

Appendix 2.1. Asbestos Refurbishment Survey Report

ASBESTOS REFURBISHMENT SURVEY REPORT

Of

Carlow WWTP

Mortarstown

Carlow

Co. Carlow

On behalf of

Irish Water

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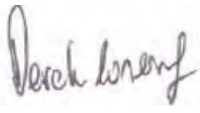
Directors: Deirdre Corry, Keith Foran **Company Reg no:** 354843



Project Number
24535

DOCUMENT CONTROL

Client	Irish Water
Project Title	24535 Carlow WWTP Asbestos Survey
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D01	Final	 Derek Conerney	Initial Release to Client	 Paul Foran	11 th July 2018

Contents

1. Executive summary
2. Scope of the project
3. General site and survey information
4. Conclusions and actions
5. Survey results

1 EXECUTIVE SUMMARY

OHSS carried out an asbestos survey to HSG264 requirements for the purposes of identifying asbestos containing materials in the premises(s) prior to the refurbishment of the area. It should be noted that this survey only includes areas within the scope of the survey and should not be read as an extensive assessment of all possible asbestos containing materials (ACMs) in the premises.

The findings of this survey are contained within the summary tables and risk assessment in the results section of this report.

Summary of Findings

Following the site survey and analysis of collected samples the following asbestos containing materials were identified in **Carlow (Mortarstown) Waste Water Treatment Plant**;

- Asbestos containing floor tiles and bitumen located within the administration office and laboratory in the control building
- Asbestos containing bitumen pads to underside of canteen sink unit in control building
- Asbestos containing lining to penstock gates throughout the inlet works
- Asbestos containing lining to penstock gates throughout the FDC Chambers #1 to #4
- Presumed asbestos containing lining to penstock gates throughout the outlet chamber area
- Asbestos containing mastic to expansion joints in Aeration Tanks #1 to #4
- Presumed asbestos containing mastic to all older concrete tanks, chambers, vessels throughout the site
- Presumed asbestos containing pipe work to the storm tank and outlet chamber area
- Presumed asbestos cement pipes throughout underground areas of the site

Recommendations

The identified asbestos containing materials are intact and in use. This report recommends that the asbestos containing materials are removed in advance of any refurbishment or demolition works. Asbestos containing materials should only be removed by a competent contractor.

Areas Not Accessible

Any area found to be inaccessible during the site survey is listed within the incomplete access section of this report. Areas not accessed are presumed asbestos containing.

Areas of particular concern where asbestos containing materials are likely to be encountered include;

- Chambers where penstock gates are in use
- Buried or hidden asbestos cement pipes
- Live services and equipment

The survey undertaken complies with the legal duty to identify the presence of asbestos containing materials and carryout a risk assessment in respect of these materials at the premises.

The risk assessment will form part of the overall safety management system for the contractor carrying out any asbestos works. The results of the risk assessment must be communicated to the employees and made available to them. This report may be used by the Project Supervisor for Design Process and the designers to highlight the presence of asbestos containing materials found in the buildings.

Where following the refurbishment work, asbestos containing materials remain in situ it may be necessary to undertake a management survey of the areas.

While every effort has been taken to ensure the accuracy of this report OHSS do not accept responsibility for any omissions or areas of the building not addressed in the report. This report is intended to assist in reducing the possibility of accidents and ill health by bringing to the client's attention identified asbestos containing materials. Within the constraints of time and resources every effort has been made to identify ACM's. It is not implied that all other hazards are under control at the time of inspections.

THIS REPORT SHOULD BE READ IN ITS ENTIRETY AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE APPROVAL OF OHSS AND THE CLIENT.

Questions arising from the survey report should be directed, in the first instance, to the author of this report, who will clarify any technical issues raised.

Further information on previous surveys should be sought from the client.

1.1.1 ABBREVIATIONS

Throughout the report the following terms and abbreviations may be used:

ACM	Asbestos containing material.
AND	Asbestos not detected.
MMMF	This describes any machine made mineral fibre, fibreglass, Rockwool, ceramic fibres and other such material.
MA	Material Assessment Score as defined in HSG264 relates to the friability of the product. It is used to indicate the level of risk posed by the product
AIB	Asbestos Insulating Board.
AC	Asbestos Cement
Chrysotile	Commonly known as white asbestos.
Amosite	Commonly known as brown asbestos.
Crocidolite	Commonly known as blue asbestos.
Amphibole	Generic name for all asbestos types, excluding Chrysotile.
BOHS	British Occupational Hygiene Society
INAB	Irish National Accreditation Board

2 SCOPE OF WORK

2.1 GENERAL

The scope of the survey included;

Refurbishment asbestos survey of all safely accessible and visible areas. No access to confined spaces, tanks, vessels, underground areas or live electrical equipment.

The purpose of the survey is to identify and risk assess asbestos containing materials (ACM's) in the premises or area where planned refurbishment works are to take place. The survey aims to provide sufficient information for designers and the project supervisor for design process to take account of identified asbestos risks. The design team must take account of known locations where ACM's are identified and plan to eliminate the risk or prevent exposure to asbestos during the construction phase. Asbestos is a particular risk within the definitions of "particular risk" in the Safety Health and Welfare at Work (Construction) Regulations 2013 and should be highlighted in the design risk assessments accompanying the Preliminary Safety and Health Plan.

The surveyor undertook as far as reasonably practicable to, record the location, extent and product type of any presumed or known ACMs. All areas identified in the survey were inspected and the information recorded on the accessibility, condition and surface treatment of any presumed or known ACMs. The asbestos type was identified either by collecting representative samples of suspect materials for laboratory identification, or by making a presumption based on the product type and its appearance or previous sampling of similar products..

2.2 BUILDING DETAILS AND CONSTRUCTION TYPE

Carlow WWTP comprises four buildings (control room, press building, compressor building and ESB building). There are three large circular tanks (storm and 2 x clarifier) and a large rectangular tank (aeration). Overall construction is of concrete, block work and brick. The plant was constructed in the early 1980's however some refurbishment and new build works have been completed in recent times.

3 GENERAL SITE AND SURVEY INFORMATION

Client Details: Irish Water

Client Address: Irish Water
24-26 Talbot St
Dublin 1

Site Address: Carlow Waste Water Treatment Plant
Mortarstown
Carlow
Co. Carlow

Commissioned By: Martin Ryan

Surveyor: Derek Conerney

Staff Consulted during the survey Site Caretaker

Date of Survey: 26th June 2018

Date of Report: 11th July 2018

Description of the Areas Surveyed: All safely accessible and visible areas

Excluded Areas: As per the clients requirements the following areas were not accessed;

Plant live and in operation, no access into live equipment, tanks, vessels, confined spaces or underground / hidden areas.

Survey Methodology:

Onsite inspection bulk sampling and risk assessment were conducted in accordance with OHSS documented in-house work instructions.

Analysis of asbestos fibres in bulk materials is carried out at the OHSS laboratory. OHSS is accredited by INAB and meet the requirements of International Standard BS EN ISO/IEC 17025 for the sampling and analysis of asbestos fibres in bulk materials.

The surveyor conducted a systematic inspection of the nominated areas. Where access for sampling purposes was not possible, a visual assessment has been made if possible. For similar/repetitive elements, a representative bulk sampling protocol has been adopted following visual examination and assessment.

Bulk Samples were obtained using fibre suppression techniques in order to minimise respirable fibre release. Each sample was double bagged, uniquely labelled on site and then returned to the laboratory for analysis using plane and polarised light microscopy and dispersion staining techniques as defined in UK HSE Guidelines HSG248 and the OHSS documented in-house work instructions.

The results of the survey together with the laboratory bulk sample analysis records are given in further sections to this report.

The Safety Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010 allows materials to be 'presumed' to contain asbestos. Therefore in the asbestos survey, materials can be presumed to contain asbestos.

There are two levels of 'presumption':

1. **Strongly presumed:** in this case the material looks as if it is an ACM, or that it might contain asbestos. This conclusion can be reached through visual inspection alone by an experienced, well-trained surveyor, familiar with the range of asbestos products. Examples of 'strong

presumption' are:

- where laboratory analysis has confirmed the presence of asbestos in a similar construction material;
- materials in which asbestos is known to have been commonly used in the manufactured product at the time of installation (eg corrugated cement roof and wall sheeting, cement gutters and drainpipes, cement water tanks, ceiling tiles, insulating boards);
- materials which have the appearance of asbestos but no sample has been taken, eg thermal insulation on a pipe where fibres are clearly visible
- where the laboratory has sampled the same material in a different location and subsequent laboratory analysis has found that it does not contain asbestos.

2. **Presumed:** is the 'default' situation where a material is **presumed** to contain asbestos because there is insufficient evidence (eg no analysis) to confirm that it is asbestos free, or where a surveyor decides that it is easier under the planned management arrangements to presume certain materials contain asbestos. Many non-asbestos materials will also be presumed to contain asbestos using this system.

There is a further default situation where materials must be **presumed** to contain asbestos. **The default applies to areas which cannot be accessed or inspected. In this situation any area not accessed or inspected must be presumed to contain asbestos, unless there is strong evidence that it does not.**

The risk assessment process (also known as risk algorithms) designed by HSE, allow asbestos containing materials to be ranked according to a Material Assessment algorithm and the HSE have related the scores obtained in the Materials

Assessment algorithms in HSG 264 to a number of risk categories that may be used to guide the employers as to the best course of action to take to mitigate the risk. These are further explained in our risk assessment sheets contained within this report.

These scores can then be ranked and so decisions can be taken as to what actions are required to control the risks from asbestos containing materials during refurbishment.

4 CONCLUSIONS AND ACTIONS

Where asbestos containing materials were identified in the survey recommendations are provided in the asbestos register and risk assessments. A further explanation of the terms used in the management of asbestos containing materials risks are given below.

Asbestos is a known human carcinogen (cancer causing agent) that was used extensively in Ireland up to 2000 when it was finally banned from use. Asbestos fibres may cause fatal lung disease when inhaled. These diseases are not sudden and may take many years to develop from the first exposures. **Asbestos containing materials constitute a particular risk within the meaning of the Safety Health and Welfare at Work (Construction) Regulations 2013 and should be addressed in the Preliminary Health and Safety Plan by the designers and the Project Supervisor Design Process.**

Asbestos is a fibrous material and has excellent insulating and fire resistant properties. Asbestos was seldom used as pure asbestos fibres but rather combined with other products to add strength and stability or fire resistance to them. Asbestos may be found in products from a few percent up to 90% depending on the type of material.

