

# **Asbestos Refurbishment/Demolition Survey Report**

## **Survey, Sampling and Assessment of Asbestos Containing Materials**

### **Worley Parsons/National Grid**

**At  
Former Gasworks  
Bank Road  
Garston  
Merseyside  
L19 8HZ**

Report Reference Number: AP000464-02

**CONFIDENTIAL**

Issue Date: 7th July 2014

Report Compiled By: Steve Randal

Report type:	Asbestos Refurbishment/Demolition Survey Report
Report issue:	Final
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Analyst:



Susan Warwick

Analyst

28th June 2014

Originator:



Ebrahim Pandor

Originator

9th June 2014

Checked and approved:



Ebrahim Pandor

Technical Reviewer

30th June 2014

This report is not to be used for contractual purposes unless the signatory sheet is signed where indicated by both the person doing the survey and the report approver and the report is designated 'Final' on the signatory sheet.

All measurements detailing the extent of asbestos are estimates only. It is the responsibility of contractors quoting for asbestos removal works to take their own measurements to establish the precise extent of asbestos to be removed prior to tendering for the works.

The results of this survey and assessment have also been made available electronically via the Santia e-Risk Manager database.

This report shall not be reproduced except in full, without written approval of Santia.

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## 1. Executive Summary

1.1. Santia has carried out a Refurbishment/ Demolition Survey and sampling of asbestos containing materials of Former Gasworks, Bank Road, Garston, Merseyside, United Kingdom, L19 8HZ on behalf of Worley Parsons/National Grid. Asbestos which would be required to be removed prior to Refurbishment/Demolition, was found during the survey.

1.2. The purpose of a Refurbishment/ Demolition Survey is to locate and describe, as far as reasonably practicable, all asbestos materials in the defined survey area via destructive and intrusive inspection as necessary. The survey will aim to gain access to all areas, including those that may be difficult to reach. In addition, a full sampling programme must be undertaken, and estimates of volumes or areas of asbestos materials must be reported. ACM's will be positively identified via analysis of representative samples to confirm if a material contains asbestos. The survey will include or refer to all easily accessible materials together with those hidden within the fabric of the building.

1.3. A Refurbishment/ Demolition Survey should be carried out before major works are tendered, and must be provided to prospective designers and contractors so that asbestos risks can be addressed. The survey must be planned with arrangements in place to control the spread of debris including asbestos debris during destructive and intrusive access, and should only be carried out in unoccupied and vacated areas to minimise risk to occupants and/or the public. Consequently, intrusively surveyed areas should be certified fit for reoccupation on completion of the survey. Refer to the survey information summary table on page 6 for details pertaining to the scope, extent and control measures relating to this survey.

1.4. As a result of the analysis of samples taken from suspect materials and visual assessment, we can confirm that asbestos was found within property as defined by the agreed scope of the survey. For details of all assessments made, please refer to the Asbestos Register in Appendix A, and in more detail in the individual assessment records contained in Appendix B. A Schedule of Works, summarising the ACM's found, their extent and recommended removal methods can be found in Appendix E.

1.5. The scope of the survey should be noted in conjunction with all agreed exclusions and any additional access limitations, and should the extent of the proposed works be modified or extended to require demolition or refurbishment in excluded areas, then additional survey work should be commissioned, particularly where the fabric of the building may be affected. Additional limitations may affect the validity of this report, and additional works may be required in order to ensure the report is fit for purpose.

1.6. It is the recommendation of Santia Asbestos Management Ltd that all ACM's identified in the areas affected by the proposed works are risk assessed and, if necessary, removed prior to the commencement of the works. Any areas which are found to contain asbestos in poor condition should remain restricted pending removal works commencing.

1.7. All personnel entering the building should be made aware of the presence of asbestos and take action not to disturb it.

1.8. Where buildings are occupied or operational, or where the building structure is complex or structurally reinforced, it may prove impossible to adequately investigate all areas of the property or structure at the time of the initial survey. Therefore it may be required to undertake additional surveys or inspections just prior to (i.e. during soft strip) or during the proposed refurbishment or demolition works, in order to account for all hidden ACM's. Where this is likely a provision will have been made for a revisit programme, and any such areas will be itemised in the asbestos register as an area of presumed asbestos.

## 2. Introduction

2.1. Santia was commissioned by Worley Parsons/National Grid to carry out a Refurbishment/ Demolition Survey of Former Gasworks, Bank Road, Garston, Merseyside, United Kingdom, L19 8HZ. The survey covered all areas of the property, subject to reasonably practicable access.

2.2. The survey was carried out on 9th June 2014 by Ebrahim Pandor of Santia Asbestos Management Ltd, Santia House, Parc Nantgarw, Cardiff, CF15 7QX.

2.3. The purpose of the survey was to locate and record all asbestos containing materials (ACM) as far as reasonably practicable, within the scope of a Refurbishment/ Demolition Survey, to produce a register of the findings and to present a schedule of works by which these materials can be scoped for removal. This involves the undertaking of intrusive, full access inspections and sampling throughout the building.

2.4. The asbestos register detailing the type, condition and extent of product found and the type of asbestos is included in Appendix A to this report, with individual material assessments and related photos available in Appendix B. Certificates of analysis are included in Appendix C to this report, with Floor Plans showing the area demarcated for survey together with sample points are included in Appendix D to this report. A Schedule of Work is included in Appendix E.

### 3. Scope of Survey

3.1. Within the scope of a Refurbishment Survey, the scope and extent of the survey can be specifically defined to include or exclude certain elements of the property, in line with the extent of the planned works. In the case of a Demolition Survey, all areas should be included, however the approach may be phased as the building or structure becomes available. Details pertaining to the scope, extent, intrusive nature and limitations of the survey can be found in table 1 below.

#### 3.2. Table 1 - Survey Scope Summary

1. Extent and Scope Of Survey			
Extent of Survey	All areas	Extent Defined By	<b>Status : Active; Report produced for (1) building. Refer back to erisk for details.</b>
Principal Site Contact		Nature of Site/Property	
Physical extent of survey	To include the gas holding tanks, boiler room, pipework and other ground floor valves.		
Intrusive extent of survey	To include all walls, floors and ceilings, pipework and plant/electrical		
Intrusive control and reoccupation requirements	As per HSG 264 and santia APGN1; None Required		
2. Survey Planning and Notes			
Original Plan of Work Summary	As per the DTS and NA58-Santia documentation		
Variations to Plan of Work	N/A		
3. Survey Status			
Survey fit for purpose based on information shown above?	YES	If no, Action needed to rectify	

3.3. If any additional limitations or lack of required pre-survey information causes this report to be deemed incomplete or unfit for purpose, this must be rectified as soon as possible, and suitable revisits made as determined by the revisit strategy agreed in advance.

#### 4. Description of Survey

4.1. The Refurbishment/ Demolition Survey was carried out in accordance with Santia UKAS (United Kingdom Accreditation Service ) accredited procedures based on the Health and Safety Executive (HSE) Guidance Note HSG 264 "Asbestos - The Survey Guide". A Refurbishment/ Demolition Survey should include the fully intrusive inspection of all demarked areas of the property or the entire site, utilising destructive access techniques. This may render parts of the site or plant within unsuitable for occupation or use.

