Building/Feeder Hoppers-Structural Steel-Paint	Paint	Yes	1700	0.17
ASC/66901	EN312290/10	LS10-HAA Building/Feeder Hoppers-Conveyor 1290-Handrails-Paint	Paint	Yes	1700	0.17
ASC/66901	EN312290/10	VS/LS10a-HAA Building/Feeder Hoppers-Conveyor 1290-Handrails-Paint	Paint	Yes	1700	0.17

Note: results highlighted in **RED** are equal to or above the applicable 1% CLAW threshold limit



Section 2

Material Identification Sheets, Assessment, and Photographs

Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/1-LS01
Location & Description of sample	LS01-HAA Building-Box Profile Sheeting-Paint		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	0.004

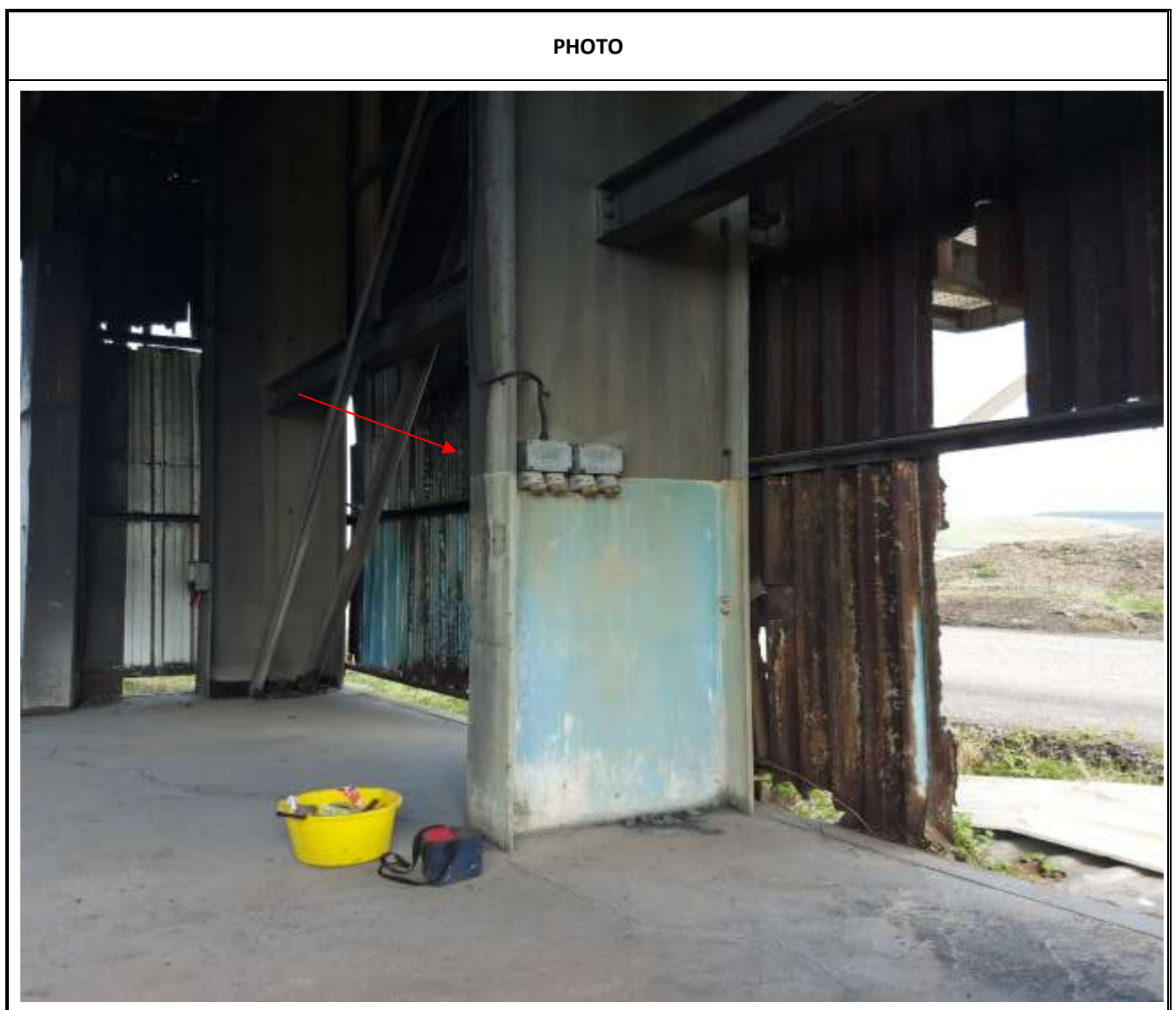
Comments	Lead Detected
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/2-LS02
Location & Description of sample	LS02-HAA Building-Structural Steel Column		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	0.68

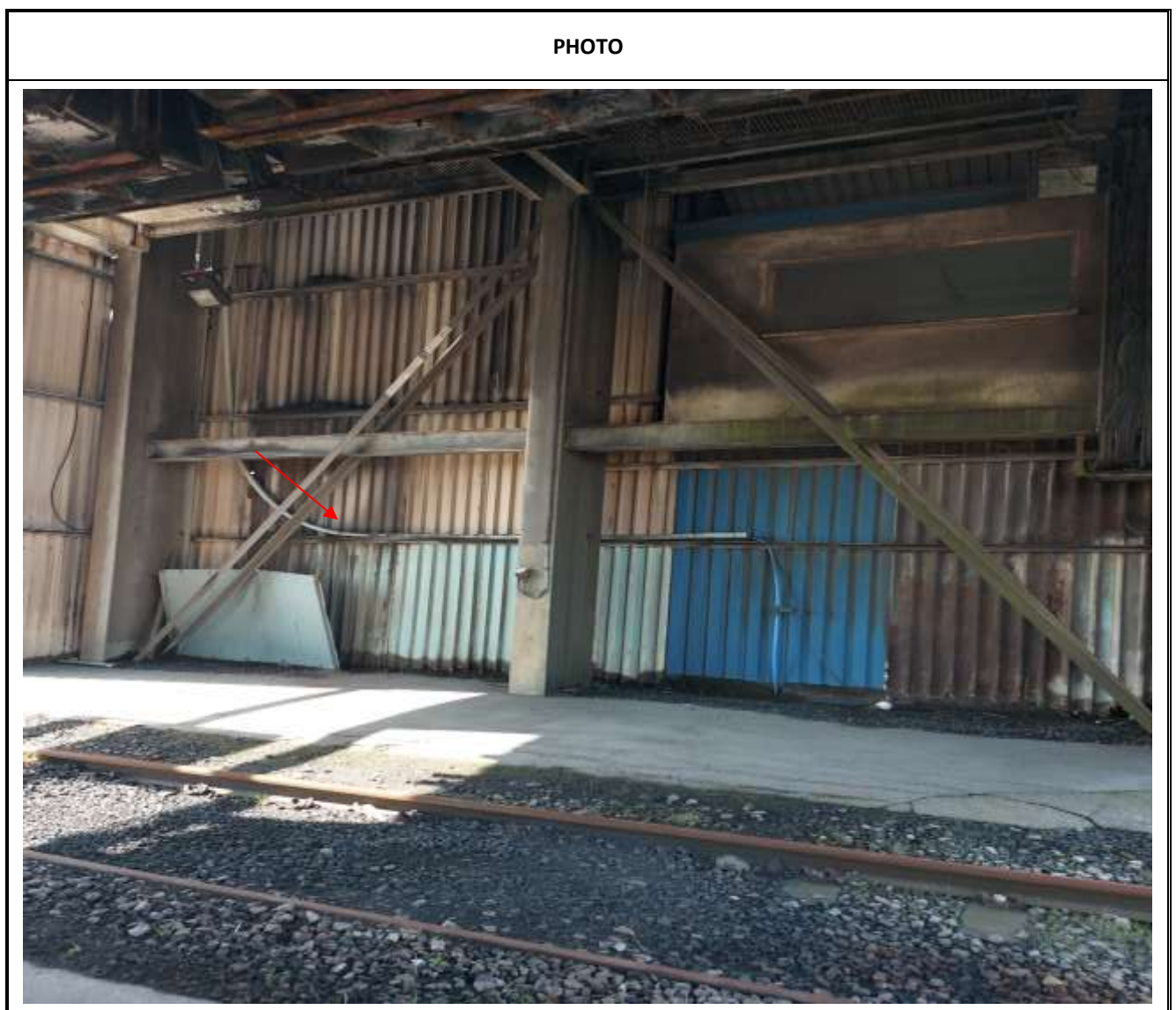
Comments	Lead Detected
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/3-LS03
Location & Description of sample	LS03-HAA Building-Box Profile Sheeting Rail-Paint		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	0.14

Comments	Lead Detected
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/4-LS04
Location & Description of sample	LS04-HAA Building-Structural Steel Column-1 st Floor-Paint		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	0.71

Comments	Lead Detected
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/5-LS05
Location & Description of sample	LS05-HAA Building-Material Handling Chute-1 st Floor-Paint (Orange)		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	3.3