Asbestos is a hazard to humans but the risks posed by asbestos containing materials (ACM) will depend on the type of ACM found. In simple terms where asbestos products are flaky and would crumble under hand pressure quite easily they are termed friable. The more friable the ACM the more risk there is to the individual handling the material. This is reflected in the material assessment scores in the risk assessments

No person is permitted to work with asbestos containing materials unless they have received training and have taken all reasonable steps to prevent exposure to asbestos. The requirement for training is detailed in Regulation 17 of the Safety Health and Welfare at Work (Exposure to Asbestos) Regulations, 2006-2010

4.1 REFURBISHMENT OPTIONS

ACM are found in many industrial buildings, hospitals, schools and homes. These materials were installed before 2000 with the peak period for installation occurring from the 1970's to the late 1980's. ACM's installed some 20-30 years ago will vary in condition depending on the type of product and the use of that product. The Safety health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010 requires a managed approach to asbestos containing materials in workplaces. These regulations require employers to identify the presence of asbestos containing materials and to assess the risk posed to workers by these

ACM's based on the likely work activities and the potential for these work activities to disturb ACM's.

The outcome of these risk assessments are as follows;

1. Manage in place & monitor periodically

Where ACM's are in good condition and pose minimal risk to building occupants or maintenance personnel and are not likely to be disturbed during refurbishment work it is recommended that they remain in situ and are monitored on a regular basis as to their condition. The frequency of monitoring is usually every 6 months but this should be determined by the asbestos management plan.

2. Encapsulate and manage in place

ACM's that are damaged but repairable can be repaired by a competent trained contractor and then managed in place. Where the repairs involve containing the ACM's behind a protective material (Encapsulation) it is important that the original ACM and the new surfaces are labelled as to the presence of ACM's. Following encapsulation of the asbestos containing materials a site clearance for re-occupation certificate must be obtained from a competent independent analyst prior to re-occupancy of the area in accordance with **Regulation 15 (10) of the Safety Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010**.

3. Environmental clean

Where there is debris from the installed ACM's in the surrounding area it may be recommended that this material is removed by environmentally cleaning the area around the materials. Following removal of the asbestos containing materials a site clearance for re-occupation certificate must be obtained from a competent independent analyst prior to re-occupancy of the area in accordance with **Regulation 15 (10) of the Safety Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010**. The materials can then be managed in place as above.

4. Remove

Where ACM's are found to have reached the end of their serviceable life and the presence of the material in the work area may lead to increased human exposure it may be necessary to remove the ACMs. ACM removal will form part of a construction project and will require careful coordination to be carried out safely. Following removal of the asbestos containing materials a site clearance for re-occupation certificate must be obtained from a competent independent analyst prior to re-occupancy of the area in

accordance with **Regulation 15 (10) of the Safety Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010.**

5. Restrict access

Where ACM's are found to have reached the end of their serviceable life and the presence of the materials in the work area may lead to increased human exposure it may be necessary to restrict access to areas where the ACMs are located pending removal. Where access is restricted it is advisable to have a permit to work system in place to control all work activities in the area. Removal or encapsulation will be required prior to the area being returned to normal occupancy.

4.2 MATERIALS ASSESSMENT SCORING

4.2.1 ASBESTOS RISK ASSESSMENT

Employers are required under the Safety Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010 to identify if asbestos containing materials are present in the workplace and to perform a risk assessment. The risk posed by asbestos is determined by the current and potential level of employee exposure to asbestos fibres. The following parameters are used in developing a risk assessment for asbestos containing materials;

4.2.2 ASBESTOS TYPE

There are six regulated types of asbestos. The common names associated with some of the asbestos types are shown in brackets below;

- Crocidolite (Blue Asbestos)
- Amosite (Brown Asbestos)
- Actinolite
- Anthophyllite
- Tremolite
- Chrysotile (White Asbestos)

International studies have identified that they have different potential to cause harm. Crocidolite is the most dangerous and Chrysotile the least.

4.2.3 SURFACE TREATMENT

Surface treatment is a term used to describe how the fibres in the material are protected from release. The safest materials are composites such as cement and plastic where the fibres are contained within a material within a strong matrix. At the other end of the scale are materials

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that damage easily and have no protective coating such as sprayed asbestos and boiler lagging.

4.2.4 FRIABILITY

Products that damage easily such as sprayed asbestos are clearly more likely to release fibres than strong materials such as cement. This 'likelihood of fibre release' or crumbliness is commonly referred to as friability. Materials with high friability (such as insulation) are higher risk than those with low friability (such as vinyl floor tiles).

4.2.5 CONDITION

Products which are damaged are more likely to release fibres than those in good condition and are ranked according to the extent of damage observed.

4.3 CALCULATING RISK ASSESSMENTS

The HSE developed a risk assessment process within HSG264 which takes these four factors into account and attributes values to each of the factors allowing you to calculate a material risk assessment.

4.3.1 MATERIAL ASSESSMENT ALGORITHM

The material assessment algorithm is commonly used by most surveying organisations to give an indication of how dangerous a material is. Each of the four risk factors (friability, condition, surface treatment and asbestos type) are attributed a score of between 0 and 3 (see below). These scores are accumulated to give a risk score of between 0 and 12 (where 12 is the highest risk).

When using this algorithm it is commonly accepted that materials can be divided into the following risk groups;

Material Risk Rating	Description
10-12	High risk
7-9	Medium risk
5-6	Low risk
2-4	Very low risk

These are colour coded within our risk assessment as outlined above.

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4.3.2 HSG264 MATERIAL ASSESSMENT TABLE

Sample Variable	Score	Example of Score
Product type (or debris from product)	1	Asbestos reinforced composites (Plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc)
	2	Asbestos insulation board, mill boards, other low density boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt
	3	Thermal insulation (pipe and boiler lagging), Sprayed Asbestos, loose asbestos, asbestos mattresses and packing
Extent of damage / deterioration	0	Good condition: no visible damage
	1	Low Damage: a few scratches or surface marks; broken edges on boards, tiles etc
	2	Medium damage; significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibres
	3	High damage or delamination of materials, sprays or insulation. Visible asbestos debris
Surface Treatment	0	Composite materials containing asbestos: reinforced plastics, resins, vinyl tiles
	1	Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), asbestos cement sheets
	2	Unsealed AIB, or encapsulated lagging and sprays
	3	Unsealed lagging and sprays
Asbestos Type	1	Chrysotile
	2	Amphibole asbestos excluding crocidolite
	3	Crocidolite

4.4 REFERENCES

Safety Health and Welfare at Work Act 2005

Safety Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010

Safety Health and Welfare at Work (Construction) Regulations 2013

HSG264 The Survey Guide, HSE Books

HSG248 The Analysts Guide, HSE Books

HSG247 The Contractors Guide, HSE Books

5 SURVEY RESULTS



Survey Results

Unit 2BeaT Centre,
Stephenstown Industrial Estate,
Balbriggan, Co. Dublin
Tel: (01) 6905907
Fax: (01) 8020439
Email: info@ohss.ie
Website: www.ohss.ie





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Irish Water
 Carlow WWTP
 26/6/2018
 26/6/2019
 Martin Ryan

Type
Report Number
Surveyor
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Method

Refurbishment
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 Derek Conerney
 26/6/2019
 WI-02 & WI-03



ACM REGISTER

The following areas were found to contain ACM's

Risk Assessment	297528	Location	RA:297528 Aeration Basins, Clarifiers, Tanks Construction Expansion Joints in Concrete							
Notes:	ALL expansion joints with mastic / putty should be presumed asbestos containing									
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Putty	--N\A--	--N\A--	Low Damage	Composite materials containing asbestos	Chrysotile	as sample DKB20180626007	Strongly Presumed	3	3	Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Risk Assessment	295177	Location	RA:295177 Outlet Chamber Area Construction Pipe Work							
Notes:	Cement pipe innputlet chamber, no access to sample									
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Asbestos Cement	--N\A--	--N\A--	Low Damage	Composite materials containing asbestos	Chrysotile		Presumed	3	3	Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Risk Assessment		295178	Location	RA:295178 Outlet Chamber Area Construction Penstock Gates						
Notes:		Cement lining to gates as sampled								
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Asbestos Cement	--N\A--	--N\A--	Low Damage	Composite materials containing asbestos	Chrysotile	as samples	Strongly presumed	3	3	Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Risk Assessment		295179	Location	RA:295179 Outlet Chamber Area Construction Pipe Work						
Notes:		Cement pipe in chamber								
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Asbestos Cement	--N\A--	--N\A--	Low Damage	Composite materials containing asbestos	Chrysotile		Presumed	3	3	Priority 1 : Investigate prior to disturbing



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ACM REGISTER

The following areas were found to contain ACM's

Risk Assessment		295180	Location	RA:295180 All Underground Areas Construction Pipe Work						
Notes:		Cement pipes should be presumed present throughout plant								
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Asbestos Cement	--N\A--	--N\A--	Low Damage	Composite materials containing asbestos	Chrysotile		Presumed	3	3	Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Risk Assessment		Location		RA:295144 FDC No. 4 Construction Penstock Gates						
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Asbestos Cement	--N\A--	--N\A--	Low Damage	Composite materials containing asbestos	Chrysotile	as samples	Strongly presumed	3	3	Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Risk Assessment		Location		RA:295145 FDC No. 4 Construction Stored Penstock Gates						
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Asbestos Cement	--N\A--	--N\A--	Low Damage	Composite materials containing asbestos	Chrysotile	DKB20180626006	Sample Taken	3	3	Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Risk Assessment	295146	Location	RA:295146 Aeration Basin No. 1, 2, 3 and 4 Construction Expansion Joints in Concrete							
Notes:	present throughout plant areas									
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Putty	--N\A--	--N\A--	Low Damage	Composite materials containing asbestos	Chrysotile	DKB20180626007	Sample Taken	3	3	Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.



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ACM REGISTER

The following areas were found to contain ACM's

Risk Assessment	295147	Location	RA:295147 FDC No. 3 Construction Coplastix Panels							
Notes:	as sample dkb20180626006									
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Asbestos Cement	--N\A--	--N\A--	Low Damage	Composite materials containing asbestos	Chrysotile	as samples	Strongly presumed	3	3	Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Risk Assessment	295148	Location	RA:295148 FDC No. 3 Construction Coplastix Panels							
Notes:	as sample dkb20180626006 presumed in tank									
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Asbestos Cement	--N\A--	--N\A--	Low Damage	Composite materials containing asbestos	Chrysotile	as samples	Strongly presumed	3	3	Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Risk Assessment	295149	Location	RA:295149 FDC No. 1 Construction Coplastix Panels							
Notes:	as sample dkb20180626006									
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Asbestos Cement	--N\A--	--N\A--	Low Damage	Composite materials containing asbestos	Chrysotile	as samples	Strongly presumed	3	3	Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Risk Assessment	295107	Location	RA:295107 Administration Building Control Room Office and Laboratory Floor							
Notes:	some minor damage in laboratory									
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Vinyl Floor Tiles & Bitumen	--N\A--	--N\A--	Low Damage	Composite Materials Containing Asbestos	Chrysotile	DKB20180626001	Sample Taken	3	3	Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.