4.2. All samples were taken by Santia competent surveyors and analysed at a Santia UKAS accredited laboratory. Analysis certification can be found in Appendix C.

4.3. The intrusive elements of the survey were agreed in advance in conjunction with the principal client contact or their nominated representative(s). For details of the intrusive elements of the survey and the principal purpose of the survey, please refer to the survey scope summary on page 6, together with the building floor plans in Appendix D, which show the locations of all inspections, both intrusive and non-intrusive.

4.4. The aims of the survey were :-

4.4.1. To inspect as far as is reasonably practicable, all demarked areas of the building, including structural and hidden areas which may not have previously been inspected, so as to locate all ACM's;

4.4.2. To take representative samples of all suspect ACM's and to analyse those samples to determine the type of asbestos present;

4.4.3. To visually assess and measure the extent of all suspect ACM's, and where present, the extent of any associated contamination;

4.4.4. To record the type, location and condition of all suspect ACM's;

4.4.5. To give an estimation of the quantity and extent of the material;

## 5. Limitations

5.1. Whilst a Refurbishment/ Demolition Survey aims to locate all ACM's within a property or demarked area, there is no requirement to assess condition or record priority risk score information for management purposes. This is because it is presumed that all ACM's found will be removed imminently. However, should any materials not be removed, or if the related works do not go ahead, then all ACM's located should be reassessed and risk scored to bring the data into line with that which would be generated as part of a Management Survey.

5.2. Every effort has been made to identify all asbestos containing materials so far as it was reasonably practicable to do so within the scope of the survey and this report. Methods used to carry out the survey and to obtain intrusive access were agreed with the client before any works began. It is the intention of the survey to minimise all areas of restriction or limitation, and as such these were defined in advance of the survey and excluded from its scope. Details of such limitations can be found in the survey scope summary table on page 6.

5.3. Occasionally, in the course of the survey the surveyor may come across areas which were not safe to access or practical to inspect due to site conditions beyond those which are reasonably foreseeable to mitigate. Similarly, it may be found that arrangements to remove a potential limiting factor are not fully effective or in place. In these eventualities, the surveyor may be forced to apply additional limitations on the survey, resulting in items or areas being presumed to contain asbestos. In some cases, if these additional limitations affect the usefulness of the final report, then limitation actions may be applied. These actions require additional visits and/or arrangements to be carried out to ensure all areas of the property are assessed. The provision of such actions may affect the overall compliance level of the site, and should be actioned as a matter of priority.



## 6. Disclaimer

6.1. The survey was undertaken by trained and experienced staff using a combined approach, comprising visual inspection and where required, bulk sampling. It is always possible that additional asbestos containing materials may be present in the facility or an area covered by the survey after the survey has been completed for various reasons, including :-

6.1.1. Asbestos containing materials may be hidden within the structure of a building and may not be visible until the structure is dismantled. Therefore, before any works are carried out which affect the structure or integrity of the building or its services, the asbestos register must be formally reviewed and any areas not sufficiently represented must undergo additional inspection and sampling, so as to fully understand the asbestos risks which may be present.

6.1.2. Where electrical equipment is present and presumed to be in the way of the survey, no access will be attempted until proof of its safe state has been provided. Otherwise, the equipment will be assessed based upon age and design, and presumed to contain or not to contain asbestos. Santia's surveyors and operatives owe a duty of care under the Health and Safety at Work Act 1974 both to themselves and to others.

6.1.3. In a facility in which asbestos containing materials have been located and it is clear that not all areas have been investigated (either by design or additional limitation), any material that is found to be suspicious and not detailed as part of the survey should be treated with caution and sampled accordingly for bulk fibre analysis.

6.1.4. Certain materials contain asbestos to varying degrees. Some may be less densely contaminated at certain locations (Textured Coating for example). Where this is the case, the sample taken may not be representative of the whole product throughout.

6.2. Any areas of additional limitation are noted in the asbestos register and individually on material assessment records. Until such time as these areas can be inspected and suspect materials analysed by competent persons, these areas should be regarded as containing presumed ACM and appropriate management procedures should be implemented. On the first occasion access is gained to these areas it is recommended that Santia returns to complete the survey work.

## 7. Sampling Strategy

7.1. The sampling strategy conducted is in accordance with Santia UKAS accredited procedures based on HSE guidance HSG 264 "Asbestos: The Survey Guide".

7.2. The sampling strategy adopted for this survey was designed in conjunction with the client, and can be found summarised in the survey scope summary table on page 6.

7.3. Where areas were inspected and no ACM was suspected, this has been recorded as a "no suspect ACM" inspection. This conclusion may have been based on the findings of the desk top study or on the buildings specification, known history of the building, or the surveyor's professional judgment.

## 8. Method and Results of Bulk Analysis

8.1. The bulk samples taken were analysed in a Santia UKAS accredited laboratory in accordance with UKAS accredited procedures based on HSE Guidance note HSG 248 Asbestos: "The analysts' guide for sampling, analysis and clearance procedures" published by the Health and Safety Executive.

8.2. The certificates of bulk fibre analysis shown in Appendix C indicate the type of asbestos for each sample analysed and found to contain asbestos. Samples that do not contain asbestos are recorded as "No Asbestos Detected".

## 9. Discussion and Recommended Actions

9.1. If other materials suspected of containing asbestos come to light during demolition, refurbishment or maintenance activities, then work should be stopped until the materials have been sampled and analysed by a laboratory accredited by UKAS for bulk sampling and fibre identification.

9.2. Work on the treatment or removal of asbestos should normally be undertaken by an asbestos removal contractor licensed under the licensing provisions of the The Control of Asbestos Regulations 2012 (CAR 2012), and the supporting Codes of Practice and Guidance Notes:

- "Asbestos essentials task manual". (HSG 210)
- "Asbestos: The Licensed Contractors Guide" (HSG 247).

Note: The type of work that needs to be carried out by licensed asbestos removal contractors is defined in CAR 2012 and is dependent on if the work is defined as being sporadic and of low intensity.

9.3. It should be noted that subject to the definition "sporadic and low intensity" it is not a legal requirement to be licensed under the above Regulations to work on certain products such as asbestos cement, textured coatings and bitumen. We are however of the opinion that such licensed contractors would have the experience, equipment and knowledge to enable the work to be completed to the necessary standard. If for whatever reason the removal work does not proceed immediately it will be necessary to prepare management and control actions to enable the remaining asbestos to be safely managed. The duty holder shall ensure that where asbestos is or is liable to be present, a determination of the risk from that asbestos is made and measures which are to be taken for managing the risks are specified in a written plan and implemented.

9.4. Where large quantities of asbestos materials are present in the building, particularly when in the form of sprayed coatings, thermal lagging, asbestos insulating board and asbestos cement, fine fragments of debris relating to these materials may be found in virtually any area of the property. These can become revealed once soft strip and asbestos removal activities are underway. To that end, it is recommended that the asbestos items listed in this report are viewed as a whole, and that the presence of asbestos is not deemed to be limited to the specific locations given. Therefore, an allowance to cover such eventualities should be considered by those tendering for the intended works.

9.5. The Client should consider that any abatement works be tendered on a competitive basis or competitive quotations sought from suitable licensed contractors, and that an impartial and competent person should evaluate the contractor method statement, programme and other relevant information.

