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REPORT No. 410408/1

SWR
BEACON HOUSE
13 MILL LANE
ALTON
GU34 2PH

ENVIRONMENTAL NOISE SURVEY REPORT & NOISE ASSESSMENT FOR 24 HOUR OPERATION

PREPARED: 13TH MAY 2011

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1.0 Introduction

1.1 Specialist Waste Recycling Limited (SWR) has commissioned Noico Ltd to conduct a noise survey at SWR, Beacon House, 13 Mill Lane, Alton GU34 2PH.

1.2 The purpose of the survey is to obtain statistical noise data and to determine the minimum background noise level at the site.

1.3 To carry out an assessment to determine whether or not normal working operations within the enclosed 'factory' space, when carried out over a full 24 hour period, will exceed the minimum background level at the nearest residential property.

2.0 Instrumentation

2.1 A precision grade Norsonic 118 'Type 1' Integrating Sound Level Meter was used for the survey. This was equipped with an environmental microphone and extension cable. The instrument was powered by an external battery and stored in a weatherproof case.

2.2 The instrument was calibrated prior and subsequent to use with no calibration drift recorded.

3.0 Survey Details

3.1 Location: The environmental noise analyser microphone was located externally at ground level to the rear of SWR building. This position was chosen as it was considered to be representative of the background noise environment that exists at the nearest noise affected property. Note, from observations made on site, the nearest noise affected property is the single house located on a raised elevation behind the SWR building and accessed via Waterbrook Road. From the south easterly facade of the SWR building this house is approximately 70 metres distant.

3.2 Period: Monitoring was carried out continuously from approximately 10:00 hrs on the 15th April 2011 through to 09:30 hrs on the 18th April 2011. The instrument was set up to monitor noise levels continuously and store data in fifteen minute intervals.

3.3 Weather: The prevailing weather condition throughout the majority of the survey period was satisfactory for noise monitoring, being dry, mild and with little to moderate breeze. Windspeed, although not recorded, was considered to be less than 5 m/s throughout the survey period.

3.4 Site Noise Characteristics: The ambient level was characterised by road traffic noise along Mill Lane and Waterbrook Road. Additionally, noise from mechanical plant serving adjacent buildings was also audible and is likely to be contributing to the ambient noise level in the area. Noise from other factories along the other side of Waterbrook Road was very noticeable during normal working hours. It is thought that no other unusual events occurred during the survey period and the data are considered to be a true representation of ambient noise levels.

4.0 Survey Results

4.1 The results of the environmental survey are presented in graphical and numerical format in the attached appendices, showing the recorded values of L_{Aeq} and L_{A90}.

4.2 See Appendix 1 for a glossary of terms.

4.3 With reference to the measured data, the minimum background noise level measured during the survey period was:

Daytime (07:00 to 23:00hrs)	- 35.1 L_{A90}
Night time (23:00 to 07:00hrs)	- 29.4 L_{A90}

5.0 Noise Assessment

5.1 This branch of SWR handles the waste products for automotive handlers, repairers and other related trades. The waste products are brought here, unloaded by fork lift trucks (two on site at any one time) and shipped into the main factory. In here they are sorted, compacted into bundles and stored ready for dispatch. They leave the factory again on fork lift trucks to be loaded into lorries and taken away. It is our understanding that any operations outside of the factory, such as loading and unloading will never take place outside of normal working hours.

5.2 Inside the factory scrapped materials are sorted and moved about by fork lift truck into specific areas. These products, such as car bumpers, materials and cardboard are then loaded into a compacting machine which crushes them into manageable bundles. The compactor noise varies depending on the materials being reduced and bumpers, other plastics and metals generate the most noise. Other than the two fork lift trucks there is also a Bobcat, which is a type of bulldozer/hydraulic loader which amongst other operations picks up the waste and drops it into the compactor machine. During this operation there is metal-to-metal contact between the 'shovel' of this machine and the container section of the compactor.

5.3 A number of supplementary noise level measurements were taken each over a period of 10 seconds within the factory close to the south easterly wall to establish the loudest L_{eq} and L_{max} levels thus enabling a level outside of the building to be calculated. Unfortunately, due to the noise from one or two of the other nearby factories in Waterbrook Road it was impossible to measure the breakout level outside of the building directly.

