



APPENDIX C

Integra Underground Haul Truck Noise Assessment



C



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Re: Integra Underground Haul Truck Noise Assessment

1 Introduction

EMGA Mitchell McLennan Pty Limited (EMM) has been commissioned by Environmental Resources Management Australia Ltd (ERM), on behalf of Vale Australia Ltd, to undertake a noise emission comparison for two operational scenarios relating to the Integra underground operations. The investigation focused on two scenarios associated with coal transportation from the underground to the coal handling preparation plant (CHPP), using either a coal conveyor or truck haulage.

For consistency, this work has been undertaken by Mr Oliver Muller, who completed the acoustic impact assessment for the underground project approval. Furthermore, to avoid duplication, this assessment references modelling and reporting completed by Heggies Pty Ltd (Heggies) (ref : 10-5202R1R4.doc) and ERM (0061887 NIA Final November 2009.doc) for the open cut and underground operations including Report and respectively.

2 Methodology

The methodology for this assessment included comparing modelled open cut and underground operations for the two separate methods of coal transport from the underground to the CHPP. Those assessed were truck haulage and a conveyor scenario. The comparison between these two methods is provided for six open cut operational scenarios including full pit and part pit operations in combination with three assessment periods and meteorological conditions (day, evening and night inversion).

Combining the open cut and underground noise emissions for these two coal transport methods allows for an overall comparison of variations in noise, if any, between the two scenarios.

3 Results and discussion

The results of noise modelling are consistent with the Heggies Open Cut noise assessment with respect to the receiver groups and numbers, and corresponding open cut noise levels. EMM have added the noise modelling results for each open cut scenario, including Full Pit Year 1, Full Pit Year 4, Full Pit Year 6, Full Pit Year 8, Part Pit Year 3 and Part Pit Year 6 with the inclusion of either truck haulage or conveyor transport to quantify the difference between the two scenarios. EMM have also provided the effect that each scenario has on overall emissions from the complex as one entity (ie open cut and underground operations combined).

Tables A.1 to A.6 in Appendix A summarise the results of the noise modelling and comparisons for all six mining scenarios for the truck haul and conveyor methods.

3.1 Discussion

3.2 Comparison of noise emissions – truck haul versus conveyor option

The results of the comparison between haul road and conveyor methods of transport when combined with the open cut operations noise indicate for the majority of receivers, there will be a negligible increase to the community if either scenario was adopted. This is due to the insignificant noise contribution of these sources compared to the overall noise level of other open cut and underground plant.

Generally there is minimal change (ie less than 1dBA) expected between management or acquisition zones if either scenario were adopted. The greatest changes are identified for Noise Assessment Group (NAG) F, NAG C and NAG 4, where noise levels would reduce by between 2dBA to 3dBA if the conveyor scenario was adopted. However, this does not include provision of a bund wall along the western edge of the haul road that would negate this increase and see an overall noise reduction compared with the conveyor scenario.

The conveyor scenario compared to the haul road scenario would see increases in noise levels (into the management zone) for receivers situated in NAG 10 (during the daytime), due to its significantly closer position to eastern receivers compared to the haul road.

3.3 Other issues of consideration

Further investigations into outstanding issues relating to the previous assessments have been completed. It can be confirmed that Heggies adopted the haul truck scenario as part of their cumulative noise investigation. This is as per email sent to M.Blake (dated 19/09/2008) by O.Muller which confirmed inclusion of cumulative emissions from multiple industrial sources including underground operations, which adopted the haul truck scenario.

A review of the Project Approval confirms that noise limits were based on the modelling results of the haul road scenario. Our review included all original correspondence which the approvals were based, including ERM's letter '0061887 Combined Noise L01_BC' dated 28 January 2010.

The noise modelling scenarios were reviewed and we can confirm that no bunding was included along the truck haul road from the underground. Furthermore, desktop calculations indicate that for receivers situated to the west of the mine, a bund 3 metres in height along the western edge of the haul road would provide measurable attenuation of noise, whilst a 5 metre high bund would provide at least a 5dB attenuation, even during adverse temperature inversion conditions.

4 Conclusion

EMM has completed a comparison of noise emission from two operational scenarios relating to the Integra underground operations. The investigation compared two coal transportation options from the underground transfer station to the CHPP. The options were a coal conveyor and with the other truck haulage.

The results of the comparisons identified that generally, the haul road scenario would generate noise levels 2dBA to 3dBA higher than the conveyor scenario. However, with the incorporation of a proposed bund wall, noise emissions from trucks on the haul road would be negated. The conveyor scenario would see increases in noise levels for receivers situated in NAG 10 (daytime), due to its significantly closer position to eastern receivers compared to the haul road. In summary, following the implementation of a bund wall along the haul road, the truck haul transport option will have similar and potentially less impact on the community than the conveyor scenario. This is particularly relevant to receivers to the east of the facility at NAG 9 and 10.

We trust that the information above satisfies your requirements and if you have any further queries, please contact the undersigned.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'O. Muller', with a stylized flourish at the end.

Oliver Muller
Associate, Acoustics
omuller@emgamm.com

Appendix A

Summary of Results

Table A1 - Non Mine Owned: Full Pit Year 1

DAY TIME - CALM					Haul Road Scenario				Conveyor Scenario				UG Only Haul vs Conveyor	Combined OC & UG Haul vs Conveyor	
Noise Assessment Group	Residence Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	UG Total dBA	UG Total vs Criteria dBA	Combined Open Cut & Underground Total dBA	Combined vs Criteria dBA	UG Total dBA	UG total vs Criteria dBA	Combined OC & UG Total dBA	Combined vs Criteria dBA			
1	80	35	32	-3	36	0	37	2	36	1	37	2	0	0	
	87	38	41	3	38	0	43	5	36	-2	42	5	3	1	
	106	38	39	1	32	-6	40	2	29	-9	39	1	3	1	
4	88	39	25	-14	24	-15	28	-11	22	-17	27	-12	2	1	
	91	39	27	-12	26	-13	30	-9	24	-15	29	-10	2	1	
	94	39	27	-12	26	-13	30	-9	23	-16	28	-11	3	1	
	95	39	28	-11	27	-12	30	-9	24	-15	29	-10	3	1	
	96	39	29	-10	28	-11	32	-7	26	-13	31	-8	2	1	
	99	39	26	-13	25	-14	29	-10	23	-16	28	-11	2	1	
	100	39	26	-13	25	-14	28	-11	22	-17	27	-12	3	1	
	105	39	27	-12	28	-11	30	-9	25	-14	29	-10	3	1	
	101	39	29	-10	29	-10	32	-8	24	-15	30	-9	4	1	
	103	50	26	-24	24	-26	29	-21	23	-27	28	-22	3	1	
5	104	50	26	-24	24	-26	28	-22	23	-27	28	-22	1	0	
	111	50	38	-12	32	-18	39	-11	29	-21	39	-11	3	1	
	112	50	36	-14	30	-20	37	-13	27	-23	37	-13	3	0	
	118	50	32	-18	28	-22	34	-16	26	-24	33	-17	3	1	
	120	50	32	-18	28	-22	34	-16	25	-25	32	-17	3	1	
	121	50	29	-21	27	-23	31	-19	23	-27	30	-20	4	1	
	123	50	26	-24	25	-25	29	-21	22	-28	27	-23	3	1	
	125	50	29	-21	27	-23	31	-19	24	-26	30	-20	3	1	
	126	50	27	-23	25	-25	29	-21	22	-28	28	-22	3	1	
	129	50	28	-22	28	-22	31	-19	25	-20	30	-20	3	1	
	139	50	21	-29	19	-31	23	-27	17	-33	22	-28	2	1	
	154	50	35	-15	30	-20	35	-15	26	-24	36	-14	6	0	
	156	50	35	-15	20	-30	35	-15	24	-26	35	-15	4	0	
	157	50	32	-18	20	-30	32	-18	24	-26	33	-17	4	0	
	159	50	32	-18	20	-30	32	-18	22	-28	32	-18	2	0	
	6	132	39	22	-17	23	-16	26	-13	21	-18	25	-14	2	1
		133	39	24	-15	24	-15	27	-12	21	-18	26	-13	3	1
137		39	20	-19	22	-17	24	-15	18	-21	22	-17	4	2	
7	108	45	43	-2	42	-3	43	-2	30	-15	43	-2	2	0	
	109	45	44	-1	43	-2	44	-1	29	-16	44	-1	4	0	
	110	45	43	-2	42	-3	43	-2	30	-15	43	-2	2	0	
8	Dulwich	45	51	-6	47	-8	52	-7	43	-2	52	-7	4	1	
	142	42	16	-26	9	-33	17	-25	13	-29	18	-24	4	-1	
9	2	37	29	-8	24	-13	30	-7	31	-6	33	-4	7	-4	
	3	37	27	-10	27	-10	28	-9	30	-7	32	-5	8	-4	
	4	37	28	-9	23	-14	28	-8	31	-6	33	-4	8	-4	
	143	37	18	-19	22	-15	23	-14	19	-18	22	-15	3	2	
	144	37	20	-17	15	-22	21	-16	24	-13	25	-12	9	-4	
	145	37	21	-16	17	-20	22	-15	24	-13	26	-11	7	-3	
	146	37	19	-18	17	-20	21	-16	23	-14	24	-13	9	-3	
	147	37	20	-17	17	-20	22	-15	26	-11	27	-10	9	-5	
	148	37	20	-17	20	-17	22	-15	27	-10	28	-9	10	-6	
	149	37	21	-16	17	-20	23	-14	26	-11	27	-10	9	-5	
	150	37	21	-16	18	-19	23	-14	27	-10	28	-9	9	-5	
	151	37	21	-16	17	-20	23	-14	27	-10	28	-9	10	-5	
	152	37	24	-13	22	-15	26	-11	28	-9	29	-8	6	-3	
	10	5	36	29	-7	25	-11	30	-6	31	-5	33	-3	6	-3
		6	36	30	-6	26	-10	32	-4	32	-4	34	-2	6	-3
		8	36	30	-6	29	-7	32	-4	34	-2	35	-1	5	-3
		9	36	29	-7	31	-5	33	-3	36	0	38	2	6	-4
10		36	29	-7	33	-3	34	-2	37	0	37	-3	5	-2	
11		36	29	-7	30	-6	33	-3	37	0	38	2	7	-4	
13		36	30	-6	30	-6	33	-3	36	0	37	1	6	-4	
7		38	30	-8	25	-13	31	-7	30	-8	33	-5	5	-2	
12		38	29	-9	23	-15	30	-8	32	-6	34	-4	9	-4	
14		38	21	-17	21	-17	32	-6	32	-6	36	-2	8	-4	
11	15	38	30	-8	26	-12	31	-7	33	-5	35	-3	7	-3	
	16	38	31	-7	29	-9	33	-5	35	-3	36	-2	6	-3	
	17	38	27	-11	27	-11	30	-8	33	-5	34	-4	6	-4	
	18	38	27	-11	26	-12	29	-9	32	-6	33	-5	6	-4	
	19	38	24	-14	17	-21	34	-4	34	-4	34	-4	3	0	
	20	38	36	-2	20	-18	32	-2	22	-16	36	-2	2	0	
	21	38	36	-2	20	-18	36	-2	21	-17	36	-2	1	0	
	50	35	31	-4	28	-7	33	-2	25	-10	32	-3	3	1	
	51	35	31	-4	28	-7	33	-2	25	-10	32	-3	3	1	
	52	35	28	-7	26	-9	30	-5	24	-11	29	-6	2	1	
	53	35	28	-7	28	-7	32	-3	26	-9	31	-4	3	1	
	54	35	29	-6	30	-5	32	-3	27	-8	31	-4	3	1	
	55	35	29	-6	27	-8	31	-4	24	-11	30	-5	3	1	
	56	35	28	-7	29	-6	32	-3	26	-9	30	-5	3	2	
	57	35	29	-6	28	-7	32	-3	26	-9	31	-4	2	1	
	62	35	29	-6	30	-5	32	-3	28	-7	32	-3	2	1	
	A	22	36	36	0	22	-14	36	0	24	-12	36	0	-2	0
23		36	36	0	23	-13	36	0	25	-11	36	0	-2	0	
24		36	30	-6	19	-17	30	-6	22	-14	31	-5	-3	0	
25		36	31	-5	19	-17	31	-5	21	-15	31	-5	-2	0	
26		36	30	-6	19	-17	30	-6	21	-15	30	-6	-2	0	
27		36	29	-7	18	-18	29	-7	20	-16	30	-6	-2	0	
28		36	26	-10	17	-19	27	-9	19	-17	27	-9	-2	0	
29		36	28	-8	19	-17	28	-8	21	-15	29	-7	-2	0	
30		36	32	-4	20	-16	32	-4	22	-14	32	-4	-2	0	
31		36	35	-1	21	-15	35	-1	22	-14	35	-1	-1	0	
32		36	36	0	21	-15	36	-1	23	-13	36	0	-2	0	
34		36	38	-2	23	-13	38	-2	24	-12	38	-2	-1	0	
35		36	38	-2	22	-14	38	-2	23	-13	38	-2	-1	0	
36		36	28	-8	22	-14	29	-7	23	-13	29	-7	-1	0	
37		36	23	-13	19	-17	23	-9	19	-17	24	-11	2	0	
38		36	28	-8	23	-13	29	-7	22	-14	29	-7	1	0	
39		36	24	-12	20	-16	26	-10	20	-16	25	-11	0	0	
40		36	23	-13	18	-18	24	-12	18	-18	24	-12	0	0	
C		41	36	18	-18	14	-22	30	-6	14	-22	30	-6	1	0
		42	36	29	-7	23	-13	30	-6	23	-13	30	-6	1	0
	43	36	33	-3	25	-11	34	-2	23	-13	33	-3	2	0	
	47	35	31	-4	31	-4	34	-1	28	-7	33	-2	3	1	
	63	35	29	-6	30	-5	32	-3	28	-7	32	-3	2	1	
	64	35	31	-4	32	-3	35	2	30	-5	34	-1	2	1	
	44	37	32	-5	24	-13	32	-4	24	-13	33	-4	1	0	
	48	37	29	-8	27	-10	31	-6	25	-12	30	-7	2	1	
	49	37	29	-8	27	-10	31	-6	25	-12	30	-7	3	1	
	65	39	29	-10	32	-7	33	-6	29	-10	32	-7	3	2	
F	66	39	29	-10	30	-9	33	-6	28	-11	32	-			

Table A1 - Non Mine Owned: Full Pit Year 1

EVENING TIME - CALM				Haul Road Scenario				Conveyor Scenario						
Noise Assessment Group	Residence Reference	Criteria dBA	QC Total dBA	QC vs Criteria dBA	UG Total dBA	UG Total vs Criteria dBA	Combined Open Cut & Underground Total dBA	Combined vs Criteria dBA	UG Total dBA	UG Total vs Criteria dBA	Combined OC & UG Total dBA	Combined vs Criteria dBA	UG Only Haul vs Conveyor	Combined OC & UG, Haul vs Conveyor
1	80	35	32	-3	36	1	37	2	36	1	37	2	0	0
3	87	40	42	2	38	-2	43	3	35	-5	43	3	1	0
	106	40	40	0	32	-8	41	1	29	-11	40	0	0	0
4	88	42	26	-16	24	-18	28	-14	22	-20	27	-15	2	1
	91	42	27	-15	26	-16	30	-12	24	-18	29	-13	2	1
	94	42	27	-15	26	-16	30	-12	23	-19	28	-14	3	1
	95	42	29	-13	27	-15	31	-11	24	-18	30	-12	3	1
	96	42	29	-13	28	-14	32	-10	26	-16	31	-10	2	1
	99	42	27	-15	25	-17	29	-13	23	-19	28	-14	2	1
	100	42	26	-16	25	-17	28	-14	22	-20	27	-15	3	1
	105	42	28	-14	28	-14	31	-11	25	-17	30	-12	3	1
	161	42	29	-13	28	-14	32	-10	24	-18	30	-12	4	1
5	103	46	26	-20	26	-20	29	-17	23	-23	28	-18	3	1
	104	46	26	-20	24	-22	28	-18	23	-23	28	-18	3	0
	111	46	39	-7	32	-14	40	-6	29	-17	39	-7	3	0
	112	46	37	-9	30	-16	38	-8	27	-19	37	-9	3	0
	118	46	33	-13	29	-17	35	-11	26	-20	34	-12	3	1
	120	46	33	-13	28	-18	34	-12	25	-21	34	-12	3	1
	121	46	29	-17	27	-19	31	-15	23	-23	30	-16	4	1
	123	46	26	-20	25	-21	29	-17	22	-24	27	-19	3	1
	125	46	29	-17	27	-19	31	-15	24	-22	30	-16	3	1
	126	46	27	-19	25	-21	29	-17	22	-24	28	-18	3	1
	129	46	29	-17	28	-18	31	-15	25	-21	30	-16	3	1
	139	46	21	-25	19	-27	23	-23	17	-29	22	-24	2	1
	154	46	36	-10	20	-26	36	-10	26	-20	36	-10	-6	0
	156	46	36	-10	20	-26	36	-10	24	-22	36	-10	-4	0
	157	46	33	-13	20	-26	33	-13	24	-22	34	-12	-4	0
	159	46	33	-13	20	-26	33	-13	22	-24	33	-13	-2	0
6	132	41	22	-19	23	-18	26	-15	21	-20	25	-16	2	1
	133	41	24	-17	24	-17	27	-14	20	-21	26	-15	3	1
	137	41	20	-21	22	-19	24	-17	18	-23	22	-19	4	2
7	108	42	43	1	32	-10	43	1	30	-12	43	1	2	0
	109	42	44	2	33	-9	44	2	29	-13	44	2	4	0
	110	42	44	2	33	-9	44	2	30	-12	44	2	2	0
	Dulwich	42	51	9	47	5	52	10	43	1	52	10	4	1
8	142	42	16	-26	9	-33	17	-25	13	-29	18	-24	-4	-1
9	2	40	30	-10	24	-16	31	-9	31	-9	34	-6	-7	-3
	3	40	28	-12	23	-17	29	-11	30	-10	32	-8	-8	-3
	4	40	28	-12	23	-17	29	-11	31	-9	33	-7	-8	-4
	143	40	19	-21	22	-18	24	-16	22	-18	24	-16	3	2
	144	40	21	-19	15	-25	22	-18	24	-16	26	-14	-9	-4
	145	40	21	-19	17	-23	22	-18	24	-16	26	-14	-7	-3
	146	40	20	-20	17	-23	22	-18	23	-17	25	-15	-6	-3
	147	40	21	-19	17	-23	22	-18	23	-17	25	-15	-6	-3
	148	40	21	-19	17	-23	22	-18	27	-13	28	-12	-6	-3
	149	40	21	-19	17	-23	23	-17	26	-14	27	-13	-9	-5
	150	40	22	-18	18	-22	23	-17	27	-13	28	-12	-9	-5
	151	40	22	-18	17	-23	23	-17	27	-13	28	-12	-10	-5
	152	40	25	-15	22	-16	27	-13	28	-10	30	-10	-6	-3
10	5	39	30	-9	25	-14	31	-5	31	-8	34	-5	-2	0
	6	39	30	-9	26	-13	32	-7	32	-7	34	-5	-6	-3
	8	39	30	-9	29	-10	34	-5	35	-4	35	-4	-5	-3
	9	39	30	-9	31	-8	34	-5	37	-2	38	-1	-6	-4
	10	39	29	-10	33	-6	34	-5	36	-3	37	-2	-3	-2
	11	39	29	-10	30	-9	32	-7	37	-1	38	-1	-2	-2
11	13	39	31	-8	30	-9	33	-6	36	-3	37	-2	-6	-4
	7	41	30	-11	25	-16	31	-10	30	-11	33	-8	-5	-3
	12	41	30	-11	23	-18	31	-10	32	-9	34	-7	-9	-3
	14	41	32	-9	27	-14	33	-8	35	-6	37	-4	-8	-4
	15	41	31	-10	26	-15	32	-9	33	-8	35	-6	-7	-3
	16	41	32	-9	29	-12	34	-7	35	-6	37	-4	-6	-3
	17	41	28	-13	27	-14	31	-10	33	-8	34	-7	-6	-4
	18	41	28	-13	26	-15	30	-11	32	-9	33	-8	-6	-3
	19	41	35	-6	24	-24	35	-6	20	-21	35	-6	-3	0
	20	41	37	-4	20	-21	37	-4	22	-19	37	-4	-3	0
	21	41	37	-4	20	-21	37	-4	21	-20	37	-4	-3	0
12	50	38	32	-6	28	-10	33	-5	25	-13	33	-5	3	1
	51	38	32	-6	28	-10	33	-5	25	-13	33	-5	3	1
	52	38	29	-9	26	-12	31	-7	24	-14	30	-8	2	1
	53	38	31	-7	28	-10	33	-5	26	-12	33	-5	3	1
	54	38	29	-9	28	-10	33	-5	27	-11	31	-7	3	1
	55	38	30	-8	27	-11	32	-6	24	-14	31	-7	3	1
	56	38	29	-9	29	-10	32	-6	26	-12	31	-7	3	1
	57	38	30	-8	28	-10	32	-6	26	-12	31	-7	3	1
	62	38	29	-9	30	-8	32	-6	28	-10	32	-6	2	1
A	22	39	37	-2	22	-17	37	-2	24	-15	37	-2	-2	0
	23	39	37	-2	23	-16	37	-2	25	-14	37	-2	-2	0
	24	39	30	-9	19	-20	30	-9	22	-17	31	-8	-3	0
	25	39	32	-7	19	-20	32	-7	21	-18	32	-7	-2	0
	26	39	31	-8	20	-19	31	-8	21	-18	31	-8	-2	0
	27	39	31	-8	18	-21	31	-8	20	-19	31	-8	-2	0
	28	39	27	-12	27	-12	27	-12	19	-20	28	-11	-2	0
	29	39	29	-10	19	-20	29	-10	21	-18	30	-9	-2	0
	30	39	33	-6	20	-19	33	-6	22	-17	33	-6	-2	0
	31	39	36	-3	21	-18	36	-3	21	-17	36	-3	-1	0
	32	39	37	-2	21	-18	37	-2	22	-16	37	-2	-2	0
	34	39	39	0	23	-16	39	0	24	-15	39	0	-1	0
	35	39	39	0	22	-17	39	0	23	-16	39	0	-1	0
	36	39	28	-11	22	-17	29	-10	23	-16	29	-10	-1	0
	37	39	24	-15	21	-18	26	-13	19	-20	25	-14	2	0
	38	39	29	-10	23	-16	29	-10	22	-17	30	-9	-1	0
	39	39	25	-14	20	-19	26	-13	20	-19	26	-13	0	0
	40	39	23	-16	18	-21	24	-15	18	-21	24	-15	0	0
	41	39	18	-21	14	-25	20	-19	14	-25	19	-20	0	0
	42	39	30	-9	23	-16	31	-8	22	-17	31	-8	1	0
	43	39	34	-5	25	-14	35	-4	23	-16	34	-5	2	0
C	47	37	31	-6	31	-6	34	-3	28	-9	33	-4	3	0
	63	37	30	-7	30	-7	33	-4	28	-9	32	-5	2	1
	64	37	32	-5	32	-5	35	-2	30	-7	34	-3	2	1
D	44	40	33	-7	25	-15	34	-6	24	-16	34	-6	1	0
	48	40	29	-11	23	-17	31	-9	25	-15	30	-10	2	1
	49	40	29	-11	22	-18	31	-9	25	-15	30	-10	2	1
F	65	40	30	-10	32	-8	34	-6	29	-11	33	-7	3	1
	66	40	30	-10	32	-8	33	-7	28	-12	32	-8	2	1
	67	40	32	-8	31	-9	35	-5	29	-11	34	-6	2	1
	68	40	34	-6	35	-6	38	-2	33	-7	36	-4	3	1
	71	40	35	-5	38	-2	40	0	36	-4	39	-1	2	1
	72	40	35	-5	38	-2	40	0	36	-4	39	-1	2	1
	73	40	35	-5	38	-2	40	0	37	-3	39	-1	1	0
	76	40	35	-5	39	-1	40	0	38	-2	40	0	1	1

