

14. Noise and Vibration

Table 14.1A – Measured Sound Pressure Levels for NMP1 – Penwortham Way

Measured Noise Level Data for Penwortham Way

Measurement Start Time	Measured Ambient Noise Level, $L_{Aeq,1hr}$ (dB)
08/08/18 11:14:31:000	73.4
08/08/18 12:14:31:000	73.8
08/08/18 13:14:31:000	74.6
08/08/18 14:14:31:000	74.9
08/08/18 15:14:31:000	75.2
08/08/18 16:14:31:000	75.6
08/08/18 17:14:31:000	75.7
08/08/18 18:14:31:000	75
08/08/18 19:14:31:000	73.6
08/08/18 20:14:31:000	72.2
08/08/18 21:14:31:000	70.3
08/08/18 22:14:31:000	68.7
08/08/18 23:14:31:000	65.2
09/08/18 00:14:31:000	62.7
09/08/18 01:14:31:000	60.3
09/08/18 02:14:31:000	60
09/08/18 03:14:31:000	60.7

09/08/18 04:14:31:000	63
09/08/18 05:14:31:000	69.8
09/08/18 06:14:31:000	74.4
09/08/18 07:14:31:000	76.7
09/08/18 08:14:31:000	74.9
09/08/18 09:14:31:000	73.9
09/08/18 10:14:31:000	73.4

Table 14.2A – Measured Sound Pressure Levels for NMP3 – Northern Railway Line

Measured Noise Level Data for Northern Railway Line Before Split

Measurement Start Time	Measured Ambient Noise Level, $L_{Aeq,1hr}$ (dB)
08/08/2018 11:59	59.9
08/08/2018 12:59	59.6
08/08/2018 13:59	60.6
08/08/2018 14:59	59.9
08/08/2018 15:59	58
08/08/2018 16:59	57.8
08/08/2018 17:59	59.6
08/08/2018 18:59	58.1
08/08/2018 19:59	59.7
08/08/2018 20:59	59.4
08/08/2018 21:59	59.6

08/08/2018 22:59	62.9
08/08/2018 23:59	60.7
09/08/2018 00:59	60.9
09/08/2018 01:59	58.1
09/08/2018 02:59	57.8
09/08/2018 03:59	53.3
09/08/2018 04:59	55.6
09/08/2018 05:59	57.1
09/08/2018 06:59	58.9
09/08/2018 07:59	58
09/08/2018 08:59	62.5
09/08/2018 09:59	60.1
09/08/2018 10:59	60.5

Table 14.3A – Measured Sound Pressure Levels for NMP4 – Southern Railway Line

Measured Noise Level Data for Southern Railway Line After Split

Measurement Start Time	Measured Ambient Noise Level, $L_{Aeq,1hr}$ (dB)
08/08/2018 11:57	54.9
08/08/2018 12:57	53
08/08/2018 13:57	54.2
08/08/2018 14:57	52.5
08/08/2018 15:57	54

08/08/2018 16:57	54.3
08/08/2018 17:57	53.2
08/08/2018 18:57	54.2
08/08/2018 19:57	52.9
08/08/2018 20:57	49.9
08/08/2018 21:57	53.7
08/08/2018 22:57	51.1
08/08/2018 23:57	43.8
09/08/2018 00:57	40.4
09/08/2018 01:57	43
09/08/2018 02:57	39.7
09/08/2018 03:57	39.5
09/08/2018 04:57	45.8
09/08/2018 05:57	50.9
09/08/2018 06:57	51.6
09/08/2018 07:57	51.7
09/08/2018 08:57	53.2
09/08/2018 09:57	51.5
09/08/2018 10:57	51.5

Table 14.4A – Measured Sound Pressure Levels for NMP6 – Background Sound Survey*Measured Noise Level Data for Background Sound Survey*

