



OBERON QUARRIES

Licence Information

Environment Protection Licence (EPL) Number	4442
License Holder	Oberon Quarries Pty. Limited
Licensee Address	Licensee: Oberon Quarries Pty. Limited PO Box 3575 Rouse Hill NSW 2155 Premises: "Langley Heights" Hard Rock Quarry Hargraves Quarry Road Oberon NSW 2787
Link to the full licence on the EPA website	https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=139261&SYSUID=1&LICID=4442



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Surface Water Quality Monitoring - W1 (Upstream)

Oberon Quarries' EPL Licence (No. 4442) was varied on 2 May 2018 to include the addition of EPL Monitoring Point 7 and associated monitoring requirements. Monitoring Points 5 and 6 and associated EPL monitoring requirements were removed as part of the May 2018 Variation. However, these locations will continue to be monitored in accordance with the approved Water Management Plan.

Quarry Location Reference	EPA ID Number	Sample Reference	Date of Sample	Date Results Recieved from Lab	Monitoring Frequency	Oil and Grease (mg/L)	Oil and Grease EPL Limit	pH (pH Unit)	pH EPL Limit	Total Suspended Solids (mg/L)	Total Suspended Solids EPL Limit	Conductivity (uS/cm)**	Turbidity (NTU)**	Total Kjeldahl Nitrogen (mg/L)**	Total Phosphorus (mg/L)**
W1	Point 5	SAL27831	15/01/21	18/01/21	Monthly	0.5	N/A	6.7	N/A	32	N/A	265	14	1.9	<0.1
W1	Point 5	SAL27866	23/02/21	05/03/21	Monthly	0.5	N/A	7.2	N/A	5	N/A	155	5	1.2	0.1
W1	Point 5	SAL27893	24/03/21	09/04/21	Monthly	0.5	N/A	6.9	N/A	32	N/A	105	40	1.5	0.13
W1	Point 5	SAL27919	21/04/21	03/05/21	Monthly	0.5	N/A	7.2	N/A	13	N/A	280	18	0.8	0.19
W1	Point 5	SAL27941	18/05/21	19/05/21	Monthly	0.5	N/A	6.8	N/A	170	N/A	260	120	1.9	0.59
W1	Point 5	SAL27971	17/06/21	28/06/21	Monthly	0.5	N/A	7	N/A	32	N/A	85	65	1.1	0.18
W1	Point 5	NA***			Monthly						N/A				
W1	Point 5	SAL28024	18/08/21	01/09/21	Monthly	0.5	N/A	6.8	N/A	2	N/A	85	21	0.9	0.13
W1	Point 5	SAL28054	15/09/21	28/09/21	Monthly	0.5	N/A	7.5	N/A	11	N/A	85	19	0.4	0.24
W1	Point 5	SAL28082	20/10/21	03/11/21	Monthly	0.5	N/A	7.3	N/A	11	N/A	90	27	0.7	0.1
W1	Point 5	SAL28110	19/11/21	03/12/21	Monthly	0.5	N/A	7.5	N/A	2	N/A	90	13	0.9	<.1
W1	Point 5	SAL28137	15/12/21	15/12/21	Monthly	0.5	N/A	7	N/A	14	N/A	80	14	0.9	<0.1
* '<' denotes monitoring results are below detection limit. ** Not an EPL parameter						Min. value	<0.5	7		2		80	5.0	0.4	0.1
						Mean value	<0.5	7		29		144	32.4	1.1	0.2
						Max. value	<0.5	8		170		280	120.0	1.9	0.6

***no sample



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Surface Water Quality Monitoring - W2 (Downstream)

Oberon Quarries' EPL Licence (No. 4442) was varied on 2 May 2018 to include the addition of EPL Monitoring Point 7 and associated monitoring requirements. Monitoring Points 5 and 6 and associated EPL monitoring requirements were removed as part of the May 2018 Variation. However, these locations will continue to be monitored in accordance with the approved Water Management Plan.