5.4 The maximum levels taken within the building were as follows:

Frequency (Hz)	63	125	250	500	1k	2k	4k	8k	dB(A)
Highest L_{eq} (dB)	77	74	77	76	76	75	70	64	81
Highest L_{max} (dB)	81	85	83	85	86	83	78	68	90

5.5 The building structure itself is of a steel portal frame construction with solid block work walls (200mm thick) up to height of almost 3 metre. The height to the eaves is 5.3 metres and the remainder of the walls and the roof are of a thick corrugated material (at least 6mm thick), which could be asbestos or something similar. These corrugated panels, including the roof have also been lined with absorbent panels, although it is unknown if they are hard backed and how thick they are.

5.6 The breakout sound pressure level (L_2) at the nearest residential property can be calculated using the following formula:

$$L_2 = L_1 - R_C + 10\log_{10}S - 20 \text{ Log10 } r - 14\text{dB}$$

Where, in this case:

L_1 is the sound pressure level in dB inside the factory adjacent to the wall where the breakout will occur;
S is the area of the wall – given the length of the building and the location of the compactor at one end; we have assumed a wall and part roof section of 20m long as the noise level will reduce further away from the machine.
R is the sound reduction index of the wall - A composite wall of asbestos panels and blockwork with a ratio of 3:1.

5.7 The calculation for the highest L_{eq} noise measurement:

Frequency (Hz)	63	125	250	500	1k	2k	4k	dB(A)
L_1 (L_{eq} S.P.L. (dB))	77	74	77	76	76	75	70	81
R_B (S.R.I. Blockwork)	22	36	40	46	56	56	52	
R_A (S.R.I. Asbestos)	20	25	30	33	33	38	39	
R_C (S.R.I. Composite)	20	27	32	34	36	39	40	
$10\log_{10}S$ (S = 200m^2)	+23	+23	+23	+23	+23	+23	+23	
$20\log_{10}r$ (r = 70m)	37	37	37	37	37	37	37	
14dB	14	14	14	14	14	14	14	
L_2 (L_{eq} S.P.L. (dB)	29	19	17	14	12	8	2	**17**

5.8 The calculation for the highest L_{max} noise measurement:

Frequency (Hz)	63	125	250	500	1k	2k	4k	dB(A)
L_1 (L_{eq} S.P.L. (dB))	81	85	83	85	86	83	78	90
R_B (S.R.I. Blockwork)	22	36	40	46	56	56	52	
R_A (S.R.I. Asbestos)	20	25	30	33	33	38	39	
R_C (S.R.I. Composite)	20	27	32	34	36	39	40	
$10\log_{10}S$ (S = 200m^2)	+23	+23	+23	+23	+23	+23	+23	
$20\log_{10}r$ (r = 70m)	37	37	37	37	37	37	37	
14dB	14	14	14	14	14	14	14	
L_2 (L_{eq} S.P.L. (dB)	33	30	23	23	22	16	10	**26**

Note: S.R.I. figures for the various wall constructions are not available at 8k (Hz).

5.9 The minimum background level (L_{A90}) measured during our survey was 29.4dB(A) and it can be seen that both the calculated L_{AEQ} (average noise level) and L_{Amax} (Instantaneous highest peak noise level) fall below that figure.

6.0 Conclusion

6.1 A background noise level survey has been carried out at SWR, Beacon House, 13 Mill Lane, Alton GU34 2PH.

6.2 Based upon the survey results and our measured plant and movement noise levels recorded within the factory space , the minimum background noise level at the nearest residential property will not be exceeded due to 24 hour operation.

Appendix 1 - Glossary of Terms

Decibel, dB	A unit of level derived from the logarithm of the ratio between the value of a quantity and a reference value. For sound pressure level (Lp) the reference quantity is $2x10^{-5}$ N/m^2. The sound pressure level existing when microphone measured pressure is $2x10^{-5}$ N/m^2 is 0 dB, the threshold of hearing.
L	Instantaneous value of Sound Pressure Level (Lp).
Frequency	Is related to sound pitch; frequency equals the ratio between velocity of sound and wavelength.
A weighting	Arithmetic corrections applied to values of Lp according to frequency. When logarithmically summed for all frequencies, the resulting single "A weighted value" becomes comparable with other such values from which a comparative loudness judgement can be made, then, without knowledge of frequency content of the source.
$L_{eq,T}$	Equivalent continuous level of sound pressure which, if it actually existed for the integration time period T of the measurement, would possess the same energy as the constantly varying values of Lp actually measured.
$L_{Aeq,T}$	Equivalent continuous level of A weighted sound pressure which, if it actually existed for the integration time period, T, of the measurement would possess the same energy as the constantly varying values of Lp actually measured.
$L_{n,T}$	Lp which was exceeded for n% of time, T.
$L_{An,T}$	Level in dBA which was exceeded for n% of time, T.
$L_{max,T}$	The instantaneous maximum sound pressure level which occurred during time, T.
$L_{Amax,T}$	The instantaneous maximum A weighted sound pressure level which occurred during time, T.
Background Noise Level	The value of $L_{A90,T}$, ref. BS4142:1997.
Traffic Noise Level	The value of $L_{A10,T}$.
Specific Noise Level	The value of $L_{Aeq,T}$ at the assessment position produced by the specific noise source, ref. BS4142:1997.
Rating Level	The specific noise level, corrected to account for any characteristic features of the noise, by adding a 5 dBA penalty for any tonal, impulsive or irregular qualities, ref. BS4142:1997.
Specific Noise Source	The noise source under consideration when assessing the likelihood of complaint.
Assessment Position	Unless otherwise noted, is a point at 1 m from the façade of the nearest affected sensitive property.

