

April 2019

Dartbrook Mine Environmental Protection Licence Monitoring Data

AQC Dartbrook Management Pty Limited (AQC) is the owner of the Dartbrook Mine, located in the Upper Hunter Valley of New South Wales. AQC is a wholly owned subsidiary of Australian Pacific Coal Limited.

AQC is the holder of Environmental Protection Licence (EPL) 4885, which outlines environmental management and monitoring requirements for Dartbrook Mine. The key licence details for EPL 4885 are presented in **Table 1**. Further information regarding EPL 4885 can be obtained from the public register for the *Protection of the Environment Operations Act 1997*:

<https://app.epa.nsw.gov.au/prpoeoapp/>

Table 1 Licence Details

Licence Number	EPL 4885
Licence Holder	AQC Dartbrook Management Pty Ltd
Premises	Dartbrook Mine Stair Street Muswellbrook NSW 2333
Discharge/monitoring point	Point 3 – Groundwater monitoring Point 4 – Hunter River Salinity Trading Scheme (HRSTS) discharge point Point 5 – Effluent irrigation area

EPL 4885 identifies three discharge/monitoring points, as detailed in **Table 2**. Monitoring of soil quality at the effluent irrigation area (EPL Point 5) is not required during care and maintenance.

Table 2 Discharge/monitoring Points

Point ID	Description	Monitoring Frequency	Monitoring Parameter	Limit
3	Groundwater monitoring	Quarterly	Depth	N/A
			pH	N/A
			Salinity	N/A
4	HRSTS Discharge Point	During discharge	Conductivity	N/A
			pH	6.5 – 9.5
			Total suspended solids	120 mg/L

Point ID	Description	Monitoring Frequency	Monitoring Parameter	Limit
5*	Effluent irrigation area	Yearly	Available phosphorus	N/A
			Total phosphorus	N/A
			Conductivity	N/A
			Exchangeable sodium	N/A
			Nitrate	N/A
			Total Nitrogen	N/A
			pH	N/A

** Not required to be monitored during care and maintenance.*

Appendix A presents the monitoring data collected in accordance with EPL 4885. There were no water discharges during the reporting period and as such, no monitoring was required at EPL Point 4.

Appendix A
Monitoring Data

Sample Location	Sample Date	NO SAMPLE / Comment	Depth to Water - metres	pH - field	Electrical Conductivity µS/cm - field
ADN1	08-Apr-19		7.14	7.05	2780
Athlone	10-Apr-19		8	7.09	10640
BEL1	10-Apr-19		5.06	7.45	5550
Belgrave	30-Apr-19	No Access			
BIR2	23-Apr-19		7.12	9.04	552
BRA2	23-Apr-19		10.71	7.1	9930
BRO3	23-Apr-19	Too low to sample	5.76		
CAD2	23-Apr-19	Blocked	13.04		
CAS1	10-Apr-19	Oily smell	12.81	7.48	
CAS2	18-Apr-19	Rust	42.88	6.67	13580
CAS3					
CAS4	23-Apr-19		27.4	6.69	10990
Casey	23-Apr-19		10.37	7.23	1288
COR2	23-Apr-19	Lock taken off gate	5.68	7.46	1404
COR3	23-Apr-19	Lock taken off gate	6.97	7.58	1709
DAN2	23-Apr-19		7.28	7.2	1907
DAY1	23-Apr-19		7.95	7.66	1019
DDH124	10-Apr-19	Too low to sample	14.69		
DDH183	10-Apr-19		29.15	6.89	7210
DDH186a	30-Apr-19	No Access			
DDH186b	30-Apr-19	No Access			
DDH186c	30-Apr-19	No Access			
DDH193	18-Apr-19		42.18	7.07	6720
DDH212a	18-Apr-19		27.51	8.08	3730
DDH212b	18-Apr-19		27.42	8.09	3880
DDH212c	18-Apr-19		27.32	8.04	3840
DDH242	30-Apr-19	Too low to sample - Mud	20.44		
DDH243	30-Apr-19	Too low to sample - Mud	17.21		
DDH244R	30-Apr-19	Too low to sample - Mud	22.5		
DDH245	30-Apr-19	Too low to sample - Mud	22.62		
DDH306a	08-Apr-19		19.48	8.17	1668
DDH306b	08-Apr-19		25.1	7.6	7040
DDH306c	08-Apr-19		24.77	7.58	13590
DDH74	23-Apr-19	Slight eggy odour	12.67	7.52	5320
DUC1		No access			
DUCN	23-Apr-19		11.69	7.08	3180
DUCW		No access			
ESP2	04-Apr-19	Too low to sample - Mud	14.08		
FRA1	05-Apr-19		10.66	7.46	4750
GAR2	04-Apr-19		9.16	7.08	574
GAR3	04-Apr-19		10.4	7.21	758
GAR4	04-Apr-19	Slight odour	8.92	7.19	1314
GOO1	23-Apr-19		40.5	7.2	1594
GOO2	23-Apr-19		16.95	7.17	3790
GWO32889		Old windmill - blocked			
GWO38412	18-Apr-19		3.53	7.34	1119
GWO38582	10-Apr-19		7.68	8.06	6120
HAL1	23-Apr-19		8.66	7.6	823
JLON1	10-Apr-19	Rust in bore	12.94	9.39	1277
JOR1	04-Apr-19		8.87	7.14	1770
JS & NM Lonergan	23-Apr-19		11.54	7.18	2013
KAI1	05-Apr-19		11.26	6.38	419
KAI2	04-Apr-19		10.38	7.11	447
KAI3	30-Apr-19		8.67	7.59	624