Quarry Location Reference	EPA ID Number	Sample Reference	Date of Sample	Date Results Recieved from Lab	Monitoring Frequency	Oil and Grease (mg/L)	Oil and Grease EPL Limit	pH (pH Unit)	pH EPL Limit	Total Suspended Solids (mg/L)	Total Suspended Solids EPL Limit	Conductivity (uS/cm)**	Turbidity (NTU)**	Total Kjeldahl Nitrogen (mg/L)**	Total Phosphorus (mg/L)**
W2	Point 6	SAL27831	15/01/21	18/01/21	Monthly	0.5	N/A	6.6	N/A	24	N/A	270	15	1.9	0.13
W2	Point 6	SAL27866	23/02/21	05/03/21	Monthly	0.5	N/A	7.1	N/A	6	N/A	150	6.8	1.3	0.1
W2	Point 6	SAL27893	24/03/21	09/04/21	Monthly	0.5	N/A	6.9	N/A	34	N/A	105	35	1.5	0.17
W2	Point 6	SAL27919	21/04/21	05/05/21	Monthly	0.5	N/A	7.3	N/A	11	N/A	270	21	0.9	0.2
W2	Point 6	SAL27941	18/05/21	19/05/21	Monthly	0.5	N/A	6.8	N/A	78	N/A	260	130	2	<0.5
W2	Point 6	SAL27971	17/06/21	28/06/21	Monthly	0.5	N/A	7	N/A	30	N/A	80	65	1.1	0.29
W2	Point 6	NA***			Monthly						N/A				
W2	Point 6	SAL28024	18/08/21	01/09/21	Monthly	0.5	N/A	6.9	N/A	21	N/A	75	21	0.9	0.2
W2	Point 6	SAL28054	15/09/21	28/09/21	Monthly	0.5	N/A	7.7	N/A	12	N/A	85	18	0.5	0.37
W2	Point 6	SAL28082	20/10/21	03/11/21	Monthly	0.5	N/A	7.3	N/A	15	N/A	90	28	1	0.1
W2	Point 6	SAL28110	19/11/21	03/12/21	Monthly	0.5	N/A	7.4	N/A	3	N/A	90	12	0.7	<0.1
W2	Point 6	SAL28137	15/12/21	15/12/21	Monthly	0.5	N/A	6.9	N/A	9	N/A	80	14	0.7	<0.1
* '<' denotes monitoring results are below detection limit. ***no sample ** Not an EPL parameter						Min. value	<0.5		#REF!	#REF!		#REF!	#REF!	#REF!	#REF!
						Mean value	<0.5		#REF!	#REF!		#REF!	#REF!	#REF!	#REF!
						Max. value	<0.5		#REF!	#REF!		#REF!	#REF!	#REF!	#REF!



Surface Water Quality Monitoring - W1 (Upstream)

Quarry Location Reference	Sample Reference	Date of Sample	pH (pH Unit)	Conductivity (uS/cm)**
GW1	SAL27831	15/01/21	7.1	280
GW1	SAL27866	22/02/21	7.6	280
GW1	SAL27893	24/03/21	6.8	120
GW1	SAL27919	21/04/21	7.1	280
GW1	SAL27941	18/05/21	6.8	260
GW1	SAL27615	17/06/21	6.8	180
GW1	**			
GW1	SAL28024	18/08/21	6.7	200
GW1	SAL28054	28/09/21	6.9	210
GW1	SAL28082	20/10/21	7	260
GW1	SAL28110	19/11/21	7.2	240
GW1	SAL28137	15/12/21	6.5	230
		Min. value	6.5	120
		Mean value	7.0	230.9
		Max. value	7.6	280

**no sample

Note: There are no EPL limits specified for groundwater. Monitoring results are assessed against the Water Management Plan Trigger Action Response Plan (TARP) criteria. The TARP is enacted if there are three consecutive results above criteria.



Air Quality Monitoring

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Quarry Location Reference	EPA ID Number	Sample Reference	Date of Sample	Date Results Recieved from Lab	Monitoring Frequency	Month	Deposited Matter (g/m ² /month)	Rolling Average (g/m ² /month)	Deposited Matter SSD_6333 Limit
D1	Point 1	SAL27831B	15/01/21	18/01/21	Monthly	Jan-21	3.75	3.75	Air quality criteria is based on an averaging period from January - December in accordance with Table 4: Air Quality Criteria in SSD_6333.
D1	Point 1	SAL27866B	23/02/21	05/03/21	Monthly	Feb-21	0*	0*	
D1	Point 1	SAL27893B	24/03/21	09/04/21	Monthly	Mar-21	2.01	2.88	
D1	Point 1	SAL27919B	21/04/21	03/05/21	Monthly	Apr-21	2.18	2.65	
D1	Point 1	SAL27941B	18/05/21	19/05/21	Monthly	May-21	2.19	2.53	
D1	Point 1	SAL27971B	17/06/21	28/06/21	Monthly	Jun-21	3.45	2.72	
D1	Point 1	*			Monthly	Jul-21			
D1	Point 1	SAL28024	18/08/21	01/09/21	Monthly	Aug-21	0*	0*	
D1	Point 1	SAL28054B	15/09/21	28/09/21	Monthly	Sep-21	1.96	2.59	
D1	Point 1	SAL28082B	20/10/21	03/11/21	Monthly	Oct-21	3.81	2.77	
D1	Point 1	SAL28110B	19/11/21	03/12/21	Monthly	Nov-21	3.7	2.88	
D1	Point 1	SAL28137B	15/12/21	15/12/21	Monthly	Dec-21	3.67	2.96	
						Min. value	1.96	2.53	
						Mean value	2.97	2.86	
						Max. value	3.81	3.75	

