

Minutes: Minutes of the 16th Meeting of the Maules Creek Coal Community Consultative Committee
Held at the Boggabri Golf Club, Gunnedah Road, Boggabri NSW 2382

Wednesday 15 February 2017

Members Present: Peter Wilkinson (PWi) – Whitehaven Coal (WHC), Darren Swain (DS) – WHC, Scott Mitchell (SM) – WHC, Carolyn Nancarrow (CN) – Community, Kerrie Clarke (KC) – Environmental Representative, Robert Kneale (RK) – Councillor (alternative), Narrabri Council

Observers: Kristen Gollogly (KG) – WHC, Libby Laird (LL) - Community

Independent Facilitator / Chair for CCC: David Ross (DR)

Independent Secretary: Debbie Corlet (DC)

Agenda Items	Who to Present
1. Welcome and Introductions	DR
2. Apologies	DR
3. Declaration of pecuniary or other interests	DR
4. Confirmation of the minutes of the previous meetings a. Discussion on minutes for 16 November 2016	DR
5. Business arising from the previous minutes a. Action list distributed	DR
6. Correspondence	ALL
7. Company Reports and overview of activities: a. Progress at the mine b. Monitoring and environmental performance c. Community complaints and response to complaints d. Information provided to the community and any feedback	PWi and SM
8. General Business	ALL
9. Next Meeting to be agreed	ALL

Agenda Item	Discussion	Action/By Whom
1.	<p>Welcome by David Ross</p> <p>DR thanked everyone for attending the meeting.</p>	
2.	<p>Apologies</p> <p>Lloyd Finlay (LF) from Narrabri Council.</p> <p>David made everyone aware of the recent resignations – Wayne Griffiths, Jason Davis & Peter Watson. With DS's assistance advertising has gone out to invite community members to be part of the CCC. Applications closed last Friday 10 Feb.</p>	
3.	<p>Declaration of pecuniary or other interests</p> <p>David advised he is paid a fee to chair these meetings.</p>	
4.	<p>Confirmation of the minutes of the previous meetings (16 November 2016)</p> <p>DR – A copy of the initial draft will be issued by myself one week after a meeting. Members of the CCC have one (1) week to provide comments on that draft.</p> <p>CN moved that the minutes be approved; seconded by PWi.</p>	
5.	<p>Business arising from the previous minutes – Action List Distributed</p> <p>DR – Advised that there were several actions for him to follow up on from the previous meeting.</p> <p>DR – The summary of the mandatory Environmental Audit is very close to being finalised – so DR will keep this action open until it is available.</p> <p>DR – To chase up the NSW Health Study (Development Assessment Guideline on Dust) and where it is at. DR has spoken to NSW Health who noted that Alex Greenwich MP has requested information from the Health Minister on where this is at. Has been a delay (in providing that response) due to change of Minister but should be available in the next few weeks.</p> <p>KC – community has commented that the dust has increased over the years. We have been trying to track this data from you for a few years now. Community needs the data. I've missed the last 2 meetings but I still haven't seen anything. So, can you can give us some confidence that you'll provide this data?</p>	<p>ACTION 1 – DR to obtain a copy of the mandatory Environmental Audit summary once it is published.</p> <p>ACTION 2 – DR to chase up NSW Health Study (Development Assessment Guideline on Dust).</p>

Agenda Item	Discussion	Action/By Whom
	<p>DR – asked WHC – you’ve described some of your dust practices (in the WHC response to November CCC actions). With KC’s question – do you want to take that on notice.</p> <p>PWi – in the process of organising a community meeting.</p> <p>KC – when do you think this will happen?</p> <p>PWi – couple of months.</p> <p>SM – remember there is already a significant amount of data on the website. You can download anything from the website.</p> <p>KC – EPA’s response – not happy with the negative values being included in those reports. It is not possible to have negative data.</p> <p>SM – it has been addressed by the EPA. The instruments have been audited. Its operating how it is supposed to be.</p> <p>KC – it’s been recorded but it should be removed from your data source.</p> <p>DS – we are reporting to the EPA and in compliance with EPA. We are reporting as required. If we are supposed to report differently – we will. IF the EPA tells us to change something – we will.</p> <p>PWi – those negative values – we’ve made a suggestion to change to 0 or something but they said NO.</p> <p>KC – I will take that up with the EPA. They should instruct that the negative values be removed – replacing with a zero is not OK.</p>	
6.	<p>Correspondence</p> <p>David tabled a series of questions received from AC and KC. Taken on notice by WHC.</p>	ACTION 3 – WHC to respond to tabled questions
7.	<p>Company reports and overview of activities</p> <p>PWi – explained that Maules Creek are operating at 10.5Mtpa rate at half year end and ROM and saleable coal production for the first half was 4.36Mt and 4.01Mt respectively – higher by 32% and 27% respectively.</p>	