Kayuga 1	10-Apr-19		13.29	6.9	7580
OBR1	30-Apr-19		9.24	8.1	323
RDH266	30-Apr-19	Dry	33.62		
RDH271	10-Apr-19		82.76	7.45	6050
RDH208	30-Apr-19	Dry	70.38		
RDH289	10-Apr-19	Small bailer gets stuck 20m down bore	42.67		
RDH421	23-Apr-19	Blocked	134.35		
RDH505	04-Apr-19		6.86	7.2	9800
RDH506		Discontinued			
RDH507		Discontinued			
RDH508	05-Apr-19		10.75	7.1	7820
RDH508a	05-Apr-19	Eggy odour	18.11	6.99	7810
RDH509	04-Apr-19		10.57	7.24	1843
RDH509a	04-Apr-19	Too low to sample	14.95		
RDH510	04-Apr-19		11.21	7.03	8780
RDH510a	04-Apr-19		11.11	7.1	9220
RDH511	04-Apr-19		8.44	8.07	5730
RDH511a	04-Apr-19		8.5	7.35	6670
RDH534a	08-Apr-19	Too low to sample - Moist	2.28		
RDH534b	08-Apr-19	Turbid and grey in colour	38.3	7.31	5390
RDH534c	08-Apr-19		16.35	6.86	6210
RDH535a	08-Apr-19		61.06	6.64	10880
RDH535b	08-Apr-19		45.03	6.76	12920
RDH535c	08-Apr-19	Dry after 3 bails	18.46	7.12	13140
RDH536a	23-Apr-19	Eggy odour	18.03	6.74	6940
RDH536b	23-Apr-19	Eggy odour	18.22	7.01	6540
RDH536c	23-Apr-19	Eggy odour	22.9	7.58	11580
RDH537a	08-Apr-19		15.67	6.52	9460
RDH537b	08-Apr-19		11.22	6.54	3640
RDH537c	08-Apr-19		33.32	6.81	11490
RDH538a	08-Apr-19	Eggy odour	18.39	6.74	11160
RDH538b	08-Apr-19	Dry	41.42		
RDH538c	08-Apr-19	Eggy odour	47.6	6.96	15400
RDH539a	08-Apr-19		13.81	7.1	2615
RDH539b	08-Apr-19		14.17	7.01	5200
RDH539c	08-Apr-19	Confirmed 23.09m on 21/5/19	23.85	8.21	2910
RDH564		No access			
RDH76A	18-Apr-19		3.15	7.62	5650
RIV1	05-Apr-19		11.12	7.2	920
Smith	04-Apr-19		10.6	7.04	2860
TEE4	23-Apr-19		9.75	7.71	1503
TLON1	18-Apr-19	Too low to sample	11.47		
WAL2	04-Apr-19	Track gone/over grown	9.71	7.07	1836
WM1a	08-Apr-19		8.25	6.92	1868
WM1P		Access denied			
WM1Pa		Access denied			
WM3	23-Apr-19		7.48	6.64	5250
WPWatt	23-Apr-19	Bore Collapsed			