*no sample

Quarry Location Reference	EPA ID Number	Sample Reference	Date of Sample	Date Results Recieved from Lab	Monitoring Frequency	Month	Deposited Matter (g/m ² /month)	Rolling Average (g/m ² /month)	Deposited Matter SSD_6333 Limit
D2	Point 2	SAL27831B	15/01/21	18/01/21	Monthly	Jan-21	1.99	1.99	Air quality criteria is based on an averaging period from January - December in accordance with Table 4: Air Quality Criteria in SSD_6333.
D2	Point 2	SAL27866B	23/02/21	05/03/21	Monthly	Feb-21	3.29	2.64	
D2	Point 2	SAL27893B	24/03/21	09/04/21	Monthly	Mar-21	2.92	2.73	
D2	Point 2	SAL27919B	21/04/21	03/05/21	Monthly	Apr-21	1.38	2.4	
D2	Point 2	SAL27941B	18/05/21	19/05/21	Monthly	May-21	0.86	2.09	
D2	Point 2	SAL27971B	17/06/21	28/06/21	Monthly	Jun-21	1.19	1.94	
D2	Point 2	*			Monthly	Jul-21			
D2	Point 2	SAL28024B	18/08/21	01/09/21	Monthly	Aug-21	3.91	2.22	
D2	Point 2	SAL28054B	15/09/21	28/09/21	Monthly	Sep-21	0.48	2.00	
D2	Point 2	SAL28082B	20/10/21	03/11/21	Monthly	Oct-21	3.06	2.12	
D2	Point 2	SAL28110B	19/11/21	03/12/21	Monthly	Nov-21	3.17	2.23	
D2	Point 2	SAL28137B	15/12/21	15/12/21	Monthly	Dec-21	3.18	2.31	
						Min. value	0.48	1.940	
						Mean value	2.31	2.243	
						Max. value	3.91	2.730	



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Air Quality Monitoring

Quarry Location Reference	EPA ID Number	Sample Reference	Date of Sample	Date Results Recieved from Lab	Monitoring Frequency	Month	Deposited Matter (g/m ² /month)	Rolling Average (g/m ² /month)	Deposited Matter SSD_6333 Limit
D3	Point 3	SAL27831B	15/01/21	18/01/21	Monthly	Jan-21	0.84	0.84	Air quality criteria is based on an averaging period from January - December in accordance with Table 4: Air Quality Criteria in SSD_6333.
D3	Point 3	SAL27866B	22/02/21	05/03/21	Monthly	Feb-21	1.62	1.65	
D3	Point 3	SAL27893B	24/03/21	09/04/21	Monthly	Mar-21	0.72	1.34	
D3	Point 3	SAL27919B	21/04/21	03/05/21	Monthly	Apr-21	1.89	1.48	
D3	Point 3	SAL27941B	18/05/21	19/05/21	Monthly	May-21	1.18	1.42	
D3	Point 3	SAL27971B	17/06/21	28/06/21	Monthly	Jun-21	1.85	1.49	
D3	Point 3	*				Jul-21			
D3	Point 3	SAL28024	18/08/21	01/09/21	Monthly	Aug-21	2.42	1.62	
D3	Point 3	SAL28054B	15/09/21	28/09/21	Monthly	Sep-21	1.19	1.57	
D3	Point 3	SAL28082B	20/10/21	03/11/21	Monthly	Oct-21	3.6	1.8	
D3	Point 3	SAL28110B	19/11/21	03/12/21	Monthly	Nov-21	1.62	1.78	
D3	Point 3	SAL28137B	15/12/21	15/12/21	Monthly	Dec-21	2.73	1.86	
						Min. value	0.72	0.84	
						Mean value	1.79	1.53	
						Max. value	3.60	1.86	