9.6. All disturbance and removal of ACM should be adequately controlled. All analytical monitoring and clearance inspections conducted during the works should be independent, so as to verify the procedures and controls employed by the contractor.

## 10. Appendices

1. Appendix A - Asbestos Register
2. Appendix B - Material Assessment Records
3. Appendix C - Certificate of Bulk Fibre Analysis
4. Appendix D - Floor Plans
5. Appendix E - Schedule of Works

# **Appendix A**

## **Asbestos Register**

**(1 cover page and 3 sheets)**

# Asbestos Refurbishment/Demolition Survey Report

Report Reference AP000464-02

## TABLE 1 - ASBESTOS REGISTER - CONFIRMED and PRESUMED ASBESTOS MATERIALS ONLY

Including areas of no access - presumed ACM. For details of confirmed or presumed asbestos free materials and/or areas, please see register table 2 - Non Asbestos Material/Location Register

**Client Name:** Worley Parsons/National Grid  
**Property/Site Name:** Former Gasworks  
**Survey Type:** Asbestos Refurbishment/Demolition Survey Report  
**Register:** Full, all records  
**Date(s) of Survey:** 09-06-2014  
**Date of Register Generation:** 07-07-2014

Attachment/Details

Assessment No.	Location	Position	Int Ext	Building	Floor	Description/ Actual Extent	Identification	Product Type	Damage/ Deterioration	Surface Treatment	Asbestos Type	Material Risk category	Material Risk	Priority Risk	Total Risk	Comments	Photo	Control
AP000464-02/0002	Boiler Room	To floor beneath area of damaged IB ceiling	Int	Former Gasworks	Ground	Insulating board debris ; 10.00 m <sup>2</sup>	Sampled	2 - Insulating Board	3 - High	3 - Debris	1 - Chrysotile	Medium	9	4	13	✓	✓	✓
AP000464-02/0008	Boiler Room	To pipework flanges	Int	Former Gasworks	Ground	Gasket; 10 items	Sampled	2 - Gasket	3 - High	2 - Encapsulated Textile/Paper	1 - Chrysotile	Medium	8	4	12		✓	✓
AP000464-02/0009	Boiler Room	To the floor and ledge	Int	Former Gasworks	Ground	Gasket debris ; 4.00 m <sup>2</sup>	Sampled	2 - Gasket	3 - High	2 - Encapsulated Textile/Paper	1 - Chrysotile	Medium	8	4	12	✓	✓	✓
AP000464-02/0011	Boiler Room	To the floor and ledges	Int	Former Gasworks	Ground	Gasket debris ; 4.00 m <sup>2</sup>	Sampled	2 - Gasket	3 - High	2 - Encapsulated Textile/Paper	1 - Chrysotile	Medium	8	4	12	✓	✓	✓
AP000464-02/0003	Boiler Room	Seal to boiler door	Int	Former Gasworks	Ground	Rope seal; 5.00 m run	Sampled	2 - Rope	2 - Medium	2 - Encapsulated Textile/Paper	1 - Chrysotile	Medium	7	4	11	✓	✓	✓
AP000464-02/0001	Boiler Room	To the ceiling	Int	Former Gasworks	Ground	Insulating board; 35.00 m <sup>2</sup>	Sampled	2 - Insulating Board	2 - Medium	1 - Painted/Encapsulated Board	1 - Chrysotile	Low	6	4	10	✓	✓	✓
AP000464-02/0010	Boiler Room	To the pipework flanges	Int	Former Gasworks	Ground	Gaskets; 10 items	Sampled	2 - Gasket	1 - Low	2 - Encapsulated Textile/Paper	1 - Chrysotile	Low	6	3	9		✓	✓
AP000464-02/0016	Boiler Room	To the pipe flanges	Int	Former Gasworks	External	Gaskets; 5 items	Visually similar to AP000464-02/0010	2 - Gasket	1 - Low	2 - Encapsulated Textile/Paper	1 - Chrysotile	Low	6	3	9		✓	✓
AP000464-02/0017	Gas Holder 2	To the large valves	Int	Former Gasworks	External	Gasket; 8 items	Sampled	2 - Gasket	1 - Low	1 - Painted/Encapsulated Board	1 - Chrysotile	Low	5	4	9	✓	✓	✓
AP000464-02/0019	Gas Holder 1	To the low level sump valve	Int	Former Gasworks	External	Gaskets ; 6 items	Sampled	2 - Gasket	1 - Low	1 - Painted/Encapsulated Board	1 - Chrysotile	Low	5	4	9	✓	✓	✓
AP000464-02/0007	Boiler Room	Low level to wall internal and external	Int	Former Gasworks	Ground	Bitumen damp proof course; 20.0 m run	Sampled	1 - Bitumen	1 - Low	0 - Reinforced - Composite Materials	1 - Chrysotile	Very Low	3	4	7		✓	✓

# Asbestos Refurbishment/Demolition Survey Report

Report Reference AP000464-02

**Client Name:** Worley Parsons/National Grid      **Survey Type:** Asbestos Refurbishment/Demolition Survey Report      **Date(s) of Survey:** 09-06-2014  
**Property/Site Name:** Former Gasworks      **Register:** Full, all records      **Date of Register Generation:** 07-07-2014

Attachment/Details																		
Assessment No.	Location	Position	Int Ext	Building	Floor	Description/ Actual Extent	Identification	Product Type	Damage/ Deterioration	Surface Treatment	Asbestos Type	Material Risk category	Material Risk	Priority Risk	Total Risk	Comments	Photo	Control
AP000464-02/0021	Gas Holder 1	To pipe valve end	Int	Former Gasworks	External	Bitumen; Small amounts	Sampled	1 - Bitumen	1 - Low	0 - Reinforced - Composite Materials	1 - Chrysotile	Very Low	3	4	7		✓	✓



# Asbestos Refurbishment/Demolition Survey Report

Report Reference AP000464-02

## TABLE 2 - NON ASBESTOS MATERIAL/LOCATION REGISTER - CONFIRMED and PRESUMED NON ASBESTOS MATERIALS ONLY

Including areas of "no suspect ACM's". For details of confirmed or presumed asbestos materials, including areas of no access, please see register table 1 - Asbestos Register

**Client Name:** Worley Parsons/National Grid      **Survey Type:** Asbestos Refurbishment/Demolition Survey Report      **Date(s) of Survey:** 09-06-2014  
**Property/Site Name:** Former Gasworks      **Register:** Full, all records      **Date of Register Generation:** 07-07-2014