Note 1: Marginal Management Zone 1 to 2 dBA (Green)
 Note 2: Moderate Management Zone 3 to 4 dBA (Blue)
 Note 3: Noise Affection Zone >5 dBA (Red)

Table A1 - Non Mine Owned: Full Pit Year 1

NIGHT TIME - CALM					Haul Road Scenario				Conveyor Scenario					
Noise Assessment Group	Residence Reference	Criteria dBA	QC Total dBA	QC vs Criteria dBA	UG Total dBA	UG Total vs Criteria dBA	Combined Open Cut & Underground Total dBA	Combined vs Criteria dBA	UG Total dBA	UG Total vs Criteria dBA	Combined OC & UG Total dBA	Combined vs Criteria dBA	UG Only Haul vs Conveyor	Combined OC & UG, Haul vs Conveyor
1	80	36	33	-3	36	0	38	2	36	0	38	2	0	0
3	87	39	42	3	38	-1	43	4	35	-4	43	4	3	1
	106	39	43	4	32	-7	42	5	29	-10	43	4	3	0
4	88	37	26	-11	24	-13	28	-9	22	-15	27	-10	2	1
	91	37	28	-9	26	-11	30	-7	24	-13	29	-8	2	1
	94	37	28	-9	26	-11	30	-7	23	-14	29	-8	3	1
	95	37	29	-8	27	-10	31	-6	24	-13	30	-7	3	1
	96	37	30	-7	28	-9	32	-5	26	-11	31	-6	2	1
	99	37	27	-10	25	-12	29	-8	23	-14	28	-9	2	1
	100	37	27	-10	25	-12	29	-8	22	-15	28	-9	3	1
	105	37	28	-9	28	-9	31	-6	25	-12	30	-7	3	1
	161	37	30	-7	28	-9	32	-5	24	-13	31	-6	4	1
5	103	42	27	-15	36	-16	30	-12	23	-19	28	-14	3	1
	104	42	27	-15	24	-18	29	-13	23	-19	28	-14	1	0
	111	42	40	-2	32	-10	41	-3	29	-13	40	-2	3	0
	112	42	37	-5	30	-12	38	-4	27	-15	37	-5	3	0
	118	42	34	-8	29	-13	35	-7	26	-16	35	-7	3	1
	120	42	34	-8	28	-14	36	-7	25	-17	35	-7	3	0
	121	42	29	-13	27	-15	31	-11	23	-19	30	-12	4	1
	123	42	27	-15	25	-17	29	-13	22	-20	28	-14	3	1
	125	42	30	-12	27	-15	32	-10	24	-18	31	-11	3	1
	126	42	27	-15	25	-17	29	-13	22	-20	28	-14	3	1
	129	42	29	-13	28	-14	31	-11	24	-18	30	-12	3	1
	139	42	22	-20	19	-23	24	-18	17	-25	23	-19	2	0
	154	42	37	-5	20	-22	37	-5	26	-16	37	-5	-6	0
	156	42	36	-6	20	-22	36	-6	24	-18	36	-6	-4	0
	157	42	34	-8	20	-22	34	-8	24	-18	34	-8	-4	0
	159	42	34	-8	20	-22	34	-8	22	-20	34	-8	-2	0
6	132	38	22	-16	23	-15	26	-12	21	-17	25	-13	2	1
	133	38	24	-14	24	-14	27	-11	21	-17	26	-12	3	1
	137	38	21	-17	22	-16	24	-14	18	-20	23	-15	4	2
7	108	39	44	5	32	-7	44	5	30	-9	44	5	2	0
	109	39	45	6	33	-6	45	6	29	-10	45	6	4	0
	110	39	44	5	32	-7	44	5	30	-9	44	5	2	0
	Dulwich	39	51	12	47	8	52	13	43	4	52	13	4	1
8	142	35	16	-19	9	-26	17	-18	13	-22	18	-17	-4	-1
9	2	38	30	-8	24	-14	31	-7	24	-14	31	-7	-4	-3
	3	38	27	-11	22	-16	28	-10	20	-18	27	-11	-8	-4
	4	38	29	-9	23	-15	30	-8	21	-17	29	-10	-8	-4
	143	38	19	-19	22	-16	24	-14	19	-19	22	-16	3	2
	144	38	21	-17	15	-23	22	-16	24	-14	26	-12	-9	-4
	145	38	21	-17	17	-21	22	-16	24	-14	26	-12	-7	-3
	146	38	20	-18	17	-21	22	-16	23	-15	25	-13	-6	-3
	147	38	21	-17	17	-21	22	-16	23	-15	25	-13	-6	-3
	148	38	21	-17	17	-21	22	-16	27	-11	28	-10	-10	-6
	149	38	21	-17	17	-21	23	-15	26	-12	27	-11	-9	-5
	150	38	21	-17	18	-20	23	-15	27	-11	28	-10	-9	-5
	151	38	22	-16	17	-21	23	-15	27	-11	28	-10	-10	-5
	152	38	25	-13	16	-22	25	-13	28	-10	30	-8	-8	-3
10	5	37	30	-7	25	-12	31	-6	26	-11	34	-3	-6	-2
	6	37	30	-7	26	-11	32	-5	32	-5	34	-3	-6	-3
	8	37	31	-6	29	-8	33	-4	34	-3	36	-1	-5	-3
	9	37	30	-7	31	-6	34	-3	37	0	38	1	-6	-4
	10	37	30	-7	33	-4	35	-2	36	-1	37	0	-2	0
	11	37	30	-7	30	-7	33	-4	37	0	38	1	-7	-5
11	13	37	32	-5	30	-7	34	-3	36	-1	37	0	-6	-3
	7	39	30	-9	25	-14	31	-8	30	-9	33	-6	-5	-2
	12	39	30	-9	23	-16	31	-8	32	-7	34	-5	-9	-4
	14	39	32	-7	27	-12	33	-6	35	-4	37	-2	-8	-4
	15	39	31	-8	26	-13	32	-7	33	-6	37	-2	-9	-4
	16	39	32	-7	29	-10	34	-5	35	-4	37	-2	-6	-3
	17	39	26	-13	27	-12	30	-9	33	-6	34	-5	-6	-4
	18	39	24	-15	26	-13	28	-11	32	-7	33	-6	-6	-5
	19	39	22	-17	17	-22	23	-16	20	-19	24	-15	-3	-1
	20	39	22	-17	20	-19	24	-15	22	-17	25	-14	-3	-1
	21	39	22	-17	20	-19	24	-15	21	-18	25	-14	-1	0
12	50	35	25	-10	28	-7	30	-5	25	-10	28	-7	3	2
	51	35	25	-10	28	-7	29	-6	25	-10	28	-7	3	1
	52	35	23	-12	26	-9	28	-7	24	-11	27	-8	2	1
	53	35	25	-10	28	-7	30	-5	26	-9	29	-6	2	1
	54	35	26	-9	30	-5	31	-4	27	-8	30	-5	3	2
	55	35	24	-11	27	-8	28	-7	24	-11	27	-8	3	1
	56	35	26	-9	29	-6	31	-4	26	-9	29	-6	3	2
	57	35	26	-9	29	-6	30	-5	26	-9	29	-6	2	1
	62	35	26	-9	28	-7	31	-4	28	-7	30	-5	2	1
A	22	36	24	-12	22	-14	26	-10	24	-12	27	-9	-2	-1
	23	36	24	-12	23	-13	27	-9	25	-11	28	-8	-2	-1
	24	36	21	-15	19	-17	23	-13	22	-14	25	-11	-3	-1
	25	36	21	-15	19	-17	23	-13	21	-15	24	-12	-2	-1
	26	36	20	-16	19	-17	22	-14	21	-15	24	-12	-2	-1
	27	36	20	-16	18	-18	22	-14	20	-16	23	-13	-2	-1
	28	36	19	-17	17	-19	21	-15	19	-17	22	-14	-2	-1
	29	36	21	-15	19	-17	23	-13	21	-15	24	-12	-2	-1
	30	36	21	-15	20	-16	23	-13	22	-14	25	-11	-2	-1
	31	36	22	-14	21	-15	24	-12	22	-14	25	-11	-1	-1
	32	36	22	-14	20	-16	23	-13	22	-14	25	-11	-2	-1
	34	36	22	-14	23	-13	25	-11	24	-12	26	-10	-1	-1
	35	36	21	-15	22	-14	25	-11	23	-13	25	-11	-1	0
	36	36	21	-15	22	-14	25	-11	23	-13	25	-11	-1	0
	37	36	19	-17	21	-15	23	-13	19	-17	22	-14	2	1
	38	36	21	-15	22	-14	24	-12	22	-14	25	-11	1	0
	39	36	19	-17	20	-16	23	-13	20	-16	23	-13	0	0
	40	36	18	-18	18	-18	21	-15	18	-18	21	-15	0	0
	41	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0
	42	36	22	-14	23	-13	26	-10	22	-14	25	-11	1	1
	43	36	22	-14	23	-13	26	-10	22	-14	25	-11	1	1
C	47	35	26	-9	31	-4	32	-3	28	-7	30	-5	2	2
	63	35	26	-9	30	-5	31	-4	28	-7	30	-5	2	1
	64	35	28	-7	32	-3	34	-1	30	-5	32	-3	2	1
D	44	38	22	-16	25	-13	27	-11	24	-14	26	-12	1	1
	48	38	24	-14	26	-12	29	-9	25	-13	28	-10	2	1
	49	38	24	-14	28	-10	29	-9	25	-13	28	-10	2	1
F	65	38	28	-10	32	-6	33	-5	29	-9	32	-6	3	2
	66	38	27	-11	30	-8	32	-6	28	-10	31	-7	2	1
	67	38	28	-10	31	-7	33	-5	29	-9	32	-6	2	1
	68	38	31	-7	32	-4	33	-4	32	-4	33	-3	2	1
	71	38	33	-5	39	0	38	0	38	0	39	1	1	1
	72	38	33	-5	38	0	39	1	36	-2	38	0	2	2
	73	38	33	-5	38	0	39	1	37	-1	38	0	1	1
	76	38	34	-4	39	1	40	2	38	0	39	1	1	1

Note 1: Marginal Management Zone 1 to 2 dBA (Green)
 Note 2: Moderate Management Zone 3 to 4 dBA (Blue)
 Note 3: Noise Affection Zone >5 dBA (Red)

Table A1 - Non Mine Owned: Full Pit Year 1

NIGHT TIME - INVERSION				Haul Road Scenario					Conveyor Scenario					UG Only Haul vs. Conveyor		Combined OC & UG Haul vs. Conveyor	
Noise Assessment Group	Residence Reference	Criteria dBA	QC Total dBA	QC vs Criteria dBA	UG Total dBA	UG Total vs Criteria dBA	Combined Open Cut & Underground Total dBA	Combined Vs. Criteria dBA	UG Total dBA	UG Total vs Criteria dBA	Combined OC & UG Total dBA	Combined Vs. Criteria dBA	UG Only Haul vs. Conveyor	Combined OC & UG Haul vs. Conveyor			
1	80	36	41	5	42	6	45	9	36	0	42	6	6	2			
	87	39	46	7	47	8	50	11	35	-4	46	7	7	1			
	106	39	46	7	47	8	50	11	29	-10	46	7	10	1			
4	88	37	37	0	35	-2	39	2	22	-15	37	0	13	2			
	91	37	39	2	34	-3	40	3	24	-13	39	2	10	1			
	94	37	37	0	34	-3	39	2	23	-14	37	0	11	2			
	95	37	38	1	35	-2	40	3	24	-13	38	1	11	1			
	96	37	39	2	35	-2	41	4	25	-12	39	2	9	1			
	99	37	36	-1	34	-3	38	1	23	-14	36	-1	11	2			
	100	37	36	-1	33	-4	38	1	22	-15	36	-1	11	2			
	105	37	40	3	35	-2	41	4	25	-12	40	3	10	1			
	161	37	39	2	33	-4	40	3	24	-13	39	2	9	1			
	103	42	33	-9	34	-8	36	0	23	-19	33	-9	11	2			
5	104	42	36	-6	33	-8	38	0	23	-19	36	-6	10	1			
	111	42	46	4	37	-5	47	5	29	-13	46	4	8	0			
	112	42	44	2	36	-6	45	3	27	-15	44	2	9	1			
	118	42	41	-1	39	-3	44	2	26	-16	41	-1	13	2			
	120	42	40	-2	35	-7	44	2	25	-17	40	-2	10	1			
	121	42	38	-4	34	-8	40	0	23	-19	38	-4	11	1			
	123	42	37	-5	34	-8	39	0	22	-20	37	-5	12	2			
	125	42	38	-4	34	-8	40	0	24	-18	38	-4	10	1			
	126	42	37	-5	34	-8	39	0	22	-20	37	-5	12	1			
	129	42	40	-2	34	-8	41	0	23	-19	40	-2	9	1			
6	139	42	35	-7	26	-16	36	0	17	-25	35	-7	9	0			
	154	42	42	0	36	-6	43	1	26	-16	42	0	10	1			
	156	42	42	0	35	-7	43	1	24	-18	42	0	11	1			
	157	42	40	-2	33	-9	41	0	24	-18	40	-2	9	1			
	159	42	41	-1	34	-8	42	0	22	-20	41	-1	12	1			
	132	38	37	-1	31	-7	38	0	27	-17	37	-1	10	1			
	133	38	35	-3	30	-8	36	0	21	-17	35	-3	9	1			
	137	38	34	-4	30	-8	35	0	18	-20	34	-4	12	1			
	108	39	49	10	39	0	49	10	30	-9	49	10	9	0			
	109	39	49	10	39	0	49	10	29	-10	49	10	10	0			
7	110	39	48	9	38	-1	48	9	30	-9	48	9	8	0			
	Dulwich	39	53	14	50	11	55	16	43	-4	53	14	7	1			
	8	142	35	27	-8	22	-13	28	0	13	-22	27	-8	9	1		
		2	38	36	-2	32	-6	37	0	31	-7	37	-1	1	0		
		3	38	38	0	30	-8	39	1	30	-8	39	1	0	0		
		4	38	38	0	31	-7	39	1	31	-7	39	1	0	0		
		143	38	34	-4	30	-8	36	0	19	-19	34	-4	11	1		
		144	38	35	-3	27	-11	36	0	24	-14	35	-3	3	0		
		145	38	35	-3	29	-9	36	0	24	-14	35	-3	5	1		
		146	38	34	-4	29	-9	35	0	23	-15	34	-4	6	1		
147		38	35	-3	28	-9	36	0	25	-12	36	-3	3	1			
148		38	34	-4	29	-9	35	0	27	-11	35	-3	2	0			
10	149	38	32	-6	29	-9	34	0	26	-12	33	-5	3	1			
	150	38	34	-4	29	-9	35	0	27	-11	35	-3	2	0			
	151	38	35	-3	29	-9	36	0	27	-11	36	-2	2	0			
	152	38	35	-3	31	-7	37	0	28	-10	37	-3	3	1			
	5	37	39	2	33	-4	40	3	31	-6	40	3	2	0			
	6	37	40	3	34	-3	41	4	32	-5	41	4	2	0			
	8	37	41	4	35	-2	42	5	34	-3	42	5	1	0			
	9	37	41	4	38	1	43	6	37	0	42	5	1	0			
	10	37	40	3	39	2	43	6	36	-1	41	4	3	1			
	11	37	40	3	37	0	41	4	37	0	42	5	2	0			
11	13	37	42	5	36	-1	43	6	36	-1	43	6	0	0			
	7	39	38	-1	33	-6	39	0	30	-9	39	0	3	0			
	12	39	39	0	30	-9	40	1	32	-7	40	1	2	0			
	14	39	41	2	31	-8	42	3	35	-4	42	3	2	0			
	15	39	39	0	32	-7	40	1	32	-7	40	1	2	0			
	16	39	41	2	35	-4	42	3	35	-4	42	3	0	0			
	17	39	35	-4	34	-5	38	0	37	-2	37	-2	1	0			
	18	39	32	-7	32	-7	35	0	32	-7	35	-4	0	0			
	19	39	36	-3	28	-11	37	0	20	-19	36	-3	8	1			
	20	39	35	-4	27	-12	36	0	22	-17	35	-4	5	0			
12	21	39	35	-4	28	-11	36	0	21	-18	35	-4	7	1			
	50	35	35	0	36	1	38	3	25	-10	35	0	11	3			
	51	35	34	-1	35	0	37	2	25	-10	35	0	10	3			
	52	35	27	-8	32	-3	34	0	24	-11	29	-6	8	5			
	53	35	35	0	35	0	38	3	26	-9	36	1	9	2			
	54	35	36	1	35	0	39	4	27	-8	37	2	8	2			
	55	35	30	-5	33	-2	35	0	24	-11	31	-4	9	4			
	56	35	33	-2	34	-1	36	1	26	-9	34	-1	8	3			
	57	35	35	0	35	0	38	3	26	-9	36	1	9	2			
	62	35	37	2	37	2	40	5	28	-7	38	3	9	2			
A	22	36	35	-1	31	-5	36	0	24	-12	35	-1	7	1			
	23	36	36	0	32	-4	37	1	25	-11	36	0	7	1			
	24	36	31	-5	30	-6	33	0	22	-14	32	-4	8	2			
	25	36	33	-3	29	-7	34	0	21	-15	33	-3	8	1			
	26	36	32	-4	28	-8	33	0	22	-14	32	-4	7	1			
	27	36	32	-4	27	-9	33	0	20	-16	32	-4	7	1			
	28	36	31	-5	27	-9	32	0	19	-17	31	-5	8	1			
	29	36	33	-3	27	-9	34	0	21	-15	33	-3	8	1			
	30	36	33	-3	29	-7	34	0	22	-14	33	-3	7	1			
	31	36	33	-3	29	-7	35	0	22	-14	33	-3	7	1			
C	32	36	33	-3	20	-16	35	0	23	-13	33	-3	7	1			
	34	36	33	-3	31	-5	35	0	24	-12	34	-2	7	1			
	35	36	32	-4	30	-6	34	0	23	-13	33	-3	7	2			
	36	36	32	-4	28	-8	33	0	23	-13	33	-3	5	1			
	37	36	23	-13	23	-13	26	0	19	-17	24	-12	4	2			
	38	36	33	-3	21	-15	33	0	23	-13	33	-3	9	2			
	39	36	23	-13	22	-14	26	0	20	-16	25	-11	2	1			
	40	36	21	-15	19	-17	23	0	18	-18	23	-13	1	0			
	41	36	18	-18	19	-17	22	0	14	-22	19	-17	5	2			
	42	36	33	-3	32	-4	36	0	22	-14	33	-3	10	2			
D	43	36	34	-2	31	-5	36	0	22	-14	34	-2	8	2			
	47	35	31	-4	36	1	37	2	28	-7	33	-2	8	5			
	63	35	34	-1	37	2	39	4	28	-7	35	0	9	4			
	64	35	34	-1	38	3	40	5	30	-5	35	0	8	4			
	44	38	31	-7	32	-6	35	0	24	-14	32	-6	8	3			
	48	38	29	-9	34	-4	36	0	25	-13	30	-8	9	5			
	49	38	34	-4	38	0	40	2	25	-13	35	-3	11	4			
	F	65	38	35	-3	37	-1	39	1	29	-9	36	-2	8	3		
		66	38	33	-5	38	0	40	2	28	-10	34	-4	9	4		
		67	38	34	-4	39	1	41	3	29	-9	35	-3	10	5		
68		38	38	0	39	1	42	4	31	-6	39	2	7	3			
71		38	40	2	42	4	44	6	36	-2	41	3	6	2			
72		38	40	2	42	4	44	6	36	-2	41	3	6	3			
73		38	40	2	42	4	44	6	37	-1	42	4	5	2			
76		38	41	3	43	5	45	7	38	0	43	5	5	3			

Note 1: Marginal Management Zone 1 to 2 dBA (Green)
 Note 2: Moderate Management Zone 3 to 4 dBA (Blue)
 Note 3: Noise Affection Zone >5 dBA (Red)

