



Legend

Validation monitoring locations/Type:

- E07,N07
K07,R07 ■ Air sampling - Short test
Sampled 07/06/2016
- N3 ■ Air sampling - Long test
Sampled 09/06/2016
- N27, W27
E27,D27 ■ Air sampling - Short test
Sampled 27/06/2016
- H01, F01
S01, Z01 ■ Air sampling - Short test
Sampled 01/07/2016

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 Note: Drawing is for illustrative purposes only;
 Source: ESRI maps

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CLIENT: Kilsaran Concrete	PROJECT: Validation Air Sampling Programme	DRAWN: G.W.	CHECKED: T.H.	APPROVED: T.H.	DATE: 04/07/2016
DRAWING TITLE: Rosanna Estate (A. Fox)	Project Ref: TH/16/9020SR01	Figure 1A		1	A3
REVISION DESCRIPTION			SHEET	REV	

06 July 2016

TO: [REDACTED]
Rosanna
Ashford
Co. Wicklow

RE: Wild Rosanna Estate, Ashford, Co. Wicklow

1.0 INTRODUCTION

This report has been prepared by AWN Consulting Ltd (AWN) on behalf of Kilsaran Concrete and refers to Wild Rosanna Estate, Ashford, Co. Wicklow. The site location is shown on Figure 1 (Appendix 3).

1.1 Site Specific Removal and Recovery Works

A total of 19 tonnes of dust (0/6mm) from Ballinclare Quarry, Co Wicklow, which was produced during the time period when material could have had low concentrations of actinolite present, was delivered to the property and used for a number of jumps and field tracks. Some of this material was also stockpiled on a tarmac surface on the western part of the site.

As an initial precautionary step, Kilsaran instituted a programme of covering the potentially contaminated material on customer sites to avoid any possible wind-blown dust being generated. This initial covering took place at this site from 01 June 2016. The photo below shows the covering in place onsite including the track along Old Mill Road (photo 1) and jump 1 / site entrance (photo 2). In both instances sand has been used to weigh down the plastic covering.



Photo 1

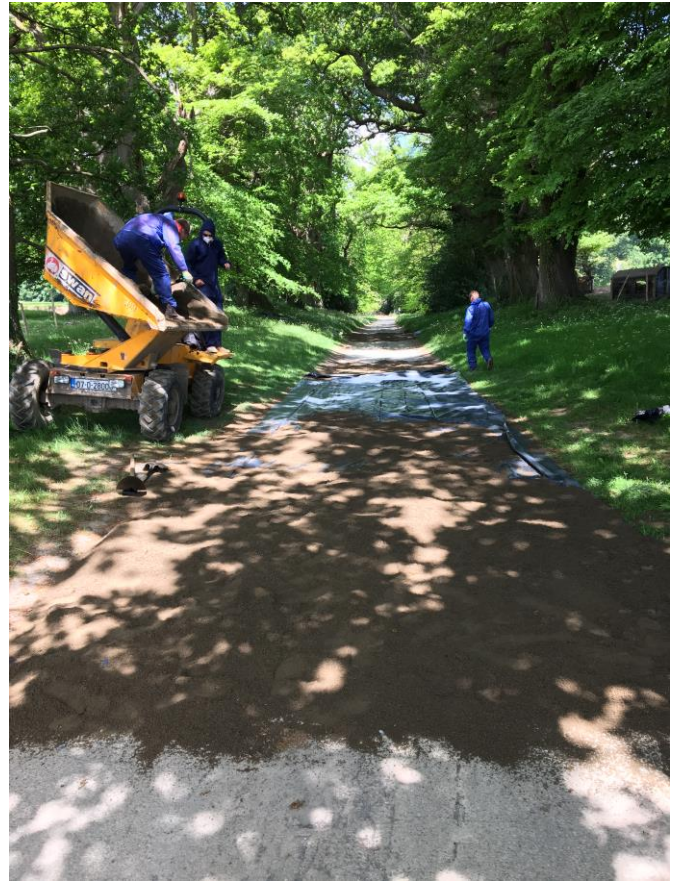


Photo 2

Preliminary onsite air sampling was undertaken on 31 May 2016 and 01, 04 and 06 June 2016 by an AWN Air Quality specialist with results analysed by SEM analysis at IOM Laboratories in Edinburgh. This sampling was undertaken to confirm the safety of the property for occupation during remedial works. The methodology used by IOM is UKAS accredited and results are based on Asbestos International Association, Recommended Technical Method No. 2 (RTM2, AIA 1984) and International Standards Organisation (2002), International Standard 14966. Additional results were also analysed by [REDACTED] About Safety Ltd. All samples were in compliance with the Health and Safety Authority (HSA) Code of Practice (COP) 2011 value of 0.1f/ml. A copy of the results is included in Appendix 2 with sample points indicated on Figure 1 (Appendix 3).