Appendix 2 - Environmental Noise Monitoring Data

Date	LAeq	LA90
(2011/04/15 09:53:46.00)	64.6	46.6
(2011/04/15 10:10:16.00)	69.3	50.5
(2011/04/15 10:25:18.00)	62.7	46.1
(2011/04/15 10:40:21.00)	54.7	45.8
(2011/04/15 10:55:23.00)	59.1	46.1
(2011/04/15 11:10:25.00)	56.6	45.4
(2011/04/15 11:25:27.00)	58.7	45.6
(2011/04/15 11:40:30.00)	68.2	60.8
(2011/04/15 11:55:32.00)	65.5	47
(2011/04/15 12:10:34.00)	58.2	46.1
(2011/04/15 12:25:37.00)	68.3	47.3
(2011/04/15 12:40:39.00)	65.5	47.2
(2011/04/15 12:55:41.00)	64.7	45.3
(2011/04/15 13:10:43.00)	54.3	43.8
(2011/04/15 13:25:45.00)	59	45.1
(2011/04/15 13:40:48.00)	62.1	45.4
(2011/04/15 13:55:50.00)	69.5	55.4
(2011/04/15 14:10:52.00)	68.4	46.4
(2011/04/15 14:25:55.00)	55.4	46.7
(2011/04/15 14:40:57.00)	67.6	48.8
(2011/04/15 14:56:00.00)	66.5	47.2
(2011/04/15 15:11:02.00)	55.2	47.9
(2011/04/15 15:26:04.00)	64.6	47.3
(2011/04/15 15:41:06.00)	56.8	48
(2011/04/15 15:56:09.00)	55	46
(2011/04/15 16:11:11.00)	60	47.5
(2011/04/15 16:26:14.00)	75.5	46.7
(2011/04/15 16:41:16.00)	56.2	45.4
(2011/04/15 16:56:18.00)	55.6	45.2
(2011/04/15 17:11:21.00)	53.5	44.9
(2011/04/15 17:26:23.00)	54.2	45.2
(2011/04/15 17:41:25.00)	55.8	44.8
(2011/04/15 17:56:28.00)	54.5	44.3
(2011/04/15 18:11:30.00)	53.8	43.9
(2011/04/15 18:26:33.00)	52.6	44.4
(2011/04/15 18:41:35.00)	48.5	43.4
(2011/04/15 18:56:38.00)	49.6	44.1
(2011/04/15 19:11:40.00)	51.3	44
(2011/04/15 19:26:42.00)	52.5	46.1
(2011/04/15 19:41:45.00)	55.1	45.1
(2011/04/15 19:56:47.00)	49.6	43.5
(2011/04/15 20:11:49.00)	49.9	41.1
(2011/04/15 20:26:52.00)	53.2	40.8
(2011/04/15 20:41:54.00)	43.9	38.5