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ACM REGISTER

The following areas were found to contain ACM's

Risk Assessment		295133		Location		RA:295133 Inlet Works Area Construction Penstock Gates (approx 7 no)				
Notes:		Cement lining panels to Penstock gates								
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Asbestos Cement	--N\A--	--N\A--	Low Damage	Composite materials containing asbestos	Chrysotile	DKB20180626005	Sample Taken	3	3	Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Risk Assessment		295109		Location		RA:295109 Administration Building Canteen Sink				
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Asbestos Bitumen Products	--N\A--	--N\A--	Low Damage	Composite Materials Containing Asbestos	Chrysotile	DKB20180626003	Sample Taken	3	3	Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Risk Assessment		295160		Location		RA:295160 Storm Tank Construction Outlet Chamber				
Notes:		Large diameter cement pipe visible, no access to sample								
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
Asbestos Cement	--N\A--	--N\A--	Good condition	Composite materials containing asbestos	Chrysotile		Presumed	2	2	Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Aeration Basins, Clarifiers, Tanks

Room/Section : Construction

Location : Expansion Joints in Concrete

Description : Mastic in Expansion Joints

Sample No. : as sample DKB20180626007

Confirmation : Strongly Presumed

Access : Full Access

Normal Use : External Plant Area

Material Risk Assessment 297528

	Score	Risk Rating
Asbestos Type : Chrysotile	1	High Risk
Type Of Product : Putty	1	Medium Risk
Condition : Low Damage	1	Low Risk
Surface Treatment : Composite materials containing asbestos	0	Very Low Risk
Material Assessment Score :	3	Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Remove ACM's Prior to Refurbishment or Demolition. ALL expansion joints with mastic / putty should be presumed asbestos containing

Client and Survey Details

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Site :Carlow WWTP

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Report No. : 24535

Location Details

Building/Area : Outlet Chamber Area

Room/Section : Construction

Location : Pipe Work

Description : Cement Pipes

Sample No. :

Confirmation : Presumed

Access : Partial Access (Notes)

Normal Use : External

Material Risk Assessment 295177

	Score	Risk Rating
Asbestos Type : Chrysotile	1	High Risk
Type Of Product : Asbestos Cement	1	Medium Risk
Condition : Low Damage	1	Low Risk
Surface Treatment : Composite materials containing asbestos	0	Very Low Risk
Material Assessment Score :	3	Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Remove ACM's Prior to Refurbishment or Demolition. Cement pipe inputlet chamber, no access to sample

Client and Survey Details

Client :Irish Water

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Location Details

Building/Area : Outlet Chamber Area

Room/Section : Construction

Location : Penstock Gates

Description : Cement Lining

Sample No. : as samples DKB20180626005/006

Confirmation : Strongly presumed

Access : Full Access

Normal Use : External

Material Risk Assessment 295178

Asbestos Type : Chrysotile
Type Of Product : Asbestos Cement
Condition : Low Damage
Surface Treatment : Composite materials containing asbestos

Score

Risk Rating

1

High Risk

1

Medium Risk

1

Low Risk

0

Very Low Risk

Material Assessment Score :

3

Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Remove ACM's Prior to Refurbishment or Demolition. Cement lining to gates as sampled

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Outlet Chamber Area

Room/Section : Construction

Location : Pipe Work

Description : Cement Pipe

Sample No. :

Confirmation : Presumed

Access : Full Access

Normal Use : External

Material Risk Assessment 295179

	Score	Risk Rating
Asbestos Type : Chrysotile	1	High Risk
Type Of Product : Asbestos Cement	1	Medium Risk
Condition : Low Damage	1	Low Risk
Surface Treatment : Composite materials containing asbestos	0	Very Low Risk
Material Assessment Score :	3	Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Investigate prior to disturbing Cement pipe in chamber

Client and Survey Details

Client :Irish Water
Site :Carlow WWTP
Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018
Review Survey : 26 Jun 2019
Surveyor : Derek Conerney
Method : WI02 & WI03
Report No. : 24535

Location Details

Building/Area : All Underground Areas
Room/Section : Construction
Location : Pipe Work
Description : Cement Pipes

Sample No. :
Confirmation : Presumed
Access : Partial Access (Notes)
Normal Use : External

Material Risk Assessment 295180

Asbestos Type : Chrysotile
Type Of Product : Asbestos Cement
Condition : Low Damage
Surface Treatment : Composite materials containing asbestos

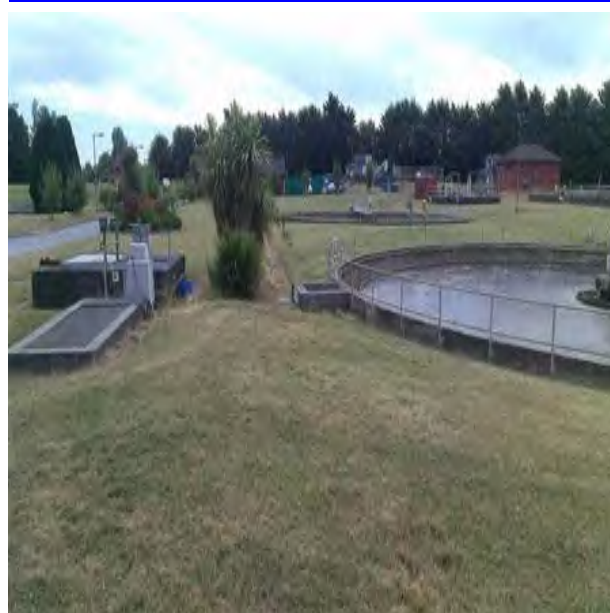
Score	Risk Rating
1	High Risk
1	Medium Risk
1	Low Risk
0	Very Low Risk
Material Assessment Score : 3	Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Remove ACM's Prior to Refurbishment or Demolition. Cement pipes should be presumed present throughout plant

Client and Survey Details

Client :Irish Water
Site :Carlow WWTP
Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018
Review Survey : 26 Jun 2019
Surveyor : Derek Conerney
Method : WI02 & WI03
Report No. : 24535

Location Details

Building/Area : FDC No. 4
Room/Section : Construction
Location : Penstock Gates
Description : Cement Lining to Gates

Sample No. : as samples DKB20180626005/006
Confirmation : Strongly presumed
Access : Full Access
Normal Use : External Plant Area

Material Risk Assessment 295144

Asbestos Type : Chrysotile
Type Of Product : Asbestos Cement
Condition : Low Damage
Surface Treatment : Composite materials containing asbestos

Score	Risk Rating
1	High Risk
1	Medium Risk
1	Low Risk
0	Very Low Risk
Material Assessment Score : 3	Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown

Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : FDC No. 4

Room/Section : Construction

Location : Stored Penstock Gates

Description : Cement Lining to Gates

Sample No. : DKB20180626006

Confirmation : Sample Taken

Access : Full Access

Normal Use : External Plant Area

Material Risk Assessment 295145

	Score	Risk Rating
Asbestos Type : Chrysotile	1	High Risk
Type Of Product : Asbestos Cement	1	Medium Risk
Condition : Low Damage	1	Low Risk
Surface Treatment : Composite materials containing asbestos	0	Very Low Risk
Material Assessment Score :	3	Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Aeration Basin No. 1, 2, 3 and 4

Room/Section : Construction

Location : Expansion Joints in Concrete

Description : Mastic

Sample No. : DKB20180626007

Confirmation : Sample Taken

Access : Full Access

Normal Use : External Plant Area

Material Risk Assessment 295146

	Score	Risk Rating
Asbestos Type : Chrysotile	1	High Risk
Type Of Product : Putty	1	Medium Risk
Condition : Low Damage	1	Low Risk
Surface Treatment : Composite materials containing asbestos	0	Very Low Risk
Material Assessment Score :	3	Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Remove ACM's Prior to Refurbishment or Demolition. present throughout plant areas

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown

Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : FDC No. 3

Room/Section : Construction

Location : Coplastix Panels

Description : Cement

Sample No. : as samples DKB20180626005/006

Confirmation : Strongly presumed

Access : Full Access

Normal Use : External Plant Area

Material Risk Assessment 295147

	Score	Risk Rating
Asbestos Type : Chrysotile	1	High Risk
Type Of Product : Asbestos Cement	1	Medium Risk
Condition : Low Damage	1	Low Risk
Surface Treatment : Composite materials containing asbestos	0	Very Low Risk
Material Assessment Score :	3	Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Remove ACM's Prior to Refurbishment or Demolition. as sample dkb20180626006

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown

Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : FDC No. 3

Room/Section : Construction

Location : Coplastix Panels

Description : Cement

Sample No. : as samples DKB20180626005/006

Confirmation : Strongly presumed

Access : Full Access

Normal Use : External Plant Area

Material Risk Assessment 295148

	Score	Risk Rating
Asbestos Type : Chrysotile	1	High Risk
Type Of Product : Asbestos Cement	1	Medium Risk
Condition : Low Damage	1	Low Risk
Surface Treatment : Composite materials containing asbestos	0	Very Low Risk
Material Assessment Score :	3	Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Remove ACM's Prior to Refurbishment or Demolition. as sample dkb20180626006 presumed in tank

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : FDC No. 1

Room/Section : Construction

Location : Coplastix Panels

Description : Cement

Sample No. : as samples DKB20180626005/006

Confirmation : Strongly presumed

Access : Full Access

Normal Use : External Plant Area

Material Risk Assessment 295149

	Score	Risk Rating
Asbestos Type : Chrysotile	1	High Risk
Type Of Product : Asbestos Cement	1	Medium Risk
Condition : Low Damage	1	Low Risk
Surface Treatment : Composite materials containing asbestos	0	Very Low Risk
Material Assessment Score :	3	Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Remove ACM's Prior to Refurbishment or Demolition. as sample dkb20180626006

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Administration Building

Room/Section : Control Room Office and Laborato

Location : Floor

Description : Tiles and Bitumen

Sample No. : DKB20180626001

Confirmation : Sample Taken

Access : Full Access

Normal Use : Office type use

Material Risk Assessment 295107

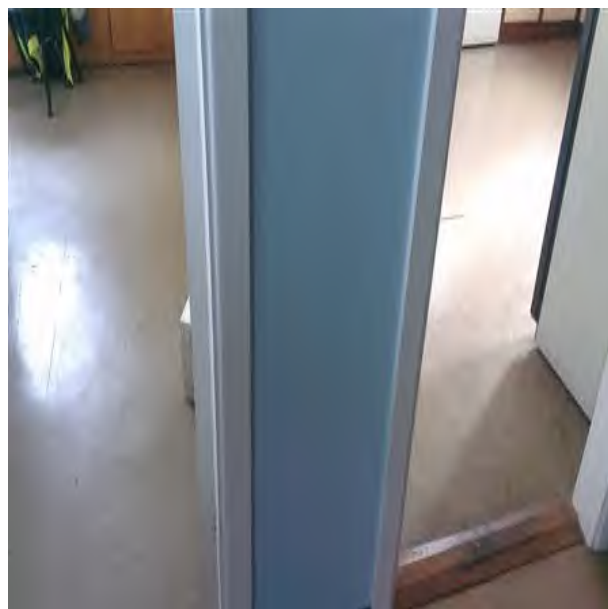
	Score	Risk Rating
Asbestos Type : Chrysotile	1	High Risk
Type Of Product : Vinyl Floor Tiles & Bitumen	1	Medium Risk
Condition : Low Damage	1	Low Risk
Surface Treatment : Composite Materials Containing Asbestos	0	Very Low Risk
Material Assessment Score :	3	Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Remove ACM's Prior to Refurbishment or Demolition. some minor damage in laboratory

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Inlet Works Area

Room/Section : Construction

Location : Penstock Gates (approx 7 no)

Description : Cement Lining Panels

Sample No. : DKB20180626005

Confirmation : Sample Taken

Access : Full Access

Normal Use : External Plant Area

Material Risk Assessment 295133

	Score	Risk Rating
Asbestos Type : Chrysotile	1	High Risk
Type Of Product : Asbestos Cement	1	Medium Risk
Condition : Low Damage	1	Low Risk
Surface Treatment : Composite materials containing asbestos	0	Very Low Risk
Material Assessment Score :	3	Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Remove ACM's Prior to Refurbishment or Demolition. Cement lining panels to Penstock gates

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown

Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Administration Building

Room/Section : Canteen

Location : Sink

Description : Bitumen Pad

Sample No. : DKB20180626003

Confirmation : Sample Taken

Access : Full Access

Normal Use : Office type use

Material Risk Assessment 295109

	Score	Risk Rating
Asbestos Type : Chrysotile	1	High Risk
Type Of Product : Asbestos Bitumen Products	1	Medium Risk
Condition : Low Damage	1	Low Risk
Surface Treatment : Composite Materials Containing Asbestos	0	Very Low Risk
Material Assessment Score :	3	Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Remove ACM's Prior to Refurbishment or Demolition.