Prior to remedial works, thirty representative soil/aggregate samples were collected for analysis and submitted to ChemTest UK who are accredited for asbestos analysis (accredited to ISO/IEC 17025:2005). The laboratory results are included in Appendix 2 and the sampling points are shown on Figure 1 (Appendix 3). The results show that 2 pre-remediation samples did not contain asbestos whilst the other 28 samples contained a concentration of asbestos fibres (expressed as a percentage) which were only slightly in excess of the laboratory detection limit of 0.001% (range from 0.001 to 0.007). This data together with additional data collected within the quarry has shown that the potential for fibre release to the atmosphere was low.

Works at the Rosanna Estate were undertaken by Gravity Construction (approved asbestos removal contractors) on 07 - 13 June 2016 following a methodology approved by the HSA. This involved removing potentially contaminated material as well as some of the underlying clean material from along Old Mill Road (to a depth of approximately 50-100mm), a number of onsite jumps (to a depth of 100mm), paths

around the main houses (surface scrape of material) and an onsite stockpile (removal from on top of existing tarmac). The total weight of the material removed from the site was 171 tonnes.

Removal of the material was undertaken a Rilta Environmental Ltd., a haulage contractor permitted for the carrying of material containing asbestos. However, based on the concentrations measured on site (<0.1%) the material was considered as being under a "non-hazardous" waste code for disposal purposes. As required by Wicklow Co. Council the material was returned to the Ballinclare Quarry under a Section 55 issued for the quarry.

Reassurance air quality monitoring was undertaken on 07 June 2016 before the remedial works started to confirm the methodology being implemented by Gravity would not have an adverse impact on air quality outside of the work area and that the contractors applied suitable PPE and PPF for the level of asbestos fibres deemed to be present during works. The reassurance monitoring was undertaken by [REDACTED] About Safety Ltd., and his report confirms that air quality did not exceed safe occupational exposure levels. A copy of the results is included in Appendix 2 and the sampling locations are included on Figure 1A (Appendix 4).

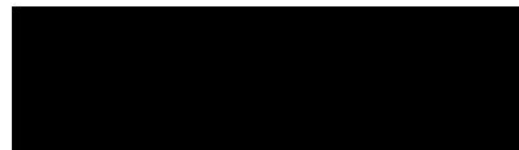
1.3 Confirmation of Removal

Subsequent to carrying out the removal works the independent air analyst carried out visual assessments on 27 June 2016 and 01 July 2016 (for sampling locations see Figure 1A) and confirmed there was no visible asbestos remaining at the site and the excavated material had been appropriately prepared for collection and removed from site. This is supported by a Certificate of Reoccupation which confirms the area is suitable for occupation (*Report Reference: JK1617902F and JK1618302F*). The certificates have been completed by [REDACTED] About Safety Ltd., copies of which are attached (Appendix 1).

Yours sincerely,



[REDACTED]
Director



Dr [REDACTED]
Director

Inc.

Appendix 1: Certificate of Re-occupation x2 - Report Reference: JK1617902F and JK1618302F

Appendix 2: Summary of Data Collected

Appendix 3: Figure 1 (Sampling Programme)

Appendix 4. Figure 1a (Validation Air Sampling Programme)

From: [REDACTED]
To: [Jim Fanning](mailto:jim_fanning@hsa.ie)
Cc: [REDACTED]
Subject: RE: Kilsaran Remediation Works - status email 1
Date: 06 July 2016 17:08:54
Attachments: [APPENDIX 1 - Certificate of Completion.pdf](#)
[APPENDIX 1 - Reassurance Certificate.pdf](#)
[APPENDIX 2 - Summary of data collected.pdf](#)
[APPENDIX 3 - Figure 1.pdf](#)
[APPENDIX 4 - Figure 1A.pdf](#)
[AWN site sign off - J Maher 29 June 2016.pdf](#)

Sign off report for [REDACTED]

[REDACTED]

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AWN Consulting Limited registered in Ireland No. 319812

From: [REDACTED]
Sent: 06 July 2016 16:55
To: Jim Fanning <jim_fanning@hsa.ie>
Cc: [REDACTED] <[REDACTED]@awnconsulting.com>
Subject: RE: Kilsaran Remediation Works - status email 1

Hi Jim

Here is a table showing where we are at with the sign off reports.

Site	Report Status
Harvieston Service Station	Complete
[REDACTED] Redcross	Complete
[REDACTED] Redcross	Complete
Rosanna Estate, Ashford	Complete
Stepaside Golf Centre	Complete
Cullen Excavations, New Road	Site works complete. Report pending
Glendale	Site works complete. Report pending

I will send the completed reports to you in a series of emails to come. Pending reports will be sent on completion. I will also send you the Section 55 reporting for Ballinclare Quarry

I have attached the reassurance report for Bromley undertaken yesterday (5th July) as requested.

Kind regards,

[REDACTED]

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