*no sample

Quarry Location Reference	EPA ID Number	Sample Reference	Date of Sample	Date Results Recieved from Lab	Monitoring Frequency	Month	Deposited Matter (g/m ² /month)	Rolling Average (g/m ² /month)	Deposited Matter SSD_6333 Limit
D4	Point 4	SAL27831B	15/01/21	18/01/21	Monthly	Jan-21	1.39	1.39	Air quality criteria is based on an averaging period from January - December in accordance with Table 4: Air Quality Criteria in SSD_6333.
D4	Point 4	SAL27866B	22/02/21	05/03/21	Monthly	Feb-21	3.89	2.64	
D4	Point 4	SAL27893B	24/03/21	09/04/21	Monthly	Mar-21	0.59	1.96	
D4	Point 4	SAL27919B	21/04/21	03/05/21	Monthly	Apr-21	3.95	2.46	
D4	Point 4	SAL27941B	18/05/21	19/05/21	Monthly	May-21	3.03	3.06	
D4	Point 4	SAL27971B	17/06/21	28/06/21	Monthly	Jun-21	1.45	2.79	
D4	Point 4	*			Monthly	Jul-21			
D4	Point 4	SAL28024	18/08/21	01/09/21	Monthly	Aug-21	0*	0*	
D4	Point 4	SAL28054B	15/09/21	28/09/21	Monthly	Sep-21	1.49	2.61	
D4	Point 4	SAL28082B	20/10/21	03/11/21	Monthly	Oct-21	3.79	2.75	
D4	Point 4	SAL28110B	19/11/21	03/12/21	Monthly	Nov-21	3.67	2.86	
D4	Point 4	SAL28137B	15/12/21	15/12/21	Monthly	Dec-21	3.9	2.96	
						Min. value	0.59	1.39	
						Mean value	2.72	2.55	
						Max. value	3.95	3.06	



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Noise Monitoring

Please note: Oberon Quarries has established noise agreements with relevant landowners. The discontinuation of routine noise monitoring was approved by the Secretary on 25 January 2017. Noise monitoring will be undertaken if a noise complaint relating to Quarry operations is unable to be resolved by Oberon Quarries or a landowner requests the DP&E to reinstate more frequent monitoring to assess compliance with relevant criteria.

Oberon Quarry Noise Management Plan can be accessed at: http://oberonquarries.com.au/wp-content/uploads/2017/03/1296_R68_NMP_FINAL.pdf

Previous noise monitoring reports can be accessed at: <http://oberonquarries.com.au/environmental-monitoring-results/>



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Production Blast Monitoring

Quarry Location Reference	Type	EPA Number	Date of Blast	Time of Blast	Peak Vector Sum Velocity (mm/s)	Peak Overpressure (dBL)	Monitoring Frequency
Residence	Production Blast	N/A	18/01/2021	12:17PM	1.45	107.00	No more than 2 blasts per week, unless an additional blast is required following a blast misfire.
Residence	Production Blast	N/A	3/03/2021	11:42AM	0.09	119.40	
Residence	Production Blast	N/A	3/03/2021	11:56AM	0.623	104.9	
Residence	Production Blast	N/A	10/03/2021	9:40AM	0.38	104.90	
Residence	Production Blast	N/A	12/04/2021	2:15PM	0.46	108.00	
Residence	Production Blast	N/A	15/07/2021	1:29PM	0.68	108.00	
Residence	Production Blast	N/A	18/08/2021	10:58AM	0.52	105.50	
Residence	Production Blast	N/A	29/09/2021	11:28PM	0.53	107.50	
Residence	Production Blast	N/A	25/10/2021	10:59AM	0.28	103.50	
Residence	Production Blast	N/A	3/12/2021	10:43AM	0.58	111.50	

Please Note: Oberon Quarries has established a blasting agreement with the nearest private receiver. This agreement removes the formal requirement to monitor each blast and notify the affected receiver(s) and government departments within seven days of an exceedance of the blast criteria. The department was notified of this agreement on 17 April 2018. It was renewed on 14th January 2022 when both the EPA and DPI were notified.



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Blast Compliance Criteria

Blast Compliance Criteria
L4.1 The airblast overpressure level from blasting must not exceed 115 (dB(Lin Peak)) at any noise sensitive locations for more than 5 % of the total number of blasts during over each reporting period; L4.2: The airblast overpressure level from blasting must not exceed 120 (dB(Lin Peak)) at any time at any noise sensitive locations; L4.3: Ground vibration peak particle velocity from the blasting must not exceed 5 mm/s at any noise sensitive locations for more than 5 % of the total number of blasts over each reporting period; and L4.4: Ground vibration peak particle velocity from the blasting must not exceed 10 mm/s at any time at any noise sensitive locations.
Blast SSD_6333 Limits
In accordance with Table 3: Blasting Criteria in SSD_6333. The airblast overpressure level from blasting operations must not exceed: * 115 (dB(Lin Peak)) for more than 5 % of the total number of blasts during over each reporting period; and * 120 (dB(Lin Peak)) at any time. The ground vibration peak particle velocity from blasting operations must not exceed: * 5 mm/s for more than 5 % of the total number of blasts carried out on the premises during over each reporting period; and * 10 mm/s at any time; * at any point within one metre of any affected residential boundary or other noise sensitive area in the vicinity of the plant.

Please Note: Oberon Quarries has established a blasting agreement with the nearest private receiver. This agreement removes the formal requirement to monitor each blast and notify the affected receiver(s) and government departments within seven days of an exceedance of the blast criteria. The department was notified of this agreement on 17 April 2018. It was renewed on 14th January 2022 when both the EPA and DPI were notified.