Agenda Item	Discussion	Action/By Whom
	<p>KC – asked about the clearing. She mentioned that some environmental groups had expressed concerns about the clearing. WHC to stop clearing Leard State Forest and on sacred sites. Letters have been sent and they are very concerned. Attending a recent conference ‘Restore, Regenerate, Revegetate’ at UNE. The main theme was that we must retain our remnant vegetation – the offset system is putting native vegetation into decline as it doesn’t work. Experts at the conference said that areas cleared vegetation, especially for mining, will never ever be restored back to what it was. We must retain remnant vegetation and restore highly damaged areas.</p> <p>PWi – said he refuted the statement.</p> <p>PWi – our offsets are 4 to 1.</p> <p>KC – with the offsets – how much of the offset area includes threatened species from within the communities. Andrew Wright (WHC) gave a talk at the conference about what is happening. How much of the offset area is being fenced off and protected from stock? Andrew replied that the properties owned by WHC had fences, there was new fencing going up as well. Impacts also because of pigs.</p> <p>PWi – we do have a feral animal eradication program.</p> <p>SM – there was a slide up at the last CCC – we had a display. The weed management. Summary of capture rates – to keep people informed. Significant amount of work going on. 11 people employed on that project.</p> <p>KC – I wasn’t at the last meeting so didn’t see the presentation. Can we get these presentations for these meetings?</p> <p>SM – Andrew sits on a committee with Government within LLS. Different government agencies. So, he’ll be the best person to talk to. Definitely, in relation to feral animals.</p> <p>SM – there is a lot of work being done.</p> <p>PWi – continued with the presentation. Training a lot of people from scratch now. Indigenous 13 or 14%. We keep trying to keep the percentage of women up as well.</p> <p>DR – maybe more details of employment at next CCC meeting?</p> <p>PWi – we are currently putting on 8 people per month. We started with experienced people from outside the area who can end up going back to their local area. If you train local people – it may take more time because they don’t have the experience yet but you don’t get that turnover of people leaving which works out in the long run.</p>	<p>ACTION 4 – SM to advise if a copy of the presentation can be given to the CCC.</p>

Agenda Item	Discussion	Action/By Whom
	<p>SM – Monitoring for the last quarter. We’ve performed well from an environmental perspective. No noise problems to report. Water quality was consistent.</p> <p>CN – would have thought the dust would have been high – especially in December. Due to harvesting. Very late harvest but it doesn’t seem to show that it was high.</p> <p>SM – page 11 – February – a few spikes – touching 30. Compared to the previous quarter – we had a lot of rain.</p> <p>PWi – compared to other quarters it was high. Studies wind / direction – dust from the north.</p> <p>KC – can we get wind direction on these reports.</p> <p>SM – prevailing wind direction page 4.</p> <p>KC – are they the same locations – dust and noise.</p> <p>SM – Air quality locations – some are in the same locations and some aren’t. SM explained the “Complaints” slide which shows a breakdown for each category. So yes, there has been an influx of complaints compared to last quarter. Table shows how they are tracking for the year.</p> <p>DR – What is Other?</p> <p>SM – complaint about vegetation clearing – alleged clearing in an area. Still in the approval processes. TSR area.</p> <p>KC – I have some pictures of the clearing area and showed the pictures in Crown Land to Committee.</p> <p>PWi – we need to maintain fire tracks.</p> <p>KC – don’t you need permission before you clear?</p> <p>PWi – we’ll check that out. We keep in touch with Forestry.</p> <p>KC – this is Crown land.</p> <p>PWi – send a complaint in and then we can respond to that complaint.</p>	<p>ACTION 5 – PWi to advise if they need permission to clear.</p> <p>ACTION 6 – WHC to advise on complaints received re clearing.</p>