Table A.2 Non Mine Owned: Full Pit Year 4

DAY TIME - CALM		Haul Road Scenario										Conveyor Scenario				UG Only Haul vs Conveyor		Combined OC & UG, Haul vs Conveyor	
Noise Assessment Group	Residence Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	UG Total dBA	UG Total vs Criteria dBA	Combined Open Cut & Underground Total dBA	Combined vs Criteria dBA	UG Total dBA	UG Total vs Criteria dBA	Combined OC & UG, Total dBA	Combined vs Criteria dBA	UG Only Haul vs Conveyor	Combined OC & UG, Haul vs Conveyor					
1	80	15	12	-3	16	1	17	2	16	1	17	2	0	0					
3	87	18	40	22	38	0	42	24	35	-3	41	23	3	1					
	106	18	17	-1	12	-6	16	0	15	-1	16	1	3	1					
	88	19	24	5	15	24	9	12	22	3	21	2	1	1					
	91	19	26	7	14	25	11	20	10	24	4	2	1	1					
	94	19	25	6	15	25	10	20	10	24	4	2	1	1					
	95	19	26	7	14	25	11	20	10	24	4	2	1	1					
	96	19	27	8	13	26	11	21	11	25	4	3	1	1					
	99	19	26	7	14	25	10	20	10	24	4	2	1	1					
	100	19	25	6	15	25	10	20	10	24	4	2	1	1					
	105	19	25	6	15	25	10	20	10	24	4	2	1	1					
5	161	19	27	8	13	26	11	21	11	25	4	3	1	1					
	109	20	24	4	15	25	10	20	10	24	4	2	1	1					
	104	20	24	4	15	25	10	20	10	24	4	2	1	1					
	111	20	25	5	14	26	11	21	11	25	4	3	1	1					
	112	20	25	5	14	26	11	21	11	25	4	3	1	1					
	118	20	25	5	14	26	11	21	11	25	4	3	1	1					
	120	20	25	5	14	26	11	21	11	25	4	3	1	1					
	121	20	25	5	14	26	11	21	11	25	4	3	1	1					
	123	20	24	4	15	25	10	20	10	24	4	2	1	1					
	125	20	27	7	13	27	11	21	11	25	4	3	1	1					
6	126	20	27	7	13	27	11	21	11	25	4	3	1	1					
	129	20	27	7	13	27	11	21	11	25	4	3	1	1					
	138	20	28	8	12	28	12	22	12	26	4	3	1	1					
	144	20	28	8	12	28	12	22	12	26	4	3	1	1					
	156	20	32	12	18	30	10	18	24	26	3	1	0	0					
	157	20	30	10	16	30	10	16	24	26	3	1	0	0					
	159	20	30	10	16	30	10	16	24	26	3	1	0	0					
	137	19	21	2	18	21	2	14	21	18	24	1	1	1					
	131	19	21	2	18	21	2	14	21	18	24	1	1	1					
	137	19	18	-1	21	17	-4	16	18	21	18	4	2	2					
7	108	40	39	-1	12	40	0	13	40	0	13	0	0	0					
	109	40	39	-1	12	40	0	13	40	0	13	0	0	0					
	110	40	39	-1	12	40	0	13	40	0	13	0	0	0					
8	142	42	14	-28	9	-33	15	-27	13	-20	17	-25	-4	-1					
	2	17	28	11	24	-11	20	8	11	-6	11	-4	-7	-3					
9	3	17	27	10	23	-12	19	7	10	-5	10	-4	-4	-4					
	4	17	28	11	24	-11	20	8	11	-6	11	-4	-8	-4					
	143	17	12	-5	20	3	17	14	18	19	1	18	2	2					
	144	17	10	-7	18	1	16	13	17	24	7	12	-5	-5					
	145	17	19	2	18	17	0	16	24	13	25	12	-7	-4					
	146	17	18	1	19	17	0	16	23	14	24	13	-6	-4					
	147	17	19	2	18	17	0	16	24	13	25	12	-7	-4					
	148	17	19	2	18	17	0	16	27	10	26	9	-10	-7					
	149	17	20	3	17	17	0	15	26	11	27	10	-9	-5					
	150	17	20	3	17	17	0	15	27	10	28	9	-10	-6					
10	151	17	20	3	17	17	0	15	27	10	28	9	-10	-6					
	152	17	21	4	16	16	1	14	28	9	29	8	-9	-3					
	5	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	6	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	8	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	9	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	10	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	11	16	30	14	24	-8	31	-5	10	-4	10	-2	-5	-4					
	12	16	30	14	24	-8	31	-5	10	-4	10	-2	-5	-4					
	13	16	30	14	24	-8	31	-5	10	-4	10	-2	-5	-4					
11	14	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	15	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	16	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	17	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	18	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	19	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	20	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	21	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	22	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	23	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
12	24	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	25	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	26	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	27	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	28	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	29	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	30	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	31	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	32	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	33	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
A	34	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	35	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	36	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	37	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	38	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	39	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	40	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	41	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	42	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	43	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
C	44	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	45	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	46	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	47	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	48	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	49	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	50	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	51	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	52	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	53	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
D	54	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	55	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	56	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	57	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	58	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	59	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	60	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	61	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	62	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	63	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
E	64	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	65	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	66	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	67	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	68	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	69	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	70	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	71	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	72	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					
	73	16	29	13	25	-11	30	-6	11	-5	11	-3	-6	-3					

Note - Red Head Scores Higher, Green Conv Scenario Higher

Table A.2 Non Mine Owned: Full Pit Year 4

EVENING TRIM - CALM															
Noise Assessment Group	Residence Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	Haul Road Scenario				Conveyor Scenario				US Only Haul vs Conveyor	Combined OC & US, Haul vs Conveyor	
					US Total dBA	US Total vs Criteria dBA	Combined Open Cut & Underpass Total dBA	Combined vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined OC & US, Conveyor Total dBA	Combined vs Criteria dBA			
1	80	35	32	-3	36	1	37	2	36	1	37	2	0	0	
	87	40	41	1	39	-1	41	1	39	-1	40	1	1	1	
	106	40	38	-2	32	-8	39	-1	39	-1	39	-1	3	1	
	86	42	24	-18	24	-18	27	-15	22	-20	26	-16	2	1	
	91	42	26	-16	26	-16	29	-13	24	-18	28	-14	2	1	
	94	42	26	-16	26	-16	29	-13	23	-19	28	-14	3	1	
	92	42	27	-15	27	-15	30	-12	24	-18	28	-14	2	1	
	96	42	28	-14	28	-14	31	-11	26	-16	30	-12	2	1	
	99	42	26	-16	25	-17	29	-13	23	-19	28	-14	2	1	
	100	42	25	-17	25	-17	28	-14	22	-20	27	-15	3	1	
4	101	42	28	-14	28	-14	31	-11	25	-17	29	-13	3	2	
	105	42	26	-16	28	-14	30	-12	25	-17	29	-13	3	2	
	42	28	-14	28	-14	31	-11	25	-17	29	-13	3	2		
	103	46	24	-22	25	-21	28	-18	23	-23	27	-19	1	1	
	104	46	25	-21	24	-22	28	-18	23	-23	27	-19	1	1	
	111	46	35	-11	32	-14	37	-9	29	-17	36	-10	3	1	
	112	46	35	-11	30	-16	36	-10	27	-19	36	-10	3	1	
	118	46	30	-16	29	-17	33	-13	26	-20	31	-15	3	1	
	120	46	33	-13	28	-18	33	-13	25	-21	32	-14	3	1	
	121	46	27	-19	27	-19	30	-16	23	-23	28	-18	4	1	
5	123	46	24	-22	25	-21	26	-18	22	-24	26	-20	3	1	
	125	46	27	-19	27	-19	30	-16	24	-22	29	-17	3	1	
	126	46	25	-21	25	-21	28	-18	22	-24	27	-19	3	1	
	128	46	27	-19	28	-18	30	-16	25	-21	29	-17	3	1	
	139	46	21	-25	19	-27	23	-23	17	-29	22	-24	2	1	
	154	46	34	-12	20	-26	26	-20	20	-26	35	-11	4	0	
	156	46	33	-13	20	-26	33	-13	24	-22	34	-12	4	0	
	157	46	31	-15	20	-26	31	-15	24	-22	32	-14	4	0	
	159	46	30	-16	20	-26	30	-16	22	-24	31	-15	4	0	
	132	43	23	-19	23	-19	25	-21	20	-25	25	-21	2	1	
6	133	43	24	-17	24	-17	27	-14	21	-20	26	-16	3	1	
	137	43	18	-23	18	-23	21	-22	18	-24	21	-20	3	1	
	108	42	40	-2	32	-10	41	-1	30	-12	40	-2	0	0	
	109	42	40	-2	33	-9	41	-1	29	-13	40	-2	4	0	
	110	42	40	-2	32	-10	41	-1	30	-12	40	-2	4	0	
	7	142	42	15	-27	9	-33	16	-26	11	-29	17	-25	4	0
		143	40	14	-26	14	-26	16	-24	9	-31	13	-27	3	1
		144	40	19	-21	15	-25	20	-20	24	-16	25	-15	9	-5
		145	40	20	-20	17	-23	22	-18	24	-16	24	-16	4	0
		146	40	18	-22	17	-23	20	-20	23	-17	24	-16	4	0
147		40	16	-24	17	-23	21	-19	26	-14	27	-14	6	-6	
148		40	20	-20	17	-23	22	-18	25	-15	26	-15	6	-6	
149		40	20	-20	17	-23	22	-18	26	-14	27	-13	9	-5	
150		40	20	-20	18	-22	23	-17	27	-13	28	-12	6	-12	
151		40	21	-19	21	-19	23	-17	27	-13	28	-12	9	-5	
10	152	40	24	-16	22	-18	26	-14	28	-12	29	-11	6	-13	
	5	39	30	-9	29	-10	31	-8	31	-8	34	-5	4	-4	
	6	39	30	-9	26	-13	32	-7	32	-7	34	-5	6	-3	
	8	39	31	-8	29	-10	31	-8	34	-5	36	-3	5	-3	
	9	39	30	-9	31	-8	34	-5	37	-4	38	-4	4	-4	
	10	39	30	-9	33	-6	35	-4	36	-3	37	-2	3	-2	
	11	39	30	-9	30	-9	32	-7	36	-3	38	-3	6	-12	
	12	39	32	-7	30	-9	34	-5	36	-3	37	-2	4	-4	
	13	39	30	-9	25	-14	33	-6	37	-4	38	-3	5	-3	
	14	41	30	-11	25	-16	31	-10	30	-11	33	-8	5	-2	
11	121	41	30	-11	23	-18	31	-10	32	-9	34	-7	6	-3	
	15	41	32	-9	29	-12	34	-7	35	-6	37	-4	8	-4	
	16	41	31	-10	26	-15	34	-7	34	-7	35	-6	7	-3	
	17	41	32	-9	29	-12	34	-7	35	-6	37	-4	8	-4	
	18	41	28	-13	27	-14	30	-11	33	-8	34	-7	6	-4	
	19	41	24	-17	24	-17	28	-13	32	-9	33	-6	6	-4	
	20	41	24	-17	24	-17	28	-13	32	-9	33	-6	6	-4	
	21	41	24	-17	24	-17	28	-13	32	-9	33	-6	6	-4	
	22	41	24	-17	24	-17	28	-13	32	-9	33	-6	6	-4	
	23	41	24	-17	24	-17	28	-13	32	-9	33	-6	6	-4	
12	24	39	23	-16	19	-20	24	-15	22	-17	26	-13	3	1	
	25	39	23	-16	19	-20	24	-15	22	-17	26	-13	3	1	
	26	39	22	-17	19	-20	24	-15	21	-18	25	-14	2	1	
	27	39	22	-17	18	-21	24	-15	20	-19	24	-15	2	1	
	28	39	21	-18	17	-22	23	-16	19	-20	23	-16	2	1	
	29	39	24	-15	20	-18	25	-14	21	-18	26	-13	2	1	
	30	39	24	-15	20	-18	25	-14	22	-17	26	-13	2	1	
	31	39	25	-14	21	-17	26	-13	23	-16	27	-12	3	0	
	32	39	24	-15	21	-17	26	-13	22	-17	26	-13	2	1	
	33	39	20	-19	21	-18	26	-13	20	-19	24	-15	2	1	
A	35	39	20	-19	22	-17	29	-10	23	-16	29	-10	0	0	
	36	39	20	-19	22	-17	28	-11	23	-16	28	-11	0	0	
	37	39	22	-17	21	-18	24	-15	19	-20	24	-15	2	1	
	38	39	26	-13	23	-16	28	-11	22	-17	27	-12	1	0	
	39	39	25	-14	23	-16	28	-11	22	-17	27	-12	1	0	
	40	39	25	-14	23	-16	28	-11	22	-17	27	-12	1	0	
	41	39	25	-14	23	-16	28	-11	22	-17	27	-12	1	0	
	42	39	25	-14	23	-16	28	-11	22	-17	27	-12	1	0	
	43	39	25	-14	23	-16	28	-11	22	-17	27	-12	1	0	
	44	39	25	-14	23	-16	28	-11	22	-17	27	-12	1	0	
C	45	39	25	-14	23	-16	28	-11	22	-17	27	-12	1	0	
	46	39	25	-14	23	-16	28	-11	22	-17	27	-12	1	0	
	47	37	35	-2	31	-6	36	-1	28	-9	36	-1	3	1	
	48	37	33	-4	30	-7	35	-2	28	-9	34	-3	2	1	
	49	37	34	-3	32	-5	36	-1	30	-7	35	-2	2	1	
	50	40	36	-4	35	-5	40	-4	34	-6	40	-4	0	0	
	51	40	37	-3	36	-4	41	-3	35	-5	41	-3	1	0	
	52	40	38	-2	37	-3	42	-2	36	-4	42	-2	1	0	
	53	40	39	-1	38	-2	43	-1	37	-3	43	-1	1	0	
	54	40	39	-1	38	-2	43	-1	37	-3	43	-1	1	0	
D	55	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	56	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	57	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	58	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	59	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	60	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	61	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	62	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	63	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	64	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
E	65	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	66	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	67	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	68	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	69	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	70	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	71	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	72	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	73	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	
	74	40	39	-1	39	-1	44	0	38	-2	44	0	1	0	

Note 1: Marginal Management Zone 1 to 2 dBA (Green)
 Note 2: Moderate Management Zone 3 to 5 dBA (Blue)
 Note 3: Noise Affection Zone > 6 dBA (Red)

Table A.2 Non Mine Owned: Full Pit Year 4

NIGHT TIME - CALM															
Noise Assessment Group	Residence Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	Haul Road Scenario				Conveyor Scenario				US Only Haul vs Conveyor	Combined OC & US Haul vs Conveyor	
					US Total dBA	US Total vs Criteria dBA	Combined Open Cut & Underpass Total dBA	Combined vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined OC & US Underpass Total dBA	Combined vs Criteria dBA			
1	80	36	32	-4	36	0	37	1	36	0	37	1	0	0	
	87	39	41	2	39	-1	41	2	39	-1	41	2	0	1	
	106	39	38	-1	39	0	39	0	39	0	39	0	0	1	
	86	37	24	-11	24	-11	27	-10	22	-15	26	-11	2	1	
	91	37	25	-11	25	-11	25	-8	24	-11	28	-9	2	1	
	94	37	28	-10	28	-10	30	-7	23	-14	28	-9	3	1	
	95	37	27	-10	27	-10	30	-7	26	-10	26	-8	2	1	
	96	37	28	-10	28	-10	31	-6	26	-11	30	-7	2	1	
	99	37	27	-10	27	-10	29	-8	23	-14	28	-9	2	1	
	100	37	25	-11	25	-11	28	-9	22	-15	27	-10	3	1	
4	104	37	27	-10	28	-9	30	-7	25	-12	29	-8	3	1	
	105	37	27	-10	28	-9	30	-7	25	-12	29	-8	3	1	
	103	42	24	-18	25	-15	25	-14	23	-15	27	-15	2	2	
	104	42	25	-17	24	-18	28	-14	23	-19	27	-15	1	1	
	111	42	35	-6	32	-10	38	-4	29	-13	37	-5	3	1	
	112	42	36	-6	30	-12	37	-5	27	-15	37	-5	3	1	
	118	42	31	-11	29	-13	33	-9	26	-16	32	-10	3	1	
	120	42	31	-11	28	-14	33	-9	25	-17	32	-10	3	1	
	121	42	27	-15	27	-15	30	-12	23	-19	28	-14	4	1	
	123	42	25	-17	25	-17	26	-14	22	-20	27	-15	3	1	
5	125	42	25	-17	25	-17	30	-12	24	-18	29	-13	3	1	
	126	42	25	-17	25	-17	28	-14	22	-20	27	-15	3	1	
	128	42	28	-14	28	-14	31	-11	25	-17	30	-12	2	1	
	139	42	21	-21	19	-23	23	-19	17	-25	22	-20	2	1	
	154	42	34	-8	20	-22	34	-8	26	-16	35	-7	4	0	
	156	42	34	-8	20	-22	34	-8	24	-18	34	-8	4	0	
	157	42	31	-11	20	-22	31	-11	24	-18	32	-10	4	0	
	159	42	31	-11	20	-22	31	-11	22	-20	32	-10	4	0	
	152	38	25	-13	25	-13	25	-11	23	-15	25	-13	2	1	
	133	38	24	-14	24	-14	27	-11	21	-17	26	-12	3	1	
6	137	38	18	-20	22	-16	24	-14	18	-20	22	-16	4	2	
	108	39	41	2	32	-7	42	3	30	-9	41	2	0	2	
	109	39	40	1	33	-6	41	2	29	-10	40	1	4	0	
	110	39	40	1	32	-7	43	4	30	-9	40	2	4	0	
	107	39	47	8	47	8	43	4	44	5	43	4	4	4	
	7	142	35	15	-20	9	-26	16	-19	11	-22	17	-18	4	-1
		4	35	29	-6	14	-21	30	-5	13	-22	31	-7	3	1
		8	38	28	-10	22	-16	29	-9	20	-18	32	-6	4	-1
		4	38	28	-10	22	-16	29	-9	20	-18	32	-6	4	-1
		143	38	17	-21	22	-16	23	-15	19	-19	21	-17	2	2
144		38	19	-19	15	-23	20	-18	24	-14	25	-13	-9	-5	
145		38	20	-18	17	-21	22	-16	24	-14	24	-14	-7	-4	
146		38	18	-20	17	-21	20	-18	23	-15	24	-14	-6	-4	
147		38	18	-20	17	-21	21	-17	26	-14	27	-15	-6	-6	
148		38	18	-20	17	-21	21	-17	25	-15	28	-10	-7	-5	
8	149	38	20	-18	17	-21	22	-16	26	-12	27	-11	-10	-5	
	150	38	20	-18	17	-21	22	-16	26	-12	27	-11	-10	-5	
	151	38	21	-17	21	-17	23	-15	27	-11	28	-10	-9	-5	
	152	38	24	-14	22	-16	26	-12	28	-10	29	-9	-6	-3	
	5	37	30	-7	25	-12	31	-6	32	-5	34	-3	-2	-1	
	6	37	30	-7	26	-11	32	-5	32	-5	34	-3	-2	-1	
	8	37	31	-6	29	-8	31	-6	31	-6	33	-4	-3	-1	
	9	37	35	-2	31	-6	34	-3	37	-1	40	-1	-4	-1	
	10	37	39	-8	33	-4	34	-3	36	-1	37	0	-5	-2	
	11	37	39	-8	33	-4	34	-3	36	-1	37	0	-5	-2	
9	13	37	32	-5	30	-7	34	-3	36	-1	37	0	-5	-2	
	14	39	30	-9	25	-14	31	-8	30	-9	33	-6	-5	-2	
	12	39	30	-9	23	-16	31	-8	32	-7	34	-5	-6	-3	
	14	39	32	-7	27	-12	33	-6	35	-4	37	-2	-8	-4	
	15	39	32	-7	26	-13	34	-5	34	-5	36	-3	-7	-3	
	16	39	32	-7	25	-14	34	-5	35	-4	37	-2	-8	-4	
	17	39	25	-14	27	-12	29	-10	33	-6	34	-5	-6	-4	
	18	39	23	-16	26	-13	28	-11	32	-7	33	-6	-5	-4	
	19	39	21	-18	17	-22	22	-17	20	-19	24	-15	-3	-1	
	20	39	22	-17	20	-19	24	-15	22	-17	25	-14	-2	-1	
10	21	39	22	-17	20	-19	24	-15	23	-18	25	-14	-2	0	
	50	35	25	-10	28	-7	30	-5	25	-10	28	-7	3	2	
	51	35	25	-10	26	-7	29	-6	25	-10	28	-7	3	1	
	52	35	23	-12	25	-8	29	-7	24	-11	27	-8	2	1	
	53	35	26	-9	28	-7	30	-5	26	-9	29	-6	2	1	
	54	35	27	-8	30	-5	32	-3	27	-8	30	-5	2	1	
	55	35	24	-11	27	-8	28	-7	24	-11	27	-8	1	1	
	56	35	26	-9	29	-6	31	-4	26	-9	29	-6	3	2	
	57	35	26	-9	28	-7	30	-5	26	-9	29	-6	2	1	
	62	35	28	-7	30	-5	32	-3	28	-7	31	-4	2	1	
11	22	36	24	-12	22	-14	26	-10	24	-12	27	-9	-2	-1	
	23	36	24	-12	22	-14	27	-9	25	-11	28	-8	-2	-1	
	24	36	23	-13	19	-17	23	-13	22	-14	25	-11	-3	-1	
	25	36	23	-13	19	-17	23	-13	22	-14	25	-11	-3	-1	
	26	36	20	-16	19	-17	22	-14	21	-15	24	-12	-2	-1	
	27	36	20	-16	18	-18	22	-14	20	-16	23	-11	-2	-1	
	28	36	19	-17	17	-19	21	-15	19	-17	22	-11	-2	-1	
	29	36	21	-15	19	-17	21	-15	21	-15	24	-12	-2	-1	
	30	36	21	-15	20	-16	21	-14	22	-14	25	-11	-2	-1	
	31	36	22	-14	21	-15	22	-14	23	-13	25	-11	-2	-1	
12	32	36	22	-14	21	-15	22	-14	23	-13	25	-11	-2	-1	
	33	36	22	-14	21	-15	22	-14	23	-13	25	-11	-2	-1	
	34	36	22	-14	21	-15	22	-14	23	-13	25	-11	-2	-1	
	35	36	23	-13	22	-14	23	-13	24	-12	26	-10	-2	-1	
	36	36	23	-13	22	-14	23	-13	24	-12	26	-10	-2	-1	
	37	36	22	-14	22	-14	25	-11	23	-13	26	-10	-1	0	
	38	36	22	-14	22	-14	25	-11	23	-13	26	-10	-1	0	
	39	36	22	-14	22	-14	25	-11	23	-13	26	-10	-1	0	
	40	36	19	-17	20	-16	24	-12	20	-16	24	-12	0	0	
	41	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
A	42	36	14	-22	14	-22	18	-18	14	-22	18	-18	0	0	
	43	36	14	-22	14	-22	18	-18	14	-22	18	-18	0	0	
	44	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	45	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	46	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	47	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	48	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	49	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	50	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	51	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
B	52	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	53	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	54	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	55	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	56	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	57	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	58	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	59	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	60	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	61	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
C	62	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	63	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	64	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	65	36	15	-21	14	-22	18	-18	14	-22	18	-18	0	0	
	66	36													