Assessment No.	Location	Position	Int Ext	Building	Floor	Description/ Actual Extent	Identification	Product Type	Comments	Attachment/Details			
										Total Risk	Comments	Photo	Control
AP000464-02/0004	Boiler Room	To the boiler door seals	Int	Former Gasworks	Ground	Insulation Residues; 6.00 m Run	Sampled	3 - Thermal Lagging		0		✓	
AP000464-02/0005	Boiler Room	To the pipework	Int	Former Gasworks	Ground	Insulation Residues; 10.0 m Run	Sampled	3 - Thermal Lagging		0		✓	
AP000464-02/0006	Boiler Room	To the pipework	Int	Former Gasworks	Ground	Insulation Residues; 10.0 m Run	Sampled	3 - Thermal Lagging		0		✓	
AP000464-02/0012	Boiler Room	To the floor and ledges	Int	Former Gasworks	Ground	Dust and Debris; 35.00 m <sup>2</sup>	Sampled	3 - Debris		0		✓	
AP000464-02/0013	Boiler Room	To the floor and ledges	Int	Former Gasworks	Ground	Dust and Debris; 35.00 m <sup>2</sup>	Sampled	3 - Debris		0		✓	
AP000464-02/0014	Boiler Room	To the floor ducts	Int	Former Gasworks	Ground	Dust and Debris ; 10.00 m <sup>2</sup>	Sampled	3 - Debris	to floor ducts X 2 ducts	0	✓	✓	
AP000464-02/0015	Boiler Room	To the external pipe	Ext	Former Gasworks	External	Bitumen Wrap; Small Amounts	Sampled	1 - Bitumen	Concrete roof and brick walls.	0	✓	✓	
AP000464-02/0018	Gas Holder 2	Floor to redundant valve cover	Int	Former Gasworks	External	Gasket; 1 Item	Sampled	2 - Gasket		0		✓	
AP000464-02/0020	Gas Holder 1	Coating to surfaces around around dome and structure	Int	Former Gasworks	External	Paint Coating; 500.00 m <sup>2</sup>	Sampled	1 - Bitumen		0		✓	
AP000464-02/0022	Gas Holder 2	To the gas holder and surrounding structures	Int	Former Gasworks	External	Paint Coating; 500.00 m <sup>2</sup>	Visually Similar To AP000464-02/0020	1 - Bitumen		0		✓	

**Appendix B**

**Material Assessment Records**

**(1 cover page and 22 sheets)**

## Material Assessment Record

Assessment No	AP000464-02/0001
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Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	Ground
Position	To the ceiling
Int/Ext	Int
Description	Insulating Board
Product Type	Insulating Board
Extent (actual)	35.00 m <sup>2</sup>
Identification	Sampled
Sample Ref	AP000464-02/0001
Visually Similar to Sample	

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	2 - Insulating Board
Damage/Deterioration	2 - Medium
Surface Treatment	1 - Painted/Encapsulated Board
Asbestos Type(s)	1 - Chrysotile
Material Score	6
Material Risk Category	Low

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	2
Human Exposure Potential	1
Maintenance Activity	1
Priority Score	4

Total Risk Score	10
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
Remove asbestos product that requires a licensed asbestos removal contractor as per CAR 2012	09-12-2014

Comments
Insulating board to ceiling, brick walls and a concrete floor, timber door and frame, electrical equipment to boiler checked no suspect materials within. Metal boiler insulated with MMMF insulation, boiler checked within to reveal rope to door, MMMF and foam insulation to pipework - floor ducts inspected to find concrete floor and walls.

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable

## Material Assessment Record

Assessment No	AP000464-02/0002
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Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	Ground
Position	To floor beneath area of damaged IB ceiling
Int/Ext	Int
Description	Insulating Board Debris
Product Type	Insulating Board
Extent (actual)	10.00 m <sup>2</sup>
Identification	Sampled
Sample Ref	AP000464-02/0002
Visually Similar to Sample	AP000464-02/0001

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	2 - Insulating Board
Damage/Deterioration	3 - High
Surface Treatment	3 - Debris
Asbestos Type(s)	1 - Chrysotile
Material Score	9
Material Risk Category	Medium

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	2
Human Exposure Potential	1
Maintenance Activity	1
Priority Score	4

Total Risk Score	13
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
Remove asbestos product that requires a licensed asbestos removal contractor as per CAR 2012	09-12-2014

Comments
The debris has originated from the ceiling and sampled as MAR 0001

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable

## Material Assessment Record

Assessment No	AP000464-02/0003
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Date Of Assessment	09-06-2014
--------------------	------------

Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	Ground
Position	Seal to boiler door
Int/Ext	Int
Description	Rope Seal
Product Type	Rope
Extent (actual)	5.00 m Run
Identification	Sampled
Sample Ref	AP000464-02/0003
Visually Similar to Sample	

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	2 - Rope
Damage/Deterioration	2 - Medium
Surface Treatment	2 - Encapsulated Textile/Paper
Asbestos Type(s)	1 - Chrysotile
Material Score	7
Material Risk Category	Medium

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	2
Human Exposure Potential	1
Maintenance Activity	1
Priority Score	4

Total Risk Score	11
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
Remove compressed asbestos rope seals	09-12-2014

Comments
X 2 seals

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable

## Material Assessment Record

Assessment No	AP000464-02/0004
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Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	Ground
Position	To the boiler door seals
Int/Ext	Int
Description	Insulation Residues
Product Type	Thermal Lagging
Extent (actual)	6.00 m Run
Identification	Sampled
Sample Ref	AP000464-02/0004
Visually Similar to Sample	

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	3 - Thermal Lagging
Damage/Deterioration	3 - High
Surface Treatment	3 - Debris
Asbestos Type(s)	0 - No Asbestos Detected
Material Score	0
Material Risk Category	Non asbestos

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	0
Human Exposure Potential	0
Maintenance Activity	0
Priority Score	0

Total Risk Score	0
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
No Control Actions to Report	

Comments
No Comments Available

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Metal

## Material Assessment Record

Assessment No	AP000464-02/0005
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Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	Ground
Position	To the pipework
Int/Ext	Int
Description	Insulation Residues
Product Type	Thermal Lagging
Extent (actual)	10.0 m Run
Identification	Sampled
Sample Ref	AP000464-02/0005
Visually Similar to Sample	

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	3 - Thermal Lagging
Damage/Deterioration	3 - High
Surface Treatment	3 - Debris
Asbestos Type(s)	0 - No Asbestos Detected
Material Score	0
Material Risk Category	Non asbestos

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	0
Human Exposure Potential	0
Maintenance Activity	0
Priority Score	0

Total Risk Score	0
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
No Control Actions to Report	

Comments
No Comments Available

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Metal



## Material Assessment Record

Assessment No	AP000464-02/0006
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Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	Ground
Position	To the pipework
Int/Ext	Int
Description	Insulation Residues
Product Type	Thermal Lagging
Extent (actual)	10.0 m Run
Identification	Sampled
Sample Ref	AP000464-02/0006
Visually Similar to Sample	

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	3 - Thermal Lagging
Damage/Deterioration	3 - High
Surface Treatment	3 - Debris
Asbestos Type(s)	0 - No Asbestos Detected
Material Score	0
Material Risk Category	Non asbestos

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	0
Human Exposure Potential	0
Maintenance Activity	0
Priority Score	0

Total Risk Score	0
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
No Control Actions to Report	

Comments
No Comments Available

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Metal




## Material Assessment Record

Assessment No	AP000464-02/0007
---------------	------------------

Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	Ground
Position	Low level to wall internal and external
Int/Ext	Int
Description	Bitumen Damp Proof Course
Product Type	Bitumen
Extent (actual)	20.0 m Run
Identification	Sampled
Sample Ref	AP000464-02/0007
Visually Similar to Sample	

Primary Photograph

Additional photos available

Material Risk Assessment	As Per HSG 264
Product Category	1 - Bitumen
Damage/Deterioration	1 - Low
Surface Treatment	0 - Reinforced - Composite Materials
Asbestos Type(s)	1 - Chrysotile
Material Score	3
Material Risk Category	Very Low