Date	LAeq	LA90
(2011/04/15 20:56:57.00)	43.3	39.5
(2011/04/15 21:11:59.00)	45.2	39.5
(2011/04/15 21:27:01.00)	42.1	38.7
(2011/04/15 21:42:04.00)	47.3	40.4
(2011/04/15 21:57:06.00)	43.8	39.1
(2011/04/15 22:12:09.00)	42.2	37.5
(2011/04/15 22:27:11.00)	42.3	38.6
(2011/04/15 22:42:14.00)	41.2	36.9
(2011/04/15 22:57:16.00)	40.8	36.1
(2011/04/15 23:12:18.00)	41.6	35.8
(2011/04/15 23:27:21.00)	42	38.3
(2011/04/15 23:42:23.00)	45.1	37.6
(2011/04/15 23:57:25.00)	39.7	36.6
(2011/04/16 00:12:29.00)	38.5	35.5
(2011/04/16 00:27:31.00)	38.8	34.4
(2011/04/16 00:42:34.00)	37.9	33.7
(2011/04/16 00:57:36.00)	36.9	32
(2011/04/16 01:12:38.00)	37	32.5
(2011/04/16 01:27:40.00)	47	33.1
(2011/04/16 01:42:43.00)	45.1	32.1
(2011/04/16 01:57:45.00)	35.5	32.2
(2011/04/16 02:12:48.00)	47.6	31
(2011/04/16 02:27:51.00)	32	29.6
(2011/04/16 02:42:54.00)	33.3	30.5
(2011/04/16 02:57:56.00)	34.7	30.3
(2011/04/16 03:12:59.00)	32.5	29.4
(2011/04/16 03:28:02.00)	44	30.5
(2011/04/16 03:43:05.00)	35	31.2
(2011/04/16 03:58:08.00)	36.1	31.5
(2011/04/16 04:13:12.00)	35.6	31.3
(2011/04/16 04:28:15.00)	36.5	30.9
(2011/04/16 04:43:19.00)	44.8	31.1
(2011/04/16 04:58:22.00)	41.8	36.5
(2011/04/16 05:13:26.00)	54.3	32.4
(2011/04/16 05:28:30.00)	61.1	46
(2011/04/16 05:43:33.00)	56.7	43.9
(2011/04/16 05:58:38.00)	63	41.5
(2011/04/16 06:13:41.00)	55	41
(2011/04/16 06:28:45.00)	53.8	39.7
(2011/04/16 06:43:48.00)	55.6	41.8
(2011/04/16 06:58:52.00)	58.6	40.9
(2011/04/16 07:13:55.00)	58.2	41.9
(2011/04/16 07:28:59.00)	60.9	41.6
(2011/04/16 07:44:02.00)	49.5	39.2
(2011/04/16 07:59:07.00)	49.8	39

Date	LAeq	LA90
(2011/04/16 08:14:10.00)	56	41.5
(2011/04/16 08:29:14.00)	56.9	42.6
(2011/04/16 08:44:17.00)	52.5	43.6
(2011/04/16 08:59:21.00)	53.8	42.3
(2011/04/16 09:14:24.00)	50.8	40.7
(2011/04/16 09:29:28.00)	53.7	41
(2011/04/16 09:44:31.00)	53.6	41.7
(2011/04/16 09:59:36.00)	54.4	40.9
(2011/04/16 10:14:39.00)	52.3	40.4
(2011/04/16 10:29:43.00)	51.5	39.4
(2011/04/16 10:44:46.00)	54.9	43.3
(2011/04/16 10:59:50.00)	54.5	41.1
(2011/04/16 11:14:54.00)	54.2	41.3
(2011/04/16 11:29:57.00)	51.7	39.8
(2011/04/16 11:45:01.00)	48.9	41.4
(2011/04/16 12:00:05.00)	55.3	40.9
(2011/04/16 12:15:09.00)	51.8	43.2
(2011/04/16 12:30:13.00)	54.1	43.7
(2011/04/16 12:45:16.00)	54.8	43
(2011/04/16 13:00:20.00)	52.7	39.6
(2011/04/16 13:15:24.00)	47.5	38.7
(2011/04/16 13:30:27.00)	48.7	38.9
(2011/04/16 13:45:31.00)	47.6	39.7
(2011/04/16 14:00:35.00)	52.5	39.3
(2011/04/16 14:15:39.00)	49.7	40
(2011/04/16 14:30:42.00)	47.6	37.3
(2011/04/16 14:45:46.00)	47.9	39.9
(2011/04/16 15:00:50.00)	48.6	39.9
(2011/04/16 15:15:53.00)	52.9	42.7
(2011/04/16 15:30:57.00)	52.4	42.6
(2011/04/16 15:46:01.00)	51.3	42.8
(2011/04/16 16:01:05.00)	55.8	41.7
(2011/04/16 16:16:09.00)	53.8	41.2
(2011/04/16 16:31:12.00)	46.2	38.9
(2011/04/16 16:46:16.00)	50.4	38.5
(2011/04/16 17:01:20.00)	53.5	40.6
(2011/04/16 17:16:23.00)	54.3	39.1
(2011/04/16 17:31:27.00)	48.9	38.1
(2011/04/16 17:46:31.00)	55.4	39.5
(2011/04/16 18:01:35.00)	55.2	38.1
(2011/04/16 18:16:39.00)	54.4	38.3
(2011/04/16 18:31:42.00)	55.3	39.7
(2011/04/16 18:46:46.00)	51.9	41.7
(2011/04/16 19:01:49.00)	60.9	43.7
(2011/04/16 19:16:53.00)	55.2	43