Comments	Lead Detected
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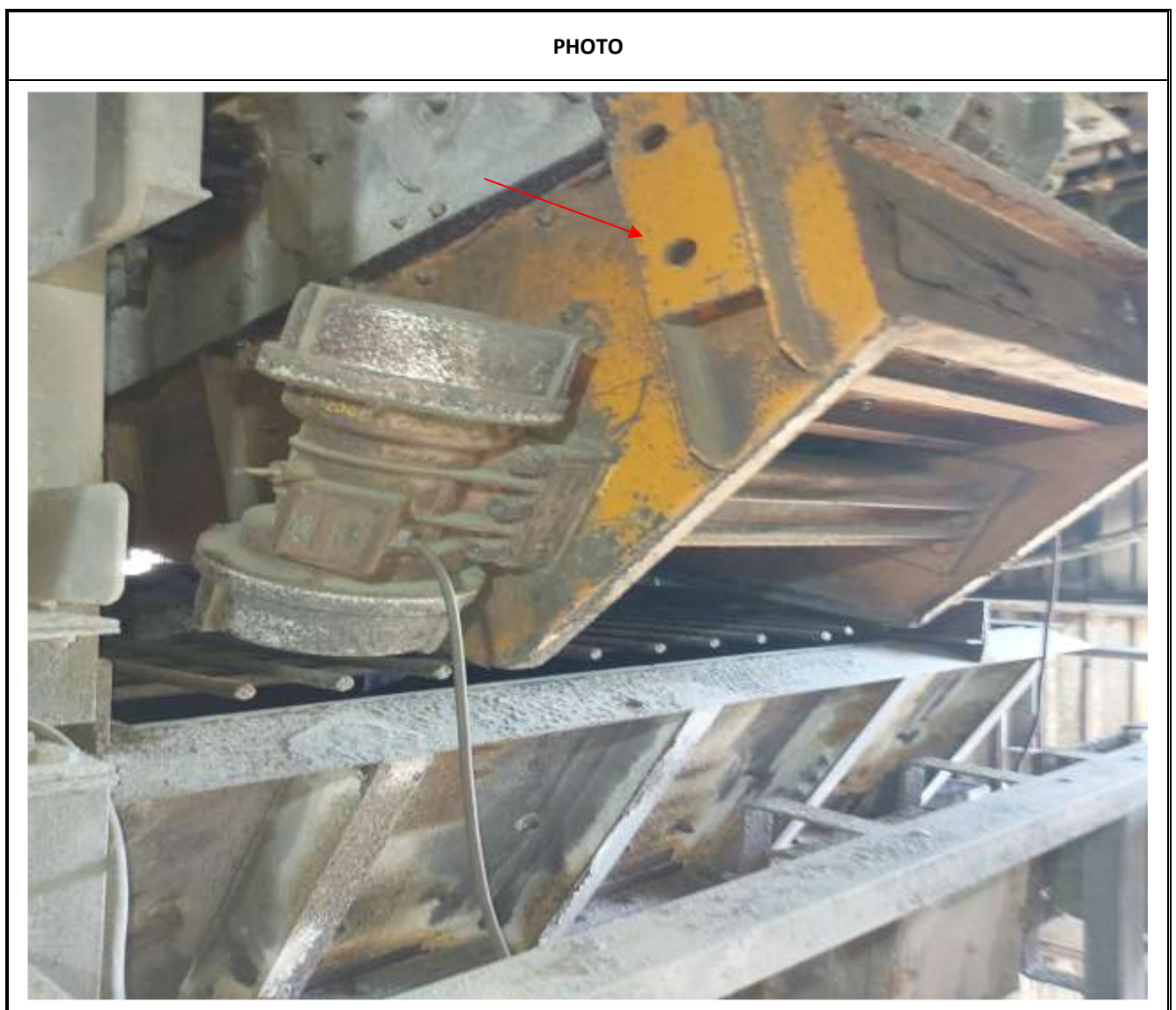
PHOTO



Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/5-VS/LS05a
Location & Description of sample	VS/LS05a-HAA Building-Material Handling Chute-1 st Floor-Paint (Orange)		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	3.3

Comments	Lead Detected Within Identical Paint
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/5-VS/LS05b
Location & Description of sample	VS/LS05b-HAA Building-Material Handling Chute-1 st Floor-Paint (Orange)		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	3.3

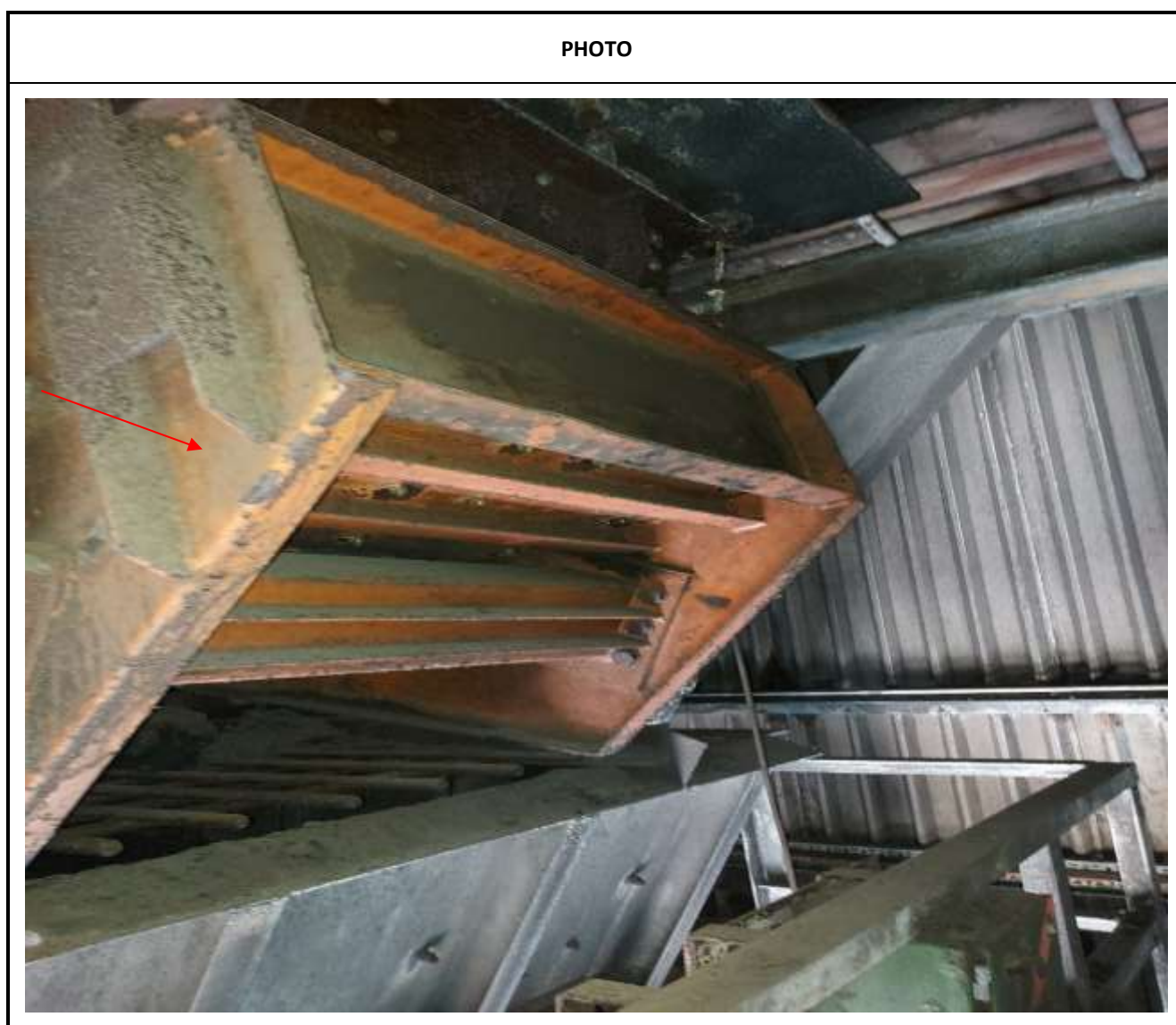
Comments	Lead Detected Within Identical Paint
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/5-VS/LS05c
Location & Description of sample	VS/LS05c-HAA Building-Material Handling Chute-1 st Floor-Paint (Orange)		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	3.3

Comments	Lead Detected Within Identical Paint
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/5-VS/LS05d
Location & Description of sample	VS/LS05d-HAA-Redundant 1290 Conveyor Feed Hoppers-Material Handling Chute- Paint (Orange)		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	3.3

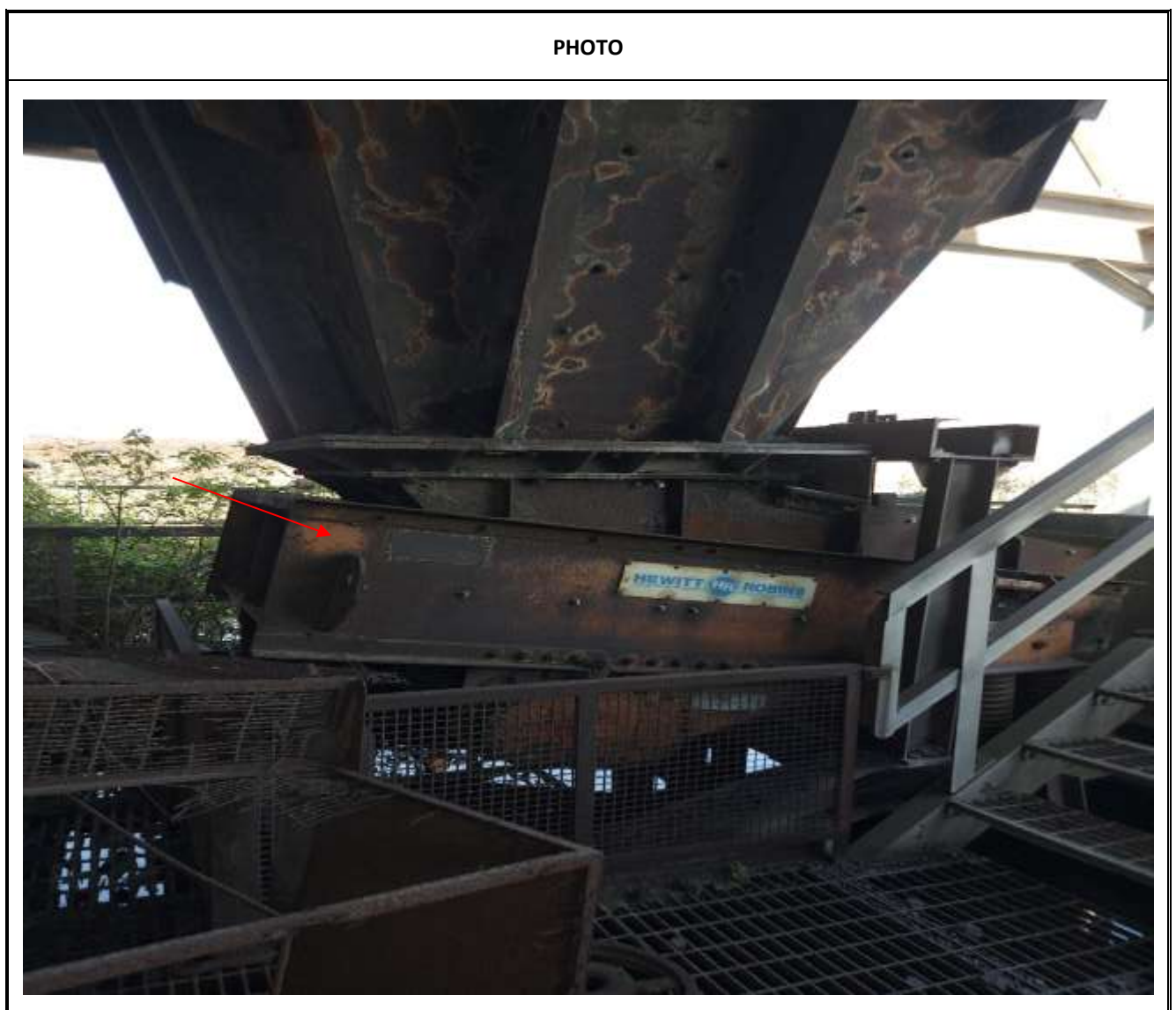
Comments	Lead Detected Within Identical Paint
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/5- VS/LS05e
Location & Description of sample	VS/LS05e-HAA-Redundant 1290 Conveyor Feed Hoppers-Material Handling Chute- Paint (Orange)		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	3.3