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	2
Human Exposure Potential	1
Maintenance Activity	1
Priority Score	4

Total Risk Score	7
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
Remove asbestos containing bituminous products as per HSG 210-A21	09-12-2014

Comments
No Comments Available

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable

## Material Assessment Record

Assessment No	AP000464-02/0008
---------------	------------------

Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	Ground
Position	To pipework flanges
Int/Ext	Int
Description	Gasket
Product Type	Gasket
Extent (actual)	10 Items
Identification	Sampled
Sample Ref	AP000464-02/0008
Visually Similar to Sample	

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	2 - Gasket
Damage/Deterioration	3 - High
Surface Treatment	2 - Encapsulated Textile/Paper
Asbestos Type(s)	1 - Chrysotile
Material Score	8
Material Risk Category	Medium

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	2
Human Exposure Potential	1
Maintenance Activity	1
Priority Score	4

Total Risk Score	12
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
Remove compressed asbestos fibre (CAF) gasket as per HSG 210-A25	09-12-2014

Comments
No Comments Available

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable

## Material Assessment Record

Assessment No	AP000464-02/0009
---------------	------------------

Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	Ground
Position	To the floor and ledge
Int/Ext	Int
Description	Gasket Debris
Product Type	Gasket
Extent (actual)	4.00 m <sup>2</sup>
Identification	Sampled
Sample Ref	AP000464-02/0009
Visually Similar to Sample	

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	2 - Gasket
Damage/Deterioration	3 - High
Surface Treatment	2 - Encapsulated Textile/Paper
Asbestos Type(s)	1 - Chrysotile
Material Score	8
Material Risk Category	Medium

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	2
Human Exposure Potential	1
Maintenance Activity	1
Priority Score	4

Total Risk Score	12
------------------	----

Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
Remove compressed asbestos fibre (CAF) gasket debris as per HSG 210-A25	09-12-2014

Comments
to floor and ledge originating from MAR 008

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable

## Material Assessment Record

Assessment No	AP000464-02/0010
---------------	------------------

Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	Ground
Position	To the pipework flanges
Int/Ext	Int
Description	Gaskets
Product Type	Gasket
Extent (actual)	10 Items
Identification	Sampled
Sample Ref	AP000464-02/0010
Visually Similar to Sample	

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	2 - Gasket
Damage/Deterioration	1 - Low
Surface Treatment	2 - Encapsulated Textile/Paper
Asbestos Type(s)	1 - Chrysotile
Material Score	6
Material Risk Category	Low

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	1
Human Exposure Potential	1
Maintenance Activity	1
Priority Score	3

Total Risk Score	9
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
Remove compressed asbestos fibre (CAF) gasket as per HSG 210-A25	09-12-2014

Comments
No Comments Available

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable

## Material Assessment Record

Assessment No	AP000464-02/0011
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Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	Ground
Position	To the floor and ledges
Int/Ext	Int
Description	Gasket Debris
Product Type	Gasket
Extent (actual)	4.00 m <sup>2</sup>
Identification	Sampled
Sample Ref	AP000464-02/0011
Visually Similar to Sample	

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	2 - Gasket
Damage/Deterioration	3 - High
Surface Treatment	2 - Encapsulated Textile/Paper
Asbestos Type(s)	1 - Chrysotile
Material Score	8
Material Risk Category	Medium

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	2
Human Exposure Potential	1
Maintenance Activity	1
Priority Score	4

Total Risk Score	12
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
Remove compressed asbestos fibre (CAF) gasket debris as per HSG 210-A25	09-12-2014

Comments
originating from sample MAR 010

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable



## Material Assessment Record

Assessment No	AP000464-02/0012
---------------	------------------

Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	Ground
Position	To the floor and ledges
Int/Ext	Int
Description	Dust and Debris
Product Type	Debris
Extent (actual)	35.00 m <sup>2</sup>
Identification	Sampled
Sample Ref	AP000464-02/0012
Visually Similar to Sample	

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	3 - Debris
Damage/Deterioration	3 - High
Surface Treatment	3 - Debris
Asbestos Type(s)	0 - No Asbestos Detected
Material Score	0
Material Risk Category	Non asbestos

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	0
Human Exposure Potential	0
Maintenance Activity	0
Priority Score	0

Total Risk Score	0
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
No Control Actions to Report	

Comments
No Comments Available

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable

## Material Assessment Record

Assessment No	AP000464-02/0013
---------------	------------------

Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
------------------	----------------

Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	Ground
Position	To the floor and ledges
Int/Ext	Int
Description	Dust and Debris
Product Type	Debris
Extent (actual)	35.00 m <sup>2</sup>
Identification	Sampled
Sample Ref	AP000464-02/0013
Visually Similar to Sample	

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	3 - Debris
Damage/Deterioration	3 - High
Surface Treatment	3 - Debris
Asbestos Type(s)	0 - No Asbestos Detected
Material Score	0
Material Risk Category	Non asbestos

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	0
Human Exposure Potential	0
Maintenance Activity	0
Priority Score	0

Total Risk Score	0
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
No Control Actions to Report	

Comments
No Comments Available

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable


## Material Assessment Record

Assessment No	AP000464-02/0014
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Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	Ground
Position	To the floor ducts
Int/Ext	Int
Description	Dust and Debris
Product Type	Debris
Extent (actual)	10.00 m <sup>2</sup>
Identification	Sampled
Sample Ref	AP000464-02/0014
Visually Similar to Sample	

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	3 - Debris
Damage/Deterioration	3 - High
Surface Treatment	3 - Debris
Asbestos Type(s)	0 - No Asbestos Detected
Material Score	0
Material Risk Category	Non asbestos

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	0
Human Exposure Potential	0
Maintenance Activity	0
Priority Score	0

Total Risk Score	0
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
No Control Actions to Report	

Comments
to floor ducts X 2 ducts

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable



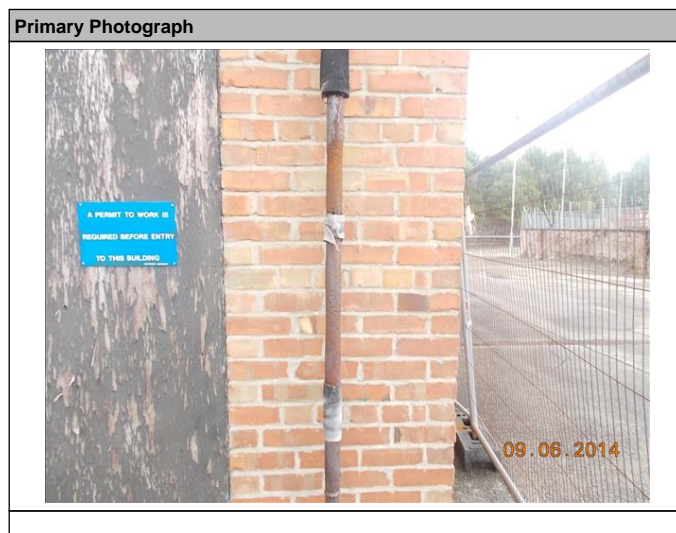
## Material Assessment Record

Assessment No	AP000464-02/0015
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Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	External
Position	To the external pipe
Int/Ext	Ext
Description	Bitumen Wrap
Product Type	Bitumen
Extent (actual)	Small Amounts
Identification	Sampled
Sample Ref	AP000464-02/0015
Visually Similar to Sample	AP000464-02/0007



Material Risk Assessment	As Per HSG 264
Product Category	1 - Bitumen
Damage/Deterioration	1 - Low
Surface Treatment	0 - Reinforced - Composite Materials
Asbestos Type(s)	0 - No Asbestos Detected
Material Score	0
Material Risk Category	Non asbestos

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	0
Human Exposure Potential	0
Maintenance Activity	0
Priority Score	0

Total Risk Score	0
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
No Control Actions to Report	

Comments
Concrete roof and brick walls.