Agenda Item	Discussion	Action/By Whom
	<p>KC – so this is a different one – the other one was for TSR. Have you been approached with a complaint?</p> <p>PWi – member complained to the Department saying we had cleared but WHC haven't cleared.</p> <p>KC – I had an email the other day but maybe it is a different area.</p> <p>SM – Community Slide – 26 new employees from the Narrabri Shire – from Oct 16 to end of January 17.</p> <p>DS – 105 existing personnel trained on trucks – all from the local area.</p> <p>DS – explained the slide about Fundraising for November and what has been achieved to date. DS explained that there was a RAP meeting here in December (Registered Aboriginal Parties) with 10-15 people turning up of c. 180 across the State.</p> <p>SM – RAP – any concerns or issues – feedback on what is coming up.</p> <p>KC – what's happened with our (Aboriginal) representative here.</p> <p>DR – previous rep has resigned due to work commitments. With Darren's assistance, we are going through the advertisements including an aboriginal member.</p> <p>RK – have you got percentages about (number of WHC staff employed from) Narrabri Shire?</p> <p>PWi – people come from outside – numbers of brand new people – pretty even from Narrabri and Gunnedah.</p> <p>PWi – let's get you the data first. We've had people employed from Narrabri and then moved to Gunnedah. I don't know the percentage of people from outside – there are other mining areas around the country.</p> <p>RK – where are the offices for Programmed and TESA?</p> <p>PWi – their office is in Gunnedah.</p> <p>DS – Most of the applications are done online. Rather than a face to face. You'd have to go and do a medical somewhere and then turn up to work.</p>	<p>ACTION 7 – WHC to advise breakdown of where staff are coming from.</p>

Agenda Item	Discussion	Action/By Whom
	<p>KC – monitoring by a citizen’s monitoring group on 26th September found significant discrepancies between its own monitoring and that taken at site NM1.</p> <p>PWi – We will dispute that noise.</p> <p>DS – AC sent an email and I have replied to that. Essentially our comment was “we don’t believe there is an issue and if there are concerns they should be directed to the EPA”.</p> <p>DR – CWA tabled a letter to WHC last year. WHC have responded to that letter in the last couple of weeks.</p> <p>DS – comment about CCC Guidelines – go through those with the new members and some of the messages in the Guidelines. Will leave to the Chairman’s discretion to read through.</p> <p>DR – thank you. In addition to what DS said – I was hoping to come today with a Code of Conduct Agreement for each of you to sign - I have one to sign myself. But because we don’t have many on the CCC today – we will hold off until we have a full CCC at the next meeting and then get everyone to sign off then.</p> <p>DS – we are working with groups within the community to see where we can help. The hospital / the community etc. Maybe now with more manpower – we can get around to more.</p> <p>CN – explained that a new website is nearly ready to go live called www.boggabri.com – we have a website and already have the minutes.</p> <p>DR – when will that website be up and running?</p> <p>CN – has a few meetings to sort that out. Will be in touch with everyone.</p> <p>DR – when we have the full CCC you can raise it with everyone then.</p>	<p>ACTION 13 – WHC to report back on findings from investigations in Crown Land clearance.</p>
9.	<p>Next meeting date to be agreed</p> <p>Proposed dates for the rest of the year - every 3 months - 17 May, 16 August and 15 November. For May – joint CCC 18 May. Normally on the Thursday afternoon. David thanked everyone for their time.</p>	