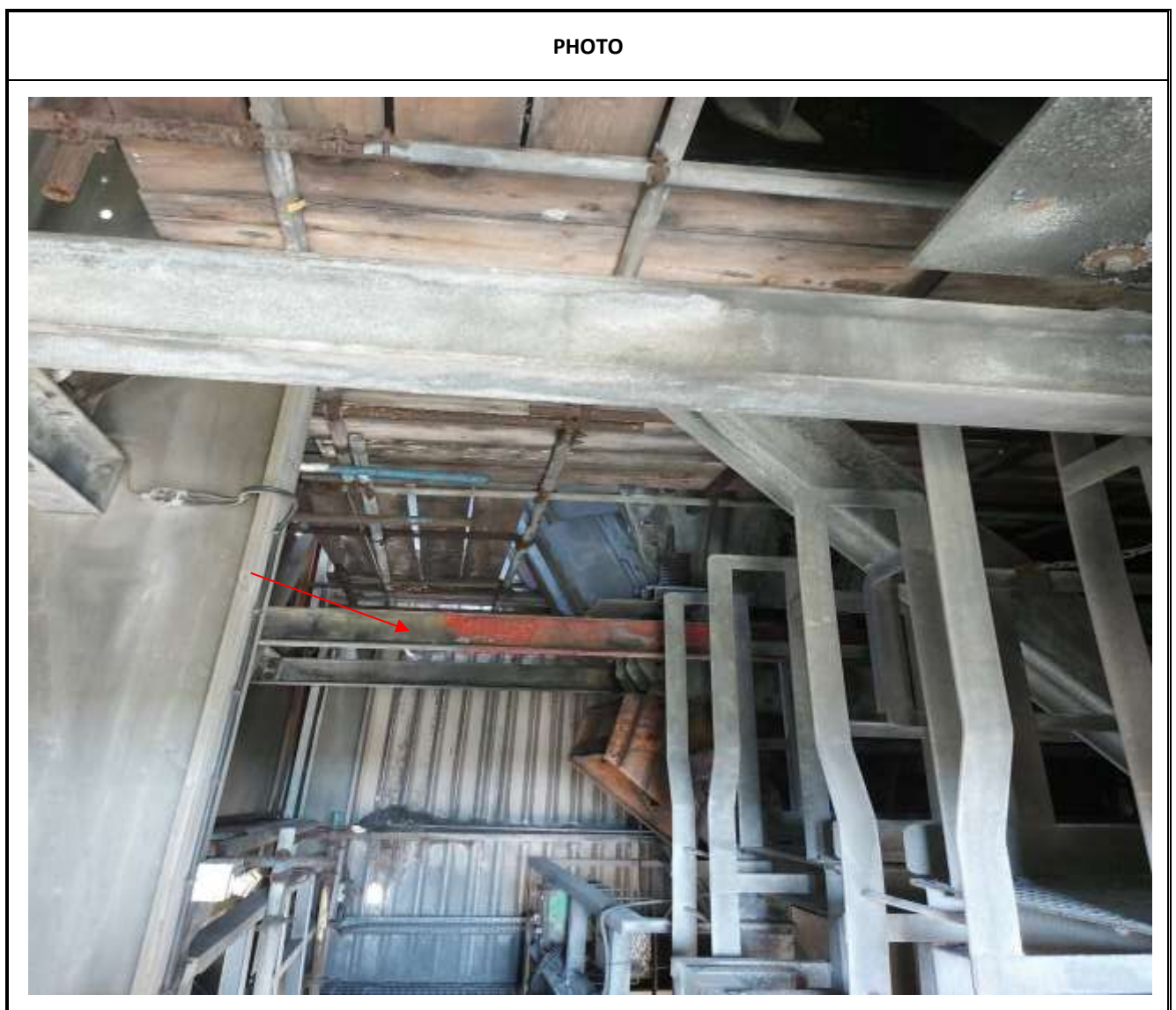
Comments	Lead Detected Within Identical Paint
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/6-LS06
Location & Description of sample	LS06-HAA Building-Structural Steel Beam-1 st Floor-Paint		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	0.071

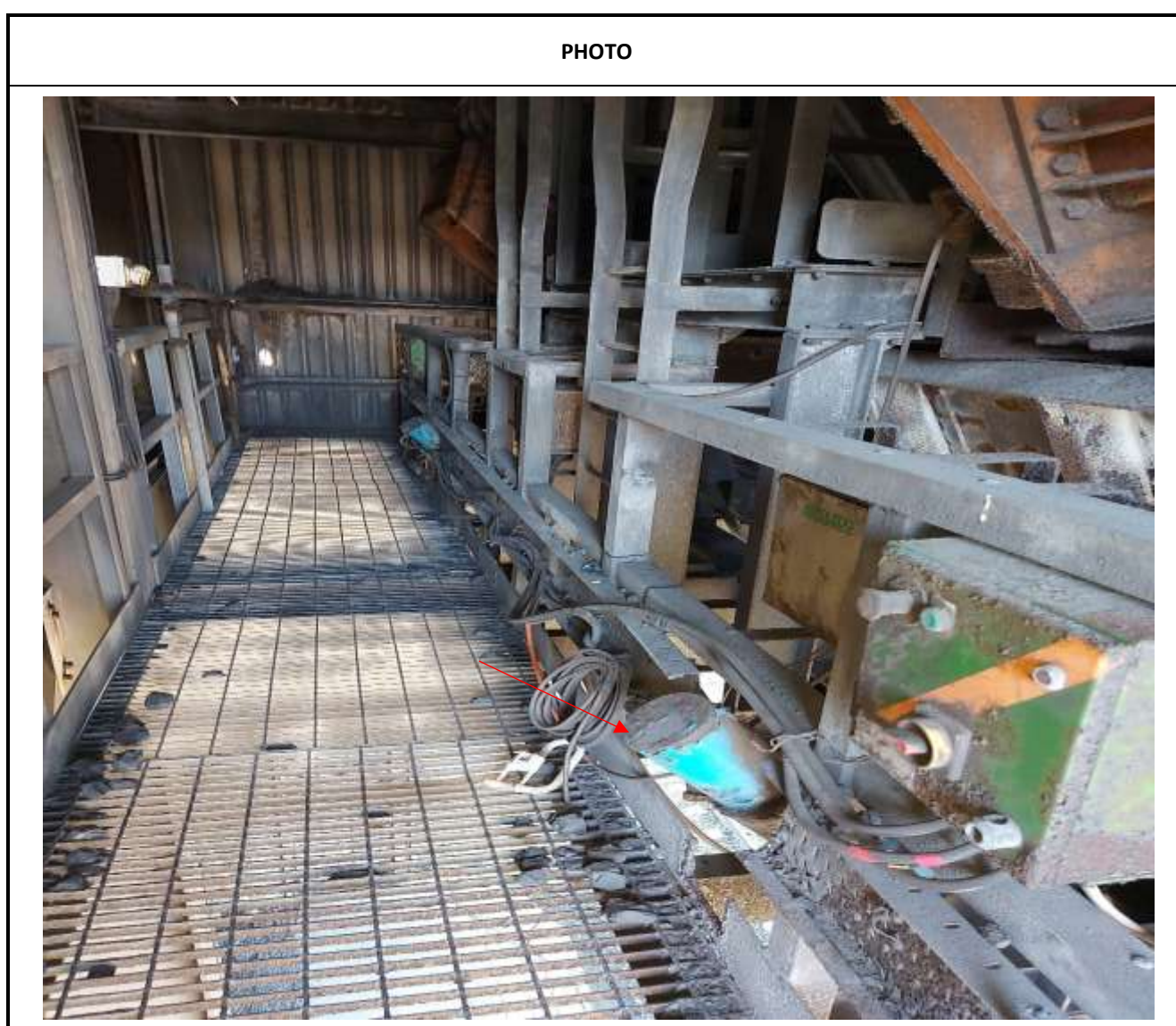
Comments	Lead Detected
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/7-LS07
Location & Description of sample	LS07-HAA Building-Material Handling Chute-Hydraulic Piston-1 st Floor-Paint (Blue)		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	0.0062