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Storm Tank

Room/Section : Construction

Location : Outlet Chamber

Description : Cement Pipe

Sample No. :

Confirmation : Presumed

Access : Partial Access (Notes)

Normal Use : External Plant Area

Material Risk Assessment 295160

	Score	Risk Rating
Asbestos Type : Chrysotile	1	High Risk
Type Of Product : Asbestos Cement	1	Medium Risk
Condition : Good condition	0	Low Risk
Surface Treatment : Composite materials containing asbestos	0	Very Low Risk
Material Assessment Score :	2	Very Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Remove ACM's Prior to Refurbishment or Demolition. Large diameter cement pipe visible, no access to sample



Customer Site
Survey Date
Valid Until
Commissioned by

Irish Water
 Carlow WWTP
 26/6/2018
 26/6/2019
 Martin Ryan

Type
Report Number
Surveyor
Review Date
Method

Refurbishment
 24535
 Derek Conerney
 26/6/2019
 WI-02 & WI-03



INCOMPLETE ACCESS REGISTER

The following areas could not be accessed and therefore in accordance with HSG264 should be presumed to contain ACM's.

Risk Assessment	295098	Location	RA:295098 Administration Building Workshop Old Style Electrical Storage Heater							
Notes:	old style									
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
--N\A--	--N\A--	--N\A--	--N\A--	--N\A--	Presumed ACM Present		--N\A--	6	6	Priority 1 : Investigate prior to disturbing

Risk Assessment	295106	Location	RA:295106 Administration Building Control Room Electrical Equipment and Storage Heater							
Notes:	live equipment									
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
--N\A--	--N\A--	--N\A--	--N\A--	--N\A--	Presumed ACM Present		--N\A--	6	6	Priority 1 : Investigate prior to disturbing

Risk Assessment	295121	Location	RA:295121 ESB Substation Internal Areas Construction							
Notes:	ESB controlled									
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
--N\A--	--N\A--	--N\A--	--N\A--	--N\A--	Presumed ACM Present		--N\A--	6	6	Priority 1 : Investigate prior to disturbing

Risk Assessment	295143	Location	RA:295143 Aeration Basin No. 1, 2 and 3 Construction Outlet Weir Gates							
Notes:	Possibly acm lined as similar to others identified.									
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
--N\A--	--N\A--	--N\A--	--N\A--	--N\A--	Presumed ACM Present		--N\A--	6	6	Priority 1 : Investigate prior to disturbing



Customer
Site
Survey Date
Valid Until
Commissioned by

Irish Water
Carlow WWTP
26/6/2018
26/6/2019
Martin Ryan

Type
Report Number
Surveyor
Review Date
Method

Refurbishment
24535
Derek Conerney
26/6/2019
WI-02 & WI-03



INCOMPLETE ACCESS REGISTER

The following areas could not be accessed and therefore in accordance with HSG264 should be presumed to contain ACM's.

Risk Assessment		295128	Location	RA:295128 Air Blower Building Internal Areas Attic						
Notes:		no access due to location of hatch over equipment								
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
--N\A--	--N\A--	--N\A--	--N\A--	--N\A--	Presumed ACM Present		--N\A--	6	6	Priority 1 : Investigate prior to disturbing

Risk Assessment	295153	Location	RA:295153 Claifier No. 1 Construction Outlet Area							
Notes:	possible acm to gates									
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
--N\A--	--N\A--	--N\A--	--N\A--	--N\A--	Presumed ACM Present		--N\A--	6	6	Priority 1 : Investigate prior to disturbing

Risk Assessment		Location								
295157		RA:295157 Clarifier No. 2 Construction Inlet and Outlet								
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
--N\A--	--N\A--	--N\A--	--N\A--	--N\A--	Presumed ACM Present		--N\A--	6	6	Priority 1 : Investigate prior to disturbing

Risk Assessment		Location								
295166		RA:295166 Sludge Dewatering Internal Areas Electrical Equipment								
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
--N\A--	--N\A--	--N\A--	--N\A--	--N\A--	Presumed ACM Present		--N\A--	6	6	Priority 1 : Investigate prior to disturbing



Customer Site
Survey Date
Valid Until
Commissioned by

Irish Water
 Carlow WWTP
 26/6/2018
 26/6/2019
 Martin Ryan

Type
Report Number
Surveyor
Review Date
Method

Refurbishment
 24535
 Derek Conerney
 26/6/2019
 WI-02 & WI-03



INCOMPLETE ACCESS REGISTER

The following areas could not be accessed and therefore in accordance with HSG264 should be presumed to contain ACM's.

Risk Assessment		295167		Location		RA:295167 Sludge Dewatering Internal Areas - Office and Toilet Electrical Heater				
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
--N\A--	--N\A--	--N\A--	--N\A--	--N\A--	Presumed ACM Present		--N\A--	6	6	Priority 1 : Investigate prior to disturbing

Risk Assessment	295173	Location	RA:295173 Sludge Dewatering External Areas Roof							
Notes:	no access onto roof									
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
--N\A--	--N\A--	--N\A--	--N\A--	--N\A--	Presumed ACM Present		--N\A--	6	6	Priority 1 : Investigate prior to disturbing

Risk Assessment		295181	Location		RA:295181 All Underground Areas Construction Hidden and Underground Areas					
Notes:		No access into underground areas, vessels, tanks, chambers or live equipmen								
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
--N\A--	--N\A--	--N\A--	--N\A--	--N\A--	Presumed ACM Present		--N\A--	6	6	Priority 1 : Investigate prior to disturbing

Risk Assessment	295105	Location	RA:295105 Administration Building Control Room Electrical Equipment and Storage Heater							
Notes:	live equipment									
Type of Product	Quantity	Accessibility	Condition	Surface Treatment	Asbestos Type	Sample No.	Confirmation	MA	PA	Action
--N\A--	--N\A--	--N\A--	--N\A--	--N\A--	No Asbestos Found		--N\A--	0	0	--N\A--

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown

Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Administration Building

Room/Section : Workshop

Location : Old Style Electrical Storage Heate

Description :

Sample No. :

Confirmation : --N\A--

Access : No Access

Normal Use : Office type use

Material Risk Assessment 295098

Asbestos Type : Presumed ACM Present

Type Of Product : --N\A--

Condition : --N\A--

Surface Treatment : --N\A--

Score

Risk Rating

6

High Risk

0

Medium Risk

0

Low Risk

0

Very Low Risk

Material Assessment Score :

6

Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Investigate prior to disturbing old style

Client and Survey Details

Client :Irish Water
Site :Carlow WWTP
Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018
Review Survey : 26 Jun 2019
Surveyor : Derek Conerney
Method : WI02 & WI03
Report No. : 24535

Location Details

Building/Area : Administration Building
Room/Section : Control Room
Location : Electrical Equipment and Storage
Description :

Sample No. :
Confirmation : --N\A--
Access : No Access
Normal Use : Office type use

Material Risk Assessment 295106

Asbestos Type : Presumed ACM Present
Type Of Product : --N\A--
Condition : --N\A--
Surface Treatment : --N\A--

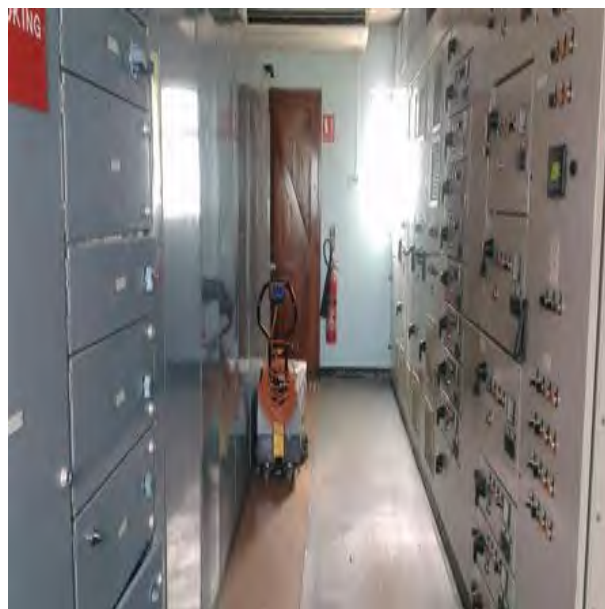
Score	Risk Rating
6	High Risk
0	Medium Risk
0	Low Risk
0	Very Low Risk
Material Assessment Score : 6	Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Investigate prior to disturbing live equipment

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : ESB Substation

Room/Section : Internal Areas

Location : Construction

Description :

Sample No. :

Confirmation : --N\A--

Access : No Access

Normal Use : External

Material Risk Assessment 295121

Asbestos Type : Presumed ACM Present

Type Of Product : --N\A--

Condition : --N\A--

Surface Treatment : --N\A--

Score

Risk Rating

6

High Risk

0

Medium Risk

0

Low Risk

0

Very Low Risk

Material Assessment Score :

6

Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Investigate prior to disturbing ESB controlled

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Aeration Basin No. 1, 2 and 3

Room/Section : Construction

Location : Outlet Weir Gates

Description :

Sample No. :

Confirmation : --N\A--

Access : No Access

Normal Use : External Plant Area

Material Risk Assessment 295143

Asbestos Type : Presumed ACM Present

Type Of Product : --N\A--

Condition : --N\A--

Surface Treatment : --N\A--

Score

Risk Rating

6

High Risk

0

Medium Risk

0

Low Risk

0

Very Low Risk

Material Assessment Score :

6

Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Investigate prior to disturbing Possibly acm lined as similar to others identified.