Table A.2 Non Mine Owned: Full Pit Year 4

NIGHT TIME - INVERSION				Head Road Scenario				Conveyor Scenario				US Only Head vs Conveyor		Combined OC & US Head vs Conveyor	
Noise Assessment Group	Residence Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined Open Cut & Underpass Total dBA	Combined vs Criteria dBA	US Total dBA	US total vs Criteria dBA	Combined OC & US Total dBA	Combined vs Criteria dBA	US Only Head vs Conveyor	Combined OC & US Head vs Conveyor	
1	80	36	32	-4	42	-2	42	-2	40	-6	41	-3	2	2	
	87	39	45	6	42	-4	47	3	39	-6	46	3	1	1	
	106	39	43	4	39	0	44	3	36	-3	44	3	1	1	
	86	37	37	0	35	-2	39	2	31	-6	38	1	4	1	
	95	37	37	0	34	-3	39	2	32	-5	38	2	1	1	
	94	37	34	-3	34	-3	39	2	32	-5	38	1	1	1	
	92	37	37	0	35	-2	39	2	32	-6	38	2	1	1	
	96	37	38	1	35	-2	40	3	33	-4	39	2	1	1	
	99	37	35	-2	34	-3	37	0	31	-6	36	-1	1	1	
	100	37	36	-1	33	-4	38	1	32	-5	37	0	2	1	
105	37	38	1	35	-2	40	3	33	-4	39	2	1	1		
101	37	38	1	35	-2	40	3	33	-4	39	2	1	1		
103	42	33	-9	35	-4	35	0	31	-11	35	-2	1	0		
104	42	35	-7	33	-9	37	0	31	-11	36	-6	2	1		
111	42	42	0	37	-5	43	1	35	-7	43	1	2	0		
112	42	41	-1	36	-6	42	0	34	-8	42	0	2	0		
118	42	38	-4	39	-3	41	-1	33	-9	39	-3	6	2		
120	42	36	-6	35	-7	39	0	33	-9	38	-4	2	1		
121	42	35	-7	34	-8	38	0	32	-10	37	-5	1	1		
123	42	34	-8	34	-8	37	0	31	-11	36	-6	3	1		
125	42	35	-7	34	-8	38	0	32	-10	37	-5	2	1		
126	42	34	-8	34	-8	37	0	31	-11	36	-6	3	1		
128	42	37	-5	34	-8	39	0	32	-10	38	-4	1	1		
139	42	32	-10	28	-16	33	0	26	-16	33	-9	0	0		
154	42	42	0	36	-6	43	1	33	-9	43	1	3	0		
156	42	42	0	36	-6	43	1	32	-10	42	0	3	0		
157	42	40	-2	33	-9	41	0	32	-10	41	-1	1	0		
159	42	41	-1	34	-8	42	0	32	-10	42	0	1	0		
132	38	33	-5	33	-7	39	-3	29	-9	34	-4	2	1		
133	38	33	-5	30	-8	35	0	28	-10	34	-4	2	0		
137	38	30	-8	30	-8	33	0	26	-12	31	-7	1	0		
108	39	45	6	39	0	46	7	46	7	46	7	3	0		
109	39	44	5	39	0	45	6	36	-3	45	6	3	0		
110	39	45	6	39	0	46	7	36	-3	46	7	3	0		
6	131	38	30	-8	30	-8	33	0	28	-10	34	-4	2	0	
	107	39	45	6	39	0	46	7	46	7	46	7	3	0	
	109	39	44	5	39	0	45	6	36	-3	45	6	3	0	
	110	39	45	6	39	0	46	7	36	-3	46	7	3	0	
	139	42	32	-10	28	-16	33	0	26	-16	33	-9	0	0	
	154	42	42	0	36	-6	43	1	33	-9	43	1	3	0	
	156	42	42	0	36	-6	43	1	32	-10	42	0	3	0	
	157	42	40	-2	33	-9	41	0	32	-10	41	-1	1	0	
	159	42	41	-1	34	-8	42	0	32	-10	42	0	1	0	
	132	38	33	-5	33	-7	39	-3	29	-9	34	-4	2	1	
7	133	38	33	-5	30	-8	35	0	28	-10	34	-4	2	0	
	137	38	30	-8	30	-8	33	0	26	-12	31	-7	1	0	
	108	39	45	6	39	0	46	7	46	7	46	7	3	0	
	109	39	44	5	39	0	45	6	36	-3	45	6	3	0	
	110	39	45	6	39	0	46	7	36	-3	46	7	3	0	
	8	142	35	27	-8	22	-11	28	0	22	-11	28	-7	0	0
		7	38	35	-3	32	-6	37	-1	33	-5	38	-1	1	0
		8	38	37	-1	30	-8	36	0	34	-4	36	-2	1	0
		9	38	38	0	31	-7	37	0	35	-3	40	2	1	0
		143	38	33	-5	30	-8	35	0	26	-12	34	-4	1	0
144		38	34	-4	27	-11	35	0	29	-9	35	-3	2	0	
145		38	34	-4	29	-9	35	0	30	-8	35	-3	2	0	
146		38	33	-5	29	-9	34	0	29	-9	34	-4	0	0	
147		38	34	-4	29	-9	35	0	31	-7	36	-2	1	0	
148		38	34	-4	29	-9	35	0	32	-6	36	-2	1	0	
149	38	32	-6	29	-9	34	0	31	-7	35	-3	2	0		
150	38	32	-6	29	-9	34	0	31	-7	35	-3	2	0		
151	38	32	-6	29	-9	34	0	31	-7	35	-3	2	0		
152	38	34	-4	31	-7	36	0	32	-6	36	-2	1	0		
5	37	38	1	33	-4	39	2	35	-2	40	3	1	0		
10	6	37	34	-3	31	-6	37	0	31	-6	36	-2	1	0	
	8	37	41	4	35	-2	40	3	37	0	42	5	1	0	
	9	37	41	4	35	-2	40	3	37	0	42	5	1	0	
	10	37	40	3	35	-3	43	6	40	3	43	3	1	0	
	11	37	40	3	35	-3	43	6	40	3	43	3	1	0	
	12	37	40	3	35	-3	43	6	40	3	43	3	1	0	
	13	37	42	5	36	-1	40	3	40	3	44	4	1	0	
	7	39	38	-1	33	-6	39	0	33	-6	39	0	4	0	
	12	39	39	0	30	-9	40	1	35	-4	40	5	1	0	
	14	39	40	1	33	-6	41	2	38	-1	42	3	5	1	
15	39	39	0	32	-7	40	1	36	-3	41	2	1	0		
16	39	41	2	35	-4	42	3	39	0	43	4	1	0		
17	39	35	-4	34	-5	38	0	37	-2	39	0	3	0		
18	39	32	-7	32	-7	35	0	30	-9	36	-6	1	0		
19	39	36	-3	28	-11	37	0	34	-5	38	-1	6	0		
20	39	35	-4	27	-12	36	0	34	-5	38	-1	7	0		
21	39	35	-4	28	-11	36	0	33	-6	37	-2	5	0		
35	35	35	0	36	1	38	3	34	-1	38	3	2	1		
51	35	33	-2	35	0	37	2	34	-1	37	2	1	0		
52	35	29	-6	31	-4	34	0	29	-6	32	-3	2	0		
53	35	34	-1	35	0	38	3	34	-1	37	2	1	0		
54	35	34	-1	35	0	38	3	34	-1	37	2	1	0		
55	35	33	-2	35	0	37	2	34	-1	37	2	1	0		
56	35	33	-2	34	-1	36	1	32	-3	35	0	1	0		
57	35	33	-2	35	0	37	2	34	-1	37	2	1	0		
62	35	36	1	37	2	40	5	36	1	39	4	1	0		
22	36	35	-1	31	-5	36	0	34	-2	38	2	1	0		
23	36	36	0	32	-4	37	1	34	-2	38	2	1	0		
24	36	33	-3	30	-6	33	0	31	-5	34	-2	1	0		
25	36	32	-4	29	-7	34	0	30	-6	34	-2	1	0		
26	36	31	-5	28	-8	33	0	29	-7	33	-3	0	0		
27	36	31	-5	27	-9	33	0	29	-7	33	-3	2	0		
28	36	29	-7	27	-9	31	0	28	-8	32	-4	1	0		
29	36	31	-5	29	-7	33	0	29	-7	33	-3	0	0		
30	36	31	-5	29	-7	33	0	30	-6	34	-2	1	0		
31	36	32	-4	29	-7	34	1	31	-5	35	-1	2	0		
32	36	32	-4	30	-6	34	0	32	-4	35	-1	2	0		
33	36	32	-4	30	-6	34	0	32	-4	35	-1	2	0		
34	36	33	-3	31	-5	35	1	33	-3	36	0	1	0		
35	36	33	-3	31	-5	35	0	33	-3	36	0	1	0		
36	36	32	-4	28	-8	33	0	29	-7	34	-2	1	0		
37	36	23	-13	23	-13	29	0	23	-13	29	-6	0	0		
38	36	32	-4	31	-5	34	0	31	-5	35	-1	0	0		
39	36	24	-12	24	-12	26	0	25	-11	28	-8	0	0		
40	36	21	-15	19	-17	23	0	20	-16	24	-12	0	0		
41	36	23	-13	19	-17	25	0	20	-16	25	-11	0	0		
42	36	22	-14	20	-16	26	0	20	-16	25	-11	0	0		
43	36	33	-3	31	-5	35	0	32	-4	35	0	1	0		
47	35	35	0	36	1	39	4	35	0	38	3	1	0		
63	35	37	2	37	2	40	5	37	0	40	5	1	0		
64	35	38	3	38	3	41	6	37	0	41	6	1	0		
44	38	33	-5	32	-6	36	0	31	-7	35	-2	1	0		
45	38	35	-3	34	-4	38	0	33	-5	34	-4	2	0		
49	38	35	-3	38	0	41	3	34	-4	38	0	1	0		
65	38	35	-3	37	-1	40	2	35	-3	38	0	1	0		
66	38	33	-5	37	-1	40	2	35	-3	37	-1	2	1		
67	38	34	-4	39	1	42	4	36	-2	38	0	2	0		
68	38	37	-1	39	1	43	5	37	-1	40	2	1	0		
71	38	39	1	42	4	44	6	39	1	42	4	1	0		
72	38	39	1	42	4	44	6	39	1	42	4				

DAY CALM															
Noise Assessment Group	Residence Reference	Criteria dBA	OC Total dBA	QC vs Criteria dBA	Underground Scenario				Conveyer Scenario				UG Only Haul vs Conveyer	Combined OC & UG Haul vs Conveyer	
					UG Total dBA	UG Total vs Criteria dBA	Combined Open Cut & Underground Total dBA	Combined Vs Criteria dBA	UG Total dBA	UG Total vs Criteria dBA	Combined OC & UG Total dBA	Combined Vs Criteria dBA			
1	87	35	34	-1	36	0	38	2	36	-1	38	2	0	0	
3	106	38	39	1	38	0	42	4	38	0	40	2	3	1	
4	88	39	28	-11	24	-15	29	0	22	-17	29	-10	2	1	
91	91	39	-10	-13	30	-13	31	-15	29	-15	30	-9	2	1	
94	99	26	-12	-13	30	-13	30	-11	25	-11	26	-3	3	1	
95	39	29	-10	-12	31	-10	31	-9	24	-15	30	-9	3	1	
96	39	31	-8	-8	27	-11	33	0	28	-13	32	-7	2	1	
99	39	26	-13	-14	25	-14	29	-15	26	-16	28	-11	3	1	
100	39	26	-13	-14	25	-14	28	0	22	-17	27	-12	3	1	
105	39	29	-11	-11	31	-11	31	-9	24	-15	30	-9	3	1	
161	39	31	-8	-8	28	-11	33	0	24	-15	32	-7	4	1	
103	39	24	-26	-24	26	-24	28	-24	23	-27	27	-23	2	2	
104	50	25	-25	-26	25	-26	27	-27	23	-27	27	-23	1	1	
111	50	38	-12	-12	32	-18	39	0	29	-21	39	-11	3	1	
112	50	33	-17	-20	33	-20	35	-20	27	-24	34	-16	3	1	
118	50	31	-19	-19	29	-21	33	-21	25	-24	32	-18	3	1	
120	30	31	-19	-28	28	-23	33	-23	25	-25	32	-18	3	1	
121	50	27	-23	-23	30	-23	30	-23	27	-23	29	-21	4	1	
123	50	25	-25	-25	25	-25	28	-25	22	-26	28	-23	3	1	
125	50	28	-22	-23	27	-23	30	-23	24	-26	29	-21	3	1	
126	50	25	-25	-25	25	-25	28	-25	22	-26	27	-23	3	1	
129	50	26	-24	-22	28	-22	30	-22	25	-24	29	-21	3	2	
139	22	-29	-19	-29	19	-29	24	-29	17	-33	23	-27	2	0	
134	50	33	-17	-30	33	-30	34	-30	26	-24	34	-16	-6	-1	
156	50	32	-18	-30	32	-30	32	-30	24	-26	33	-17	-4	0	
157	31	-30	-19	-30	31	-30	31	-30	24	-26	32	-18	-4	0	
159	50	31	-19	-30	31	-30	31	-28	20	-28	32	-18	-4	0	
132	39	22	-16	-17	23	-16	26	-17	21	-18	25	-14	2	1	
133	39	23	-16	-24	24	-15	26	-15	21	-18	24	-14	3	1	
137	39	19	-20	-17	23	-17	24	-17	18	-17	21	-14	2	1	
108	45	46	0	0	32	-13	46	0	30	-15	46	0	2	0	
109	45	48	0	0	32	-12	48	0	29	-16	48	0	2	0	
110	45	46	0	0	32	-13	46	0	30	-15	46	0	2	0	
Dulwich															
142	42	15	-27	-33	16	-33	9	-29	4	-30	17	-25	-4	-1	
2	37	28	-9	-28	24	-13	29	-9	11	-6	33	-4	-7	-3	
3	37	27	-10	-29	23	-14	28	-10	8	-7	32	-5	-8	-4	
4	37	28	-9	-29	23	-14	29	-10	11	-6	33	-4	-7	-3	
143	37	18	-19	-22	15	-22	23	-19	2	-18	22	-15	3	2	
144	37	20	-17	-20	17	-20	21	-17	19	-13	25	-12	-9	-4	
145	37	20	-17	-20	17	-20	21	-17	19	-13	25	-12	-9	-4	
146	37	19	-18	-17	17	-20	21	-17	23	-14	24	-13	-6	-3	
147	37	19	-18	-17	17	-20	21	-17	20	-16	27	-10	-9	-6	
148	37	17	-20	-17	17	-20	22	-17	20	-16	27	-10	-9	-6	
149	37	21	-16	-17	23	-17	23	-16	27	-11	27	-10	-9	-5	
150	37	21	-16	-19	23	-19	23	-19	20	-17	26	-11	-8	-5	
151	37	21	-16	-20	23	-20	23	-20	17	-20	28	-9	-10	-5	
152	37	23	-14	-15	22	-15	26	-15	18	-13	29	-8	-6	-3	
5	36	30	-6	-11	36	-25	31	-25	3	-5	34	-2	-5	-2	
6	36	30	-6	-10	36	-26	32	-26	4	-4	34	-2	-6	-3	
8	36	30	-6	-7	32	-7	32	-7	0	-4	35	-3	-5	-3	
9	36	30	-6	-7	31	-8	31	-8	0	-5	36	-4	-6	-4	
10	36	29	-7	-3	33	-3	34	-3	0	-6	37	-1	-5	-2	
11	36	29	-7	-6	33	-6	33	-6	0	-7	38	-2	-7	-5	
13	36	31	-5	-6	30	-6	33	-6	0	-7	37	-2	-6	-4	
7	36	29	-7	-13	31	-13	31	-13	0	-8	33	-8	-5	-2	
12	38	29	-9	-15	30	-15	30	-15	0	-9	34	-9	-6	-4	
14	38	31	-7	-27	31	-27	32	-27	0	-10	36	-10	-8	-4	
15	38	30	-8	-28	30	-28	31	-28	0	-11	37	-11	-9	-5	
16	38	31	-7	-29	33	-29	33	-29	0	-12	38	-12	-10	-6	
17	38	25	-13	-29	27	-13	29	-13	0	-13	34	-11	-9	-5	
18	38	24	-14	-26	26	-14	28	-14	0	-14	33	-10	-8	-5	
19	38	23	-15	-23	24	-15	24	-15	0	-15	32	-10	-8	-5	
20	38	24	-14	-20	20	-14	25	-14	0	-16	32	-10	-8	-5	
21	38	24	-14	-18	20	-14	25	-14	0	-17	32	-10	-8	-5	
30	35	31	-4	-4	28	-4	33	-4	0	-10	32	-4	3	1	
51	35	30	-5	-5	28	-5	32	-5	0	-10	32	-4	3	1	
52	35	27	-8	-9	29	-8	30	-8	0	-11	29	-7	2	1	
53	35	28	-7	-7	28	-7	32	-7	0	-10	31	-7	2	1	
54	35	32	-3	-3	30	-3	34	-3	0	-8	33	-4	3	1	
55	35	28	-7	-8	27	-8	30	-8	0	-11	29	-7	2	1	
56	35	29	-6	-6	29	-6	32	-6	0	-10	31	-7	2	1	
57	35	29	-6	-7	29	-6	32	-6	0	-10	31	-7	2	1	
62	35	33	-2	-2	30	-2	34	-2	0	-8	34	-7	2	1	
22	36	26	-10	-10	22	-14	28	-14	0	-12	28	-8	-2	-1	
23	36	26	-10	-13	23	-13	28	-13	0	-11	29	-7	-2	-1	
24	36	23	-13	-17	24	-17	24	-17	0	-12	26	-8	-2	-1	
25	36	22	-14	-14	19	-14	24	-14	0	-11	25	-7	-2	-1	
26	36	22	-14	-17	19	-17	24	-17	0	-11	25	-7	-2	-1	
27	36	22	-14	-18	18	-18	24	-18	0	-10	24	-6	-1	0	
28	36	20	-16	-19	16	-19	23	-19	0	-9	23	-6	-1	0	
29	36	19	-17	-20	15	-20	24	-20	0	-8	22	-5	-1	0	
30	36	23	-13	-16	20	-16	25	-16	0	-11	26	-8	-2	-1	
31	36	24	-12	-15	20	-15	26	-15	0	-10	27	-7	-2	-1	
32	36	24	-12	-15	21	-15	26	-15	0	-10	27	-7	-2	-1	
33	36	24	-12	-15	21	-15	26	-15	0	-10	27	-7	-2	-1	
34	36	26	-10	-13	23	-13	28	-13	0	-12	28	-8	-2	-1	
35	36	28	-8	-14	25	-14	29	-14	0	-13	29	-7	-1	0	
36	36	26	-10	-14	23	-14	28	-14	0	-12	28	-8	-2	-1	
37	36	22	-14	-15	21	-15	24	-15	0	-11	24	-7	-1	0	
38	36	23	-13	-13	23	-13	27	-13	0	-10	27	-7	-1	0	
39	36	23	-13	-13	23	-13	27	-13	0	-10	27	-7	-1	0	
40	36	23	-13	-13	23	-13	27	-13	0	-10	27	-7	-1	0	
41	36	19	-17	-22	19	-22	25	-22	0	-14	23	-11	-5	-1	
42	36	26	-10	-13	26	-13	30	-13	0	-11	31	-8	-2	1	
43	36	26	-10	-13	26	-13	30	-13	0	-11	31	-8	-2	1	
47	36	34	-2	-1	31	-1	36	-1	0	-7	38	0	1	0	
63	35	32	-3	-3	30	-3	34	-3	0	-8	33	-7	2	1	
64	35	33	-2	-2	30	-2	34	-2	0	-8	33	-7	2	1	
44	37	27	-10	-12	27	-12	31	-12	0	-13	29	-9	1	0	
48	37	27	-10	-12	27	-12	31	-12	0	-13	29	-9	1	0	
49	37	30	-7	-9	31	-9	33	-9	0	-12	31	-8	1	0	
65	39	32	-7	-7	32	-7	35	-7	0	-10	34	-5	3	1	
66	39	33	-6	-6	33	-6	36	-6	0	-9	35	-4	3	1	
67	39	33	-6	-6	33	-6	36	-6	0	-9	35	-4	3	1	
68	39	33	-6	-6	33	-6	36	-6	0	-9	35	-4	3	1	
71	39	36	-3	-3	35	-3	39	-3	0	-7	37	-2	3	1	
72	39	38	-1	-1	41	-1	41	-1	0	-5	40	-1	2	1	
73	39	38	-1	-1	41	-1	41	-1	0	-5	40	-1	2	1	
76	39	38	-1	-1	39	-1	42	-1	0	-6	41	-1	1	1	

This assessment focuses on noise emissions from the proposed northerly extension of the existing open cut. Development alternatives are considered; the Full Pit Extent includes mining through the "Dulwich" property.