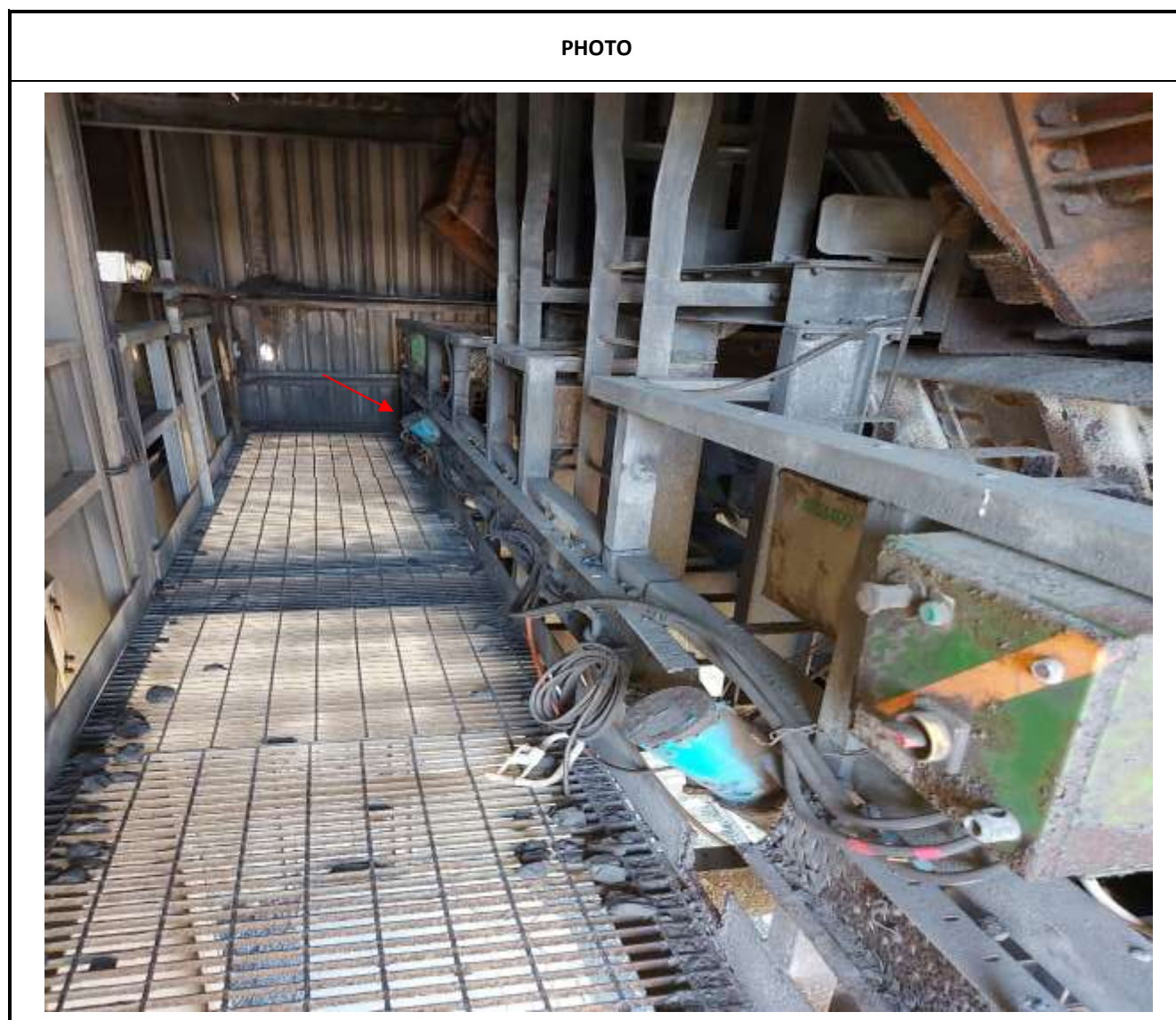
Comments	Lead Detected
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/7-VS/LS07a
Location & Description of sample	VS/LS07a-HAA Building-Material Handling Chute-Hydraulic Piston-1 st Floor-Paint (Blue)		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	0.0062

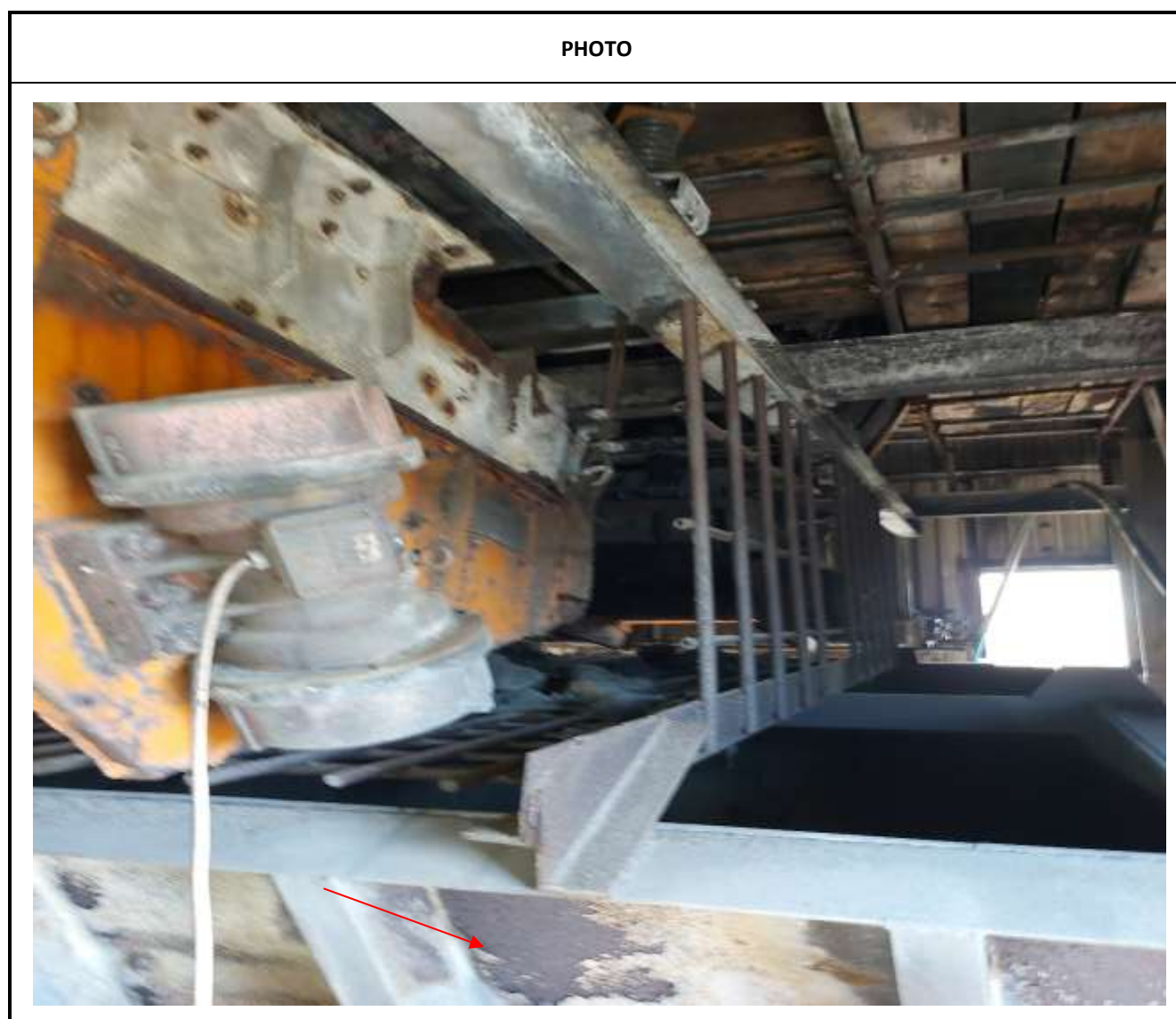
Comments	Lead Detected Within Identical Paint
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/8-LS08
Location & Description of sample	LS08-HAA Building-Material Handling Chute-1 st Floor-Paint		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	0.0066

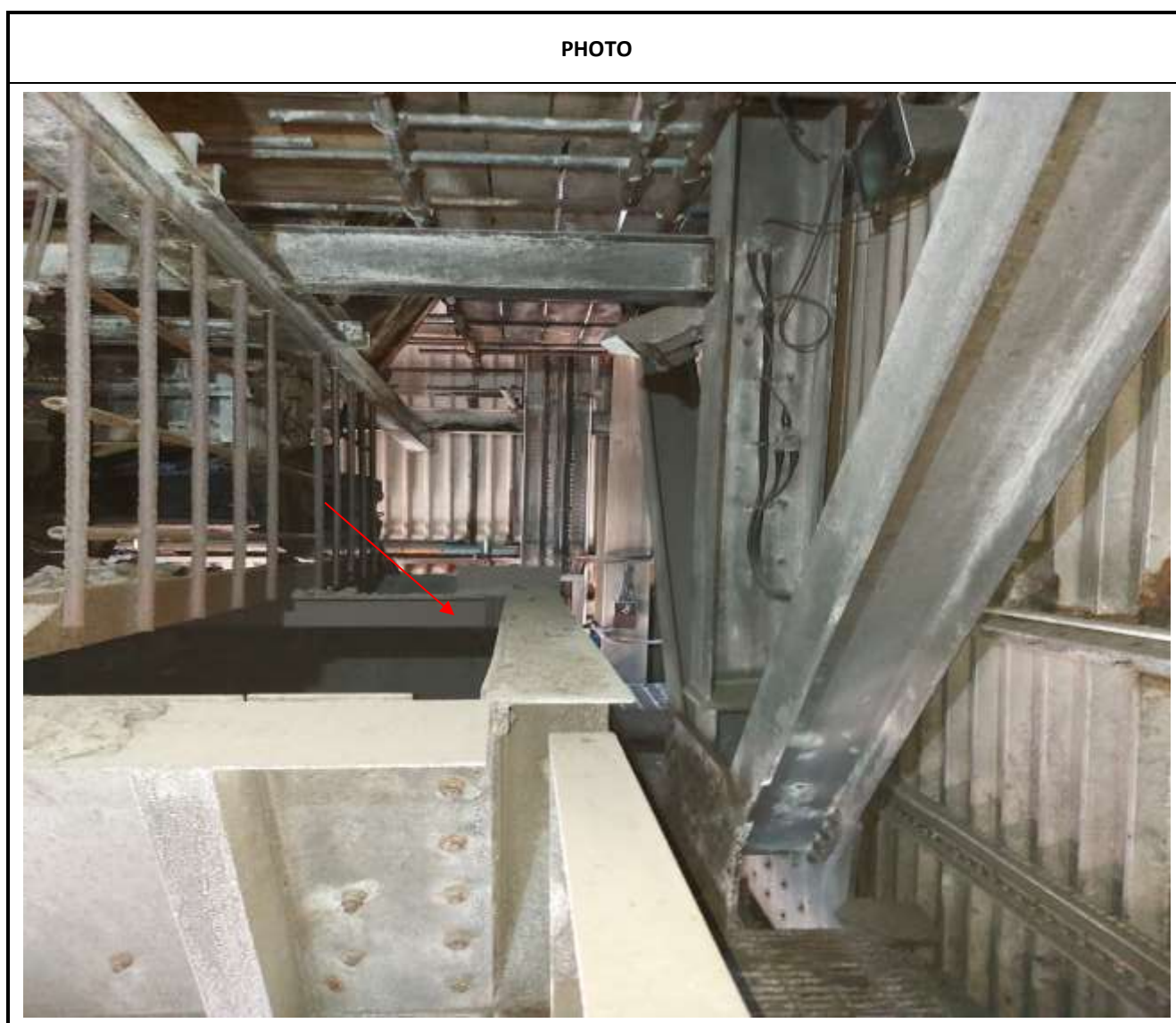
Comments	Lead Detected
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/8-VS/LS08a
Location & Description of sample	VL/S08a-HAA Building-Material Handling Chute-1 st Floor-Paint		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	0.0066