Measurement Start Time	Measured Ambient Noise Level, $L_{Aeq,1hr}$ (dB)	Measured Background Sound Level, $L_{A90,1hr}$ (dB)
10/08/2018 14:44	64.4	48.2
10/08/2018 15:44	51.4	48.4
10/08/2018 16:44	51.8	48.6
10/08/2018 17:44	51.2	47.7
10/08/2018 18:44	50.5	46.7
10/08/2018 19:44	49.8	44.4
10/08/2018 20:44	48.7	43
10/08/2018 21:44	48.3	41.1
10/08/2018 22:44	47.2	39
10/08/2018 23:44	43.9	34.8
11/08/2018 00:44	42.5	30.4
11/08/2018 01:44	41.4	27.6
11/08/2018 02:44	38.8	27.5
11/08/2018 03:44	39.3	30.4
11/08/2018 04:44	39.4	33.2
11/08/2018 05:44	42.6	37.7
11/08/2018 06:44	42.2	39.2
11/08/2018 07:44	41.9	37.8

11/08/2018 08:44	40	37.1
11/08/2018 09:44	52.5	39.6
11/08/2018 10:44	43.1	39.7
11/08/2018 11:44	44.3	39.2
11/08/2018 12:44	42.5	39.8
11/08/2018 13:44	44.4	40.6
11/08/2018 14:44	44.3	41.4
11/08/2018 15:44	44.9	42.2
11/08/2018 16:44	45.6	42.6
11/08/2018 17:44	45.9	43
11/08/2018 18:44	45	42.1
11/08/2018 19:44	44.9	41.8
11/08/2018 20:44	44.3	40.7
11/08/2018 21:44	42	39
11/08/2018 22:44	41.1	38.3
11/08/2018 23:44	39.3	36.2
12/08/2018 00:44	38.3	34.9
12/08/2018 01:44	38.4	34.1
12/08/2018 02:44	39.3	33.1
12/08/2018 03:44	36.6	34.1
12/08/2018 04:44	37.7	35.2

12/08/2018 05:44	39.5	35.3
12/08/2018 06:44	39.9	37.4
12/08/2018 07:44	41	38.1
12/08/2018 08:44	40.8	38.2
12/08/2018 09:44	41.8	39.3
12/08/2018 10:44	42.6	39.6
12/08/2018 11:44	43.4	40.8
12/08/2018 12:44	43.2	40.6
12/08/2018 13:44	42.8	39.9
12/08/2018 14:44	42.9	39.8
12/08/2018 15:44	49.5	39.3
12/08/2018 16:44	42.3	39.3
12/08/2018 17:44	42.3	39
12/08/2018 18:44	41.7	38.4
12/08/2018 19:44	47.2	43.1
12/08/2018 20:44	42.6	40.4
12/08/2018 21:44	42.9	37.9
12/08/2018 22:44	47.1	37.9
12/08/2018 23:44	46.4	40.7
13/08/2018 00:44	34.8	26.8
13/08/2018 01:44	37.4	24.6

13/08/2018 02:44	32.1	23.6
13/08/2018 03:44	33.7	24.9
13/08/2018 04:44	38.5	28.9
13/08/2018 05:44	42.1	38.3
13/08/2018 06:44	49.8	45.3
13/08/2018 07:44	48.1	45.8
13/08/2018 08:44	49.4	46.4
13/08/2018 09:44	48	45.1
13/08/2018 10:44	49.7	45.8
13/08/2018 11:44	48.8	45.1
13/08/2018 12:44	49.8	46.2
13/08/2018 13:44	50.2	46.2
13/08/2018 14:44	50.1	46.6
13/08/2018 15:44	51.3	48
13/08/2018 16:44	51.5	48.3
13/08/2018 17:44	50.7	46.4
13/08/2018 18:44	49.5	45
13/08/2018 19:44	47.9	43
13/08/2018 20:44	46.9	41.8
13/08/2018 21:44	46.1	40
13/08/2018 22:44	42.9	33.4

13/08/2018 23:44	39.9	29.5
14/08/2018 00:44	37	26.5
14/08/2018 01:44	35.7	26.2
14/08/2018 02:44	37.2	25.4
14/08/2018 03:44	39.7	27.2
14/08/2018 04:44	42.3	33.9
14/08/2018 05:44	43.7	39.8
14/08/2018 06:44	46.9	44.9
14/08/2018 07:44	49.3	44
14/08/2018 08:44	50.8	47.5
14/08/2018 09:44	52.2	48.2