Note 1: Marginal Management Zone 1 to 2 dBA (Green)
 Note 2: Moderate Management Zone 3 to 5 dBA (Blue)
 Note 3: Noise Attraction Zone <5 dBA (Red)

EVENING CALM					Underground Scenario				Surface Scenario					
Noise Assessment Group	Residence Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	UG Total dBA	UG Total vs Criteria dBA	Combined Open Cut & Underground Total dBA	Combined vs Criteria dBA	UG Total dBA	UG Total vs Criteria dBA	Combined dBA	Combined vs Criteria dBA	UG Only Haul vs Conveyor	Combined OC & UG Haul vs Conveyor
1	80	38	35	-3	36	-2	39	1	36	-2	39	0	0	0
3	87	40	38	-2	38	-2	42	-2	39	-5	41	-3	3	1
	106	40	40	0	32	-8	41	1	39	-1	40	0	0	0
4	88	42	28	-14	24	-18	29	0	20	-22	29	0	1	1
	91	42	29	-13	26	-16	31	0	24	-18	30	-2	2	1
	94	42	26	-16	26	-16	30	0	29	-13	29	-3	1	1
	95	42	30	-12	32	-10	32	0	31	-11	31	-3	1	1
	96	42	32	-10	28	-14	34	0	26	-16	33	-9	2	1
	99	42	27	-15	25	-17	29	0	23	-19	27	-14	2	1
	100	42	26	-16	28	-14	28	0	26	-16	27	-15	3	1
	105	42	30	-12	28	-14	32	0	25	-17	31	-11	3	1
	161	42	32	-10	28	-14	33	0	24	-18	33	-9	4	1
	103	46	25	-21	26	-20	29	0	23	-23	27	-19	3	1
	104	46	25	-21	24	-22	28	0	23	-23	27	-19	3	1
	111	46	25	-21	32	-14	39	0	27	-19	37	-9	4	1
	112	46	24	-12	30	-16	35	0	27	-19	35	-11	3	1
	118	46	29	-17	34	-12	34	0	33	-13	33	-3	3	1
	120	46	31	-15	28	-18	33	0	25	-21	32	-14	3	1
	121	46	29	-17	31	-15	31	0	27	-19	30	-16	4	1
	123	46	26	-20	27	-19	29	0	22	-24	27	-19	3	1
	125	46	29	-17	27	-19	27	0	24	-22	30	-16	3	1
	126	46	26	-20	25	-21	29	0	22	-24	27	-19	3	1
	129	46	30	-18	27	-19	30	0	23	-23	29	-17	3	1
	139	46	33	-13	19	-27	24	0	17	-29	24	-22	2	0
	154	46	33	-13	20	-26	23	0	18	-28	23	-20	4	0
	156	46	33	-13	26	-20	33	0	24	-22	34	-12	4	0
	187	46	31	-15	20	-26	20	0	24	-22	32	-14	4	0
	189	46	32	-14	20	-26	32	0	22	-24	32	-14	4	0
6	132	41	23	-18	21	-20	28	0	22	-19	25	-16	2	1
	133	41	24	-17	24	-17	27	0	21	-20	26	-15	3	1
	137	41	22	-19	22	-19	24	0	18	-23	22	-19	4	2
	108	42	46	4	32	-10	46	4	32	-10	46	4	4	0
7	109	42	48	6	33	-9	48	6	39	-13	48	6	4	0
	110	42	47	5	32	-10	47	5	39	-13	47	5	4	0
	Dulwich				17		17		0		17		0	0
8	142	42	15	-27	9	-33	16	-29	13	-29	17	-23	4	-1
9	2	40	29	-16	24	-16	30	0	23	-17	33	-7	3	1
	3	40	27	-13	22	-18	28	0	19	-21	32	-8	3	1
	4	40	28	-12	23	-17	29	0	20	-20	33	-7	3	1
	143	40	22	-18	18	-22	23	0	18	-22	22	-18	3	2
	144	40	19	-21	15	-25	22	0	16	-26	26	-14	3	1
	145	40	17	-23	19	-21	22	0	14	-26	24	-16	3	1
	146	40	19	-21	17	-23	21	0	17	-23	24	-16	3	1
	147	40	20	-20	17	-23	22	0	16	-24	27	-13	3	1
	148	40	21	-19	22	-18	27	0	18	-22	28	-12	3	1
	149	40	21	-19	23	-17	23	0	17	-23	27	-13	3	1
	150	40	18	-22	18	-22	23	0	17	-23	23	-12	3	1
	151	40	21	-19	23	-17	23	0	17	-23	28	-10	3	1
	152	40	23	-17	22	-18	26	0	18	-22	31	-11	3	1
	153	40	20	-20	20	-20	24	0	14	-26	24	-16	3	1
	6	30	13	-17	26	-10	32	0	24	-16	34	-2	3	1
	8	30	10	-20	32	-4	34	0	27	-13	35	-4	3	1
	9	30	9	-21	31	-5	34	0	27	-13	38	-4	3	1
	10	30	10	-20	33	-3	34	0	27	-13	38	-4	3	1
	11	30	9	-21	30	-6	33	0	26	-14	37	-5	3	1
	13	30	11	-19	30	-6	33	0	27	-13	38	-4	3	1
	7	41	29	-12	31	-10	31	0	23	-18	33	-8	3	1
	14	41	31	-10	27	-14	30	0	22	-19	34	-7	3	1
	15	41	30	-11	26	-15	31	0	23	-18	35	-6	3	1
	16	41	31	-10	28	-13	32	0	24	-17	36	-5	3	1
	17	41	25	-16	27	-14	31	0	23	-18	34	-7	3	1
	18	41	23	-18	28	-13	32	0	24	-17	35	-6	3	1
	19	41	24	-17	27	-14	31	0	23	-18	33	-8	3	1
	20	41	24	-17	25	-16	30	0	22	-19	32	-8	3	1
	21	41	24	-17	25	-16	30	0	22	-19	32	-8	3	1
	30	38	30	-8	28	-10	32	0	25	-16	31	-7	3	1
	31	38	29	-9	29	-9	33	0	26	-15	32	-6	3	1
	32	38	26	-12	28	-10	32	0	24	-17	34	-6	3	1
	33	38	29	-9	28	-10	32	0	25	-16	31	-7	3	1
	34	38	30	-8	30	-8	33	0	27	-13	32	-6	3	1
	35	38	27	-11	29	-9	32	0	26	-14	33	-6	3	1
	36	38	29	-9	28	-10	32	0	25	-16	31	-7	3	1
	37	38	28	-10	28	-10	32	0	26	-14	32	-6	3	1
	38	38	29	-9	29	-9	32	0	26	-14	32	-6	3	1
	39	38	28	-10	28	-10	32	0	26	-14	32	-6	3	1
	40	38	31	-7	30	-8	33	0	28	-10	33	-5	3	1
	41	38	27	-11	29	-9	32	0	26	-14	33	-6	3	1
	42	38	26	-12	28	-10	32	0	24	-17	34	-6	3	1
	43	38	29	-9	28	-10	32	0	26	-14	32	-6	3	1
	44	38	30	-8	30	-8	33	0	27	-13	32	-6	3	1
	45	38	27	-11	29	-9	32	0	26	-14	33	-6	3	1
	46	38	28	-10	28	-10	32	0	26	-14	32	-6	3	1
	47	38	29	-9	29	-9	32	0	26	-14	32	-6	3	1
	48	38	28	-10	28	-10	32	0	26	-14	32	-6	3	1
	49	38	31	-7	30	-8	33	0	28	-10	33	-5	3	1
	50	38	30	-8	29	-9	32	0	27	-13	32	-6	3	1
	51	38	29	-9	28	-10	32	0	26	-14	32	-6	3	1
	52	38	26	-12	28	-10	32	0	24	-17	34	-6	3	1
	53	38	29	-9	28	-10	32	0	26	-14	32	-6	3	1
	54	38	30	-8	30	-8	33	0	27	-13	32	-6	3	1
	55	38	27	-11	29	-9	32	0	26	-14	33	-6	3	1
	56	38	28	-10	28	-10	32	0	26	-14	32	-6	3	1
	57	38	28	-10	28	-10	32	0	26	-14	32	-6	3	1
	62	38	31	-7	30	-8	33	0	28	-10	33	-5	3	1
	22	39	27	-12	29	-10	32	0	24	-17	34	-6	3	1
	23	39	28	-11	29	-10	32	0	25	-16	34	-5	3	1
	24	39	24	-15	19	-20	24	0	22	-17	26	-13	3	1
	25	39	24	-15	19	-20	24	0	22	-17	26	-13	3	1
	26	39	23	-16	18	-21	23	0	21	-18	25	-14	3	1
	27	39	23	-16	18	-21	23	0	21	-18	25	-14	3	1
	28	39	21	-18	17	-22	23	0	19	-20	23	-16	3	1
	29	39	20	-19	16	-23	22	0	18	-21	22	-17	3	1
	30	39	20	-19	16	-23	22	0	18	-21	22	-17	3	1
	31	39	26	-13	21	-18	27	0	22	-17	27	-12	3	1
	32	39	26	-13	21	-18	27	0	22	-17	27	-12	3	1
	34	39	28	-11	23	-16	29	0	24	-15	29	-10	3	1
	35	39	28	-11	23	-16	29	0	24	-15	29	-10	3	1
	36	39	24	-15	22	-17	26	0	23	-16	27	-12	3	1
	37	39	21	-18	20	-19	24	0	21	-18	25	-14	3	1
	38	39	23	-16	21	-18	27	0	22	-17	27	-12	3	1
	39	39	22	-17	20	-19	24	0	21	-18	24	-15	3	1
	40	39	20	-19	18	-21	21	0	18	-21	22	-17	3	1
	41	39	16	-23	14	-25	18	0	14	-25	18	-21	3	1
	42	39	13	-26	13	-26	13	0	12	-27	14	-23	3	1
	43	39	14	-25	14	-25	14	0	13	-26	14	-22	3	1
	44	39	15	-24	15	-24	15	0	14	-25	15	-21	3	1
	45	39	16	-23	16	-23	16	0	15	-24	16	-20	3	

NIGHT CALM				Underground Scenario					Convex Scenario					UG Only Haul vs Convex		Combined OC & UG Haul vs Convex	
Noise Assessment Group	Residence Reference	Criteria dBA	OC Total dBA	QC vs Criteria dBA	UG Total dBA	UG Total vs Criteria dBA	Combined Open Cut & Underground Total dBA	Combined vs Criteria dBA	UG Total dBA	UG total vs Criteria dBA	Combined OC & UG Total dBA	Combined vs Criteria dBA	UG Only Haul vs Convex	Combined OC & UG Haul vs Convex			
1	80	36	34	-2	36	0	43	7	36	0	42	6	3	3			
3	87	39	41	2	38	-1	45	7	38	-1	42	5	3	1			
4	106	39	41	2	32	-7	42	10	32	-10	41	9	3	0			
4	88	29	24	-5	24	-5	24	0	24	-5	24	-5	3	0			
4	91	37	30	-7	26	-11	31	0	24	-13	31	-6	3	1			
4	94	27	28	1	30	3	30	3	24	-6	29	-8	3	1			
4	95	37	30	-7	27	-10	32	0	24	-13	31	-6	3	1			
4	86	37	33	6	26	-11	34	7	28	-11	34	6	3	0			
4	99	27	29	2	29	2	29	2	23	-6	28	5	2	1			
4	100	27	25	-2	25	-2	29	4	22	-5	28	9	3	1			
4	105	37	30	-7	28	-9	32	0	22	-15	31	-6	3	1			
4	104	37	33	6	28	-9	34	6	24	-13	34	3	4	1			
5	103	42	25	-17	26	-16	24	-8	23	-19	27	-15	3	1			
5	104	42	26	-16	24	-18	28	0	23	-19	28	-14	1	0			
5	111	40	32	12	30	-10	41	11	38	8	40	2	3	0			
5	112	42	34	2	30	-12	35	0	27	-15	35	-7	3	1			
5	118	42	32	-10	29	-13	34	0	26	-16	33	-9	3	1			
5	120	42	32	-10	28	-14	34	0	23	-17	33	-9	3	1			
5	121	42	29	-13	27	-15	31	-2	23	-19	30	-12	4	1			
5	123	42	25	-17	29	-13	29	0	27	-15	27	-15	3	1			
5	125	42	29	-13	27	-15	31	0	24	-18	30	-12	3	1			
5	126	42	26	-16	29	-13	29	0	25	-17	29	-15	3	1			
5	129	42	27	-15	28	-14	30	2	22	-20	29	-13	3	1			
5	139	23	19	-4	19	-4	24	0	17	-25	24	-18	2	0			
5	134	42	34	12	20	-22	34	12	26	-16	35	-7	4	0			
5	156	42	34	12	20	-22	34	12	24	-18	34	-8	4	0			
5	157	42	32	-10	20	-22	32	0	24	-18	33	-9	4	0			
5	159	42	32	-10	22	-10	32	0	22	-20	32	-10	2	0			
6	132	38	23	-15	23	-15	26	-3	21	-17	25	-13	2	1			
6	133	38	24	-14	24	-14	27	0	21	-17	26	-12	2	1			
6	137	38	20	-18	24	-10	24	0	22	-16	22	-16	4	2			
7	108	39	47	8	32	-7	47	8	39	9	47	8	2	0			
7	109	39	33	-6	33	-6	49	10	39	-10	49	10	4	0			
7	110	39	47	8	32	-7	47	8	39	9	47	8	2	0			
7	Dalwiche				32		0		0		0		0	0			
8	142	35	16	-19	9	-26	17	0	13	-22	18	-17	-4	-1			
9	2	38	30	-8	14	-24	14	0	7	-31	14	-4	-2	-3			
9	3	38	27	-11	22	-16	28	0	30	-8	32	-6	-8	-4			
9	4	38	29	-9	23	-15	30	0	23	-15	33	-5	-8	-3			
9	143	38	20	-18	22	-16	23	-1	19	-19	22	-18	3	2			
9	144	38	21	-17	23	-15	23	-1	14	-26	22	-15	3	2			
9	145	38	21	-17	22	-16	22	0	24	-14	26	-12	-7	-3			
9	146	38	19	-19	17	-21	21	0	23	-15	24	-14	-6	-3			
9	147	38	20	-18	17	-21	23	0	28	-10	27	-11	-8	-3			
9	148	38	21	-17	23	-15	22	-1	28	-10	28	-10	-6	-3			
9	149	38	21	-17	23	-15	23	0	27	-12	27	-11	-9	-5			
9	150	38	22	-16	18	-20	23	0	27	-11	28	-10	-8	-3			
9	151	38	22	-16	17	-21	23	0	21	-28	23	-10	-10	-5			
9	152	38	24	-14	22	-16	26	0	28	-10	29	-9	-6	-3			
10	5	37	31	-6	25	-12	32	0	31	-6	34	-3	-6	-2			
10	8	37	31	-6	26	-11	32	0	32	-5	35	-2	-6	-2			
10	8	37	31	-6	29	-8	33	0	33	-4	36	-3	-6	-2			
10	9	37	31	-6	34	-3	34	0	34	-3	38	1	-4	-2			
10	10	37	29	-8	33	-4	34	0	36	-1	37	-3	-3	-2			
10	11	37	30	-7	30	-7	30	0	30	-7	38	1	0	-2			
10	13	37	31	-6	33	-4	36	0	31	-6	37	-1	-4	-2			
10	7	30	14	-16	25	-11	31	0	30	-9	33	-6	-5	-2			
10	12	39	23	-16	39	-16	39	0	34	-7	34	-7	-8	-3			
10	14	39	32	-7	32	-7	33	-1	37	-4	37	-4	-8	-3			
10	15	39	31	-8	26	-13	32	0	33	-6	35	-4	-7	-3			
10	16	39	31	-8	29	-10	33	0	33	-6	36	-3	-7	-3			
10	17	39	25	-14	29	-10	29	0	34	-6	34	-6	-6	-4			
10	18	39	26	-13	29	-10	28	-1	32	-6	33	-6	-6	-4			
10	19	39	21	-18	17	-22	19	-2	19	-24	19	-15	-3	-1			
10	20	39	22	-17	20	-19	24	0	27	-12	25	-14	-2	-1			
10	21	39	22	-17	19	-20	24	0	28	-11	28	-11	-4	-1			
10	50	35	26	-9	29	-6	30	0	25	-10	29	-6	3	2			
10	51	35	25	-10	28	-7	29	0	25	-10	28	-7	3	1			
10	52	35	26	-9	28	-7	28	0	23	-11	27	-8	2	1			
10	53	35	27	-8	29	-6	31	0	27	-9	30	-5	2	1			
10	54	35	27	-8	30	-5	32	0	27	-9	30	-5	3	2			
10	55	35	25	-10	27	-8	29	0	24	-11	28	-7	3	1			
10	56	35	26	-9	29	-6	31	0	28	-7	29	-6	3	2			
10	57	35	26	-9	28	-7	30	0	27	-9	29	-6	3	1			
10	62	28	5	-23	30	-5	32	0	28	-7	31	-4	2	1			
A	22	36	24	-12	22	-14	26	0	24	-12	27	-9	-2	-1			
A	23	36	25	-11	23	-13	27	0	28	-8	28	-8	-2	-1			
A	24	36	19	-17	24	-12	25	0	22	-14	25	-11	-3	-1			
A	25	36	21	-15	19	-17	23	0	21	-15	24	-12	-2	-1			
A	26	36	21	-15	19	-17	23	0	21	-15	24	-12	-2	-1			
A	27	36	21	-15	18	-18	23	0	16	-24	24	-12	-2	-1			
A	28	36	19	-17	19	-17	21	0	17	-19	22	-14	-2	-1			
A	29	36	22	-14	19	-17	21	0	15	-21	21	-11	-2	-1			
A	30	36	22	-14	20	-16	24	0	22	-14	25	-11	-2	-1			
A	31	36	22	-14	21	-15	24	0	22	-14	25	-11	-2	-1			
A	32	36	22	-14	25	-11	25	0	22	-14	26	-10	-2	-1			
A	34	36	23	-13	22	-14	26	0	24	-12	27	-9	-1	-1			
A	35	36	22	-14	24	-12	25	0	24	-12	26	-10	-1	-1			
A	36	36	22	-14	25	-11	25	0	23	-13	26	-10	-1	-1			
A	37	36	19	-17	21	-15	23	0	19	-17	22	-14	-2	-1			
A	38	36	23	-13	23	-13	26	0	21	-15	24	-12	-2	-1			
A	39	36	20	-16	20	-16	23	0	16	-24	23	-13	-2	-1			
A	40	36	18	-18	18	-18	18	0	18	-18	21	-15	0	0			
A	41	36	15	-21	18	-18	18	0	14	-22	18	-18	0	0			
A	42	36	20	-16	23	-13	26	0	23	-13	26	-14	1	1			
A	43	36	24	-12	25	-11	28	0	23	-13	27	-9	2	1			
C	47	31	8	-23	32	-4	32	0	28	-8	31	-4	3	2			
C	63	35	27	-8	32	-3	32	0	28	-8	31	-4	3	2			
C	64	36	29	-7	32	-4	33	0	24	-12	34	-2	3	1			
D	44	38	25	-13	25	-13	27	0	24	-14	27	-11	1	1			
D	48	38	25	-13	27	-11	29	0	23	-15	28	-10	2	1			
D	49	38	25	-13	28	-10	30	0	23	-15	28	-10	2	1			
D	65	38	28	-10	33	-5	33	0	29	-9	32	-6	3	2			
F	66	38	27	-11	30	-8	32	0	28	-10	31	-7	2	1			
F	67	38	31	-7	31	-7	33	0	29	-9	32	-6	2	1			
F	68	38	32	-6	30	-8	30	0	28	-10	32	-8	3	2			
F	71	38	34	-4	38	0	39	0	36	-2	38	0	2	1			
F	72	38	34	-4	38	0	40	0	36	-2	38	0	2	1			
F	73	38	34	-4	38	0	40	0	37	-1	39	1	1	1			
F	76	38	35	-3	39	1	40	0	38	0	40	2	1	1			

This assessment focuses on noise emissions from the proposed northerly extension of the existing open cut. Development alternatives are considered; the Full Pit Extent includes mining through the "Dalwiche" property.

Note 1: Marginal Management Zone 1 to 2 dBA (Green)
 Note 2: Moderate Management Zone 3 to 5 dBA (Blue)
 Note 3: Noise Attraction Zone <5 dBA (Red)