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable

## Material Assessment Record

Assessment No	AP000464-02/0016
---------------	------------------

Date Of Assessment	09-06-2014
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Name Of Surveyor	Ebrahim Pandor
------------------	----------------

Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Boiler Room
Floor	External
Position	To the pipe flanges
Int/Ext	Int
Description	Gaskets
Product Type	Gasket
Extent (actual)	5 Items
Identification	Visually Similar To
Sample Ref	No Sample Taken
Visually Similar to Sample	AP000464-02/0010

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	2 - Gasket
Damage/Deterioration	1 - Low
Surface Treatment	2 - Encapsulated Textile/Paper
Asbestos Type(s)	1 - Chrysotile
Material Score	6
Material Risk Category	Low

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	1
Human Exposure Potential	1
Maintenance Activity	1
Priority Score	3

Total Risk Score	9
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
Remove compressed asbestos fibre (CAF) gasket as per HSG 210-A25	09-12-2014

Comments
No Comments Available

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable

## Material Assessment Record

Assessment No	AP000464-02/0017
---------------	------------------

Date Of Assessment	10-06-2014
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Name Of Surveyor	Ebrahim Pandor
------------------	----------------

Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Gas Holder 2
Floor	External
Position	To the large valves
Int/Ext	Int
Description	Gasket
Product Type	Gasket
Extent (actual)	8 Items
Identification	Sampled
Sample Ref	AP000464-02/0017
Visually Similar to Sample	

Primary Photograph

Additional photos available

Material Risk Assessment	As Per HSG 264
Product Category	2 - Gasket
Damage/Deterioration	1 - Low
Surface Treatment	1 - Painted/Encapsulated Board
Asbestos Type(s)	1 - Chrysotile
Material Score	5
Material Risk Category	Low

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	2
Likelihood Disturbance	0
Human Exposure Potential	1
Maintenance Activity	1
Priority Score	4

Total Risk Score	9
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
Remove compressed asbestos fibre (CAF) gasket as per HSG 210-A25	10-12-2014

Comments
Metal structure to a concrete base throughout, gaskets to valves sampled. Metal dome inspected visually from banking only and not possible to walk on top due to safety reasons.

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable

## Material Assessment Record

<b>Assessment No</b>	AP000464-02/0018
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<b>Date Of Assessment</b>	10-06-2014
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<b>Name Of Surveyor</b>	Ebrahim Pandor
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Sample Information	
<b>Site Name/Building Name</b>	Former Gasworks / Former Gasworks
<b>Location</b>	Gas Holder 2
<b>Floor</b>	External
<b>Position</b>	Floor to redundant valve cover
<b>Int/Ext</b>	Int
<b>Description</b>	Gasket
<b>Product Type</b>	Gasket
<b>Extent (actual)</b>	1 Item
<b>Identification</b>	Sampled
<b>Sample Ref</b>	AP000464-02/0018
<b>Visually Similar to Sample</b>	

Primary Photograph


<b>Material Risk Assessment</b>	As Per HSG 264
<b>Product Category</b>	2 - Gasket
<b>Damage/Deterioration</b>	1 - Low
<b>Surface Treatment</b>	1 - Painted/Encapsulated Board
<b>Asbestos Type(s)</b>	0 - No Asbestos Detected
<b>Material Score</b>	0
<b>Material Risk Category</b>	Non asbestos

<b>Priority Risk Assessment</b>	Mean Scores Only, Calculated as per HSG 227.
<b>Normal Occ Activity</b>	0
<b>Likelihood Disturbance</b>	0
<b>Human Exposure Potential</b>	0
<b>Maintenance Activity</b>	0
<b>Priority Score</b>	0

<b>Total Risk Score</b>	0
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
No Control Actions to Report	

Comments
No Comments Available

Other Comments	
<b>Visible Fibres. No</b>	Not Applicable
<b>Nature of Substrate</b>	Not Applicable

## Material Assessment Record

Assessment No	AP000464-02/0019
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Date Of Assessment	10-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Gas Holder 1
Floor	External
Position	To the low level sump valve
Int/Ext	Int
Description	Gaskets
Product Type	Gasket
Extent (actual)	6 Items
Identification	Sampled
Sample Ref	AP000464-02/0019
Visually Similar to Sample	AP000464-02/0017

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	2 - Gasket
Damage/Deterioration	1 - Low
Surface Treatment	1 - Painted/Encapsulated Board
Asbestos Type(s)	1 - Chrysotile
Material Score	5
Material Risk Category	Low

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	2
Likelihood Disturbance	0
Human Exposure Potential	1
Maintenance Activity	1
Priority Score	4

Total Risk Score	9
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
Remove compressed asbestos fibre (CAF) gasket as per HSG 210-A25	10-12-2014

Comments
approximately 6 but may contain more on top of dome - metal and concrete structure throughout, gaskets to valves sampled, metal dome inspected visually from banking only and not possible to walk on top due to safety reasons.

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable



## Material Assessment Record

Assessment No	AP000464-02/0020
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Date Of Assessment	10-06-2014
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Name Of Surveyor	Ebrahim Pandor
------------------	----------------

Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Gas Holder 1
Floor	External
Position	Coating to surfaces around around dome and structure
Int/Ext	Int
Description	Paint Coating
Product Type	Bitumen
Extent (actual)	500.00 m <sup>2</sup>
Identification	Sampled
Sample Ref	AP000464-02/0020
Visually Similar to Sample	



Material Risk Assessment	As Per HSG 264
Product Category	1 - Bitumen
Damage/Deterioration	2 - Medium
Surface Treatment	0 - Reinforced - Composite Materials
Asbestos Type(s)	0 - No Asbestos Detected
Material Score	0
Material Risk Category	Non asbestos

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	0
Human Exposure Potential	0
Maintenance Activity	0
Priority Score	0

Total Risk Score	0
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
No Control Actions to Report	

Comments
No Comments Available

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable

# Asbestos Refurbishment/Demolition Survey Report

Report Reference AP000464-02


## Material Assessment Record

Assessment No	AP000464-02/0021
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Date Of Assessment	10-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Gas Holder 1
Floor	External
Position	To pipe valve end
Int/Ext	Int
Description	Bitumen
Product Type	Bitumen
Extent (actual)	Small Amounts
Identification	Sampled
Sample Ref	AP000464-02/0021
Visually Similar to Sample	

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	1 - Bitumen
Damage/Deterioration	1 - Low
Surface Treatment	0 - Reinforced - Composite Materials
Asbestos Type(s)	1 - Chrysotile
Material Score	3
Material Risk Category	Very Low

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	2
Likelihood Disturbance	0
Human Exposure Potential	1
Maintenance Activity	1
Priority Score	4