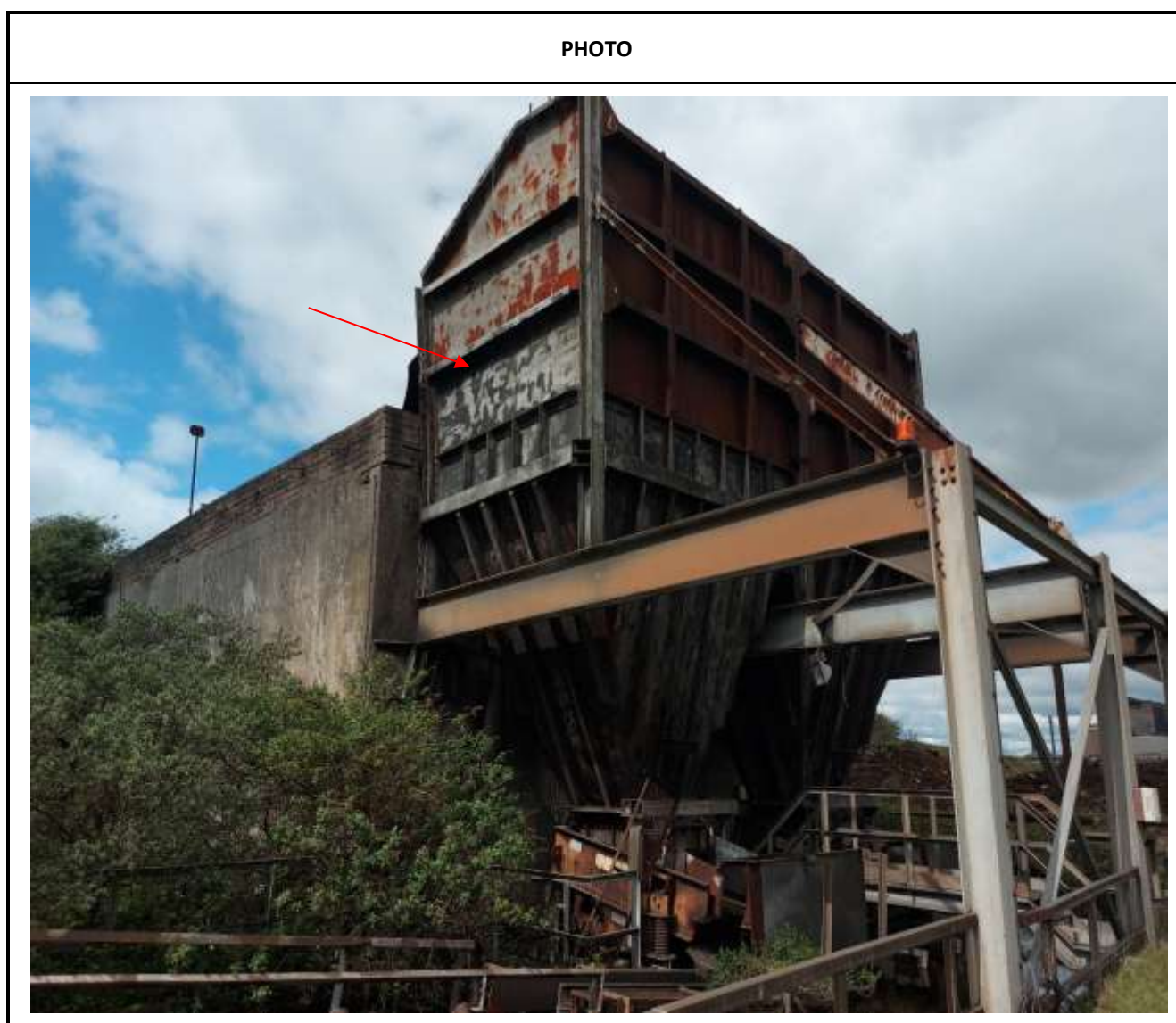
Comments	Lead Detected Within Identical Paint
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/8-VS/LS08b
Location & Description of sample	VS/LS08a-HAA-Redundant 1290 Conveyor Feed Hoopers-Paint		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	0.0066

Comments	Lead Detected Within Identical Paint
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/9-LS09
Location & Description of sample	LS09-HAA Building/Feeder Hoppers-Conveyor 1290-Structural Steel Columns-Paint		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	0.17

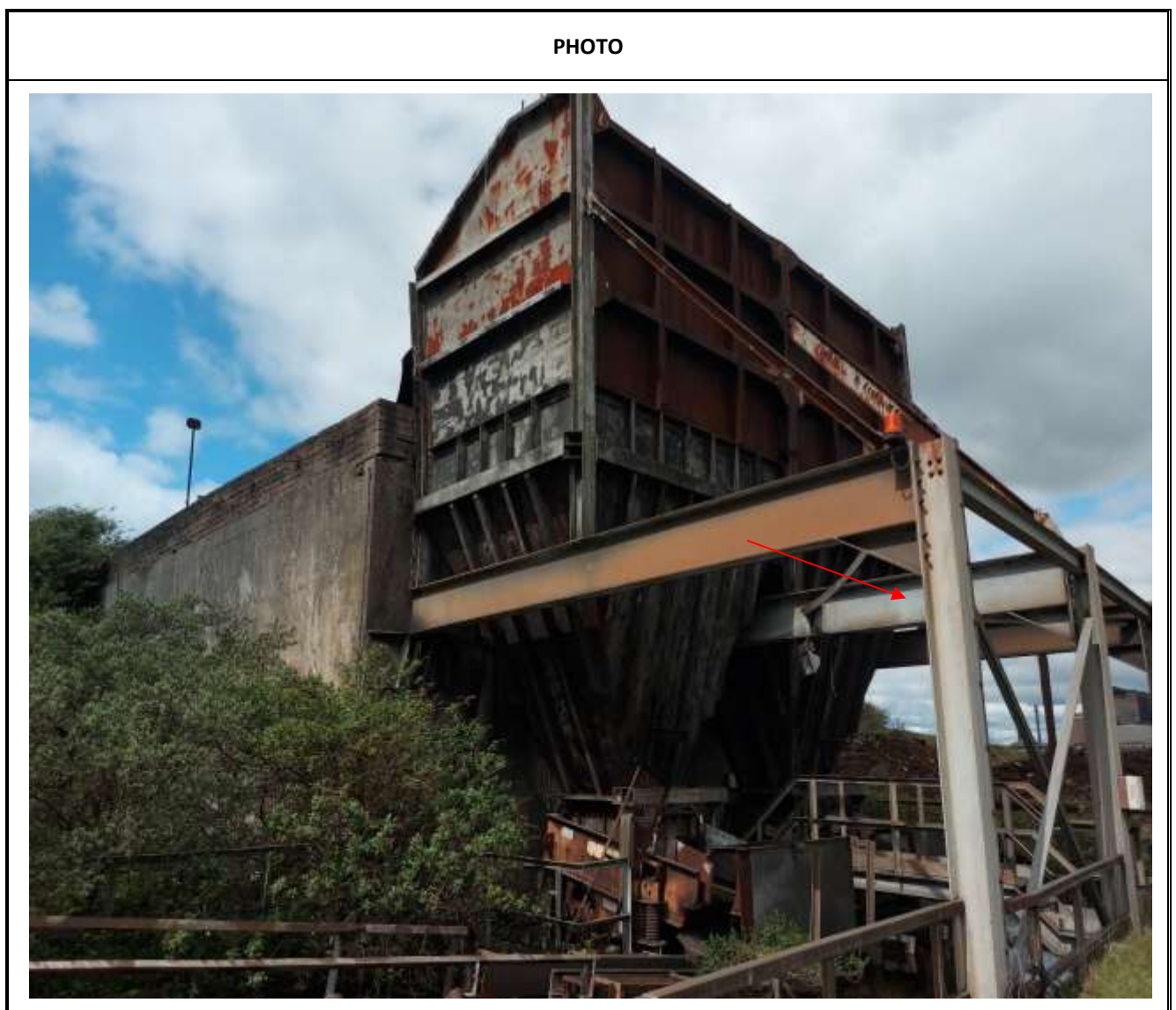
Comments	Lead Detected
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/9-VS/LS09a
Location & Description of sample	VS/LS09a-HAA Building/Feeder Hoppers-Structural Steel-Paint		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	0.17

Comments	Lead Detected Within Identical Paint
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/10-LS10
Location & Description of sample	LS10-HAA Building/Feeder Hoppers-Conveyor 1290-Handrails-Paint		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	0.17

Comments	Lead Detected
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Customer	TSSP UK	Inspection Date	22/04/2025
Site	MCO HAA Areas	Sample No.	EN312290/10-VS/LS10a
Location & Description of sample	VS/LS10a-HAA Building/Feeder Hoppers-Conveyor 1290-Handrails-Paint		

Material Identification					
Lead Detected	Yes	Material Type	Paint	Quantity	0.17

Comments	Lead Detected Within Identical Paint
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Certificates of Analysis



Monolithic Environmental Services Limited
Drummau Farm
Drummau Road
Skewen
Neath
SA10 6NW

SOCOTEC UK Limited
Environment & Safety
Unit D, 2 Wilkinson Road
Bankside Trade Park
Cirencester
Gloucestershire
GL7 1YT

FAO: Mr Derek Williams
(Surveyor / Supervisor)

Tel: 01285 700593

Web: www.socotec.co.uk

Report No: 25_05_EN312290_01_JSH_01

15th May 2025

Dear Mr Williams

Analysis of Paint Samples for Lead (Pb) Content – HAA Building, Tata Steel, Port Talbot Works

Please find enclosed a copy of our report relating to the recent analysis of a batch of paint samples submitted to SOCOTEC UK from various structures within the HAA Building at Tata Steel's Port Talbot Works. As requested, the samples were analysed for Total Lead content.