NIGHT INVERSION				Underground Scenario					Conveyer Scenario					
Noise Assessment Group	Residence Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	UG Total dBA	UG Total vs Criteria dBA	Combined Open Cut & Underground Total dBA	Combined Vs Criteria dBA	UG Total dBA	UG total vs Criteria dBA	Combined dBA	Combined Vs Criteria dBA	UG Only Haul vs Conveyer	Combined OC & UG Haul vs Conveyer
1	80	36	39	3	42	6	44	8	41	5	43	7	2	1
3	157	39	44	5	42	-6	46	7	40	-3	45	6	3	1
4	106	39	44	5	39	-4	43	4	36	-3	43	4	3	1
88	37	38	38	0	35	-4	40	3	31	-4	39	1	1	0
91	37	38	38	0	34	-3	39	2	32	0	39	2	2	1
94	37	38	38	0	34	-3	39	2	32	0	39	2	2	1
95	37	35	40	5	35	0	40	5	32	0	39	5	3	1
96	37	39	41	2	35	-2	41	4	33	0	40	3	2	1
99	37	34	36	-1	33	-3	38	0	31	-3	37	0	3	1
100	37	36	37	1	33	-3	38	0	31	-3	37	0	3	1
105	37	40	35	-2	35	-2	41	4	33	0	41	4	2	1
161	37	39	40	1	33	-3	40	3	32	0	40	1	0	0
103	42	34	34	0	34	0	37	0	31	-1	36	0	3	1
104	42	34	34	0	33	-1	36	0	31	-1	36	0	3	1
111	42	36	37	1	37	1	42	5	33	0	42	5	2	0
112	42	36	37	1	36	0	44	8	34	0	44	8	2	0
118	42	36	37	1	36	0	42	6	33	0	41	5	2	0
120	42	35	41	6	35	0	41	6	33	0	41	6	2	0
121	42	36	38	2	34	-2	38	0	32	0	37	0	2	1
123	42	35	34	-1	34	-1	37	0	31	-1	36	0	3	1
125	42	36	36	0	34	-2	38	0	32	0	37	0	3	1
126	42	35	34	-1	34	-1	37	0	31	-1	36	0	3	1
129	42	36	36	0	34	-2	38	0	32	0	37	0	3	1
139	42	35	36	1	35	0	42	7	32	0	42	7	0	0
154	42	41	42	1	36	0	42	6	32	0	42	6	0	0
156	42	40	41	1	35	-1	41	6	32	0	41	5	1	0
157	42	40	41	1	33	-3	40	7	32	0	41	1	0	0
159	42	40	40	0	34	-2	41	7	32	0	41	1	0	0
162	42	38	34	-4	31	-4	36	0	29	-3	35	0	2	0
163	38	35	35	0	30	-3	36	0	28	0	36	2	0	0
167	38	37	30	-7	30	-7	33	0	28	-2	32	4	1	0
168	39	39	31	-8	30	-9	33	0	28	-3	31	3	0	0
109	39	52	13	-13	39	0	52	13	36	0	52	13	3	0
110	39	51	12	-12	38	-1	51	12	36	0	51	12	2	0
8	Dulwich	35	27	-8	22	-13	28	-7	22	0	28	0	0	0
9	2	36	32	-4	32	0	37	1	33	0	39	1	-3	-1
3	38	37	30	-7	30	-8	38	0	34	0	39	1	-4	-1
4	38	36	31	-5	31	-7	39	1	30	-3	40	3	-4	-1
143	38	35	33	-3	33	-5	36	0	31	-4	34	-4	1	0
144	38	34	32	-4	27	-11	35	0	29	-9	35	-3	-2	0
145	38	33	29	-5	27	-11	35	0	29	-9	35	-3	-2	0
146	38	33	29	-5	29	-5	34	0	31	0	34	0	0	0
147	38	34	29	-5	29	-9	35	0	31	0	36	2	-2	-1
148	38	34	29	-5	29	-9	35	0	32	0	36	2	-3	-1
149	38	35	29	-4	29	-9	35	0	32	0	36	2	-3	-1
150	38	35	29	-4	29	-9	35	0	32	0	36	2	-3	-1
151	38	35	29	-4	29	-9	35	0	32	0	36	2	-3	-1
152	38	34	29	-5	29	-9	35	0	32	0	36	2	-3	-1
5	37	39	40	1	33	-3	40	3	33	0	40	3	0	0
6	37	34	41	4	31	-4	41	4	31	0	41	4	-2	0
8	37	41	35	-2	42	5	42	5	37	0	42	5	-2	-1
9	37	41	38	1	43	2	43	2	38	0	44	3	-2	-1
10	37	40	39	2	43	3	43	3	43	3	43	3	-1	0
11	37	40	37	-3	35	-2	41	4	40	3	43	3	-5	-2
13	37	41	36	-1	42	1	42	1	40	0	44	2	-4	-1
37	39	39	39	0	40	1	40	1	35	0	40	1	0	0
12	39	30	30	0	30	0	30	0	35	0	39	3	-5	-1
14	39	31	33	2	42	3	42	3	38	0	43	2	-4	-1
15	39	31	32	1	40	1	40	1	36	0	43	2	-4	-1
16	39	31	32	1	40	1	40	1	36	0	43	2	-4	-1
17	39	31	32	1	40	1	40	1	36	0	43	2	-4	-1
18	39	32	32	0	35	-3	37	0	38	1	39	0	-6	-4
19	39	32	32	0	35	-3	37	0	38	1	39	0	-6	-4
20	39	33	34	1	35	-2	36	0	34	-2	38	0	-6	-4
21	39	35	35	0	28	-11	36	0	33	0	37	0	-5	-1
50	34	36	36	0	38	4	38	4	34	0	37	0	2	1
51	33	33	33	0	33	0	37	4	33	0	36	0	2	1
52	35	30	30	-5	32	-3	34	0	29	-6	33	-2	3	2
53	35	34	34	0	35	1	38	3	34	0	37	0	1	1
54	35	34	34	0	35	1	38	3	34	0	37	0	1	1
55	35	31	31	-4	33	-2	35	0	32	0	35	0	1	1
56	35	34	34	0	35	1	38	3	34	0	37	0	1	1
57	35	33	33	0	35	2	37	2	33	0	36	0	1	1
62	35	36	37	1	37	2	40	3	34	0	39	1	1	1
22	36	35	31	-4	31	-5	36	0	34	-2	38	2	-3	-1
23	36	35	31	-4	32	-4	37	1	34	-2	38	2	-3	-1
24	36	30	30	-6	31	-5	33	0	33	0	34	-1	-1	0
25	36	32	32	0	29	-7	34	0	30	-6	34	0	-4	0
26	36	31	28	-3	28	-8	33	0	29	-7	33	-3	-1	0
27	36	31	27	-5	27	-9	33	0	29	-7	33	-3	-2	0
28	36	30	27	-6	27	-9	32	0	28	-8	32	-4	-1	0
29	36	31	29	2	29	2	33	2	29	0	33	2	0	0
30	36	31	29	2	29	2	33	2	29	0	33	2	0	0
31	36	32	29	-3	34	2	34	2	33	0	34	1	-2	-1
32	36	32	29	-3	34	2	34	2	33	0	34	1	-2	-1
34	36	31	31	0	31	0	36	1	34	0	37	1	-2	-1
35	36	33	33	0	35	2	37	2	33	0	36	0	-3	-1
36	36	32	30	-4	28	-8	33	0	29	-7	34	0	-4	0
37	36	32	29	-3	27	-9	32	0	28	-8	33	0	-4	0
38	36	32	31	0	31	0	34	0	31	0	35	0	0	0
39	36	24	24	-12	22	-14	26	0	22	-11	28	-8	-5	-1
40	36	24	24	-12	19	-17	25	0	20	-16	25	-11	-1	0
41	36	24	24	-12	19	-17	25	0	20	-16	25	-11	-1	0
42	36	24	24	-12	19	-17	25	0	20	-16	25	-11	-1	0
43	36	33	33	0	31	-3	35	0	31	0	35	0	-1	0
47	36	34	36	0	36	0	38	2	35	0	38	3	0	0
63	36	37	37	1	37	1	40	3	37	0	40	3	0	0
64	35	36	36	1	40	5	40	5	37	0	40	3	0	0
44	38	33	32	-5	32	-6	36	0	37	0	35	0	1	1
48	38	32	34	2	34	2	36	0	37	0	35	0	1	1
49	38	34	34	0	34	0	38	0	34	0	37	0	1	1
65	38	37	35	-2	38	0	39	1	38	0	38	0	2	1
66	38	34	37	3	39	1	39	1	38	0	38	0	2	1
67	38	35	39	4	39	4	40	2	39	1	39	1	2	2
68	37	41	37	1	41	4	41	4	37	0	41	4	2	1
71	38	39	42	4	42	4	44	2	39	0	42	3	2	2
72	38	40	43	5	43	5	44	1	40	0	43	3	2	2
73	38	41	44	6	44	6	44	0	43	0	44	1	2	1
76	38	40	43	5	43	5	45	2	42	0	44	2	1	1

This assessment focuses on noise emissions from the proposed northerly extension of the existing open cut. Development alternatives are considered; the Full Pit Estent includes mining through the "Dulwich" property.

Note 1: Marginal Management Zone 1 to 2 dBA (Green)
 Note 2: Moderate Management Zone 3 to 5 dBA (Blue)
 Note 3: Noise Attraction Zone <5 dBA (Red)

Noise Assessment Group	Residence Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	Underground Scenario				Conveyor Scenario					
					US Total dBA	US Total vs Criteria dBA	Combined Open Cut & Underground	Combined vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined OC & US Total dBA	Combined vs Criteria dBA	US Only Haul vs Conveyor	Combined OC & US Haul vs Conveyor
1	80	35	26	-9	36	1	36	1	36	-1	36	1	0	0
	87	38	33	-5	39	1	39	1	39	-3	37	-1	1	2
	108	45	40	-5	42	0	42	0	42	-9	34	-8	1	1
	88	39	27	-12	40	1	40	1	40	-13	27	-13	2	1
	91	39	24	-15	40	1	40	1	40	-15	27	-13	2	1
	94	39	24	-15	40	1	40	1	40	-15	27	-13	2	1
	95	39	25	-14	40	1	40	1	40	-16	27	-13	2	1
	96	39	25	-14	40	1	40	1	40	-16	27	-13	2	1
	99	39	25	-14	40	1	40	1	40	-16	27	-13	2	1
	100	39	23	-16	40	1	40	1	40	-17	26	-14	3	1
5	105	36	26	-10	37	1	37	1	37	-11	28	-11	2	1
	161	39	25	-14	40	1	40	1	40	-16	27	-13	2	1
	26	30	20	-10	31	1	31	1	31	-11	24	-11	2	1
	303	50	24	-26	26	-24	29	-21	29	-21	28	-22	3	1
	104	50	33	-17	25	-26	34	-16	29	-27	31	-17	1	0
	111	50	33	-17	26	-24	29	-21	29	-21	28	-22	3	1
	112	50	33	-17	26	-24	29	-21	29	-21	28	-22	3	1
	118	50	24	-26	25	-25	31	-19	27	-23	28	-22	3	2
	120	50	24	-26	28	-22	30	-20	26	-24	28	-22	3	2
	121	50	25	-25	28	-22	29	-21	28	-22	27	-23	4	2
6	123	50	25	-25	25	-25	28	-22	22	-22	27	-23	4	2
	125	50	23	-27	27	-23	28	-22	24	-26	27	-23	3	2
	126	50	23	-27	25	-25	27	-23	22	-28	26	-24	3	2
	129	50	25	-25	25	-25	25	-25	25	-25	28	-22	3	2
	134	50	20	-30	19	-31	22	-28	17	-33	22	-28	2	1
	134	50	20	-30	20	-30	20	-30	20	-30	24	-26	4	1
	157	50	27	-23	20	-30	28	-22	24	-26	29	-21	4	1
	159	50	27	-23	20	-30	22	-28	22	-28	22	-28	2	0
	132	39	25	-14	23	-16	27	-12	21	-18	26	-13	2	1
	7	133	39	23	-16	24	-15	26	-13	23	-18	25	-14	3
137		39	20	-19	22	-17	24	-15	22	-17	22	-17	4	2
108		45	26	-19	31	-14	30	-15	30	-15	26	-19	4	0
109		45	26	-19	31	-14	29	-16	40	-16	40	-16	4	0
110		45	28	-17	32	-13	30	-15	30	-15	30	-15	4	0
110		45	28	-17	32	-13	30	-15	30	-15	30	-15	4	0
110		45	28	-17	32	-13	30	-15	30	-15	30	-15	4	0
110		45	28	-17	32	-13	30	-15	30	-15	30	-15	4	0
110		45	28	-17	32	-13	30	-15	30	-15	30	-15	4	0
110		45	28	-17	32	-13	30	-15	30	-15	30	-15	4	0
8	142	42	13	-29	9	-33	14	-28	13	-29	16	-26	4	-2
	2	17	28	-11	24	-9	29	-8	31	-6	33	-4	3	3
	1	17	25	-8	22	-15	30	-7	30	-7	31	-6	4	4
	4	17	27	-10	23	-14	28	-9	32	-6	34	-5	4	4
	143	18	21	-7	22	-15	23	-14	19	-18	21	-16	3	2
	144	18	19	-9	20	-17	24	-11	24	-12	24	-12	3	2
	145	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	146	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	147	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	148	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
9	149	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	150	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	151	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	152	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	153	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	154	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	155	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	156	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	157	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	158	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
10	159	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	160	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	161	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	162	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	163	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	164	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	165	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	166	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	167	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	168	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
11	169	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	170	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	171	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	172	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	173	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	174	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	175	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	176	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	177	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	178	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
12	179	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	180	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	181	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	182	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	183	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	184	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	185	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	186	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	187	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	188	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
A	189	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	190	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	191	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	192	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	193	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	194	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	195	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	196	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	197	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	198	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
C	199	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	200	18	17	-11	19	-19	21	-18	24	-13	25	-14	4	4
	201	18	17	-11	19	-19	21	-18	24	-13	25			

Noise Assessment Group	Residence Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	Underground Scenario				Conveyer Scenario						
					US Total dBA	US Total vs Criteria dBA	Combined Open Cut & Underground	Combined vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined OC & US Total dBA	Combined vs Criteria dBA	US Only Head vs Conveyer	Combined OC & US Head vs Conveyer	
1	80	36	28	-8	36	0	37	-1	36	0	37	-1	0	0	
3	87	39	35	-4	39	-1	40	-1	38	-1	38	-1	1	1	
4	108	42	38	-4	42	-1	43	-1	40	-2	40	-2	1	1	
	88	24	17	-13	27	-13	27	-13	26	-14	26	-14	1	1	
	91	37	26	-11	26	-11	27	-10	24	-13	24	-13	1	1	
	94	37	26	-11	26	-11	29	-8	23	-14	23	-14	1	1	
	95	37	26	-11	27	-10	8	24	9	13	24	9	1	1	
	96	37	26	-11	26	-11	26	-11	26	-11	26	-11	1	1	
	99	37	24	-13	25	-12	25	-12	24	-13	24	-13	1	1	
	100	37	24	-13	25	-12	27	-10	22	-15	26	-11	1	1	
	105	37	26	-11	26	-11	26	-11	25	-12	26	-11	1	1	
	101	37	27	-10	28	-8	28	-8	28	-8	28	-8	1	1	
	103	42	22	-20	26	-16	27	-15	23	-19	25	-17	1	1	
	104	42	24	-18	25	-17	27	-15	23	-19	27	-15	1	1	
	111	42	12	-30	12	-30	19	-23	19	-23	19	-23	1	1	
	112	42	12	-30	12	-30	19	-23	19	-23	19	-23	1	1	
	118	42	25	-17	25	-17	25	-17	26	-16	26	-16	1	1	
	120	42	29	-13	28	-14	32	-10	25	-17	30	-12	1	1	
	121	42	26	-16	28	-14	28	-14	28	-14	28	-14	1	1	
	123	42	24	-18	25	-17	28	-14	22	-20	26	-16	1	1	
	125	42	27	-15	27	-15	30	-12	24	-18	29	-13	1	1	
	126	42	25	-17	25	-17	28	-14	22	-20	27	-15	1	1	
	129	42	31	-11	28	-14	28	-14	32	-10	32	-10	1	1	
	129	42	31	-11	28	-14	28	-14	32	-10	32	-10	1	1	
	139	42	21	-21	19	-23	21	-21	17	-25	22	-20	1	1	
	154	42	12	-30	12	-30	19	-23	19	-23	19	-23	1	1	
	156	42	31	-11	28	-14	31	-11	24	-18	32	-10	1	1	
	157	42	29	-13	29	-13	30	-12	24	-18	30	-12	1	1	
	159	42	29	-13	29	-13	30	-12	24	-18	30	-12	1	1	
	132	38	26	-12	23	-15	28	-10	21	-17	27	-11	1	1	
	133	38	25	-13	24	-14	27	-11	21	-17	26	-12	1	1	
	137	38	21	-17	22	-16	24	-14	23	-15	24	-14	1	1	
	108	39	30	-9	34	-5	40	-1	40	-1	40	-1	1	1	
	109	39	30	-9	34	-5	41	-2	39	-2	40	-1	1	1	
	110	39	30	-9	34	-5	40	-1	40	-1	40	-1	1	1	
	110	39	30	-9	34	-5	40	-1	40	-1	40	-1	1	1	
	142	35	14	-21	9	-26	15	-20	13	-22	17	-18	4	-1	
	2	38	29	-9	14	-24	30	-14	11	-27	5	-32	7	3	
	3	38	27	-11	27	-11	28	-10	28	-10	28	-10	1	1	
	4	38	28	-10	23	-15	21	-17	21	-17	21	-17	1	1	
	143	38	21	-17	22	-16	23	-15	19	-19	21	-17	1	1	
	144	38	20	-18	23	-15	23	-15	24	-14	24	-14	1	1	
	145	38	20	-18	17	-21	22	-16	24	-14	25	-14	1	1	
	146	38	20	-18	17	-21	22	-16	24	-14	25	-14	1	1	
	147	38	19	-19	21	-17	21	-17	26	-11	27	-11	1	1	
	148	38	20	-18	17	-21	22	-16	27	-11	28	-10	1	1	
	149	38	21	-17	17	-21	22	-16	27	-11	28	-10	1	1	
	150	38	21	-17	18	-20	23	-15	27	-11	28	-10	1	1	
	151	38	21	-17	17	-21	22	-16	27	-11	28	-10	1	1	
	152	38	21	-17	15	-23	26	-12	28	-10	29	-9	1	1	
	5	37	-7	25	-12	31	-6	31	-6	34	-3	34	-3	1	1
	6	37	-7	25	-12	31	-6	31	-6	34	-3	34	-3	1	1
	8	37	-7	25	-12	31	-6	31	-6	34	-3	34	-3	1	1
	9	37	-7	25	-12	31	-6	31	-6	34	-3	34	-3	1	1
	10	37	-7	25	-12	31	-6	31	-6	34	-3	34	-3	1	1
	11	37	-7	25	-12	31	-6	31	-6	34	-3	34	-3	1	1
	13	37	-7	25	-12	31	-6	31	-6	34	-3	34	-3	1	1
	7	39	29	-10	35	-4	34	-5	36	-3	37	-2	1	1	
	12	39	29	-10	35	-4	34	-5	36	-3	37	-2	1	1	
	14	39	31	-8	33	-6	33	-6	34	-4	35	-3	1	1	
	15	39	31	-8	33	-6	33	-6	34	-4	35	-3	1	1	
	16	39	31	-8	33	-6	33	-6	34	-4	35	-3	1	1	
	17	39	31	-8	33	-6	33	-6	34	-4	35	-3	1	1	
	18	39	31	-8	33	-6	33	-6	34	-4	35	-3	1	1	
	19	39	31	-8	33	-6	33	-6	34	-4	35	-3	1	1	
	20	39	31	-8	33	-6	33	-6	34	-4	35	-3	1	1	
	21	39	31	-8	33	-6	33	-6	34	-4	35	-3	1	1	
	50	39	23	-16	29	-10	29	-10	28	-11	29	-10	1	1	
	51	39	20	-19	28	-11	28	-11	25	-14	26	-13	1	1	
	52	39	19	-20	26	-13	27	-12	24	-15	25	-14	1	1	
	53	39	22	-17	29	-10	29	-10	26	-13	27	-12	1	1	
	54	39	22	-17	30	-9	31	-8	27	-12	28	-11	1	1	
	55	39	22	-17	27	-12	27	-12	24	-15	25	-14	1	1	
	56	39	21	-18	29	-10	30	-9	26	-13	27	-12	1	1	
	57	39	21	-18	28	-11	29	-10	26	-13	27	-12	1	1	
	63	39	24	-15	31	-8	31	-8	28	-11	29	-10	1	1	
	22	36	23	-13	22	-14	26	-12	24	-12	27	-11	1	1	
	23	36	24	-12	23	-13	27	-11	25	-11	28	-10	1	1	
	24	36	20	-16	19	-17	23	-13	22	-14	24	-12	1	1	
	25	36	20	-16	19	-17	23	-13	22	-14	24	-12	1	1	
	26	36	20	-16	19	-17	23	-13	22	-14	24	-12	1	1	
	27	36	20	-16	19	-17	23	-13	22	-14	24	-12	1	1	
	28	36	18	-18	17	-19	21	-15	19	-17	22	-14	1	1	
	29	36	18	-18	17	-19	21	-15	19	-17	22	-14	1	1	
	30	36	21	-15	20	-16	23	-13	21	-15	24	-12	1	1	
	31	36	21	-15	20	-16	23	-13	21	-15	24	-12	1	1	
	32	36	20	-16	21	-15	24	-12	21	-15	24	-12	1	1	
	34	36	21	-15	23	-13	25	-11	24	-12	26	-10	1	1	
	35	36	19	-17	22	-14	24	-12	21	-15	24	-12	1	1	
	36	36	20	-16	22	-14	24	-12	21	-15	24	-12	1	1	
	38	36	16	-20	21	-15	22	-14	19	-17	21	-15	1	1	
	39	36	16	-20	21	-15	22	-14	19	-17	21	-15	1	1	
	40	36	17	-19	20	-16	22	-14	20	-16	22	-14	1	1	
	41	36	15	-21	18	-18	19	-17	18	-18	20	-16	1	1	
	42	36	20	-16	21	-15	24	-12	21	-15	24	-12	1	1	
	43	36	20	-16	21	-15	24	-12	21	-15	24	-12	1	1	
	44	36	21	-15	25	-11	26	-10	23	-13	25	-11	1	1	
	45	36	21	-15	25	-11	26	-10	23	-13	25	-11	1	1	
	46	36	20	-16	22	-14	24	-12	21	-15	24	-12	1	1	
	47	36	20	-16	22	-14	24	-12	21	-15	24	-12	1	1	
	48	36	25	-11	30	-6	30	-6	32	-4	33	-3	1	1	
	49	36	25	-11	30	-6	30	-6	32	-4	33	-3	1	1	
	72	38	27	-11	30	-6	31	-5	29	-7	30	-6	1	1	
	73	38	28	-10	30	-6	30	-6	32	-4	33	-3	1	1	
	76	38	29	-9	30	-6	30	-6	32	-4	33	-3	1	1	

This assessment focuses on noise emissions from the proposed northerly extension of the existing open cut. Development alternatives are considered, the Full PA Extent includes mining through the "Duhwi" property.

NOISE REVERSION Noise Assessment Group	Residence Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	Underground Scenario				Conveyance Scenario					
					US Total dBA	US Total vs Criteria dBA	Combined Open Cut & Underground	Combined vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined OC & US Total dBA	Combined vs Criteria dBA	US Only Head vs Conveyer	Combined OC & US Head vs Conveyer
1	80	36	35	-1	42	6	43	1	40	-4	41	1	2	2
3	87	39	40	1	42	3	43	1	39	0	43	4	4	1
4	108	42	39	-3	42	0	41	-1	39	-2	42	3	3	1
88	37	33	33	0	35	-2	33	-2	35	2	33	-2	4	2
91	37	33	33	0	34	-1	33	-1	32	-1	36	4	1	2
94	37	33	32	-1	34	-1	33	-1	32	-1	35	3	2	1
95	37	33	32	-1	33	-1	32	-1	31	-1	36	5	4	3
96	37	33	32	-1	34	-1	33	-1	31	-1	34	3	2	1
99	37	33	31	-2	35	2	35	2	31	-2	34	3	2	1
100	37	33	31	-2	33	-1	32	-1	31	-1	34	3	2	1
105	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
101	37	33	30	-3	33	0	32	-1	31	-1	34	3	2	1
103	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
104	37	33	31	-2	33	0	32	-1	31	-1	34	3	2	1
111	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
112	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
114	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
115	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
120	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
121	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
123	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
125	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
126	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
129	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
139	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
144	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
156	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
157	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
159	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
162	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
163	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
164	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
165	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
166	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
167	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
168	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
169	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
170	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
171	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
172	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
173	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
174	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
175	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
176	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
177	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
178	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
179	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
180	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
181	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
182	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
183	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
184	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
185	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
186	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
187	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
188	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
189	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
190	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
191	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
192	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
193	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
194	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
195	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
196	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
197	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
198	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
199	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
200	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
201	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
202	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
203	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
204	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
205	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
206	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
207	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
208	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
209	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
210	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
211	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
212	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
213	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
214	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
215	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
216	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
217	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
218	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
219	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
220	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
221	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
222	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
223	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
224	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
225	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
226	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
227	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
228	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
229	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
230	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
231	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
232	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
233	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
234	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
235	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
236	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
237	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
238	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
239	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
240	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
241	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
242	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
243	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
244	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
245	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
246	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
247	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1
248	37	33	31	-2	34	1	34	1	31	-1	34	3	2	1