Total Risk Score	7
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
Remove asbestos containing bituminous products as per HSG 210-A21	10-12-2014

Comments
No Comments Available

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable

## Material Assessment Record

Assessment No	AP000464-02/0022
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Date Of Assessment	10-06-2014
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Name Of Surveyor	Ebrahim Pandor
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Sample Information	
Site Name/Building Name	Former Gasworks / Former Gasworks
Location	Gas Holder 2
Floor	External
Position	To the gas holder and surrounding structures
Int/Ext	Int
Description	Paint Coating
Product Type	Bitumen
Extent (actual)	500.00 m <sup>2</sup>
Identification	Visually Similar To
Sample Ref	No Sample Taken
Visually Similar to Sample	AP000464-02/0020

Primary Photograph


Material Risk Assessment	As Per HSG 264
Product Category	1 - Bitumen
Damage/Deterioration	2 - Medium
Surface Treatment	0 - Reinforced - Composite Materials
Asbestos Type(s)	0 - No Asbestos Detected
Material Score	0
Material Risk Category	Non asbestos

Priority Risk Assessment	Mean Scores Only, Calculated as per HSG 227.
Normal Occ Activity	0
Likelihood Disturbance	0
Human Exposure Potential	0
Maintenance Activity	0
Priority Score	0

Total Risk Score	0
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Management Actions	Date Due
No Management Actions to Report	

Control Actions	Date Due
No Control Actions to Report	

Comments
No Comments Available

Other Comments	
Visible Fibres. No	Not Applicable
Nature of Substrate	Not Applicable



**Appendix C**

**Certificate of Bulk Fibre Analysis**

**(1 cover page and 2 sheets)**

## CERTIFICATE OF BULK FIBRE ANALYSIS

Client name & address: Worley Parsons/National Grid, Infrastructure & Environment, 3-8 Redcliffe Parade West,  
Bristol, United Kingdom, BS1 6SP

Site address: Bank Road, Garston, Merseyside, United Kingdom, L19 8HZ

Date received: 11/06/2014 - 28/06/2014

Analyst: Susan Warwick

Reference: AP000464-02

Sampled by: Ebrahim Pandor

Date analysed: 28/06/2014

Laboratory or site sample number	Origin of sample/location/client reference	Description/type of product	Content
0001	Former Gasworks; Ground; Boiler Room	Insulating Board	Chrysotile
0002	Former Gasworks; Ground; Boiler Room	Insulating Board	Chrysotile
0003	Former Gasworks; Ground; Boiler Room	Rope	Chrysotile
0004	Former Gasworks; Ground; Boiler Room	Thermal Lagging Debris	No Asbestos Detected
0005	Former Gasworks; Ground; Boiler Room	Thermal Lagging Debris	No Asbestos Detected
0006	Former Gasworks; Ground; Boiler Room	Thermal Lagging Debris	No Asbestos Detected
0007	Former Gasworks; Ground; Boiler Room	Bitumen	Chrysotile
0008	Former Gasworks; Ground; Boiler Room	Gasket	Chrysotile
0009	Former Gasworks; Ground; Boiler Room	Gasket	Chrysotile
0010	Former Gasworks; Ground; Boiler Room	Gasket	Chrysotile
0011	Former Gasworks; Ground; Boiler Room	Gasket	Chrysotile

Signed  
(Analyst)



Date 07/07/2014

### Comments/Details of Sample Preparation: FINAL CERTIFICATE

All analysis in accordance with HSG 248 Asbestos: "The analysts guide for sampling, analysis and clearance procedures".

Opinions and interpretations based on test results are outside the scope of the UKAS accreditation. Santia Asbestos Management Limited can accept no liability for the way that the results of samples taken by third parties are interpreted or acted on, because they have had no involvement in where to take the sample, how to take it or the sample size.

This test report shall not be reproduced except in full, without the written approval of Santia Asbestos Management Limited.

## CERTIFICATE OF BULK FIBRE ANALYSIS

Client name & address: Worley Parsons/National Grid, Infrastructure & Environment, 3-8 Redcliffe Parade West,  
Bristol, United Kingdom, BS1 6SP

Site address: Bank Road, Garston, Merseyside, United Kingdom, L19 8HZ

Date received: 11/06/2014 - 28/06/2014

Analyst: Susan Warwick

Reference: AP000464-02

Sampled by: Ebrahim Pandor

Date analysed: 28/06/2014

Laboratory or site sample number	Origin of sample/location/client reference	Description/type of product	Content
0012	Former Gasworks; Ground; Boiler Room	Dust/Debris	No Asbestos Detected
0013	Former Gasworks; Ground; Boiler Room	Debris	No Asbestos Detected
0014	Former Gasworks; Ground; Boiler Room	Dust/Debris	No Asbestos Detected
0015	Former Gasworks; External; Boiler Room	Bitumen	No Asbestos Detected
0017	Former Gasworks; External; Gas Holder 2	Gasket	Chrysotile
0018	Former Gasworks; External; Gas Holder 2	Gasket	No Asbestos Detected
0019	Former Gasworks; External; Gas Holder 1	Gasket	Chrysotile
0020	Former Gasworks; External; Gas Holder 1	Textured Coating & Paint	No Asbestos Detected
0021	Former Gasworks; External; Gas Holder 1	Bitumen	Chrysotile

Signed  
(Analyst)



Date 07/07/2014

### Comments/Details of Sample Preparation: FINAL CERTIFICATE

All analysis in accordance with HSG 248 Asbestos: "The analysts guide for sampling, analysis and clearance procedures".

