



**Blast Monitoring Results 2016 - Bass Point Quarry**

As per the Project Approval (Schedule 3; Clause 7), Hanson shall ensure that blasting on the site does not cause exceedances of the following criteria:

Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Any residence on privately owned land	120	10	0%
	115	5	5% of the total number of blasts over a period of 12 months

**Results**

Date/Time	Blast Location	Blast #	Monitor Location	Air Blast dBL	Ground Vibration mm/sec	Weather	Comment
18/01/2016	East Pit RL 32	357	Shellcove	115.6dbi	0.228mm/s	Sunny wind SE 0-5kph	
			Killalea State Park	100.5dbi	0.43mm/s		The dB(L) peak is to long after the blast. The peak is from other sources.
20/01/2016	East Pit RL 32	358	Shellcove	109.5dbi	0.36mm/s	Sunny NE 5-10kph	
			Killalea State Park	DNR	DNR		
27/01/2016	West Pit RL32	359	Shellcove	112.6dbi	0.543mm/s	Overcast Wind East 5-10kph	
			Killalea State Park	114.4dbi	0.58mm/s		
1/02/2016	East Pit RL 32	356	Shellcove	109.5dbi	0.547mm/s	Sunny wind E 3-5kph	
			Killalea State Park	DNR	DNR		
3/02/2016	East Pit RL 36	361	Shellcove	108.0dbi	0.764mm/s	Sunny wind E 0-5kph	
			Killalea State Park	103.5	0.217mm/s		
8/02/2016	RL 46 North Development	362A	Shellcove	101.0dbi	0.180mm/s	Hot wind SW 5-10kph	
			Killalea State Park	DNR	DNR		
10/02/2016	East Pit RL 36	363	Shellcove	DNR	DNR	Hot & Sunny	
			Killalea State Park	DNR	DNR		
15/02/2016	East Pit RL 46 Development	364	Shellcove	107.0dbi	0.430mm/s	Hot southerly 10-15kph	
			Killalea State Park	109.5dbi	0.228mm/s		
17/02/2016	East Pit RL 32	365	Shellcove	112.6dbi	0.302mm/s	Hot south westerly 15-20kph	
			Killalea State Park	DNR	DNR		
22/02/2016	East Pit RL 32	366	Shellcove	111.2dbi	0.48mm/s	Sunny Wind East 10-15kph	
			Killalea State Park	DNR	DNR		
23/02/2016	RL 46 North Development	367	Shellcove	105.5dbi	0.321mm/s	Hot	
			Killalea State Park	DNR	DNR		
29/02/2016	RL 46 North Development	362B	Shellcove	101.0dbi	0.140mm/s	Overcast Windy S 20-25kph	
			Killalea State Park	106.0dbi	0.293mm/s		
2/03/2016	West Pit RL 32	369	Shellcove	117.8dbi	0.841mm/s	Hot NE wind gusting 20-25kph wind affected reading	The dB(L) peak is to long after the blast. The peak is from other sources.
			Killalea State Park	113.8dbi	0.526mm/s		
3/03/2016	West Pit RL 32	360	Shellcove	124.3dbi	0.554mm/s	Hot NE wind gusting 15-25kph wind affected reading	The noise is prior to the blast. The peak is from another source.
			Killalea State Park	114.4dbi	0.302mm/s		
7/03/2016	North Development RL46	372	Shellcove	102.8dbi	0.549mm/s	Hot NE 2nd 10-15kph	
			Killalea State Park	107.0dbi	0.262mm/s		
14/03/2016	Floor shot RL16	370	Shellcove	105.5dbi	0.717mm/s	Overcast Wind 25-30kph tied in with Blast #371	
			Killalea State Park	102.8dbi	0.261mm/s		
9/03/2016	West Pit RL16	368	Shellcove	114.6dbi	0.880mm/s	Hot wind NE 5-10kph	
			Killalea State Park	DNR	DNR		
11/03/2016	West Pit RL 32	DVMT1	Shellcove	112.6dbi	0.967mm/s	Overcast Wind East 5-10kph	
			Killalea State Park	102.8dbi	0.294mm/s		
14/03/2016	East Pit RL 22	371	Shellcove	105.5dbi	0.717mm/s	Overcast Wind 25-30kph tied in with Blast #370	
			Killalea State Park	102.8dbi	0.261mm/s		
16/03/2016	West Pit RL 32	373	Shellcove	108.0dbi	0.340mm/s	Sunny Wind South 15-20kph	
			Killalea State Park	105.5dbi	0.298mm/s		
17/03/2016	North Development RL46	374A	Shellcove	108.0dbi	0.973mm/s	Sunny Wind NE 5-10kph	
			Killalea State Park	106.5dbi	0.603mm/s		
21/03/2016	North Development RL46	374B	Shellcove	108.0dbi	0.310mm/s	Overcast Windy W 25-35kph	
			Killalea State Park	109.0dbi	0.217mm/s		
23/03/2016	West Pit RL 32	375	Shellcove	107.5dbi	0.602mm/s	Sunny wind South 5kph	
			Killalea State Park	108.8dbi	0.302mm/s		
30/03/2016	East Pit RL 32	376	Shellcove	115.7dbi	0.506mm/s	Sunny nil	The dB(L) peak is to long after the blast. The peak is from other
			Killalea State Park	DNR	DNR		
31/03/2016	East Pit RL 32	377	Shellcove	101.0dbi	0.458mm/s	Sunny wind South 25-30kph	
			Killalea State Park	108.8dbi	0.296mm/s		