Date	LAeq	LA90
(2011/04/16 19:31:57.00)	52.5	41.7
(2011/04/16 19:47:00.00)	50.9	40.9
(2011/04/16 20:02:05.00)	48.2	40.7
(2011/04/16 20:17:09.00)	50.1	40.3
(2011/04/16 20:32:12.00)	53.1	37.8
(2011/04/16 20:47:16.00)	43.1	37
(2011/04/16 21:02:20.00)	39.6	35.6
(2011/04/16 21:17:23.00)	42.5	36.6
(2011/04/16 21:32:27.00)	41.3	36.9
(2011/04/16 21:47:31.00)	41.3	37
(2011/04/16 22:02:35.00)	42.3	36.5
(2011/04/16 22:17:39.00)	42	36.5
(2011/04/16 22:32:42.00)	42.1	37.4
(2011/04/16 22:47:46.00)	44.4	38.6
(2011/04/16 23:02:50.00)	46.6	37.2
(2011/04/16 23:17:53.00)	42.6	38.2
(2011/04/16 23:32:57.00)	45.8	37.9
(2011/04/16 23:48:01.00)	42.9	36.5
(2011/04/17 00:03:05.00)	42.1	36.9
(2011/04/17 00:18:08.00)	43.1	35.6
(2011/04/17 00:33:10.00)	40.3	35.9
(2011/04/17 00:48:12.00)	39.2	34.1
(2011/04/17 01:03:14.00)	42.3	35.7
(2011/04/17 01:18:16.00)	41.8	34.4
(2011/04/17 01:33:19.00)	38.5	34.6
(2011/04/17 01:48:21.00)	37.7	34.6
(2011/04/17 02:03:25.00)	39.3	33.8
(2011/04/17 02:18:28.00)	41	34.5
(2011/04/17 02:33:31.00)	37.3	33.7
(2011/04/17 02:48:35.00)	38.1	33.4
(2011/04/17 03:03:38.00)	36.2	31.7
(2011/04/17 03:18:41.00)	35	31.5
(2011/04/17 03:33:45.00)	35.9	32.7
(2011/04/17 03:48:48.00)	36.4	32.8
(2011/04/17 04:03:52.00)	38.9	33.6
(2011/04/17 04:18:56.00)	38	33.4
(2011/04/17 04:34:00.00)	38.2	33.8
(2011/04/17 04:49:04.00)	46.6	34.3
(2011/04/17 05:04:09.00)	57.4	37
(2011/04/17 05:19:13.00)	62.5	47.3
(2011/04/17 05:34:17.00)	62	47.2
(2011/04/17 05:49:21.00)	60.5	45.7
(2011/04/17 06:04:25.00)	53.7	41.9
(2011/04/17 06:19:29.00)	56.1	42.8
(2011/04/17 06:34:33.00)	53.2	41.9

Date	LAeq	LA90
(2011/04/17 06:49:37.00)	53.9	41.9
(2011/04/17 07:04:42.00)	51	42.2
(2011/04/17 07:19:46.00)	51.1	42.7
(2011/04/17 07:34:50.00)	56.2	43.4
(2011/04/17 07:49:54.00)	54.2	40.8
(2011/04/17 08:04:58.00)	51.4	40.1
(2011/04/17 08:20:02.00)	48.3	38.7
(2011/04/17 08:35:06.00)	53.3	39.1
(2011/04/17 08:50:11.00)	51.3	38.1
(2011/04/17 09:05:15.00)	49.9	38.2
(2011/04/17 09:20:19.00)	51.6	39.8
(2011/04/17 09:35:23.00)	51	39
(2011/04/17 09:50:28.00)	50.2	39.9
(2011/04/17 10:05:32.00)	48.5	41.3
(2011/04/17 10:20:36.00)	54.6	40.6
(2011/04/17 10:35:40.00)	49.6	39.6
(2011/04/17 10:50:44.00)	47	39
(2011/04/17 11:05:49.00)	49.6	39.9
(2011/04/17 11:20:53.00)	50.5	39.4
(2011/04/17 11:35:57.00)	53.3	39.2
(2011/04/17 11:51:01.00)	51.5	39.5
(2011/04/17 12:06:05.00)	51.2	40.5
(2011/04/17 12:21:10.00)	44.7	39.3
(2011/04/17 12:36:14.00)	47.9	38.6
(2011/04/17 12:51:18.00)	47	38.5
(2011/04/17 13:06:22.00)	49.2	39
(2011/04/17 13:21:27.00)	54.6	39.5
(2011/04/17 13:36:31.00)	51.5	39.5
(2011/04/17 13:51:35.00)	51.3	39.6
(2011/04/17 14:06:40.00)	56.6	41.3
(2011/04/17 14:21:44.00)	49	39
(2011/04/17 14:36:48.00)	45.6	39.4
(2011/04/17 14:51:52.00)	51.1	38.9
(2011/04/17 15:06:56.00)	48.1	39
(2011/04/17 15:22:00.00)	47.6	40
(2011/04/17 15:37:05.00)	54.3	40.8
(2011/04/17 15:52:09.00)	51.3	40.3
(2011/04/17 16:07:13.00)	54.6	38.8
(2011/04/17 16:22:17.00)	47.2	41
(2011/04/17 16:37:22.00)	52.9	42.3
(2011/04/17 16:52:26.00)	48.5	41.4
(2011/04/17 17:07:30.00)	57.7	43.3
(2011/04/17 17:22:34.00)	52	44.1
(2011/04/17 17:37:38.00)	52.5	45.7
(2011/04/17 17:52:42.00)	54.2	45.1