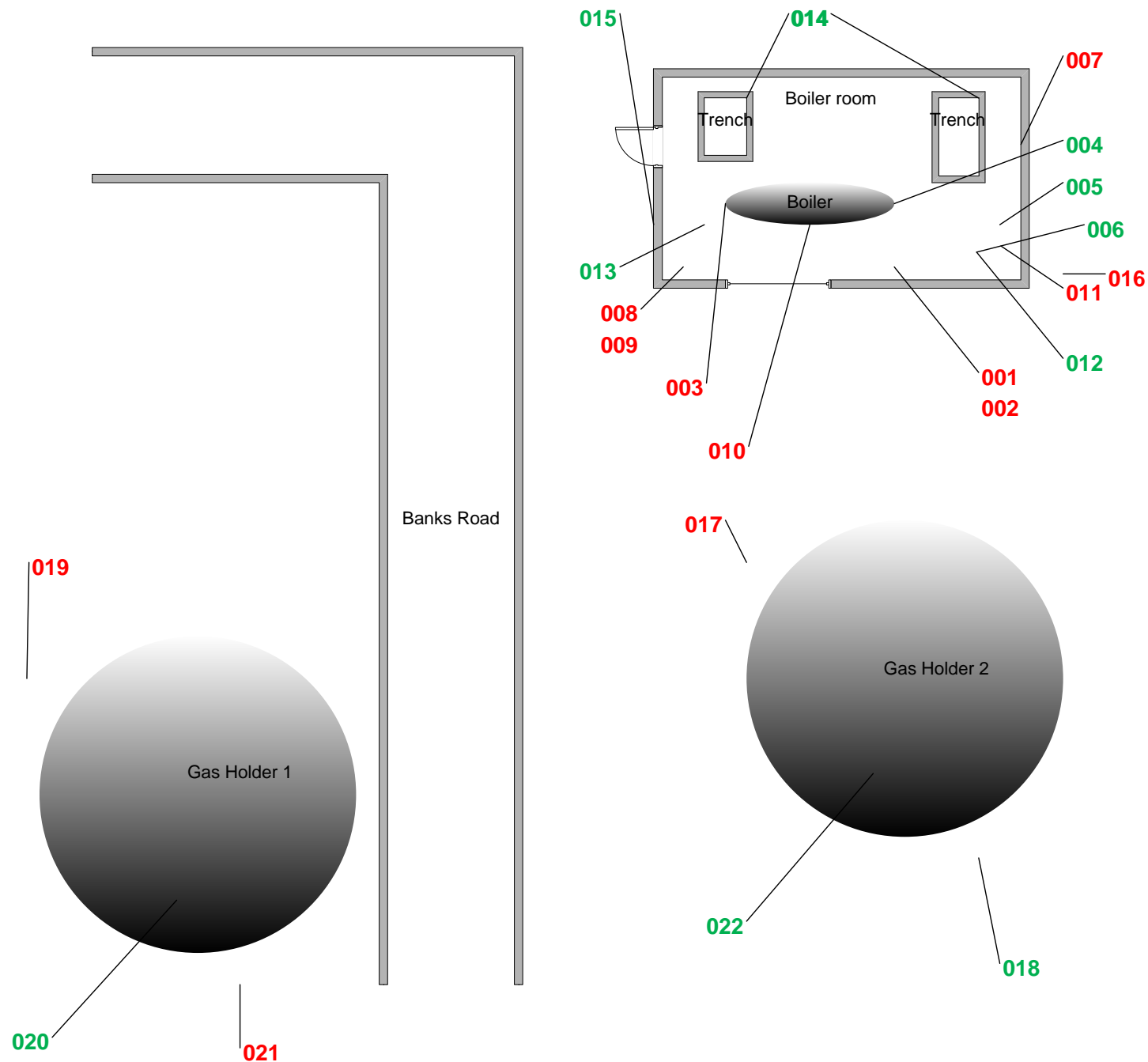
Opinions and interpretations based on test results are outside the scope of the UKAS accreditation. Santia Asbestos Management Limited can accept no liability for the way that the results of samples taken by third parties are interpreted or acted on, because they have had no involvement in where to take the sample, how to take it or the sample size.

This test report shall not be reproduced except in full, without the written approval of Santia Asbestos Management Limited.

## **Appendix D**

### **Floor Plans**

**(1 cover page and 1 Sheet)**



Achiever/Job Number:  
AP000464-02

Sheet No. - 1 of 1

Client:  
NGG / Worsley Parsons

Site Address: Garston,  
Former Gasworks, Banks  
Road, Garston

Floor/Area:  
Boiler Room

Created By:  
Ebrahim Pandor

Date: 09-06-14

Revision: Original

Revision Date: \*\*-\*\*-\*\*

Key:

Negative

NSA No Suspect ACMs

Positive

No Access

This plan does not show  
the extent of the asbestos  
present and must be read  
in conjunction with the  
accompanying report /  
database.

**NOT TO SCALE**

**santia**  
it's our business to protect

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## **Appendix E**

### **Schedule of Works**

**(1 cover page and 2 sheets)**

### Schedule Of Work

#### Worley Parsons/National Grid

#### Removal Of Asbestos From Former Gasworks, Bank Road, Garston, Merseyside, L19 8HZ

Date Schedule Prepared 07-07-2014

Note in this schedule:-

Removal means removal of residues back to bare concrete, steel, etc and removal of any voids, partitions that may conceal asbestos debris, it may be necessary to break out brickwork and concrete for decontamination purposes.

Decontamination will include removal of any loose items such as floor tiles, stair nosings that may conceal asbestos debris.

**IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TAKE MEASUREMENTS AT TENDER STAGE AND TO SATISFY THEMSELVES OF THE TRUE EXTENT OF THE WORK.**

#### General

- 1) Obtain certification from the client to ensure that all services to any plant are isolated and that all pipe work etc, is drained down and smoke alarms are available.
- 2) Remove asbestos where possible by wrap and cut techniques for example from pipes and calorifiers.
- 3) Contractor to price for opening up the following areas to establish the extent of asbestos. (INCLUDE HERE ANY AREAS THAT WE WERE NOT ABLE TO ACCESS ON THE SURVEY).

Room/ Location	Position	Building	Floor/ Level	Sample Number	Description	Extent	Comment	Recommended Removal Method
Boiler Room	To the ceiling	Former Gasworks	Ground	AP000464-02/0001	Insulating Board	35.00 m <sup>2</sup>		Remove asbestos product that requires a licensed asbestos removal contractor as per CAR 2012
Boiler Room	To floor beneath area of damaged IB ceiling	Former Gasworks	Ground	AP000464-02/0002	Insulating Board Debris	10.00 m <sup>2</sup>		Remove asbestos product that requires a licensed asbestos removal contractor as per CAR 2012
Boiler Room	Seal to boiler door	Former Gasworks	Ground	AP000464-02/0003	Rope Seal	5.00 m Run		Remove compressed asbestos rope seals

## Asbestos Refurbishment/Demolition Survey Report

Report Reference AP000464-02

Room/ Location	Position	Building	Floor/ Level	Sample Number	Description	Extent	Comment	Recommended Removal Method
Boiler Room	Low level to wall internal and external	Former Gasworks	Ground	AP000464-02/0007	Bitumen Damp Proof Course	20.0 m Run		Remove asbestos containing bituminous products as per HSG 210-A21
Boiler Room	To pipework flanges	Former Gasworks	Ground	AP000464-02/0008	Gasket	10 Items		Remove compressed asbestos fibre (CAF) gasket as per HSG 210-A25
Boiler Room	To the floor and ledge	Former Gasworks	Ground	AP000464-02/0009	Gasket Debris	4.00 m <sup>2</sup>		Remove compressed asbestos fibre (CAF) gasket debris as per HSG 210-A25
Boiler Room	To the pipework flanges	Former Gasworks	Ground	AP000464-02/0010	Gaskets	10 Items		Remove compressed asbestos fibre (CAF) gasket as per HSG 210-A25
Boiler Room	To the floor and ledges	Former Gasworks	Ground	AP000464-02/0011	Gasket Debris	4.00 m <sup>2</sup>		Remove compressed asbestos fibre (CAF) gasket debris as per HSG 210-A25
Boiler Room	To the pipe flanges	Former Gasworks	External	AP000464-02/0016	Gaskets	5 Items		Remove compressed asbestos fibre (CAF) gasket as per HSG 210-A25
Gas Holder 2	To the large valves	Former Gasworks	External	AP000464-02/0017	Gasket	8 Items		Remove compressed asbestos fibre (CAF) gasket as per HSG 210-A25
Gas Holder 1	To the low level sump valve	Former Gasworks	External	AP000464-02/0019	Gaskets	6 Items		Remove compressed asbestos fibre (CAF) gasket as per HSG 210-A25
Gas Holder 1	To pipe valve end	Former Gasworks	External	AP000464-02/0021	Bitumen	Small Amounts		Remove asbestos containing bituminous products as per HSG 210-A21