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Air Blower Building

Room/Section : Internal Areas

Location : Attic

Description :

Sample No. :

Confirmation : --N\A--

Access : No Access

Normal Use : Plantroom Area

Material Risk Assessment 295128

Asbestos Type : Presumed ACM Present

Type Of Product : --N\A--

Condition : --N\A--

Surface Treatment : --N\A--

Score

Risk Rating

6

High Risk

0

Medium Risk

0

Low Risk

0

Very Low Risk

Material Assessment Score :

6

Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Investigate prior to disturbing no access due to location of hatch over equipment

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Claifier No. 1

Room/Section : Construction

Location : Outlet Area

Description :

Sample No. :

Confirmation : --N\A--

Access : No Access

Normal Use : External Plant Area

Material Risk Assessment 295153

Asbestos Type : Presumed ACM Present

Type Of Product : --N\A--

Condition : --N\A--

Surface Treatment : --N\A--

Score

Risk Rating

6

High Risk

0

Medium Risk

0

Low Risk

0

Very Low Risk

Material Assessment Score :

6

Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Investigate prior to disturbing possible acm to gates

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Clarifier No. 2

Room/Section : Construction

Location : Inlet and Outlet

Description :

Sample No. :

Confirmation : --N\A--

Access : No Access

Normal Use : External Plant Area

Material Risk Assessment 295157

Asbestos Type : Presumed ACM Present

Type Of Product : --N\A--

Condition : --N\A--

Surface Treatment : --N\A--

Score

Risk Rating

6

High Risk

0

Medium Risk

0

Low Risk

0

Very Low Risk

Material Assessment Score :

6

Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Investigate prior to disturbing

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Sludge Dewatering

Room/Section : Internal Areas

Location : Electrical Equipment

Description :

Sample No. :

Confirmation : --N\A--

Access : No Access

Normal Use : Plant Area

Material Risk Assessment 295166

Asbestos Type : Presumed ACM Present

Type Of Product : --N\A--

Condition : --N\A--

Surface Treatment : --N\A--

Score

Risk Rating

6

High Risk

0

Medium Risk

0

Low Risk

0

Very Low Risk

Material Assessment Score :

6

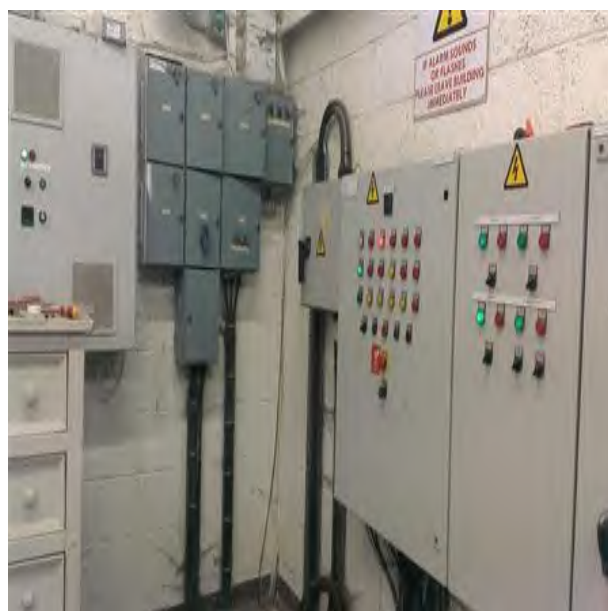
Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Investigate prior to disturbing

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Sludge Dewatering

Room/Section : Internal Areas - Office and Toilet

Location : Electrical Heater

Description :

Sample No. :

Confirmation : --N\A--

Access : No Access

Normal Use : Plant Area

Material Risk Assessment 295167

Asbestos Type : Presumed ACM Present

Type Of Product : --N\A--

Condition : --N\A--

Surface Treatment : --N\A--

Score

Risk Rating

6

High Risk

0

Medium Risk

0

Low Risk

0

Very Low Risk

Material Assessment Score :

6

Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Investigate prior to disturbing

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Sludge Dewatering

Room/Section : External Areas

Location : Roof

Description : No access

Sample No. :

Confirmation : --N\A--

Access : No Access

Normal Use : External

Material Risk Assessment 295173

Asbestos Type : Presumed ACM Present

Type Of Product : --N\A--

Condition : --N\A--

Surface Treatment : --N\A--

Score

Risk Rating

6

High Risk

0

Medium Risk

0

Low Risk

0

Very Low Risk

Material Assessment Score :

6

Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Investigate prior to disturbing no access onto roof

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : All Underground Areas

Room/Section : Construction

Location : Hidden and Underground Areas

Description :

Sample No. :

Confirmation : --N\A--

Access : No Access

Normal Use : External

Material Risk Assessment 295181

Asbestos Type : Presumed ACM Present

Type Of Product : --N\A--

Condition : --N\A--

Surface Treatment : --N\A--

Score

Risk Rating

6

High Risk

0

Medium Risk

0

Low Risk

0

Very Low Risk

Material Assessment Score :

6

Low Risk

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

Priority 1 : Investigate prior to disturbing No access into underground areas, vessels, tanks, chambers or live equipment

Client and Survey Details

Client :Irish Water

Site :Carlow WWTP

Address :Mortarstown
Carlow

Date of Survey : 26 Jun 2018

Review Survey : 26 Jun 2019

Surveyor : Derek Conerney

Method : WI02 & WI03

Report No. : 24535

Location Details

Building/Area : Administration Building

Room/Section : Control Room

Location : Electrical Equipment and Storage

Description :

Sample No. :

Confirmation : --N\A--

Access : No Access

Normal Use : Office type use

Material Risk Assessment 295105

Asbestos Type : No Asbestos Found

Type Of Product : --N\A--

Condition : --N\A--

Surface Treatment : --N\A--

Score

Risk Rating

0

High Risk

0

Medium Risk

0

Low Risk

0

Very Low Risk

Material Assessment Score : 0

Removal/Encapsulation Estimate

To be completed by the estimating contractor

	Costs	Notes
Labour		
Equipment		
Disposal		
Analytical		
Totals		

Photograph



Recommendations and Notes

--N\A-- live equipment



Customer Site
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Valid Until
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24535
Derek Conerney
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AREAS INSPECTED

Area(s) inspected during the survey where no ACM's were identified.

Risk Assessment	295161	Location	RA:295161 Sludge Dewatering Internal Areas Roof
Risk Assessment	295162	Location	RA:295162 Sludge Dewatering Internal Areas Floor and Walls
Notes:	Ceramic tiles, blockwork walls, metal and timber doors,		
Risk Assessment	295163	Location	RA:295163 Sludge Dewatering Internal Areas Floor and Walls
Notes:	Ceramic tiles, blockwork walls, metal and timber doors,		
Risk Assessment	295164	Location	RA:295164 Sludge Dewatering Internal Areas Plant and Machinery
Notes:	Rubber gaskets visible to flanges		
Risk Assessment	295165	Location	RA:295165 Sludge Dewatering Internal Areas Plant and Machinery
Notes:	Rubber gaskets visible to flanges		
Risk Assessment	295168	Location	RA:295168 Sludge Dewatering Internal Areas - Office and Toilet Floor, walls, ceiling
Notes:	ceramic tiles, solid walls, plastered ceiling		
Risk Assessment	295169	Location	RA:295169 Sludge Dewatering Internal Areas - Office and Toilet Floor, walls, ceiling
Notes:	ceramic tiles, solid walls, plastered ceiling		
Risk Assessment	295170	Location	RA:295170 Sludge Dewatering External Areas Walls and Roof
Notes:	Brick walls, aluminum windows		
Risk Assessment	295171	Location	RA:295171 Sludge Dewatering External Areas Walls and Roof
Risk Assessment	295172	Location	RA:295172 Sludge Dewatering External Areas Walls and Roof
Risk Assessment	295174	Location	RA:295174 PFT 1 and 2 External Areas Construction
Notes:	Concrete tanks, metal pipes, rubber gaskets		
Risk Assessment	295175	Location	RA:295175 PFT 1 and 2 External Areas Construction
Notes:	Concrete tanks, metal pipes, rubber gaskets		



Customer Site
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26/6/2019
WI-02 & WI-03



AREAS INSPECTED

Area(s) inspected during the survey where no ACM's were identified.

Risk Assessment	295176	Location	RA:295176 PFT 1 and 2 External Areas Expansion Joints
Risk Assessment	295150	Location	RA:295150 FDC No. 1 Construction
Notes:	metal pipe, rubber gaskets		
Risk Assessment	295151	Location	RA:295151 Calarifier No. 1 Construction
Notes:	Concrete, metal weir, ceramic tiles		
Risk Assessment	295152	Location	RA:295152 Calarifier No. 1 Construction
Notes:	Concrete, metal weir, ceramic tiles		
Risk Assessment	295158	Location	RA:295158 Storm Tank Construction
Notes:	Ceramic floor tiles, solid walls, plastered ceiling, electrical storage heater		
Risk Assessment	295159	Location	RA:295159 Storm Tank Construction
Notes:	Ceramic floor tiles, solid walls, plastered ceiling, electrical storage heater		
Risk Assessment	295155	Location	RA:295155 Clarifier No. 2 Construction
Risk Assessment	295156	Location	RA:295156 Clarifier No. 2 Construction
Notes:	Ceramic floor tiles, solid walls, plastered ceiling, electrical storage heater		
Risk Assessment	295129	Location	RA:295129 Air Blower Building Internal Areas Doors
Notes:	timber doors and frame		
Risk Assessment	295130	Location	RA:295130 Inlet Works Area Construction
Notes:	Concrete base, machinery and tanks		
Risk Assessment	295131	Location	RA:295131 Inlet Works Area Construction
Notes:	Concrete base, machinery and tanks		
Risk Assessment	295132	Location	RA:295132 Inlet Works Area Construction
Notes:	Concrete base, machinery and tanks		



Customer
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26/6/2019
WI-02 & WI-03



AREAS INSPECTED

Area(s) inspected during the survey where no ACM's were identified.

Risk Assessment	295110	Location	RA:295110 Administration Building Workshop Ceiling
Risk Assessment	295111	Location	RA:295111 Administration Building Workshop Attic
Notes:	plastic water tanks, felt and timber roof, mmmf insulation		
Risk Assessment	295112	Location	RA:295112 Administration Building Workshop Attic
Notes:	plastic water tanks, felt and timber roof, mmmf insulation		
Risk Assessment	295113	Location	RA:295113 Administration Building Workshop Attic
Notes:	plastic water tanks, felt and timber roof, mmmf insulation		
Risk Assessment	295114	Location	RA:295114 Administration Building Attic Construction
Notes:	plastic water tanks, felt and timber roof, mmmf insulation		
Risk Assessment	295115	Location	RA:295115 Administration Building Attic Construction
Notes:	plastic water tanks, felt and timber roof, mmmf insulation		
Risk Assessment	295116	Location	RA:295116 Administration Building Attic Construction
Notes:	plastic water tanks, felt and timber roof, mmmf insulation		
Risk Assessment	295117	Location	RA:295117 Administration Building External Areas Construction
Notes:	Brick walls, aluminum windows, aluminum fascia, soffit and guttering, concrete tiles		
Risk Assessment	295118	Location	RA:295118 Administration Building External Areas Construction
Notes:	Brick walls, aluminum windows, aluminum fascia, soffit and guttering, concrete tiles		
Risk Assessment	295119	Location	RA:295119 Administration Building External Areas Construction
Notes:	Brick walls, aluminum windows, aluminum fascia, soffit and guttering, concrete tiles		
Risk Assessment	295120	Location	RA:295120 ESB Substation External Areas Construction
Risk Assessment	295099	Location	RA:295099 Administration Building Changing Room Floor, walls, ceiling
Notes:	Ceramic tiles, solid walls, plastered ceiling, modern electrical heater		



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AREAS INSPECTED

Area(s) inspected during the survey where no ACM's were identified.