Please do not hesitate to contact the laboratory at Cirencester if you require further assistance with this or any other matter.

Yours sincerely

On behalf of SOCOTEC UK Limited



Jonathan Harries
National Technical Manager - Environmental Monitoring
Environment & Safety
SOCOTEC UK Ltd.
email: [REDACTED]
M: [REDACTED]
T: [REDACTED]

Monolithic Environmental Services Limited

Analysis of Paint Samples for Lead (Pb) Content – HAA Building, Tata Steel, Port Talbot Works

Carried out for:

Monolithic Environmental Services Limited
Drummau Farm
Drummau Road
Skewen
Neath
SA10 6NW

Date: May 2025

Report No: 25_05_EN312290_01_JSH_01

Analysis of Paint Samples for Lead (Pb) Content

HAA Building, Tata Steel, Port Talbot Works

Project No. EN312290

Carried Out For: Monolithic Environmental Services Limited
Drummau Farm
Drummau Road
Skewen
Neath
SA10 6NW

Carried Out: May 2025

Prepared By: Jonathan Harries- Technical Manager, Environmental
Monitoring
[REDACTED]

Authorised By: James Sneddon – Project Manager, Environmental
[REDACTED]

Date of Issue: 15 May 2025

Copy No. 1

Revision: 0

Report No: 25_05_EN312290_01_JSH_01

SOCOTEC UK Limited
Environment & Safety
Unit D, 2 Wilkinson Road
Bankside Trade Park
Cirencester
Gloucestershire
GL7 1YT
Tel: 01285 700593

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1 Introduction

- 1.1 At the request of Mr Derek Williams (Surveyor/Supervisor - Monolithic Environmental Services Ltd) SOCOTEC UK has undertaken the analysis of a number of paint samples taken from various structures within the HAA Building at Tata Steel's Port Talbot Works to determine their lead content.
- 1.2 Analysis of the paint was requested to ascertain the Total Lead (Pb) content, so that consideration of the Control of Lead at Work Regulations can be taken into account for proposed work on the structures, which will involve disturbance of the existing paint systems.
- 1.3 Details of the samples submitted are given below. It should be noted that the samples were taken and submitted by Monolithic Environmental Services Ltd hence SOCOTEC UK cannot comment on the method of sampling or the representative nature of the samples submitted.

Table One: Paint Samples Submitted for analysis

Sample No.	Identification	Description
EN312290/1	LS01 – HAA Building, Box profile sheeting	Paint flakes
EN312290/2	LS02 – HAA Building, Structural steel column	Paint flakes
EN312290/3	LS03 – HAA Building, Box profile sheeting rail	Paint flakes
EN312290/4	LS04 – HAA Building, Structural steel column 1st floor	Paint flakes
EN312290/5	LS05 – HAA Building, Material Handling Shute 1st floor	Paint flakes
EN312290/6	LS06 – HAA Building, Structural steel beam 1st floor	Paint flakes
EN312290/7	LS07 – HAA Building, Material handling Shute hydraulic piston, 1st floor	Paint flakes
EN312290/8	LS08 – HAA Building, Material handling Shute 1st floor	Paint flakes
EN312290/9	LS09 – HAA Building, Feeder Hoppers/conveyor 1290 Structural steel column	Paint flakes
EN312290/10	LS10 – HAA Building, Feeder hoppers/conveyer 1290 Hand rail	Paint flakes

- 1.4 It is understood that Monolithic Environmental Services Ltd are to carry out demolition works on the structures, which will entail widespread disturbance of the existing surface coatings.

2. Lead and the Control of Lead at Work Regulations

- 2.1 Lead is a very soft and malleable silver grey metal that is easily melted, casted, rolled and extruded. It has been used widely in batteries and solders, as an anti-knock additive in motor fuel, in glass and glazes in the ceramics industry and as pigment in paint. Paint systems of various ages on older structures and premises are increasingly likely to contain lead.
- 2.2 Lead has been described as purely toxic. It has no nutritional value or provides any positive biological effects. Lead is potentially damaging to human health at very low exposure levels. Exposure to lead can cause a range of clinical effects including headaches, stomach pains and anaemia. More serious symptoms include kidney disease, nerve and brain damage and infertility. Lead poisoning is widely associated with mental / cognitive impairment in children.

- 2.3 Lead and lead oxides were used for many years in various paints and coatings and whilst its current use is strictly controlled, many older buildings and structures contain copious amounts of paint containing high levels of lead.
- 2.4 Up until the mid 1960s white lead (lead carbonate/lead sulphate) was added in substantial quantities as the main white pigment in some paint products intended for use as a primer or top coat over metal and wood, both internally and externally. The lead-based pigments, lead tetroxide and calcium plumbate (red lead) were widely used as an anti-corrosive primer coating over exterior steelwork up until the early 1970s whilst red, yellow, orange or green lead based pigments (lead chromate) were added to a limited number of decorative coloured gloss and wall paints.
- 2.5 The Control of Lead at Work Regulations applies to proposed works involving the possible disturbance of coatings or removal of dust which may be contaminated with paint debris from buildings or structures.
- 2.6 The Control of Lead at Work Regulations 2002 (the 'CLAW Regulations') came into force on 21st November 2002 to protect the health of people at work that are exposed to lead. The CLAW Regulations apply to any type of work activity such as handling, processing, repairing, maintenance, storage and disposal that may expose employees or other persons to lead as defined in the regulations:
- metallic lead, its alloys, and all its compounds including lead alkyls; and
 - lead when it is a component of any substance or material.

Lead must also be in a form in which it is likely to be:

- inhaled (dust, fume or vapour);
 - ingested (lead powder, dust, paint or paste); or
 - absorbed through the skin.
- 2.7 The CLAW Regulations places a duty on the employer to make a 'suitable and sufficient' risk assessment if an employee's exposure to lead is liable to be significant (see section 7). The employer must also identify and implement measures to prevent or adequately control exposure, and record any significant findings of the risk assessment as soon as it is practicable.
- 2.8 An employee's exposure to lead is significant if any of the following conditions is satisfied:
- exposure exceeds half the occupational exposure limit (OEL) for lead;
 - there is a substantial risk of the employee ingesting lead; or
 - there is a risk of an employee's skin coming into contact with forms of lead that can be absorbed through the skin (e.g. lead alkyls or lead naphthenate).

Measures to prevent or adequately control exposure include:

- providing employees with protective clothing;
- monitoring lead-in-air concentrations; and
- placing employees on medical surveillance.

- 2.9 The employer has a duty to provide suitable and sufficient washing facilities where employees are exposed to lead at work. This is required by the *Workplace (Health, Safety and Welfare) Regulations 1992*. The employer is also required by the CLAW Regulations to ensure employees do not eat, drink or smoke in any place liable to be contaminated by lead. This duty extends to all employees including contractors and tradesmen.
- 2.10 The CLAW Regulations places a duty on employers to provide employees with suitable and sufficient information, instruction and training. This must include:
- information on the health risks associated with lead;
 - details of the appropriate OEL's for lead;
 - the results of the employer's risk assessment of the work;
 - the appropriate precautions and actions they should take to protect themselves and other employees from exposure to lead; and
 - the results of any air monitoring or health surveillance that relate to them personally.
- 2.11 This will enable employees to comply with the duties of the CLAW Regulations placed on them.
- 2.12 HSE publication L132 *Control of lead at work (3rd Edition)* – *Approved code of practice and guidance* (the 'Lead ACOP') supports and clarifies the provisions of the CLAW Regulations as discussed above. Further information on safe working with lead can be found on the HSE website www.hse.gov.uk.
- 2.13 Finally, the control of lead in the workplace should not be achieved at the detriment of the wider (external) environment. Releases of lead dust to the environment, for instance, are controlled by Part 1 of the *Environmental Protection Act 1990* (EPA). The EPA establishes an air pollution control system enforced by the local authorities in England and Wales. Accordingly, the employer should consult with the appropriate environmental enforcing authority for advice and guidance on complying with the relevant regulations before any work is undertaken.

3. Analysis

- 3.1 The paint samples were submitted to SOCOTEC UK's in-house Advanced Chemistry and Research laboratory and homogenised into a fine powder using a pestle and mortar.
- 3.2 A portion of the homogenised sample was then digested in concentrated analytical grade nitric acid. The resulting solution was filtered and made up to a known volume with analytical grade de-ionised water.
- 3.3 The prepared sample and blank solutions were analysed, quantitatively, by the technique of Inductively Coupled Plasma – Atomic Emission Spectrometry (ICP-AES) for lead. Lead content in each sample is reported as both mg/kg and as a percentage (% w/w).

4. Results

4.1 The lead content of the various samples is given in Table Two below:

Table Two: Analysis of Paint for Lead Content – HAA Building Tata Steel, Port Talbot Works

Sample No.	Identification	Lead Content	
		mg/kg	% (w/w)
EN312290/1	LS01 – HAA Building, Box profile sheeting	40	0.004
EN312290/2	LS02 – HAA Building, Structural steel column	6800	0.68
EN312290/3	LS03 – HAA Building, Box profile sheeting rail	1400	0.14
EN312290/4	LS04 – HAA Building, Structural steel column 1st floor	7100	0.71
EN312290/5	LS05 – HAA Building, Material Handling Shute 1st floor	33,000	3.3
EN312290/6	LS06 – HAA Building, Structural steel beam 1st floor	710	0.071
EN312290/7	LS07 – HAA Building, Material handling Shute hydraulic piston, 1st floor	62	0.0062
EN312290/8	LS08 – HAA Building, Material handling Shute 1st floor	66	0.0066
EN312290/9	LS09 – HAA Building, Feeder Hoppers/conveyor 1290 Structural steel column	1700	0.17
EN312290/10	LS10 – HAA Building, Feeder hoppers/conveyor 1290 Hand rail	1700	0.17

Note: results highlighted in **Red** are above the 1% (w/w) lead threshold value as quoted in The Approved Code of Practice (ACOP L132) associated with the regulations

5. Discussion

5.1 Only one of the ten paint samples submitted from various structures within the HAA Building at Tata Steel's Port Talbot Works was found to contain lead above the 1% (w/w) lead threshold value as quoted in The Approved Code of Practice (ACOP L132) associated with the CLAW Regulations. Sample details are given below:

Sample No.	Identification	Lead Content
		% (w/w)
EN312290/5	LS05 – HAA Building, Material Handling Shute 1st floor	3.3

5.2 Based on these results the contractor *is* required under the CLAW Regulations to carry out a full risk assessment prior to the commencement of any working with lead paint *on this particular structure* (an outline of the risk assessment process is provided in section 6 of this report).