DAY CALM				Underground Scenario				Conveyor Scenario						
Noise Assessment Group	Residence Reference	Criteria dBA	OC vs Criteria dBA	OC vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined Open Cut & Underground Total dBA	Combined vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined OC & US Total dBA	Combined vs Criteria dBA	US Only Hand vs Conveyor	Combined OC & US, Hand vs Conveyor
1	80	35	33	-2	41	6	42	6	38	1	38	1	4	4
1	87	38	40	2	38	0	42	4	35	-3	41	3	1	1
1	106	38	40	2	38	0	41	3	39	1	40	2	1	1
4	88	39	24	-15	24	-15	24	-15	24	-17	27	-12	2	2
4	91	39	29	-10	26	-13	31	-8	24	-15	30	-9	2	1
4	94	39	27	-12	26	-13	30	-6	25	-14	29	-11	2	1
4	95	39	29	-10	27	-12	31	-8	24	-15	30	-9	1	1
4	96	39	31	-8	28	-11	33	-5	26	-13	32	-7	2	1
4	98	39	27	-12	25	-14	29	-10	23	-16	28	-11	2	1
4	100	39	26	-13	25	-14	28	-11	22	-17	27	-12	1	1
4	109	39	28	-11	28	-11	31	-8	25	-14	30	-9	2	1
4	105	39	31	-8	28	-11	33	-5	26	-13	32	-7	2	1
5	103	50	25	-25	25	-24	29	-21	23	-27	23	-27	3	1
5	104	50	26	-24	24	-26	28	-22	23	-28	22	-28	0	0
5	111	50	40	-10	32	-18	37	-13	29	-21	40	-10	3	0
5	112	50	36	-14	30	-20	37	-13	29	-21	40	-10	3	0
5	118	50	33	-17	28	-22	35	-15	26	-24	34	-16	1	1
5	120	50	33	-17	28	-22	34	-16	25	-25	34	-16	1	1
5	121	50	28	-22	27	-23	30	-20	27	-27	29	-23	1	1
5	123	50	26	-24	25	-25	29	-21	25	-28	27	-23	1	1
5	125	50	29	-21	27	-23	31	-19	24	-26	30	-20	1	1
5	126	50	29	-21	26	-24	29	-21	24	-26	29	-23	1	1
5	129	50	28	-22	28	-22	31	-19	25	-25	30	-20	1	1
5	139	50	21	-29	19	-31	23	-27	17	-33	22	-28	2	1
5	154	50	26	-24	20	-30	26	-24	26	-24	36	-14	0	0
5	156	50	34	-16	20	-30	34	-16	24	-26	34	-16	0	0
5	157	50	33	-17	20	-30	33	-17	24	-26	34	-16	0	0
5	159	50	33	-17	20	-30	33	-17	24	-26	33	-17	0	0
6	132	39	22	-17	29	-10	36	-3	21	-18	35	-4	1	1
6	133	39	24	-15	24	-15	33	-6	23	-18	32	-7	1	1
6	137	39	20	-19	22	-17	24	-15	18	-21	22	-17	2	1
7	108	45	48	3	32	-13	48	3	30	-15	48	3	2	0
7	109	45	49	4	31	-14	45	0	29	-16	45	0	2	0
7	110	45	47	2	32	-13	47	2	30	-15	47	2	0	0
8	DUWICH	45	49	4	47	2	51	6	41	-4	50	5	1	1
8	92	45	27	-18	31	-14	42	-6	33	-12	42	-6	1	1
9	2	37	29	-8	27	-10	30	-7	31	-6	33	-4	3	2
9	3	37	27	-10	27	-10	28	-9	28	-9	32	-4	3	2
9	4	37	28	-9	23	-14	29	-8	31	-6	33	-4	3	2
9	143	37	18	-19	22	-15	23	-14	19	-18	22	-15	3	2
9	144	37	20	-17	25	-12	25	-12	21	-16	25	-12	3	2
9	145	37	20	-17	20	-17	20	-17	24	-13	24	-13	2	1
9	146	37	19	-18	17	-20	18	-19	21	-16	24	-13	3	2
9	147	37	20	-17	17	-20	17	-20	22	-11	27	-10	5	4
9	148	37	20	-17	17	-20	17	-20	23	-10	28	-9	6	5
9	149	37	21	-16	17	-20	17	-20	22	-11	27	-10	5	4
9	150	37	21	-16	18	-19	19	-18	23	-14	28	-9	5	4
9	151	37	21	-16	17	-20	18	-19	22	-11	27	-10	5	4
9	152	37	24	-13	22	-15	24	-13	20	-17	24	-13	3	2
10	5	36	29	-7	25	-11	31	-5	31	-5	33	-4	3	2
10	6	36	30	-6	26	-10	32	-4	32	-4	34	-2	3	2
10	8	36	31	-5	29	-7	33	-3	33	-3	36	-3	3	2
10	9	36	30	-6	31	-5	34	-2	37	-1	38	-1	4	3
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11	7	38	29	-9	25	-13	31	-7	30	-8	33	-5	2	1
11	12	38	29	-9	23	-14	30	-8	32	-6	34	-4	3	2
11	14	38	31	-7	27	-11	32	-6	35	-3	36	-3	3	2
11	15	38	30	-8	26	-12	32	-6	33	-5	35	-3	3	2
11	18	38	31	-7	29	-9	36	-3	36	-3	36	-3	3	2
11	17	38	28	-10	27	-11	30	-8	30	-8	34	-4	3	2
11	18	38	24	-14	26	-12	28	-10	32	-6	33	-5	2	1
11	19	38	23	-15	17	-21	14	-24	18	-20	13	-25	1	0
11	20	38	24	-14	20	-18	18	-20	22	-16	26	-12	2	1
11	21	38	24	-14	20	-18	18	-20	21	-17	26	-12	2	1
12	51	35	31	-4	28	-7	31	-4	25	-10	32	-3	1	1
12	52	35	29	-6	28	-7	31	-4	25	-10	30	-5	1	1
12	53	35	27	-8	26	-9	30	-5	24	-11	29	-6	1	1
12	54	35	29	-6	29	-6	32	-3	27	-8	31	-4	1	1
12	55	35	31	-4	30	-5	33	-2	29	-6	32	-3	1	1
12	56	35	27	-8	27	-8	30	-5	24	-11	29	-6	1	1
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12	57	35	28	-7	28	-7	31	-4	26	-9	30	-5	1	1
12	62	35	32	-3	30	-5	34	-1	28	-7	33	-2	1	1
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12	24	36	23	-13	19	-17	24	-12	21	-15	26	-10	1	1
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12	40	36	20	-16	18	-18	22	-14	18	-18	22	-14	0	0
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12	47	36	25	-11	21	-15	25	-11	21	-15	25	-11	1	1
12	48	36	25	-11	21	-15	25	-11	21	-15	25	-11	1	1
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12	60	36	25	-11	21	-15	25	-11	21	-15	25	-11	1	1
12	61	36	25	-11	21	-15	25	-11	21	-15	25	-11	1	1
12	62	36	25	-11	21	-15	25	-11	21	-15	25	-11	1	1
12	63	36	25	-11	21									

EVENING CALM				Underground Scenario						Conveyor Scenario					
Noise Assessment Group	Residence Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined Open Cut & Underground Total dBA	Combined vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined OC & US Total dBA	Combined vs Criteria dBA	US Only Mail vs Conveyor	Combined OC & US Mail vs Conveyor	
1	80	38	34	-4	41	3	42	4	36	-2	38	0	3	4	
3	87	40	40	0	38	-2	42	2	35	-5	41	1	3	1	
4	106	40	41	1	38	-2	42	2	29	-11	41	1	3	1	
88	42	27	24	-3	27	0	24	-3	24	-20	28	1	28	1	
91	42	30	26	-4	26	-4	31	2	24	-18	31	1	2	1	
94	42	30	26	-4	26	-4	30	1	25	-19	30	1	2	1	
95	42	30	27	3	27	3	31	4	24	-18	31	1	2	1	
96	42	31	28	7	28	7	33	6	26	-16	32	2	2	1	
99	42	27	25	-2	27	0	28	1	25	-15	28	1	1	1	
100	42	27	25	-2	25	-2	29	2	26	-16	32	2	2	1	
105	42	29	28	1	28	1	31	2	25	-17	30	1	1	1	
105	42	31	28	-3	28	0	24	-18	24	-18	32	2	2	1	
103	46	26	26	0	26	0	23	-23	23	-23	18	3	1	1	
104	46	26	26	0	26	0	23	-23	23	-23	18	3	1	1	
111	46	41	32	-14	32	-14	42	0	29	-17	41	5	0	0	
112	46	37	30	-7	30	-7	38	0	27	-19	37	0	3	0	
118	46	33	33	0	29	-7	35	-7	26	-20	34	1	1	1	
120	46	34	28	-6	28	-6	35	-1	25	-21	35	-1	0	0	
121	46	29	27	-2	27	-2	31	0	23	-23	30	1	1	1	
123	46	26	25	-1	25	-1	29	0	22	-24	27	1	1	1	
125	46	29	27	-2	27	-2	31	0	24	-22	30	1	1	1	
126	46	27	25	-2	25	-2	29	0	22	-24	27	1	1	1	
129	46	28	28	0	28	0	25	-11	25	-21	30	1	1	1	
139	46	22	24	2	19	-7	24	-5	17	-29	23	2	2	0	
154	46	36	36	0	20	-26	26	0	26	-20	36	10	0	0	
156	46	35	20	-15	20	-15	24	-4	17	-29	23	2	2	0	
157	46	34	20	-14	20	-14	24	-4	17	-29	23	2	2	0	
159	46	33	20	-13	20	-13	24	-4	17	-29	23	2	2	0	
132	41	23	18	-5	18	-5	23	0	24	-22	30	1	1	1	
133	41	24	17	-3	17	-3	23	0	24	-22	30	1	1	1	
137	41	19	22	3	19	-2	18	-22	18	-22	19	4	2	2	
108	42	49	7	-32	32	-10	49	7	20	-12	40	7	2	0	
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110	42	48	7	-31	32	-10	48	6	20	-12	40	6	2	0	
Duwoon	42	50	7	-33	32	-10	48	6	20	-12	40	6	2	0	
102	42	9	27	25	13	12	13	1	13	-25	17	4	1	1	
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3	40	27	23	-4	23	-17	28	-1	31	-9	33	7	-7	-3	
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143	40	18	22	4	22	18	23	1	19	-21	22	18	3	2	
144	40	20	25	5	25	15	23	3	19	-21	22	18	3	2	
145	40	21	17	-3	17	-14	24	-7	24	-7	26	14	7	3	
146	40	19	21	2	17	-23	21	2	23	-17	23	24	16	3	
147	40	20	17	-3	17	-23	21	2	23	-17	23	24	16	3	
148	40	21	17	-3	17	-23	21	2	23	-17	23	24	16	3	
149	40	21	17	-3	17	-23	21	2	23	-17	23	24	16	3	
150	40	21	17	-3	17	-23	21	2	23	-17	23	24	16	3	
151	40	21	17	-3	17	-23	21	2	23	-17	23	24	16	3	
152	40	24	22	-2	22	-18	24	0	28	-12	28	11	3	3	
5	39	30	25	-4	25	-14	31	-4	31	-4	34	-4	6	-2	
6	39	31	26	-3	26	-13	32	-3	32	-3	35	-4	6	-2	
8	39	31	26	-3	26	-13	32	-3	32	-3	35	-4	6	-2	
9	39	30	25	-4	25	-14	31	-4	31	-4	34	-4	6	-2	
10	39	30	25	-4	25	-14	31	-4	31	-4	34	-4	6	-2	
11	39	30	25	-4	25	-14	31	-4	31	-4	34	-4	6	-2	
12	39	32	27	-1	27	-12	34	-2	36	-2	37	-2	3	3	
13	39	32	27	-1	27	-12	34	-2	36	-2	37	-2	3	3	
14	41	30	23	-7	23	-18	31	-4	31	-4	34	-4	6	-2	
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16	41	32	25	-6	25	-16	33	-2	33	-6	37	4	8	4	
17	41	32	25	-6	25	-16	33	-2	33	-6	37	4	8	4	
18	41	25	16	-15	16	-25	32	-5	32	-5	33	-5	4	4	
19	41	24	17	-17	17	-24	25	-2	20	-21	25	16	-3	-1	
20	41	25	18	-13	18	-23	26	-1	22	-19	27	14	-2	-1	
21	41	25	18	-13	18	-23	26	-1	22	-19	27	14	-2	-1	
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51	38	10	8	-2	8	-29	12	0	25	-6	12	6	3	1	
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53	38	30	30	0	28	-10	32	0	26	-12	31	0	2	1	
54	38	32	32	0	30	-8	34	0	27	-11	33	0	2	1	
55	38	28	28	0	27	-11	30	0	24	-14	29	0	2	1	
56	38	29	29	0	28	-10	32	0	26	-12	31	0	2	1	
57	38	29	29	0	28	-10	32	0	26	-12	31	0	2	1	
62	38	33	33	0	30	-8	35	0	28	-10	34	0	2	1	
63	38	26	26	0	22	-17	29	0	22	-16	28	0	2	1	
23	39	23	23	0	23	-16	25	-2	25	-14	29	0	2	1	
24	39	23	23	0	23	-16	25	-2	25	-14	29	0	2	1	
25	39	23	23	0	23	-16	25	-2	25	-14	29	0	2	1	
26	39	22	22	-17	22	-17	24	-2	21	-18	25	-14	-2	-1	
27	39	22	22	-17	22	-17	24	-2	21	-18	25	-14	-2	-1	
28	39	21	21	-18	21	-18	23	-2	19	-22	23	-16	-2	-1	
29	39	24	24	0	24	-15	25	-1	21	-18	25	-14	-2	-1	
30	39	24	24	0	24	-15	25	-1	21	-18	25	-14	-2	-1	
31	39	25	25	0	21	-18	26	-2	22	-17	27	-12	-1	0	
32	39	25	25	0	21	-18	26	-2	22	-17	27	-12	-1	0	
34	39	26	26	0	23	-16	28	0	24	-15	28	0	2	1	
35	39	28	28	0	22	-17	29	0	23	-16	28	0	2	1	
36	39	26	26	0	22	-17	29	0	23	-16	28	0	2	1	
37	39	22	22	-17	21	-18	24	-2	19	-22	23	-16	-2	-1	
38	39	26	26	0	23	-16	28	0	24	-15	28	0	2	1	
39	39	23	23	-16	23	-16	25	-2	22	-17	27	-12	-1	0	
40	39	20	20	-19	18	-21	22	-2	18	-21	21	-14	-2	-1	
41	39	20	20	-19	18	-21	22	-2	18	-21	21	-14	-2	-1	
42	39	25	25	0	23	-16	28	0	24	-15	28	0	2	1	
43	39	26	26	0	23	-16	28	0	24	-15	28	0	2	1	
47	37	32	32	0	31	-6	32	-1	28	-9	36	8	1	1	
63	37	33	33	0	30	-7	35	-2	28	-9	36	8	1	1	
64	37	33	33	0	30	-7	35	-2	28	-9	36	8	1	1	
64	40	28	28	0	24	-16	30	0	24	-16	29	0	2	1	
48	40	30	30	0	27	-13	32	0	25	-15	31	0	2	1	
49	40	32	32	0	28	-12	33	0	26	-14	32	0	2	1	
65	40	34	34	0	32	0	35	0	29	-11	35	0	2	1	
66	40	34	34	0	30	-10	36	0	28	-12	35	0	2	1	
67	40	34	34	0	31	-9	36	0	28	-12	35	0	2	1	
68	40	37	37	0	35	0	38	0	32	-8	38	0	2	1	
71	40	39	39	0	38	0	41	0	36	-4	41	0	2	1	
72	40	38	38	0	38	0	41	0	36	-4	41	0	2	1	
73	40	39	39	0	38	0	42	0	37	-3	41	0	2	1	
76	40	38	38	0	39	0	42	0	38	-2	41	0	2	1	

NIGHT CALM					Underground Scenario					Conveyor Scenario				
Noise Assessment Group	Residence Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined Open Cut & Underground Total dBA	Combined OC & US Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined OC & US Total dBA	Combined Vt Criteria dBA	US Only Haul vs Conveyor	Combined OC & US Haul vs Conveyor
1	80	36	31	-5	41	5	41	5	36	0	37	1	1	4
3	87	39	41	2	38	-1	43	4	35	-4	42	1	1	0
	106	39	40	1	38	-1	41	3	36	0	40	1	1	0
4	88	37	27	-10	24	-13	27	0	22	-15	28	1	1	2
	91	37	31	4	26	-11	32	5	24	-13	32	5	2	0
	94	37	30	-7	26	-11	30	3	25	-12	30	3	1	1
	95	37	30	-7	27	-10	31	4	24	-13	31	4	1	1
	96	37	32	5	28	-6	34	7	26	-11	33	4	2	1
	99	37	28	-9	25	-12	30	3	23	-14	29	2	1	1
	100	37	27	-10	25	-12	29	2	22	-15	28	1	1	1
	101	37	28	-9	28	-6	31	4	25	-12	30	3	1	1
	101	37	32	5	28	-6	32	4	24	-13	33	4	1	1
	103	42	25	-17	26	-16	29	-13	23	-19	27	1	1	1
5	104	42	25	-17	24	-18	28	-16	23	-19	27	1	1	1
	111	42	40	2	32	-10	41	9	29	-13	40	2	1	0
	112	42	36	-6	30	-12	37	7	27	-15	37	5	1	0
	118	42	33	-9	29	-13	35	6	26	-16	34	3	1	1
	120	42	33	-9	28	-14	34	6	25	-17	34	3	1	1
	121	42	28	-14	27	-15	30	3	23	-19	29	1	1	1
	121	42	26	-16	25	-17	29	-13	22	-20	27	1	1	1
	125	42	29	-13	27	-15	31	4	24	-18	30	2	1	1
	126	42	26	-16	26	-16	29	-13	22	-20	27	1	1	1
	129	42	28	-14	28	-14	31	3	25	-17	30	2	1	1
	139	42	21	-21	19	-23	23	-19	17	-25	22	2	1	1
	154	42	36	6	20	-22	36	6	26	-16	36	6	0	0
	156	42	34	4	20	-22	34	4	24	-18	34	4	0	0
	157	42	33	3	20	-22	33	3	24	-18	34	4	0	0
	159	42	33	3	20	-22	33	3	22	-20	33	3	0	0
6	112	38	22	-16	20	-18	26	2	17	-21	23	2	1	1
	113	38	23	-15	24	-14	31	7	21	-17	28	3	1	1
	117	38	22	-16	22	-16	28	4	19	-19	25	1	1	1
7	108	39	48	9	32	7	48	9	30	9	48	9	2	0
	109	39	48	9	33	6	49	10	29	8	48	9	2	0
	110	39	47	8	32	7	47	8	30	9	47	8	2	0
	Duwoon	39	49	10	47	8	51	10	31	10	50	10	4	0
8	102	39	35	-4	35	-4	35	-4	31	-8	37	2	1	1
9	2	38	30	-8	24	-14	31	3	27	-11	34	4	1	1
	3	38	27	-11	23	-15	28	0	21	-17	28	0	1	1
	4	38	29	-9	23	-15	31	3	23	-15	33	5	1	1
	143	38	17	-21	23	-16	23	-15	19	-19	21	3	1	1
	144	38	20	-18	23	-16	24	-17	24	-16	25	1	1	1
	145	38	20	-18	17	-21	24	-17	24	-16	25	1	1	1
	146	38	19	-19	17	-21	21	-17	23	-15	24	1	1	1
	147	38	19	-19	17	-21	21	-17	23	-15	24	1	1	1
	148	38	20	-18	17	-21	21	-17	27	-11	27	1	1	1
	149	38	20	-18	17	-21	21	-17	27	-11	27	1	1	1
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	151	38	20	-18	17	-21	22	-16	27	-11	28	1	1	1
	152	38	23	-15	22	-16	22	-16	28	-10	29	1	1	1
10	5	37	30	-7	25	-12	31	4	26	-9	34	7	2	0
	6	37	31	-6	26	-11	32	5	27	-8	35	8	2	0
	8	37	31	-6	27	-10	34	7	29	-8	36	9	2	0
	9	37	30	-7	31	-6	37	0	34	0	38	1	1	1
	10	37	30	-7	31	-6	37	0	36	0	37	0	1	1
	11	37	30	-7	33	-4	37	0	37	0	38	1	1	1
	13	37	32	-5	39	-2	34	-3	36	-1	37	0	1	1
	7	39	30	-9	25	-14	31	4	25	-14	33	6	2	0
	12	39	30	-9	23	-16	32	3	24	-15	34	5	1	1
	14	39	32	-7	27	-12	33	4	27	-12	37	2	1	1
	15	39	31	-8	26	-13	33	4	26	-14	36	4	1	1
	16	39	32	-7	29	-10	35	6	30	-7	37	2	1	1
	17	39	32	-7	30	-9	36	7	31	-6	38	3	1	1
	18	39	33	-6	30	-9	37	8	32	-6	39	4	1	1
	19	39	33	-6	31	-8	38	9	33	-5	40	5	1	1
	20	39	34	-5	32	-7	39	10	34	-4	41	6	1	1
	21	39	35	-4	33	-6	40	11	35	-3	42	7	1	1
	22	39	36	-3	34	-5	41	12	36	-2	43	8	1	1
	23	39	37	-2	35	-4	42	13	37	-1	44	9	1	1
	24	39	38	-1	36	-3	43	14	38	0	45	10	1	1
	25	39	39	0	37	-2	44	15	39	1	46	11	1	1
	26	39	40	1	38	-1	45	16	40	2	47	12	1	1
	27	39	41	2	39	0	46	17	41	3	48	13	1	1
	28	39	42	3	40	1	47	18	42	4	49	14	1	1
	29	39	43	4	41	2	48	19	43	5	50	15	1	1
	30	39	44	5	42	3	49	20	44	6	51	16	1	1
	31	39	45	6	43	4	50	21	45	7	52	17	1	1
	32	39	46	7	44	5	51	22	46	8	53	18	1	1
	33	39	47	8	45	6	52	23	47	9	54	19	1	1
	34	39	48	9	46	7	53	24	48	10	55	20	1	1
	35	39	49	10	47	8	54	25	49	11	56	21	1	1
	36	39	50	11	48	9	55	26	50	12	57	22	1	1
	37	39	51	12	49	10	56	27	51	13	58	23	1	1
	38	39	52	13	50	11	57	28	52	14	59	24	1	1
	39	39	53	14	51	12	58	29	53	15	60	25	1	1
	40	39	54	15	52	13	59	30	54	16	61	26	1	1
	41	39	55	16	53	14	60	31	55	17	62	27	1	1
	42	39	56	17	54	15	61	32	56	18	63	28	1	1
	43	39	57	18	55	16	62	33	57	19	64	29	1	1
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	45	39	59	20	57	18	64	35	59	21	66	31	1	1
	46	39	60	21	58	19	65	36	60	22	67	32	1	1
	47	39	61	22	59	20	66	37	61	23	68	33	1	1
	48	39	62	23	60	21	67	38	62	24	69	34	1	1
	49	39	63	24	61	22	68	39	63	25	70	35	1	1
	50	39	64	25	62	23	69	40	64	26	71	36	1	1
	51	39	65	26	63	24	70	41	65	27	72	37	1	1
	52	39	66	27	64	25	71	42	66	28	73	38	1	1
	53	39	67	28	65	26	72	43	67	29	74	39	1	1
	54	39	68	29	66	27	73	44	68	30	75	40	1	1
	55	39	69	30	67	28	74	45	69	31	76	41	1	1
	56	39	70	31	68	29	75	46	70	32	77	42	1	1
	57	39	71	32	69	30	76	47	71	33	78	43	1	1
	58	39	72	33	70	31	77	48	72	34	79	44	1	1
	59	39	73	34	71	32	78	49	73	35	80	45	1	1
	60	39	74	35	72	33	79	50	74	36	81	46	1	1
	61	39	75	36	73	34	80	51	75	37	82	47	1	1
	62	39	76	37	74	35	81	52	76	38	83	48	1	1
	63	39	77	38	75	36	82	53	77	39	84	49	1	1
	64	39	78	39	76	37	83	54	78	40	85	50	1	1
	65	39	79	40	77	38	84	55	79	41	86	51	1	1
	66	39	80	41	78	39	85	56	80	42	87	52	1	1
	67	39	81	42	79	40	86	57	81	43	88	53	1	1
	68	39	82	43	80	41	87	58	82	44	89	54	1	1
	69	39	83	44	81	42	88	59	83	45	90	55	1	1
	70	39	84	45	82	43	89	60	84	46	91	56	1	1
	71	39	85	46	83	44	90	61	85	47	92	57	1	1
	72	39	86	47	84	45	91	62	86</					