4/04/2016	West Pit RL 32	378	Shellcove	110.2dbi	0.360mm/s	Overcast / rain	
			Killalea State Park	105.5	0.458mm/s		
6/04/2016	North Development RL46	379	Shellcove	119.7dbi	0.277mm/s	Hot NW wind gusting 20-25kph wind affected reading	This peak could possibly be associated with the blast, but the second monitor registered very low (104dB(L)) and was located much closer to
			Killalea State Park	104.9dbi	0.321mm/s		
11/04/2016	West Pit RL32	380	Shellcove	97.5dbi	0.638mm/s	Sunny	
			Killalea State Park	111.5dbi	0.287mm/s		
13/04/2016	East Pit RL22	382	Shellcove	101.9dbi	0.783mm/s	Sunny Wind SE 5-10kph	
			Killalea State Park	107.0dbi	1.681mm/s		
20/04/2016	West Pit RL46 North Develop	383	Shellcove	103.5dbi	0.589mm/s	Hot windy NE 15-20kph	
			Killalea State Park	104.2dbi	0.430mm/s		
22/04/2016	West Pit RL32	DVMT2	Shellcove	DNR	DNR	Sunny windy 25-30kph	
			Killalea State Park	103.5dbi	0.182mm/s		
27/04/2016	East Pit RL22	384	Shellcove	117.4dbi	0.363mm/s	reading	The noise is prior to the blast. The peak is from another source.
			Killalea State Park	113.5dbi	0.391mm/s		
29/04/2016	West Pit RL32	381	Shellcove	104.2dbi	1.178mm/s	Sunny Wind NE 5-10kph	
			Killalea State Park	102.9dbi	0.665mm/s		
2/05/2016	West Pit RL46 North Develop	386	Shellcove	104.2dbi	0.500mm/s	Sunny nil wind	
			Killalea State Park	103.5dbi	0.543mm/s		
4/05/2016	West Pit RL16	385	Shellcove	106.5dbi	0.186mm/s	Sunny wind East 20-25kph	
			Killalea State Park	102.8dbi	0.275mm/s		
11/05/2016	West Pit RL32 North	387	Shellcove	101.9dbi	0.470mm/s	Sunny wind W 20-25kph	
			Killalea State Park	113.3dbi	0.277mm/s		
30/05/2016	West Pit RL32 South	388	Shellcove	105.5dbi	1.325mm/s	Sunny wind S 5kph	
			Killalea State Park	101.9dbi	0.727mm/s		
8/06/2016	West Pit RL32 North	389	Shellcove	100.0dbi	0.615mm/s	Sunny wind W 20-25kph	
			Killalea State Park	110.2dbi	0.393mm/s		
1/06/2016	West Pit RL18 North Floor	390	Shellcove	93.98dbi	0.209mm/s	Overcast	
			Killalea State Park	DNR	DNR		
7/06/2016	West Pit RL18 North Floor	391	Shellcove	106.5dbi	0.374mm/s	Overcast wind NE 15-20kph	
			Killalea State Park	108.8dbi	0.156mm/s		
12/07/2016	RL36 Infrastructure Pad	392	Shellcove	110.2dbi	1.815mm/s	Sunny wind NW 30-35kph	
			Killalea State Park	DNR	DNR		
16/06/2016	RL 25 DVMT Primary Pre-sp	393	Shellcove	117.1dbi	0.728mm/s	gusting	The dB(L) peak is to long after the blast. The peak is from other sources.
			Killalea State Park	115.0dbi	2.199mm/s		
22/06/2016	West Pit RL25 Primary Pad	394	Shellcove	97.5dbi	0.895mm/s	gusting	Sunny wind affected reading NE 30-35kph
			Killalea State Park	122.8dbi	0.391mm/s		
28/06/2016	West Pit RL32 North	395	Shellcove	107.5dbi	0.236mm/s	Sunny wind SE 15-20kph	The noise is prior to the blast. The peak is from another source.
			Killalea State Park	108.0dbi	0.470mm/s		
20/07/2016	South Pit RL32	396	Shellcove	102.9dbi	0.270mm/s	Rain	
			Killalea State Park	104.9dbi	0.542mm/s		
28/07/2016	RL32 Infrastructure ramp we	397	Shellcove	109.2dbi	0.935mm/s	Sunny wind NW 5-10kph	
			Killalea State Park	109.2dbi	0.598mm/s		
27/07/2016	RL32 Infrastructure ramp we	398	Shellcove	112.3dbi	0.209mm/s	Sunny wind SW 20-25kph	
			Killalea State Park	100.0dbi	0.389mm/s		
5/08/2016	RL22 East Pit South East	399	Shellcove	107.0dbi	0.283mm/s	Overcast wind NE 10-15kph	
			Killalea State Park	103.5dbi	0.321mm/s		
8/08/2016	RL32 East Pit South	401	Shellcove	105.5dbi	0.371mm/s	Sunny wind E 0-5kph	
			Killalea State Park	103.5dbi	0.457mm/s		
17/08/2016	RL12 East Pit	402	Shellcove	105.4dbi	0.517mm/s	Sunny wind SE 5kph	
			Killalea State Park	101.0dbi	0.290mm/s		
24/08/2016	RL32 West Pit South	400	Shellcove	112.8dbi	0.776mm/s	Overcast wind SE 5-10kph	
			Killalea State Park	113.3dbi	0.620mm/s		
30/08/2016	RL36 East Pit South	404	Shellcove	101.8dbi	0.285mm/s	Sunny wind E 10-15kph	
			Killalea State Park	111.8dbi	0.340mm/s		
31/08/2016	RL22 East pit South East	405	Shellcove	101.9dbi	0.489mm/s	Overcast wind W 5kph	
			Killalea State Park	<88dbi	0.405mm/s		