Risk Assessment	295100	Location	RA:295100 Administration Building Toilet Floor, walls, ceiling
Notes:	Ceramic tiles, solid walls, plastered ceiling, modern electrical heater		
Risk Assessment	295101	Location	RA:295101 Administration Building Control Room. Walls, ceiling
Notes:	Solid walls, plastered ceiling		
Risk Assessment	295102	Location	RA:295102 Administration Building Control Room. Walls, ceiling
Notes:	Solid walls, plastered ceiling		
Risk Assessment	295103	Location	RA:295103 Administration Building Control Room Office Walls, ceiling
Notes:	Solid walls, plastered ceiling		
Risk Assessment	295104	Location	RA:295104 Administration Building Control Room Laboratory Walls, ceiling
Notes:	Solid walls, plastered ceiling		
Risk Assessment	295134	Location	RA:295134 Inlet Works Area Construction Gaskets
Notes:	Rubber gaskets where visible		
Risk Assessment	295135	Location	RA:295135 Ferric Dosing Area Construction
Notes:	modern units, concrete base		
Risk Assessment	295136	Location	RA:295136 Ferric Dosing Area Construction
Notes:	modern units, concrete base		
Risk Assessment	295137	Location	RA:295137 Ferric Dosing Area Construction
Notes:	modern units, concrete base		
Risk Assessment	295138	Location	RA:295138 Sludge Return Tank Construction
Notes:	Concrete base, metal covers		
Risk Assessment	295139	Location	RA:295139 Sludge Return Tank Construction
Notes:	Concrete base, metal covers		



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 26/6/2019
 WI-02 & WI-03



AREAS INSPECTED

Area(s) inspected during the survey where no ACM's were identified.

Risk Assessment	295140	Location	RA:295140 Aeration Basin No. 1, 2 and 3 Construction
Notes:	Concrete tanks, metal pipe work for compressed air		
Risk Assessment	295141	Location	RA:295141 Aeration Basin No. 1, 2 and 3 Construction
Notes:	Concrete tanks, metal pipe work for compressed air		
Risk Assessment	295142	Location	RA:295142 Aeration Basin No. 1, 2 and 3 Construction
Notes:	Concrete tanks, metal pipe work for compressed air		
Risk Assessment	295108	Location	RA:295108 Administration Building Control Room Floor
Risk Assessment	295095	Location	RA:295095 Administration Building Canteen Floor, Walls, Ceiling
Notes:	Ceramic floor tiles, solid walls, plastered ceiling, electrical storage heater		
Risk Assessment	295096	Location	RA:295096 Administration Building Canteen Floor, Walls, Ceiling
Notes:	Ceramic floor tiles, solid walls, plastered ceiling, electrical storage heater		
Risk Assessment	295097	Location	RA:295097 Administration Building Workshop Floor, Walls
Notes:	Solid floor, solid walls, light door		
Risk Assessment	295122	Location	RA:295122 Air Blower Building External Areas Construction
Notes:	Brick walls, concrete roof tiles, aluminum guttering and fascia / soffit		
Risk Assessment	295123	Location	RA:295123 Air Blower Building External Areas Construction
Notes:	Brick walls, concrete roof tiles, aluminum guttering and fascia / soffit		
Risk Assessment	295124	Location	RA:295124 Air Blower Building Internal Areas Floor, walls, ceiling
Notes:	ceramic floor tiles, solid walls, plastered ceiling		
Risk Assessment	295125	Location	RA:295125 Air Blower Building Internal Areas Floor, walls, ceiling
Notes:	ceramic floor tiles, solid walls, plastered ceiling		



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24535
Derek Conerney
26/6/2019
WI-02 & WI-03



AREAS INSPECTED

Area(s) inspected during the survey where no ACM's were identified.

Risk Assessment	295126	Location	RA:295126 Air Blower Building Internal Areas Floor, walls, ceiling
Notes:	ceramic floor tiles, solid walls, plastered ceiling		
Risk Assessment	295127	Location	RA:295127 Air Blower Building Internal Areas Equipment
Notes:	modern compressor equipment		
Risk Assessment	295182	Location	RA:295182 Air Blower Building Store Room Floor, walls, ceiling
Risk Assessment	295183	Location	RA:295183 Storm Screen Building Screen Room Floor, walls, ceiling
Notes:	constructed in 2003		
Risk Assessment	295184	Location	RA:295184 Storm Screen Building Electrical Room Floor, walls, ceiling
Notes:	constructed in 2003		
Risk Assessment	295185	Location	RA:295185 Storm Screen Building External Areas Construction
Notes:	constructed in 2003		
Risk Assessment	295186	Location	RA:295186 Raw Sludge Tank External Areas Construction
Risk Assessment	295187	Location	RA:295187 Raw Sludge Tank External Areas Construction
Risk Assessment	295188	Location	RA:295188 Raw Sludge Tank External Areas Construction

Materials Risk Assessment REFURBISHMENT Survey in accordance with HSG264

Unit 2BEaT Centre, Stephenstown Industrial Estate, Balbriggan, Co. Dublin Tel: (01) 6905907 Fax: (01) 8020439 Email: info@ohss.ie Website: www.ohss.ie

Client and Survey Details

Client : Irish Water
Site : Carlow WWTP
Address : Mortarstown
Carlow

Date of Survey : 26 Jun 2018
Review Survey : 26 Jun 2019
Surveyor : Derek Conerney
Method : WI02 & WI03
Report No. : 24535

Location Details 295161 No Asbestos Found

Building/Area : Sludge Dewatering
Room/Section : Internal Areas
Location : Roof
Description : Lining and Insulation
Sample No. : DKB20180626008
Confirmation : Sample Taken
Access : Full Access
Normal Use : Plant Area
Recommendations :



Location Details 295162 No Asbestos Found

Building/Area : Sludge Dewatering
Room/Section : Internal Areas
Location : Floor and Walls
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Plant Area
Recommendations :
Ceramic tiles, blockwork walls, metal and timber doors,;



Location Details 295163 No Asbestos Found

Building/Area : Sludge Dewatering
Room/Section : Internal Areas
Location : Floor and Walls
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Plant Area
Recommendations :
Ceramic tiles, blockwork walls, metal and timber doors,;



Materials Risk Assessment REFURBISHMENT Survey in accordance with HSG264

Unit 2BEaT Centre, Stephenstown Industrial Estate, Balbriggan, Co. Dublin Tel: (01) 6905907 Fax: (01) 8020439 Email: info@ohss.ie Website: www.ohss.ie

Client and Survey Details

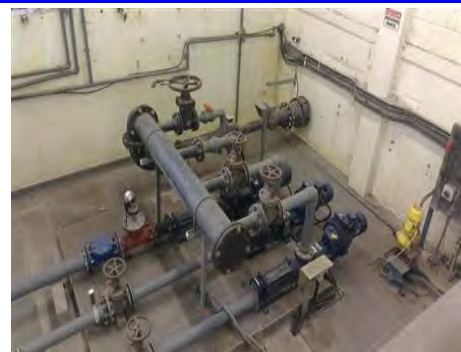
Client : Irish Water
Site : Carlow WWTP
Address : Mortarstown
Carlow

Date of Survey : 26 Jun 2018
Review Survey : 26 Jun 2019
Surveyor : Derek Conerney
Method : WI02 & WI03
Report No. : 24535

Location Details 295164 No Asbestos Found

Building/Area : Sludge Dewatering
Room/Section : Internal Areas
Location : Plant and Machinery
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Plant Area

Recommendations :
Rubber gaskets visible to flanges;



Location Details 295165 No Asbestos Found

Building/Area : Sludge Dewatering
Room/Section : Internal Areas
Location : Plant and Machinery
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Plant Area

Recommendations :
Rubber gaskets visible to flanges;



Location Details 295168 No Asbestos Found

Building/Area : Sludge Dewatering
Room/Section : Internal Areas - Office and Toilet
Location : Floor, walls, ceiling
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Plant Area

Recommendations :
ceramic tiles, solid walls, plastered ceiling;



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Client and Survey Details

Client : Irish Water
Site : Carlow WWTP
Address : Mortarstown
Carlow

Date of Survey : 26 Jun 2018
Review Survey : 26 Jun 2019
Surveyor : Derek Conerney
Method : WI02 & WI03
Report No. : 24535

Location Details 295169 No Asbestos Found

Building/Area : Sludge Dewatering
Room/Section : Internal Areas - Office and Toilet
Location : Floor, walls, ceiling
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Plant Area
Recommendations :
ceramic tiles, solid walls, plastered ceiling;



Location Details 295170 No Asbestos Found

Building/Area : Sludge Dewatering
Room/Section : External Areas
Location : Walls and Roof
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External
Recommendations :
Brick walls, aluminum windows;



Location Details 295171 No Asbestos Found

Building/Area : Sludge Dewatering
Room/Section : External Areas
Location : Walls and Roof
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External
Recommendations :
;



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This report is intended to assist in reducing the possibility of accidents and ill health by bringing to the client's attention identified asbestos containing materials.
It is not implied that all other hazards are under control at the time of inspections.