Date	LAeq	LA90
(2011/04/17 18:07:47.00)	58.4	43.2
(2011/04/17 18:22:51.00)	55.8	43.7
(2011/04/17 18:37:55.00)	55.3	44.3
(2011/04/17 18:52:59.00)	49.2	43.6
(2011/04/17 19:08:03.00)	57.2	44.4
(2011/04/17 19:23:07.00)	51.4	42.1
(2011/04/17 19:38:11.00)	47.5	43.1
(2011/04/17 19:53:16.00)	49.7	41.8
(2011/04/17 20:08:20.00)	50.5	41.5
(2011/04/17 20:23:24.00)	54.9	41.6
(2011/04/17 20:38:28.00)	44.7	39.2
(2011/04/17 20:53:32.00)	42.8	39.4
(2011/04/17 21:08:36.00)	42.8	37.3
(2011/04/17 21:23:40.00)	40.4	36.8
(2011/04/17 21:38:45.00)	41.5	37.5
(2011/04/17 21:53:49.00)	39.9	36.2
(2011/04/17 22:08:53.00)	44.8	36.3
(2011/04/17 22:23:57.00)	40.7	36.5
(2011/04/17 22:39:02.00)	39.6	35.1
(2011/04/17 22:54:06.00)	41.3	35.6
(2011/04/17 23:09:10.00)	38.4	34.4
(2011/04/17 23:24:14.00)	38.3	35
(2011/04/17 23:39:18.00)	37.3	34
(2011/04/17 23:54:22.00)	38.6	34.2
(2011/04/18 00:09:26.00)	40	34.3
(2011/04/18 00:24:28.00)	36.2	32.7
(2011/04/18 00:39:31.00)	37	33.5
(2011/04/18 00:54:33.00)	37.2	33.5
(2011/04/18 01:09:35.00)	42.6	33.5
(2011/04/18 01:24:38.00)	37.9	33.8
(2011/04/18 01:39:40.00)	37.5	33.3
(2011/04/18 01:54:42.00)	38.2	33.4
(2011/04/18 02:09:44.00)	35.6	32.4
(2011/04/18 02:24:47.00)	35.7	33.3
(2011/04/18 02:39:49.00)	35.8	32.5
(2011/04/18 02:54:51.00)	33.8	30.7
(2011/04/18 03:09:54.00)	36	31.5
(2011/04/18 03:24:57.00)	37.3	33.7
(2011/04/18 03:39:59.00)	40.7	33.9
(2011/04/18 03:55:02.00)	40	37.7
(2011/04/18 04:10:04.00)	43.6	37.9
(2011/04/18 04:25:06.00)	44.2	35.9
(2011/04/18 04:40:09.00)	52.4	36.5
(2011/04/18 04:55:11.00)	59.9	42.1
(2011/04/18 05:10:14.00)	62.2	45.2