- 5.2 The preparation or disturbance of painted surfaces in this instance **does have** the potential to expose employees to potentially harmful levels of lead.

6. Risk Assessment

- 6.1 The undertaking of a risk assessment as required under the CLAW Regulations is a statutory requirement under the *Management of Health and Safety at Work Regulations 1999* (MHSWR). MHSWR requires employers and the self-employed to make a suitable and sufficient assessment of the risks associated with work activities that may affect the health and safety of employees and others (i.e. members of the public).
- 6.2 The requirements of MHSWR apply to every aspect of an employer's activities. This means that the employer must look at all of the tasks to be carried out and assess whether the hazards involved are controlled to an acceptance level (i.e. those that could affect the health and safety of employees or others). Any significant findings of a risk assessment must be recorded.

The key steps to risk assessment are:

- identify the hazards;
- decide who might be harmed and how;
- evaluate the risks and decide upon precautions;
- record the findings and implement them; and
- review the assessment and update it, as necessary.

The HSE publication INDG163 (rev3) *Five steps to risk assessment* provides detailed guidance on preparing and completing risk assessment.

- 6.3 There are several unsafe methods that should be avoided when working with paint containing a high level of lead. These include:
- power-sanding or grinding;
 - dry scraping and dry sanding;
 - uncontrolled abrasive- or hydro-blasting;
 - open flame burning or high heat gun settings; and
 - paint strippers containing methylene chloride (a potential carcinogen).
- 6.4 Abrasive methods are likely to generate significant amounts of contaminated dust, unless control measures are adopted. For instance, a HEPA (High-Efficiency Particulate Arrester) vacuum attachment on a shrouded power tool or spraying surfaces with water may reduce overall dust emissions; however, they will not fully eliminate the risk. Also, the use of heating methods to remove contaminated material will potentially create highly toxic gases. The use of a HEPA face mask by employees will not reduce exposure to such gases.
- 6.5 Finally, personal exposure monitoring should be undertaken where exposure is likely to exceed agreed exposure limits. For lead, this is 0.075 mg/m³ 8Hr TWA. If exposure is likely to exceed the OEL then the employee should be placed under appropriate health surveillance. For lead, this should determine whether:

- a) the blood-lead concentration of the employee is equal to, or greater than, 35µg/dl; or
- b) a urinary lead concentration of the employee is equal to, or greater than, 40µg Pb/g creatinine.

Lower limits apply to women of reproductive capacity at 20 µg/dl and 20 µg Pb/g creatinine.

If levels are close to or above these limits a doctor will require the employee to be removed from such work. If levels increase over time, the protection and / or work practices are deemed inadequate and must be reviewed with better control measures adopted.

- 6.6 Further information on health and safety working with hazardous materials can be found in Appendix 1 to this report.



APPENDIX 1: Health & Safety Working With Hazardous Materials

Introduction

Adverse health effects associated with exposure to hazardous substances depend upon the substance(s) to which the subject is exposed. In some cases, substances are 'synergistic' in their effects, whereby the risk from exposure to a mixture of substances is far greater than the sum of the risks from exposure to each substance alone.

Typical health effects from exposure to hazardous contaminants include lung damage, cancers, poisoning, damage to internal organs, central nervous system disorders, reproductive effects, irritation etc. and it is therefore important to obtain accurate information on the types of contaminants present and their concentrations, to allow adequate and suitable control measures to be established.

Safe Working Procedures – Risk Assessments

The undertaking of a "general risk assessment" is a statutory obligation under Regulation 3 of the Management of Health and Safety at Work Regulation 1999 (MHSWR). This regulation requires that the employer must look at all the tasks that make up the work carried out and assess whether the hazards involved (that could affect the health and safety of employees or others) are controlled to a level that is acceptable. The significant findings of an assessment must be recorded.

The main steps to risk assessments are:

- Identify all operators.
- Identify hazards / tasks.
- Identify personnel potentially affected.
- Identify existing control measures.
- Determine whether existing controls are adequate.
- Determine appropriate further control measures.
- Develop an action plan to implement control measures, and
- All risk assessments should be recorded and revised as necessary.

Working with Contaminated Material

When working with hazardous contaminated material, there are a number of precautionary measures, which must be observed by employers and employees.

To prevent contamination, all employees should practice good personal hygiene and:

- Make sure that they understand the risks to health caused by exposure to contaminated materials
- That they have all the information and training needed to work safely with contaminated material, including what to do in an emergency.
- Use a safe system of work and wear the protection equipment provided.
- Report any damaged protective equipment and get it replaced.
- Avoid being contaminated.
- Avoid breathing in dusts and fumes from contaminated material.
- Avoid touching their face, or smoking, or eating and drinking, unless they have washed their hands and face thoroughly with soap and water.
- Clean all exposed wounds, however small, which must then be covered with a sterile dressing.

- Leave the workplace and obtain first aid assistance if the eyes become irritated by dusts.
- Change out of contaminated clothing before eating, drinking or smoking.
- Notify their employer if they suffer from skin problems.
- Ensure that all contaminated equipment and clothing is cleaned – contaminated clothing should not be taken home to be washed, but should be dealt with by the employer.

When working with contaminated material the following personal protective equipment measures should be employed:

- All workers should wear appropriate protective clothing, including respiratory protection if required (which should be cleaned after each work period) to avoid exposure to the skin.
- A barrier cream should be used before work and after work, with the hands, face and forearms washed with hot water and soap.

Employers should ensure that:

- The employee is provided with protective clothing including respiratory protection.
- The amount of dust, fumes and vapours in the air are measured and that the employee is informed of the results.
- Adequate welfare facilities are provided, including clean water, soap, nailbrushes, disposable paper towels etc.
- A segregated area is provided for the storage of clean and contaminated equipment, which is separated from eating facilities.
- Adequate first-aid equipment is provided, including clean water or sterile wipes for cleaning wounds and a supply of sterile, waterproof, adhesive dressings.
- Effective arrangements are made for monitoring the health of employees.

Control: Use a HEPA vacuum system to collect the dust at the point of emission, respiratory protection (P3 filter) / arrange training – face fit testing and suitable work wear (gloves, disposable overalls).

Worksite Preparation: Set up the area so that all debris from the work is contained within the worksite. Prevent unnecessary access by others to the worksite.

Occupant Protection: Take appropriate precautions to protect occupants and their belongings during ongoing work that may disturb dust.

Specialised Cleaning: Clean the worksite carefully, using specialised cleaning techniques that are effective in removing metal contaminated dust.

As long as general total inhalable dust levels are controlled to be as low as possible then exposure to airborne levels of particulates should not be significant. If work is likely to cause elevated dust levels then use respiratory protection should be considered but only after all other control options or in addition to. Reference should be made to HSE document "Respiratory protective equipment at work" HSG53, published 2005. Adequate training instruction and face fit testing needs to be provided for the individual.

The powered type respirators, which blows filtered air over the face under a helmet fitted visor, with a P3 (particulate). This type does not require face fit testing and is more suitable for prolonged use.

Precautions should also be taken on site to prevent the release of dust etc. to the environment, which may affect the general population. Where dust is collected or cleaned from surfaces, this should be done with a vacuum cleaner with a HEPA filter, to prevent releasing dust.

Any contaminated waste must be treated as "hazardous waste" and disposed of via a licensed waste contractor. Any contaminated work wear / overalls etc. must be handled with care and contract cleaned to prevent secondary exposure of family members. The disposable paper type overalls are ideal which may be disposed of after use.

Occupational Exposure: From the analysis of a solid substance it is not possible to predict exactly what airborne concentrations of harmful materials will be produced. The main issue is to control dust exposure below 10mg/m³ 8 Hr TWA, for Inhalable dust and below 4 mg/m³ 8 Hr TWA for respirable (pm10) dust. The eight principles of good practice are set out in Schedule 2A of the COSHH Regulations, which must be followed to achieve this.

An Occupational Hygienist can undertake a site monitoring exercise to find out what an individual is exposed to in the breathing zone. In this way the monitoring results may be compared directly to Workplace Exposure Limits (WELS) for Dust / Bitumen / Metals – Lead etc, set by the HSE and further controls appropriate to the risk may be advised.



APPENDIX 2: Laboratory Analysis Certificate



TEST REPORT ASC/66901

Customer: SOCOTEC Cirencester
Unit D,
2 Wilkinson Road
Bankside Trade Park
Cirencester
Gloucestershire
GL7 1YT

Testing Facility: Advanced Chemistry and Research
SOCOTEC
Etwell Building
Bretby Business Park
Ashby Road
Burton Upon Trent
DE15 0YZ

Purchase Order Number: EN312290

Date Sample Received: 30 April 2025

Condition of Sample: Ambient and Satisfactory

Approved by:



Approver's name: Dan Tunks

Job Title: Analyst

Test Report Date: 14 May 2025

Test Report ASC/66901: Page 1 of 3

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ASCFO11h_1.0_05APR22 – Report Template

Sample and Method Descriptions

Number of Samples Received	Matrix / Sample Description	Method ID	Description
10	Paint Flakes	IHM	HOTPLATE DIGESTION – Portions of the samples were digested in high-purity concentrated acid, using hotplate assisted heating. Following digestion, the samples were diluted to a known volumes with deionised water.
		ASC/SOP/102	OPERATION AND MAINTENANCE OF INDUCTIVELY COUPLED PLASMA OPTICAL EMISSION SPECTROMETERS (ICP-OES) – The samples were filtered and diluted as necessary and analysed by ICP-OES calibrated using certified standards.