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Client and Survey Details

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Method : WI02 & WI03
Report No. : 24535

Location Details 295172 No Asbestos Found

Building/Area : Sludge Dewatering
Room/Section : External Areas
Location : Walls and Roof
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External
Recommendations :
;



Location Details 295174 No Asbestos Found

Building/Area : PFT 1 and 2
Room/Section : External Areas
Location : Construction
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External
Recommendations :
Concrete tanks, metal pipes, rubber gaskets;



Location Details 295175 No Asbestos Found

Building/Area : PFT 1 and 2
Room/Section : External Areas
Location : Construction
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External
Recommendations :
Concrete tanks, metal pipes, rubber gaskets;



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Materials Risk Assessment REFURBISHMENT Survey in accordance with HSG264

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Client and Survey Details

Client : Irish Water
Site : Carlow WWTP
Address : Mortarstown
Carlow

Date of Survey : 26 Jun 2018
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Surveyor : Derek Conerney
Method : WI02 & WI03
Report No. : 24535

Location Details 295176 No Asbestos Found

Building/Area : PFT 1 and 2
Room/Section : External Areas
Location : Expansion Joints
Description : Mastic
Sample No. : DKB20180626009
Confirmation : Sample Taken
Access : Full Access
Normal Use : External
Recommendations :



Location Details 295150 No Asbestos Found

Building/Area : FDC No. 1
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
metal pipe, rubber gaskets;



Location Details 295151 No Asbestos Found

Building/Area : Calarifier No. 1
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
Concrete, metal weir, ceramic tiles;



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Client and Survey Details

Client : Irish Water
Site : Carlow WWTP
Address : Mortarstown
Carlow

Date of Survey : 26 Jun 2018
Review Survey : 26 Jun 2019
Surveyor : Derek Conerney
Method : WI02 & WI03
Report No. : 24535

Location Details 295152 No Asbestos Found

Building/Area : Calarifier No. 1
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
Concrete, metal weir, ceramic tiles;



Location Details 295158 No Asbestos Found

Building/Area : Storm Tank
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
Ceramic floor tiles, solid walls, plastered ceiling, electrical storage heater;



Location Details 295159 No Asbestos Found

Building/Area : Storm Tank
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
Ceramic floor tiles, solid walls, plastered ceiling, electrical storage heater;



Materials Risk Assessment REFURBISHMENT Survey in accordance with HSG264

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Client and Survey Details

Client : Irish Water
Site : Carlow WWTP
Address : Mortarstown
Carlow

Date of Survey : 26 Jun 2018
Review Survey : 26 Jun 2019
Surveyor : Derek Conerney
Method : WI02 & WI03
Report No. : 24535

Location Details 295155 No Asbestos Found

Building/Area : Clarifier No. 2
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
;



Location Details 295156 No Asbestos Found

Building/Area : Clarifier No. 2
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
Ceramic floor tiles, solid walls, plastered ceiling, electrical storage heater;



Location Details 295129 No Asbestos Found

Building/Area : Air Blower Building
Room/Section : Internal Areas
Location : Doors
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Plantroom Area
Recommendations :
timber doors and frame;



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Materials Risk Assessment REFURBISHMENT Survey in accordance with HSG264

Unit 2BEaT Centre, Stephenstown Industrial Estate, Balbriggan, Co. Dublin Tel: (01) 6905907 Fax: (01) 8020439 Email: info@ohss.ie Website: www.ohss.ie

Client and Survey Details

Client : Irish Water
Site : Carlow WWTP
Address : Mortarstown
Carlow

Date of Survey : 26 Jun 2018
Review Survey : 26 Jun 2019
Surveyor : Derek Conerney
Method : WI02 & WI03
Report No. : 24535

Location Details 295130 No Asbestos Found

Building/Area : Inlet Works Area
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
Concrete base, machinery and tanks;



Location Details 295131 No Asbestos Found

Building/Area : Inlet Works Area
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
Concrete base, machinery and tanks;



Location Details 295132 No Asbestos Found

Building/Area : Inlet Works Area
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
Concrete base, machinery and tanks;



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Carlow	Method : WI02 & WI03
	Report No. : 24535

Location Details 295110 No Asbestos Found

Building/Area : Administration Building
Room/Section : Workshop
Location : Ceiling
Description : Ceiling Panels
Sample No. : DKB20180626004
Confirmation : Sample Taken
Access : Full Access
Normal Use : Office type use
Recommendations :
;



Location Details 295111 No Asbestos Found

Building/Area : Administration Building
Room/Section : Workshop
Location : Attic
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Office type use
Recommendations :
plastic water tanks, felt and timber roof, mmmf insulation;



Location Details 295112 No Asbestos Found

Building/Area : Administration Building
Room/Section : Workshop
Location : Attic
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Office type use
Recommendations :
plastic water tanks, felt and timber roof, mmmf insulation;



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Method : WI02 & WI03
Report No. : 24535

Location Details 295113 No Asbestos Found

Building/Area : Administration Building
Room/Section : Workshop
Location : Attic

Description :
Sample No. :

Confirmation : --N\A--

Access : Full Access

Normal Use : Office type use

Recommendations :

plastic water tanks, felt and timber roof, mmmf insulation;



Location Details 295114 No Asbestos Found

Building/Area : Administration Building
Room/Section : Attic
Location : Construction

Description :
Sample No. :

Confirmation : --N\A--

Access : Full Access

Normal Use : Office type use

Recommendations :

plastic water tanks, felt and timber roof, mmmf insulation;



Location Details 295115 No Asbestos Found

Building/Area : Administration Building
Room/Section : Attic
Location : Construction

Description :
Sample No. :

Confirmation : --N\A--

Access : Full Access

Normal Use : Office type use

Recommendations :

plastic water tanks, felt and timber roof, mmmf insulation;



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Method : WI02 & WI03
Report No. : 24535

Location Details 295116 No Asbestos Found

Building/Area : Administration Building
Room/Section : Attic
Location : Construction
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Office type use
Recommendations :
plastic water tanks, felt and timber roof, mmmf insulation;



Location Details 295117 No Asbestos Found

Building/Area : Administration Building
Room/Section : External Areas
Location : Construction
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External
Recommendations :
Brick walls, aluminum windows, aluminum fascia, soffit and guttering, concrete tiles;



Location Details 295118 No Asbestos Found

Building/Area : Administration Building
Room/Section : External Areas
Location : Construction
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External
Recommendations :
Brick walls, aluminum windows, aluminum fascia, soffit and guttering, concrete tiles;



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Method : WI02 & WI03
Report No. : 24535

Location Details 295119 No Asbestos Found

Building/Area : Administration Building
Room/Section : External Areas
Location : Construction
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External

Recommendations :

Brick walls, aluminum windows, aluminum fascia, soffit and guttering, concrete tiles;



Location Details 295120 No Asbestos Found

Building/Area : ESB Substation
Room/Section : External Areas
Location : Construction
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External

Recommendations :

;

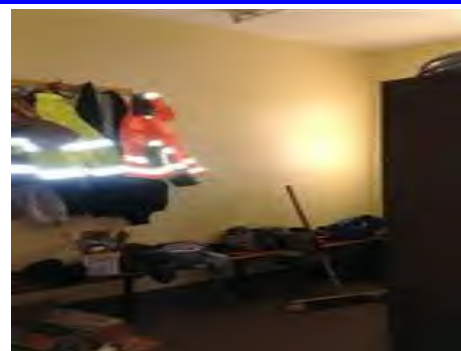


Location Details 295099 No Asbestos Found

Building/Area : Administration Building
Room/Section : Changing Room
Location : Floor, walls, ceiling
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Office type use

Recommendations :

Ceramic tiles, solid walls, plastered ceiling, modern electrical heater;



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Method : WI02 & WI03
Report No. : 24535

Location Details 295100 No Asbestos Found

Building/Area : Administration Building
Room/Section : Toilet
Location : Floor, walls, ceiling
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Office type use
Recommendations :

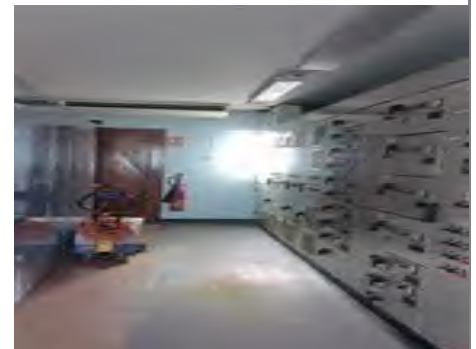
Ceramic tiles, solid walls, plastered ceiling, modern electrical heater;



Location Details 295101 No Asbestos Found

Building/Area : Administration Building
Room/Section : Control Room.
Location : Walls, ceiling
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Office type use
Recommendations :

Solid walls, plastered ceiling;



Location Details 295102 No Asbestos Found

Building/Area : Administration Building
Room/Section : Control Room.
Location : Walls, ceiling
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Office type use
Recommendations :

Solid walls, plastered ceiling;



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Client : Irish Water	Date of Survey : 26 Jun 2018
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Carlow	Method : WI02 & WI03
	Report No. : 24535

Location Details 295103 No Asbestos Found

Building/Area : Administration Building
Room/Section : Control Room Office
Location : Walls, ceiling
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Office type use
Recommendations :
Solid walls, plastered ceiling;



Location Details 295104 No Asbestos Found

Building/Area : Administration Building
Room/Section : Control Room Laboratory
Location : Walls, ceiling
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Office type use
Recommendations :
Solid walls, plastered ceiling;



Location Details 295134 No Asbestos Found

Building/Area : Inlet Works Area
Room/Section : Construction
Location : Gaskets
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
Rubber gaskets where visible;



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Client and Survey Details

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Site : Carlow WWTP
Address : Mortarstown
Carlow

Date of Survey : 26 Jun 2018
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Surveyor : Derek Conerney
Method : WI02 & WI03
Report No. : 24535

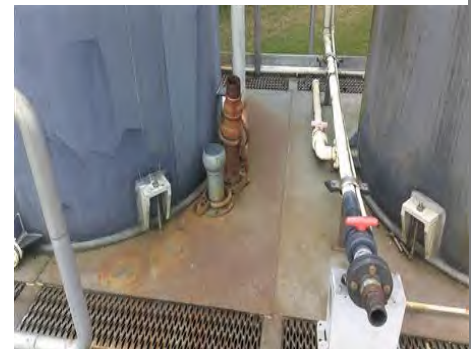
Location Details 295135 No Asbestos Found

Building/Area : Ferric Dosing Area
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
modern units, concrete base;



Location Details 295136 No Asbestos Found

Building/Area : Ferric Dosing Area
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
modern units, concrete base;



Location Details 295137 No Asbestos Found

Building/Area : Ferric Dosing Area
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
modern units, concrete base;



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Date of Survey : 26 Jun 2018
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Surveyor : Derek Conerney
Method : WI02 & WI03
Report No. : 24535

Location Details 295138 No Asbestos Found

Building/Area : Sludge Return Tank
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
Concrete base, metal covers;



Location Details 295139 No Asbestos Found

Building/Area : Sludge Return Tank
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
Concrete base, metal covers;



Location Details 295140 No Asbestos Found

Building/Area : Aeration Basin No. 1, 2 and 3
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
Concrete tanks, metal pipe work for compressed air;



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Surveyor : Derek Conerney
Method : WI02 & WI03
Report No. : 24535

Location Details 295141 No Asbestos Found

Building/Area : Aeration Basin No. 1, 2 and 3
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
Concrete tanks, metal pipe work for compressed air;



Location Details 295142 No Asbestos Found

Building/Area : Aeration Basin No. 1, 2 and 3
Room/Section : Construction
Location :
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External Plant Area
Recommendations :
Concrete tanks, metal pipe work for compressed air;



Location Details 295108 No Asbestos Found

Building/Area : Administration Building
Room/Section : Control Room
Location : Floor
Description : Tiles
Sample No. : DKB20180626002
Confirmation : Sample Taken
Access : Full Access
Normal Use : Office type use
Recommendations :
;



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Client and Survey Details

Client : Irish Water
Site : Carlow WWTP
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Carlow

Date of Survey : 26 Jun 2018
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Surveyor : Derek Conerney
Method : WI02 & WI03
Report No. : 24535