NIGHT INVERSION	Noise Assessment Group	Residence Reference	Underground Scenario											Conveyor Scenario		
			Criteria dBA	OC vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined Open Cut & Underground Total dBA	Combined vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined OC & US Total dBA	Combined vs Criteria dBA	US Only Hazard Category	Combined OC & US, Hazard Category		
1	4	80	36	38	41	5	43	4	40	4	42	1	1	1	1	
		87	39	46	7	42	3	47	2	39	0	47	8	3	1	
		106	39	46	7	39	0	47	8	36	-3	46	10	3	1	
		88	37	38	1	35	-2	40	5	37	-3	40	3	4	1	
		91	37	39	2	34	-3	40	3	32	-5	40	8	2	0	
		94	37	34	-3	34	0	39	5	32	-5	40	10	2	0	
		95	37	35	2	35	2	40	3	32	-5	40	10	1	1	
		96	37	40	3	35	-2	41	4	33	-4	41	4	2	1	
		97	37	0	34	-3	35	-3	35	0	38	3	38	0	1	
		100	37	0	33	-4	39	-4	39	0	38	3	38	0	1	
5	5	109	37	40	3	35	-2	41	4	41	4	41	4	2	1	
		101	37	40	3	33	-4	41	4	32	-5	41	4	2	0	
		103	33	-9	34	8	36	-9	33	11	35	7	3	1		
		104	42	38	-6	33	-9	38	0	31	-11	37	0	0		
		111	42	47	5	37	5	47	7	35	-7	47	7	2	0	
		112	42	43	1	36	-6	44	8	34	-8	44	5	2	0	
		118	42	40	-2	39	3	42	3	33	-9	41	3	6	2	
		120	42	40	-2	35	-7	41	0	33	-9	41	3	2	0	
		121	42	37	-5	34	-8	39	-3	32	-10	38	-4	2	1	
		123	42	36	-6	34	-8	38	-4	33	-11	37	-5	1	0	
6	6	125	42	38	-4	34	-8	40	8	32	-10	39	-3	2	1	
		126	42	37	-5	34	-8	39	-3	32	-10	38	-4	2	0	
		129	42	39	-3	34	-8	40	8	32	-10	39	-3	2	1	
		139	42	33	-9	26	-16	34	-8	26	-16	34	-8	0	0	
		154	42	42	0	36	-6	43	1	33	-9	43	1	0	0	
		156	42	40	-2	35	-7	41	0	32	-10	41	0	0	0	
		157	42	40	-2	33	-9	41	0	32	-10	41	0	0	0	
		159	40	-2	34	-8	42	3	34	-8	42	3	0	0	0	
		132	36	-2	31	-9	37	-9	37	-9	37	-9	37	-9	2	0
		133	38	-2	30	-10	38	-10	38	-10	37	-11	37	-11	0	0
7	7	137	33	-5	30	-8	35	-3	28	-12	34	-4	4	1		
		108	39	52	13	39	0	52	13	36	-3	52	13	3	0	
		109	39	54	15	39	0	54	15	34	-3	54	15	4	0	
		110	53	14	38	-1	53	14	46	-3	53	14	2	0		
		DUWECH	39	51	12	30	-11	51	12	39	-11	51	12	4	0	
		122	39	27	-8	33	-6	27	-8	28	-7	28	-7	0	0	
		2	38	36	-2	32	-6	37	-1	35	-3	39	1	-3	0	
		3	38	38	0	30	-8	38	0	34	-4	39	1	-1	0	
		4	38	0	31	-7	39	-1	35	-3	40	1	-4	-1	0	
		143	38	33	-5	27	-11	35	-3	26	-12	34	-4	1	0	
8	8	148	38	34	-4	27	-11	35	-3	25	-13	35	-3	0	0	
		145	38	35	-3	29	-9	36	-2	30	-8	36	-2	-1	0	
		146	38	34	-4	29	-9	35	-3	29	-9	35	-3	0	0	
		147	38	35	-3	29	-9	36	-2	29	-9	36	-2	-3	0	
		148	38	34	-4	29	-9	35	-3	32	-6	36	-2	-1	0	
		149	38	35	-3	29	-9	36	-2	31	-7	35	-3	-2	0	
		150	38	35	-3	29	-9	35	-3	31	-7	35	-3	-1	0	
		151	38	35	-3	29	-9	36	-2	33	-5	36	-2	-2	0	
		152	38	35	-3	31	-7	36	-2	32	-6	37	-1	0	0	
		5	37	39	2	33	-4	40	3	35	-2	40	3	-2	1	
9	9	6	37	40	3	34	-3	41	4	36	-1	40	3	-2	0	
		8	41	41	0	35	-2	42	1	37	0	42	1	-1	0	
		9	37	41	4	38	1	43	5	40	3	44	7	-2	1	
		10	37	40	3	39	2	43	4	40	3	43	4	-1	0	
		11	40	3	35	-2	41	4	40	3	41	4	-5	-2		
		13	37	41	4	36	-1	42	5	40	3	44	7	-4	1	
		7	39	38	-1	33	-6	39	0	33	-6	39	0	0	0	
		12	39	0	30	-8	40	1	35	-4	40	1	-5	-1	0	
		14	39	41	2	33	-6	42	3	38	-1	43	4	-5	-1	
		15	39	39	0	32	-7	39	-1	36	-4	41	2	-2	0	
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		17	39	41	2	34	-5	41	2	41	2	4	-4	0	0	
		18	39	32	-7	32	-7	35	-3	34	-4	39	0	-6	-4	
		19	39	36	-3	33	-6	37	-1	34	-4	38	-1	-6	-1	
		20	39	35	-4	27	-12	36	-2	30	-8	38	-1	-2	0	
		21	39	35	-4	28	-11	36	-2	33	-6	37	-2	-5	0	
		50	35	33	-2	36	1	38	3	34	-1	37	0	1	1	
		51	35	33	-2	35	0	37	2	33	-2	36	0	1	1	
		52	35	26	-9	32	-3	33	-2	29	-6	33	4	3	3	
		53	35	33	-2	35	0	37	2	34	-1	37	0	1	1	
11	11	54	35	33	-2	35	0	37	2	34	-1	37	0	1	1	
		55	35	30	-5	33	-2	35	0	32	-3	34	-1	1	1	
		56	35	31	-4	34	-1	35	0	32	-3	35	0	1	1	
		57	35	33	-2	35	0	37	2	33	-2	36	1	2	1	
		62	35	35	0	37	2	39	4	36	-1	39	4	3	1	
		22	36	34	-2	31	-5	36	0	34	-2	37	1	-3	0	
		23	36	35	-1	32	-4	37	1	36	-1	38	2	-2	1	
		24	36	31	-5	30	-6	34	-2	31	-5	34	-1	-1	0	
		25	36	32	-4	29	-7	35	-1	30	-6	34	-2	0	0	
		26	36	31	-5	28	-8	33	-2	29	-7	33	-3	-1	0	
12	12	27	36	30	-6	27	-9	32	-6	28	-7	33	-3	0	0	
		28	36	29	-7	27	-9	31	-8	28	-8	32	-4	-1	0	
		29	36	31	-5	29	-7	33	-5	29	-7	33	-5	0	0	
		30	36	31	-5	29	-7	33	-5	34	-6	34	-2	0	0	
		31	36	32	-4	29	-7	34	-6	31	-5	35	-1	-2	0	
		32	36	33	-3	30	-6	35	-5	32	-4	36	0	-1	0	
		33	36	33	-3	31	-5	35	-5	33	-4	36	0	-1	0	
		34	36	32	-4	30	-6	34	-5	33	-4	36	0	-1	0	
		35	36	30	-6	28	-8	32	-6	29	-7	33	-3	0	0	
		36	36	30	-6	28	-8	32	-6	29	-7	33	-3	0	0	
A	A	37	36	23	-13	23	-13	26	-10	26	-10	26	0	0	0	
		38	36	22	-14	23	-13	24	-11	25	-11	25	-1	0	0	
		39	36	23	-13	22	-14	25	-11	24	-11	27	1	0	0	
		40	36	21	-15	19	-17	23	-14	24	-14	24	-1	0	0	
		41	36	21	-15	19	-17	23	-14	24	-14	24	-1	0	0	
		42	36	21	-15	17	-19	21	-16	21	-16	23	-1	0	0	
		43	36	32	-4	31	-5	35	-4	32	-4	35	-1	-4	0	
		44	35	31	-4	31	-5	34	-5	32	-5	36	0	0	0	
		63	35	34	-1	37	2	39	4	37	0	39	4	0	0	
		64	35	34	-1	37	2	40	5	37	0	39	4	1	0	
C	C	44	38	32	-6	32	-6	35	-3	35	-3	35	1	1	1	
		48	38	29	-9	34	-4	35	-3	33	-7	33	-5	3	2	
		49	38	31	-7	36	-2	38	0	34	-4	37	1	2	1	
		65	38	34	-4	37	1	39	1	35	-3	38	0	2	1	
		66	38	32	-6	37	1	38	0	35	-3	37	-1	2	1	

DAY CALM	Noise Assessment Group	Benchmark Reference	Criteria dBA	OC Total dBA	Near Scenario					Far Scenario					US Only Haul vs. Conveyer	Combined OC & US Haul vs. Conveyer
					OC vs. Criteria dBA	US Total dBA	US Total vs. Criteria dBA	Combined Down Cut & Underground Total dBA	Combined vs. Criteria dBA	US Total dBA	US Total vs. Criteria dBA	Combined OC & US Total dBA	Combined vs. Criteria dBA			
														OC vs. Criteria dBA		
1		80	22	31	-4	35	0	35	-2	36	-3	37	-2	38	0	
3		87	18	34	-4	38	0	38	-2	39	-3	40	-2	41	0	
4		106	36	34	-4	32	6	36	2	39	-3	35	3	38	1	
		88	39	24	18	-14	28	-15	28	-22	27	-24	27	-2	1	
		91	26	26	-13	26	10	24	-13	24	-15	24	-18	2	1	
		94	22	31	-14	26	12	26	-12	26	-16	27	-17	1	1	
		95	39	26	-13	27	12	29	-10	24	-15	28	-11	1	1	
		96	36	27	-12	28	9	31	-8	26	-9	30	-7	1	1	
		99	39	24	-15	24	14	28	-11	23	-16	27	-12	1	1	
		100	39	24	-15	24	14	27	-12	22	-17	26	-13	1	1	
		102	27	27	-12	28	11	29	-9	24	-10	29	-7	1	1	
		103	39	27	-12	31	11	31	-8	24	-10	29	-7	1	1	
		104	50	22	-28	24	24	27	-23	23	-27	26	-24	1	2	
		104	50	22	-28	24	24	26	-24	23	-26	24	-24	1	1	
		111	50	34	-16	36	18	39	-15	35	-15	31	-15	1	1	
		112	50	30	-20	30	18	33	-17	37	-18	32	-18	1	1	
		118	50	28	-22	29	12	32	-18	29	-20	30	-17	1	2	
		120	50	29	-21	29	12	32	-18	29	-20	30	-17	1	2	
		121	50	26	-24	27	13	29	-21	33	-20	27	-22	4	2	
		123	50	24	-26	25	12	28	-22	32	-20	26	-24	1	1	
		125	50	27	-23	27	12	30	-18	24	-20	29	-17	1	1	
		126	50	24	-26	25	12	28	-22	32	-20	26	-24	1	1	
		129	50	25	-25	28	12	30	-18	25	-20	28	-22	1	2	
		130	50	22	-28	19	15	24	-26	17	-31	23	-27	2	0	
		134	50	19	-31	20	11	24	-26	18	-29	22	-30	1	1	
		135	50	21	-29	20	10	24	-26	15	-30	21	-31	1	1	
		139	50	28	-22	30	16	33	-17	29	-20	28	-21	0	1	
		142	50	23	-27	23	16	26	-21	26	-24	24	-24	1	1	
		143	39	21	-18	24	-15	28	-13	28	-18	24	-14	1	1	
		147	39	17	-22	22	17	23	-18	18	-25	18	-4	0	0	
		108	45	6	-40	5	41	12	-13	5	40	5	2	2	0	
		109	45	4	-41	11	12	42	-9	10	-4	4	0	0	0	
		110	45	38	-6	40	13	43	-5	40	-5	2	0	0	0	
		143	45	32	-13	42	7	47	-2	43	-2	4	4	4	4	
		147	45	28	-17	37	11	42	-6	38	-6	4	4	4	4	
8		142	42	9	-33	9	33	16	-27	13	-29	17	-25	4	1	
9		2	8	2	6	8	30	4	-7	33	4	-7	33	4	-1	
		3	17	27	-10	22	15	28	-9	7	-8	32	-4	4	4	
		4	28	36	-8	32	14	34	-6	31	-6	3	3	3	3	
		143	17	17	-20	17	-15	23	-14	19	-18	21	-16	1	2	
		144	17	20	-17	15	-12	21	-16	14	-19	18	-17	1	2	
		145	17	20	-17	17	-12	20	-16	14	-19	18	-17	1	2	
		146	17	18	-19	19	-10	20	-17	14	-20	14	-19	1	2	
		147	17	16	-21	16	-12	19	-16	16	-18	17	-17	1	2	
		148	17	17	-19	17	-12	20	-16	15	-19	16	-18	1	2	
		149	17	21	-16	17	-10	20	-16	15	-19	16	-18	1	2	
		150	17	21	-16	19	-10	21	-14	16	-18	17	-17	1	2	
		151	17	20	-17	20	-10	20	-16	15	-19	16	-18	1	2	
		152	17	21	-16	22	-11	21	-14	16	-18	17	-17	1	2	
		153	17	21	-16	21	-11	21	-14	16	-18	17	-17	1	2	
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		157	17	21	-16	21	-11	21	-14	16	-18	17	-17	1	2	
		158	17	21	-16	21	-11	21	-14	16	-18	17	-17	1	2	
		159	17	21	-16	21	-11	21	-14	16	-18	17	-17	1	2	
		160	17	21	-16	21	-11	21	-14	16	-18	17	-17	1	2	
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		167	17	21	-16	21	-11	21	-14	16	-18	17	-17	1	2	
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		177	17	21	-16	21	-11	21	-14	16	-18	17	-17	1	2	
		178	17	21	-16	21	-11	21	-14	16	-18	17	-17	1	2	
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		211	17	21	-16	21	-11	21	-14	16	-18	17	-17	1	2	
		212	17	21	-16	21	-11	21	-14	16	-18					

Noise Assessment Group	Baseline Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	Near Scenario				Far Scenario				US Only/High vs. Conserve	Combined OC & US/High vs. Conserve
					US Total dBA	US Total vs Criteria dBA	Combined Open Cut & Underground Total dBA	Combined vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined OC & US Total dBA	Combined vs Criteria dBA		
1	80	28	31	-7	35	-2	27	-1	36	-3	37	-1	4	0
	87	40	34	6	39	8	33	5	38	-2	38	3	1	1
	106	45	35	-5	32	-7	37	-2	39	-1	36	-4	3	1
	88	25	38	-17	24	-14	28	-14	22	-28	27	-2	2	1
	91	27	42	-15	26	-12	30	-12	24	-18	29	-1	1	1
	94	31	37	-6	26	-16	32	-16	22	-20	37	2	1	1
	95	32	37	-5	26	-16	32	-16	22	-20	37	2	1	1
	96	41	28	13	28	-14	31	-14	26	-16	30	-2	1	1
	99	45	27	18	25	-17	28	-14	23	-28	27	-5	2	1
	100	42	24	18	27	-15	27	-15	22	-20	26	-4	3	1
4	100	42	24	18	27	-15	27	-15	22	-20	26	-4	3	1
	101	42	28	14	28	-14	33	-11	24	-18	24	-2	2	1
	102	46	23	23	23	-20	28	-18	23	-23	26	-3	2	1
	104	45	23	22	24	-22	27	-19	23	-23	26	-3	2	1
	111	46	35	11	32	-14	37	-9	30	-17	30	-3	1	1
	112	45	31	14	30	-15	34	-11	27	-18	32	-4	1	1
	118	45	29	17	32	-17	32	-14	26	-20	31	-5	1	1
	120	46	29	17	32	-17	32	-14	26	-20	31	-5	1	1
	121	45	26	20	27	-19	29	-17	23	-23	28	-4	2	1
	123	46	24	22	25	-21	28	-18	22	-24	26	-3	1	1
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	126	45	25	21	25	-21	28	-18	22	-24	26	-3	1	1
	129	46	25	21	28	-18	30	-16	25	-23	28	-3	2	1
	130	45	23	22	19	-27	24	-22	17	-29	24	-2	2	0
	134	46	25	21	28	-18	30	-16	25	-23	28	-3	2	1
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	137	46	25	21	28	-18	30	-16	25	-23	28	-3	2	1
	139	48	20	28	-20	26	-20	35	-20	32	-16	0	-1	1
	140	48	20	28	-20	26	-20	35	-20	32	-16	0	-1	1
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6	142	41	23	18	21	-18	28	-18	25	-26	21	-6	1	1
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	159	41	23	18	21	-18	28	-18	25	-26	21	-6	1	1
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11	192	41	23	18	21	-18	28	-18	25	-26	21	-6	1	1
	193	41	23	18	21	-18	28	-18	25	-26	21	-6	1	1
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	208	41	23	18	21	-18	28	-18	25	-26	21	-6	1	1
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	210	41	23	18	21	-18	28	-18	25	-26	21	-6	1	1
	211	41	23	18	21	-18	28	-18	25	-26	21	-6	1	1
A	212	41	23	18	21	-18	28	-18	25	-26	21	-6	1	1
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	216	41	23	18	21	-18	28	-18	25	-26	21	-6	1	1
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	230	41	23	18	21									

NIGHT CALM				Heat Scenario				Firestorm Scenario				Combined OC & US Total vs. Convective		Combined OC & US Total vs. Convective	
Noise Assessment Group	Baseline Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined Down Out & Underground Total dBA	Combined vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined OC & US Total dBA	Combined vs Criteria dBA	US Only Heat vs Convective	Combined OC & US Total vs Convective	
1	30	25	24	-1	25	0	25	0	25	0	25	0	2	0	
2	37	33	34	1	33	-1	33	-1	33	-1	33	-1	3	1	
3	36	35	35	0	32	-3	32	-3	32	-3	32	-3	3	1	
4	38	37	38	0	34	-4	34	-4	34	-4	34	-4	2	1	
5	39	37	37	0	35	-2	35	-2	35	-2	35	-2	2	1	
6	40	37	37	0	36	-4	36	-4	36	-4	36	-4	2	1	
7	41	37	37	0	37	0	37	0	37	0	37	0	2	1	
8	42	37	37	0	38	1	38	1	38	1	38	1	2	1	
9	43	37	37	0	39	2	39	2	39	2	39	2	2	1	
10	44	37	37	0	40	3	40	3	40	3	40	3	2	1	
11	45	37	37	0	41	4	41	4	41	4	41	4	2	1	
12	46	37	37	0	42	5	42	5	42	5	42	5	2	1	
13	47	37	37	0	43	6	43	6	43	6	43	6	2	1	
14	48	37	37	0	44	7	44	7	44	7	44	7	2	1	
15	49	37	37	0	45	8	45	8	45	8	45	8	2	1	
16	50	37	37	0	46	9	46	9	46	9	46	9	2	1	
17	51	37	37	0	47	10	47	10	47	10	47	10	2	1	
18	52	37	37	0	48	11	48	11	48	11	48	11	2	1	
19	53	37	37	0	49	12	49	12	49	12	49	12	2	1	
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22	56	37	37	0	52	15	52	15	52	15	52	15	2	1	
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27	61	37	37	0	57	20	57	20	57	20	57	20	2	1	
28	62	37	37	0	58	21	58	21	58	21	58	21	2	1	
29	63	37	37	0	59	22	59	22	59	22	59	22	2	1	
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52	86	37	37	0	82	45	82	45	82	45	82	45	2	1	
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55	89	37	37	0	85	48	85	48	85	48	85	48	2	1	
56	90	37	37	0	86	49	86	49	86	49	86	49	2	1	
57	91	37	37	0	87	50	87	50	87	50	87	50	2	1	
58	92	37	37	0	88	51	88	51	88	51	88	51	2	1	
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81	115	37	37	0	111	74	111	74	111	74	111	74	2	1	
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109	143	37	37	0	139	102	139	102	139	102	139	102	2	1	
110	144	37	37	0	140	103	140	103	140	103	140	103	2	1	
111	145	37	37	0	141	104	141	104	141	104	141				

Noise Assessment Group	Baseline Reference	Criteria dBA	OC Total dBA	OC vs Criteria dBA	Near Scenario				Farmer Scenario				US Only Haul vs Conveyors	Combined OC & US Haul vs Conveyors
					US Total dBA	US Total vs Criteria dBA	Combined Over Cut & Underground Total dBA	Combined vs Criteria dBA	US Total dBA	US Total vs Criteria dBA	Combined OC & US Total dBA	Combined vs Criteria dBA		
1	80	25	35	10	42	17	48	6	40	15	41	16	1	
	87	32	41	9	43	11	49	6	39	0	43	3	1	
	96	39	42	3	39	0	46	7	36	-3	43	3	1	
	108	47	34	-3	37	-2	37	0	31	-5	36	-1	2	
	91	34	34	0	37	3	37	0	32	-2	36	-1	1	
	96	37	32	-5	36	-1	36	-1	32	-4	35	-1	1	
	95	37	33	-4	35	-2	37	2	32	-5	36	-1	1	
	96	37	35	2	35	-2	36	1	33	-4	37	2	1	
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	101	37	35	2	37	0	37	0	32	-5	37	0	1	
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	104	42	31	-11	33	-9	35	-7	31	-12	34	-8	2	
	111	42	40	-2	42	0	42	0	41	-1	41	-1	1	
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	118	42	35	-7	39	-3	40	-2	37	-5	37	-5	3	
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