Test Report ASC/66901: Page 2 of 3

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ASCFO11h_1.0_05APR22 – Report Template

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Test Report ASC/66901: Page 2 of 3

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ASC011h_1.0_05APR22 – Report Template

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Report No.: 25_05_EN312290_01_JSH_01

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David Heuston
Environment Team Leader (South)

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Appendix B

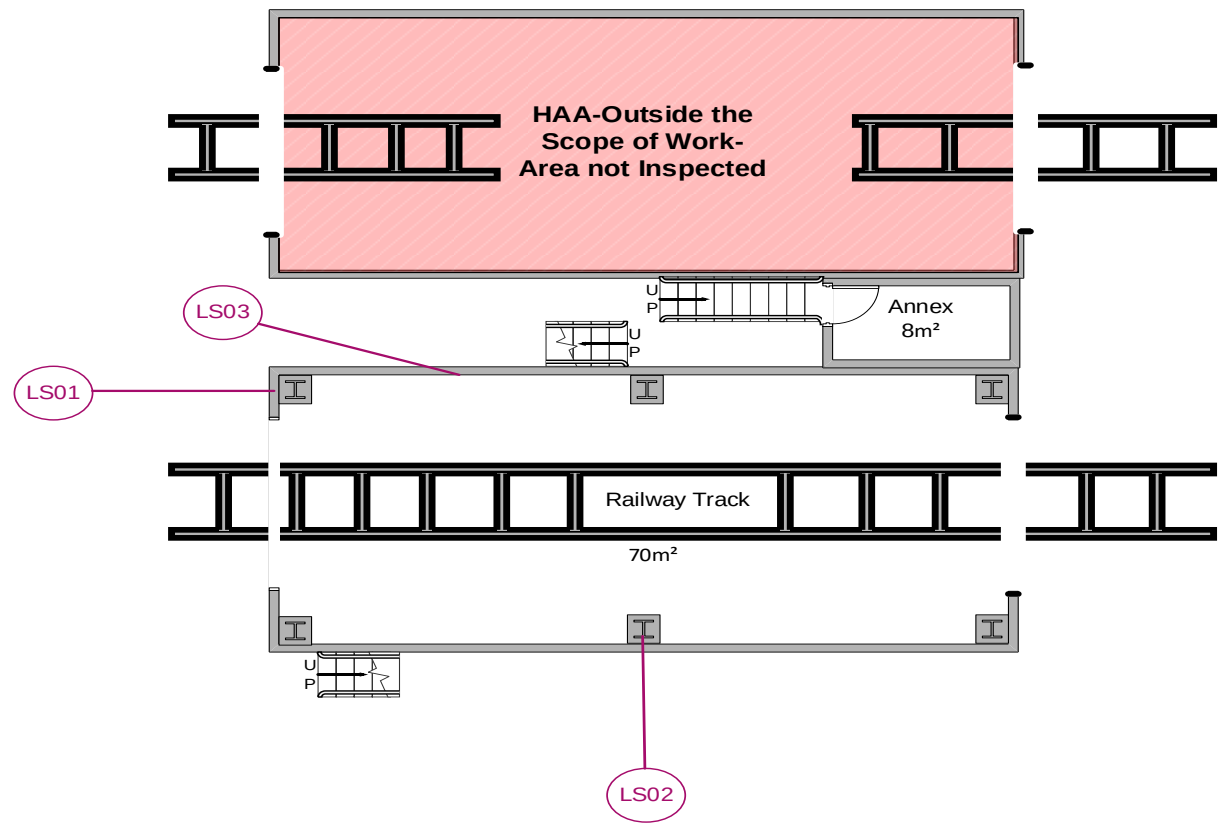
Building Plans



Sample & Inspection Points



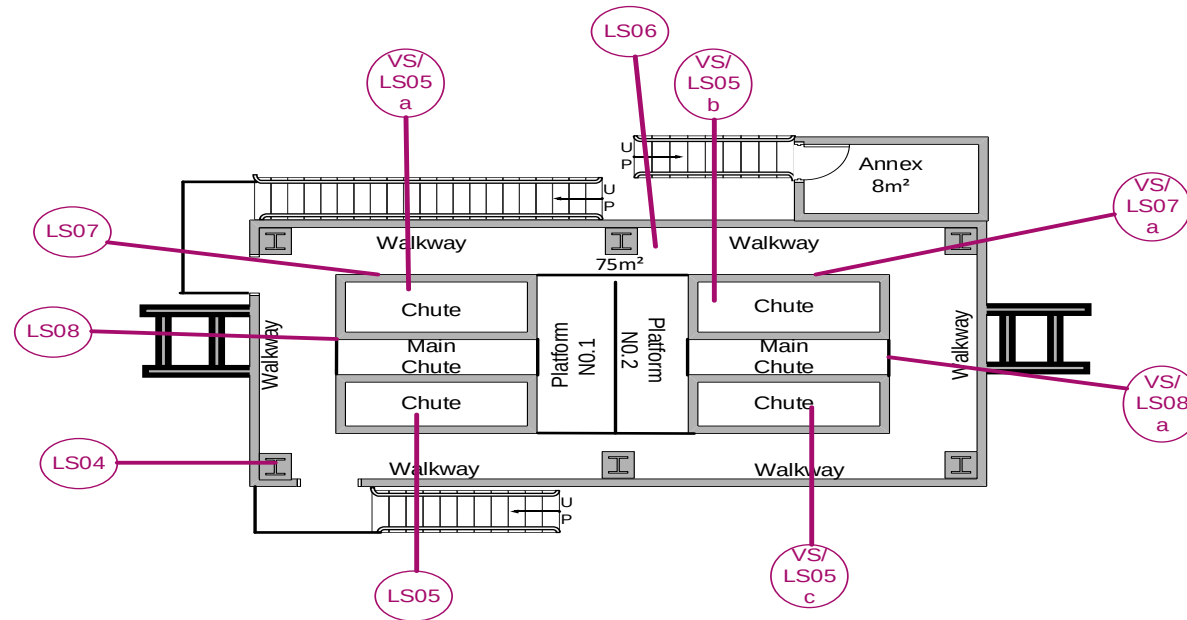
5938 SC-Redundant Morfa Coke Ovens-HAA-Ground Floor-Lead Sample & Inspection Locations



Key:
No Lead Detected ——— Lead Detected ———

Drawing 001-Not to Scale

5938 SC-Redundant Morfa Coke Ovens-HAA-1st Floor-Lead Sample & Inspection Locations

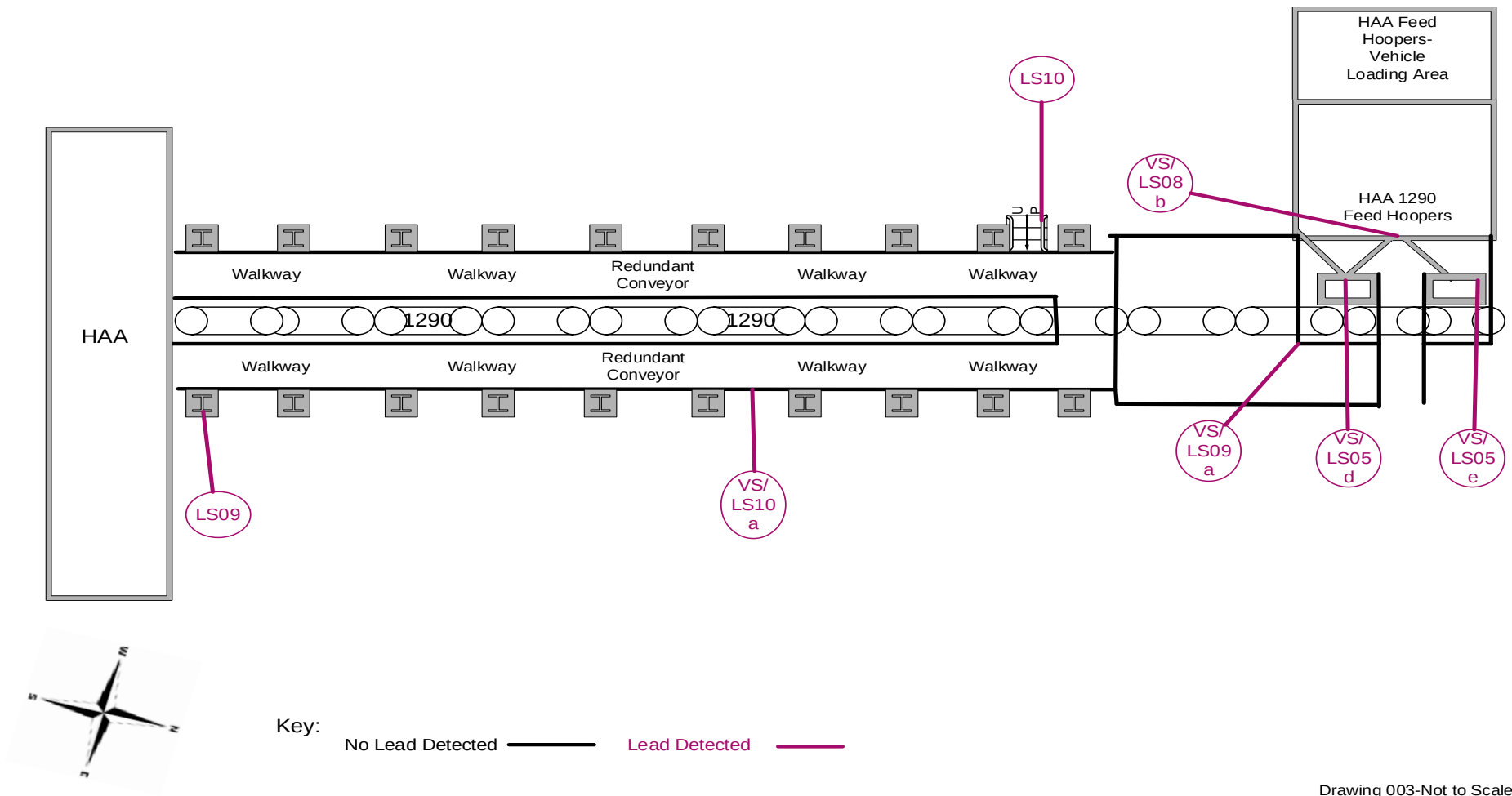


Key:
 No Lead Detected ——— Lead Detected ———

Drawing 002-Not to Scale



5938 SC-Redundant Morfa Coke Ovens-HAA-Feed Hoppers & 1290 Conveyor-Lead Sample & Inspection Locations



Drawing 003-Not to Scale