Location Details 295095 No Asbestos Found

Building/Area : Administration Building
Room/Section : Canteen
Location : Floor, Walls, Ceiling

Description :
Sample No. :

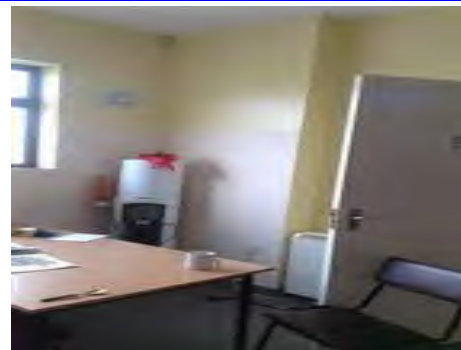
Confirmation : --N\A--

Access : Full Access

Normal Use : Office type use

Recommendations :

Ceramic floor tiles, solid walls, plastered ceiling, electrical storage heater;



Location Details 295096 No Asbestos Found

Building/Area : Administration Building
Room/Section : Canteen
Location : Floor, Walls, Ceiling

Description :
Sample No. :

Confirmation : --N\A--

Access : Full Access

Normal Use : Office type use

Recommendations :

Ceramic floor tiles, solid walls, plastered ceiling, electrical storage heater;



Location Details 295097 No Asbestos Found

Building/Area : Administration Building
Room/Section : Workshop
Location : Floor, Walls

Description :
Sample No. :

Confirmation : --N\A--

Access : Full Access

Normal Use : Office type use

Recommendations :

Solid floor, solid walls, light door;



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Method : WI02 & WI03
Report No. : 24535

Location Details 295122 No Asbestos Found

Building/Area : Air Blower Building
Room/Section : External Areas
Location : Construction
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External

Recommendations :

Brick walls, concrete roof tiles, aluminum guttering and fascia / soffit;



Location Details 295123 No Asbestos Found

Building/Area : Air Blower Building
Room/Section : External Areas
Location : Construction
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External

Recommendations :

Brick walls, concrete roof tiles, aluminum guttering and fascia / soffit;



Location Details 295124 No Asbestos Found

Building/Area : Air Blower Building
Room/Section : Internal Areas
Location : Floor, walls, ceiling
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Plantroom Area

Recommendations :

ceramic floor tiles, solid walls, plastered ceiling;



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Report No. : 24535

Location Details 295125 No Asbestos Found

Building/Area : Air Blower Building
Room/Section : Internal Areas
Location : Floor, walls, ceiling
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Plantroom Area
Recommendations :
ceramic floor tiles, solid walls, plastered ceiling;



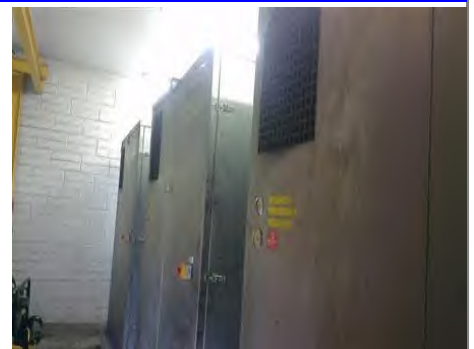
Location Details 295126 No Asbestos Found

Building/Area : Air Blower Building
Room/Section : Internal Areas
Location : Floor, walls, ceiling
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Plantroom Area
Recommendations :
ceramic floor tiles, solid walls, plastered ceiling;



Location Details 295127 No Asbestos Found

Building/Area : Air Blower Building
Room/Section : Internal Areas
Location : Equipment
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Plantroom Area
Recommendations :
modern compressor equipment;



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Location Details 295182 No Asbestos Found

Building/Area : Air Blower Building
Room/Section : Store Room
Location : Floor, walls, ceiling
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Store
Recommendations :
;



Location Details 295183 No Asbestos Found

Building/Area : Storm Screen Building
Room/Section : Screen Room
Location : Floor, walls, ceiling
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Store
Recommendations :
constructed in 2003;



Location Details 295184 No Asbestos Found

Building/Area : Storm Screen Building
Room/Section : Electrical Room
Location : Floor, walls, ceiling
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : Store
Recommendations :
constructed in 2003;



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Report No. : 24535

Location Details 295185 No Asbestos Found

Building/Area : Storm Screen Building
Room/Section : External Areas
Location : Construction
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External
Recommendations :
constructed in 2003;



Location Details 295186 No Asbestos Found

Building/Area : Raw Sludge Tank
Room/Section : External Areas
Location : Construction
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External
Recommendations :
;



Location Details 295187 No Asbestos Found

Building/Area : Raw Sludge Tank
Room/Section : External Areas
Location : Construction
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External
Recommendations :
;



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Location Details 295188 No Asbestos Found

Building/Area : Raw Sludge Tank
Room/Section : External Areas
Location : Construction
Description :
Sample No. :
Confirmation : --N\A--
Access : Full Access
Normal Use : External
Recommendations :
;





Sample Analysis

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Website: www.ohss.ie



Directors: Deirdre Corry, Paul Foran BA(Mod), MSc., MA, Dip Env. Eng., Dip Mgt., MIOSH, ROH **Company Reg no:** 354843



Certificate Number: 24124 **Issue No:** 1

Job No: 24535

Carlow WWTP
Mortarstown
Carlow
Co. Carlow

Job No: 24535
Date Received: 26-Jun-2018
Date Tested: 03-Jul-2018
Date Reported: 3-Jul-2018
Number of Samples: 9
Specification: WI 05
Samples Taken By: OHSS

[illegible]

Comments

- 1 The Bulk sample(s) referred to above were analysed for asbestos content using dispersion staining and polarised light microscopy in accordance with the requirements of HSG 248 and using OHSS Documented Work Instruction –WI 05 Bulk Sampling Analysis.
- 2 Any work (removal, repair etc.) involving asbestos containing materials must be carried out in accordance with the Safety Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010 or the Control of Asbestos Regulations NI 2012 and all other relevant national legislation.
- 3 In the case of samples supplied by the client, Occupational Hygiene and Safety Services Ltd. (OHSS) cannot accept responsibility for the sampling strategies employed and the sampling information supplied to OHSS. OHSS cannot accept responsibility for the interpretation of the sampling information contained on this report by any parties.
- 4 OHSS is an INAB accredited laboratory for the sampling and identification of Asbestos containing materials
- 5 Comments, observations and opinions are outside the scope of INAB accreditation

Signed: _____
Deirdre Corry
For and on authority of OHSS

OHSS, Unit 2 BEaT Centre, Stephenstown Industrial Estate, Balbriggan, Co.Dublin.
Tel: 01 6905907. Fax: 01 8020439 E-mail info@ohss.ie Web: www.ohss.ie

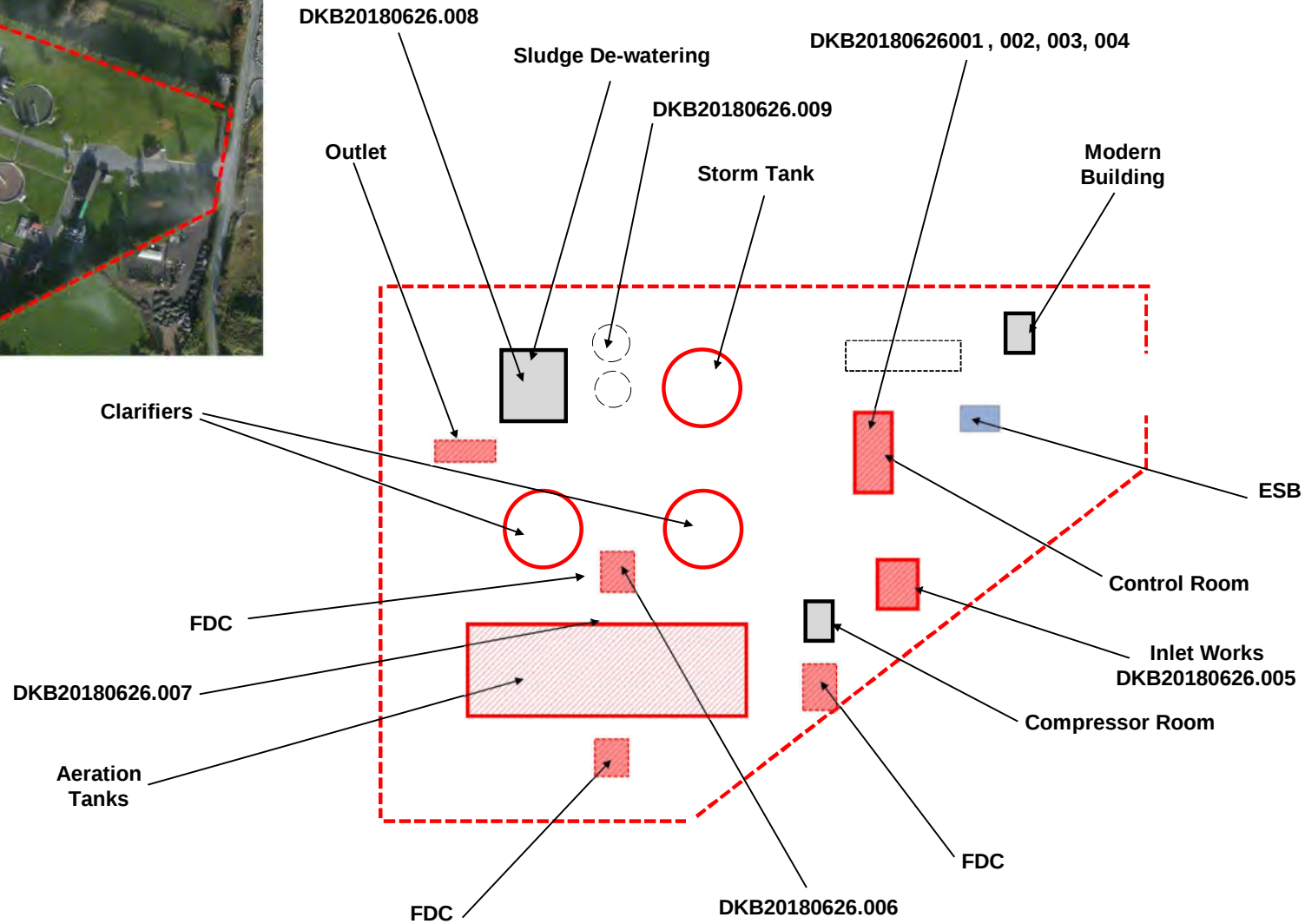


Drawings

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Drawing Legend				Drawing Revisions			Date	Scale	Project Number	Carlow (Mortarstown) WWTP Asbestos Survey	 QMF 139 Rev 1
Contains Asbestos		Not Accessed Presumed To Contain Asbestos		Rev #	Revision Description	Date	11/7/18	This drawing is for illustration purposes only	24535		
Sample Point Location		No Access Under Fixed Floor Coverings Investigate Prior To Disturbance					Drawing No		Drawn By		
							1 of 1		DC		