Date	LAeq	LA90
(2011/04/18 05:25:17.00)	64.4	47.4
(2011/04/18 05:40:19.00)	63.2	47.8
(2011/04/18 05:55:22.00)	58.3	45.5
(2011/04/18 06:10:24.00)	62.7	45.8
(2011/04/18 06:25:26.00)	55.7	46.3
(2011/04/18 06:40:29.00)	53.4	45.2
(2011/04/18 06:55:31.00)	54.6	45.5
(2011/04/18 07:10:34.00)	55.5	44.8
(2011/04/18 07:25:37.00)	56.6	45.6
(2011/04/18 07:40:39.00)	58.6	45.4
(2011/04/18 07:55:42.00)	57.2	45.9
(2011/04/18 08:10:44.00)	57.2	49.1
(2011/04/18 08:25:47.00)	58.4	48.6
(2011/04/18 08:40:49.00)	59.5	48.4
(2011/04/18 08:55:51.00)	59.8	49.5
(2011/04/18 09:10:54.00)	59	49
(2011/04/18 09:25:57.00)	72.9	50.3

Figure 1

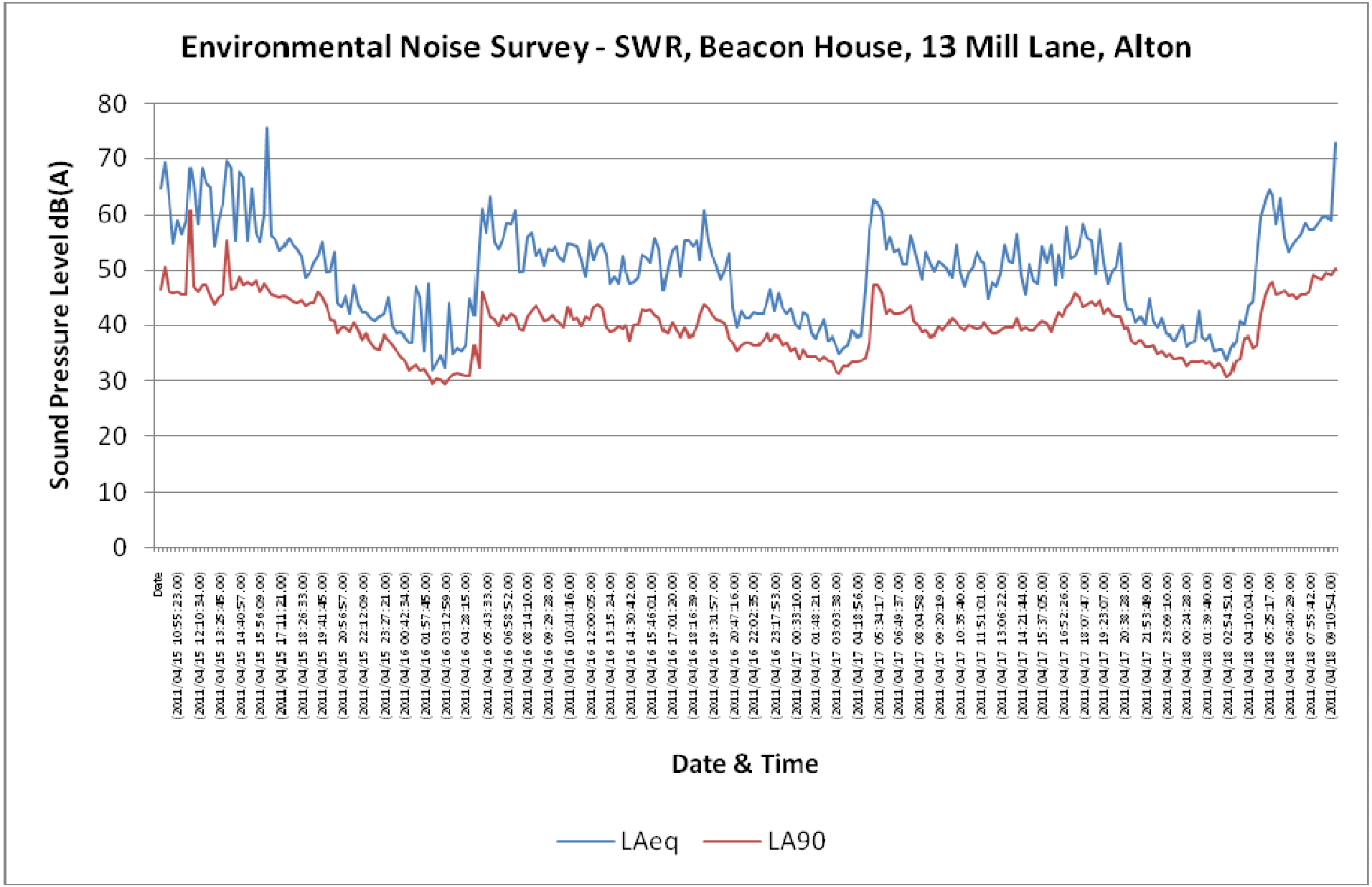
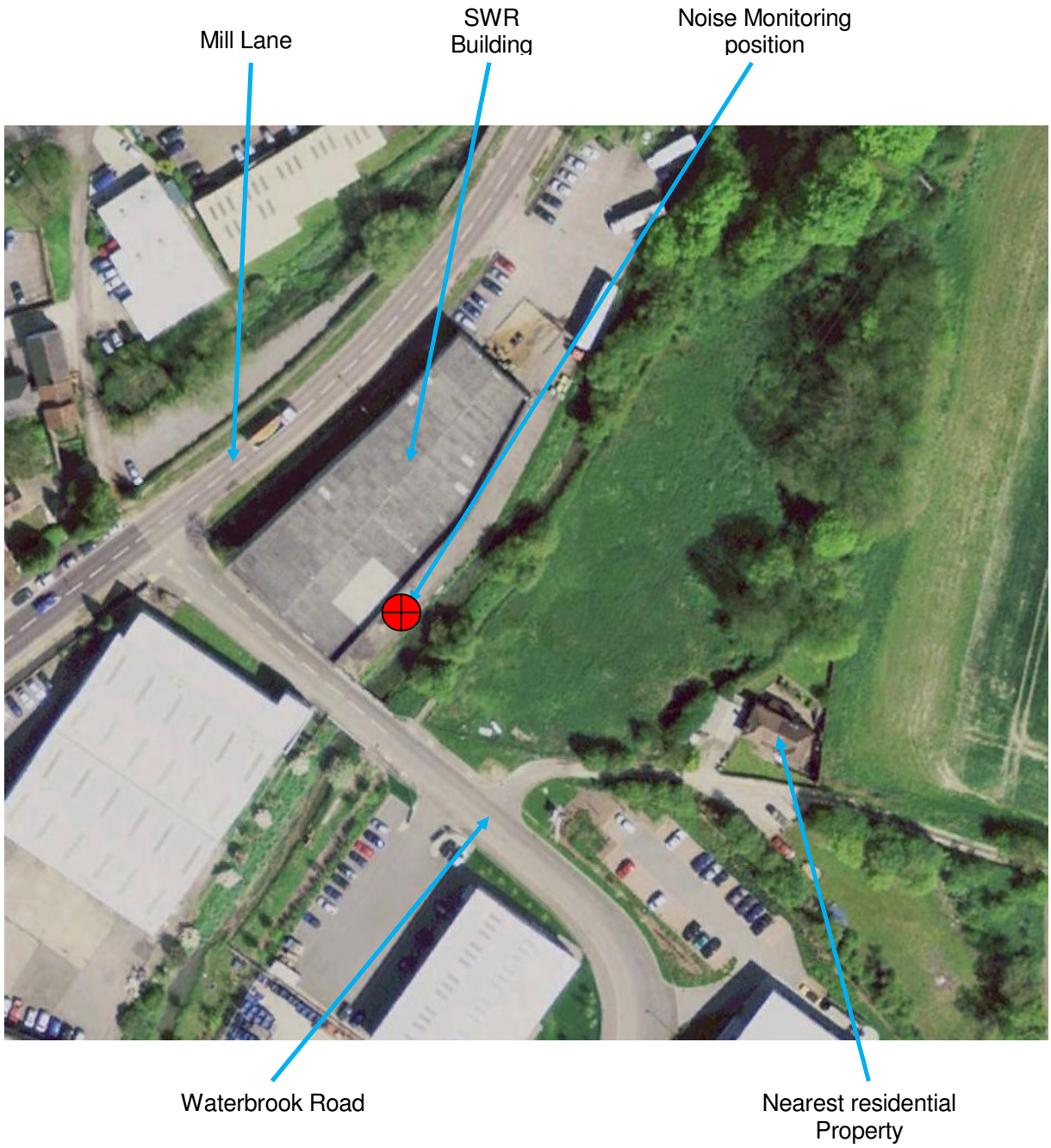

Environmental Noise Survey - SWR, Beacon House, 13 Mill Lane, Alton
Sound Pressure Level dB(A)
80
70
60
50
40
30
20
10
0
Date & Time
LAeq
LA90

Figure 2



NOICO Noise Control Engineers	Project:: SWR, Alton GU34 2PH	Title: Noise Survey Position
	Dwg No. 410408 Rev A	Date: 13th May 2011
	Patrick House, Station Road Hook, Hampshire RG27 9HU	Tel: 01256 766207 Fax: 01256 768413