Meeting Closed: 3:32 pm

Appendix 1: Actions

Page No	Action No	Description	Date Raised
2	1	DR to obtain a copy of the mandatory Environmental Audit Summary once it is published.	15 Feb 17
2	2	DR to chase up NSW Health Study (Development Assessment Guideline on Dust).	15 Feb 17
3	3	WHC to respond to tabled questions.	15 Feb 17
4	4	SM to advise if a copy of the presentation can be given to the CCC.	15 Feb 17
5	5	PWi to advise if they need permission to clear.	15 Feb 17
5	6	WHC to advise on complaints received re clearing.	15 Feb 17
6	7	WHC to advise breakdown of where staff are coming from.	15 Feb 17
7	8	WHC to respond to AC's Agenda Item questions within four weeks .	15 Feb 17
7	9	WHC to provide where the Biodiversity is fenced off from where?	15 Feb 17
8	10	DR to coordinate questions for Andrew for the next meeting.	15 Feb 17
8	11	DR to keep in touch with Stephen Cox re OEH & Biodiversity Reforms and when consultation might be coming to Boggabri.	15 Feb 17
9	12	PWi to investigate corner and moving the parked WHC cars.	15 Feb 17
9	13	WHC to report back on findings from investigations in Crown Land clearance.	15 Feb 17

Maules Creek Coal Mine Community Consultative Committee Meeting #16

Environmental Monitoring Report For the Q4 period, October – December 2016

Noise Monitoring

Attended noise monitoring was undertaken at the six locations, as per the approved Noise Management Plan, on the 18th & 19th October, 21st & 22nd November and the 13th & 14th December 2016 by an independent acoustic consultant. The measured noise level (LAeq15) attributed to Maules Creek Coal Mine (MCCM) and applicable criteria for each location are shown in the tables below. The results show that mine operations did not exceed the applicable LAeq15 minute criteria during attended noise monitoring in Q4 2016.

Tables - LAeq, 15minute GENERATED BY MCC AGAINST OPERATIONAL EVENING AND NIGHT NOISE CRITERIA – OCTOBER TO DECEMBER 2016.

October Monitoring – Evening & Night Period

		Time	Wind Speed	Rainfall	Criterion	Criterion	MCC LAeq	Exceedance
			m/s	mm	dB ³	Applies ¹	dB ^{2,4}	dB ^{4,5}
NM1	18/10/2016	22:49	0.3	0	35	Yes	<25	Nil
NM1	18/10/2016	23:06	0.5	0	35	Yes	<25	Nil
NM1	19/10/2016	19:29	1.8	0	35	Yes	<25	Nil
NM1	19/10/2016	19:48	2.2	0	35	Yes	<25	Nil
NM2	18/10/2016	21:08	0.6	0	39	Yes	IA	Nil
NM2	18/10/2016	21:24	0.2	0	39	Yes	<20	Nil
NM2	19/10/2016	22:00	0.7	0	39	Yes	28	Nil
NM2	19/10/2016	22:15	0.9	0	39	Yes	28	Nil
NM3	18/10/2016	19:36	0.2	0	35	Yes	IA	Nil
NM3	18/10/2016	19:53	0.2	0	35	Yes	IA	Nil
NM3	19/10/2016	23:32	0.7	0	35	Yes	<25	Nil
NM3	19/10/2016	23:49	0.7	0	35	Yes	<20	Nil
NM4	18/10/2016	22:00	0.3	0	NA	NA	<25	NA
NM4	18/10/2016	22:16	0.3	0	NA	NA	<20	NA
NM4	19/10/2016	21:11	0.9	0	NA	NA	30	NA
NM4	19/10/2016	21:30	0.3	0	NA	NA	30	NA
NM5	18/10/2016	23:34	0.4	0	35	Yes	<25	Nil
NM5	18/10/2016	23:50	0.4	0	35	Yes	<25	Nil
NM5	19/10/2016	20:16	2.4	0	35	Yes	<25	Nil
NM5	19/10/2016	20:34	0.9	0	35	Yes	<25	Nil
NM6	18/10/2016	20:21	0.2	0	35	Yes	IA	Nil
NM6	18/10/2016	20:38	0.2	0	35	Yes	IA	Nil
NM6	19/10/2016	22:46	0.3	0	35	Yes	<20	Nil
NM6	19/10/2016	23:02	0.4	0	35	Yes	<20	Nil

November Monitoring – Evening & Night Period

		Time	Wind Speed	Rainfall	Criterion	Criterion	MCC LAeq	Exceedance
			m/s	mm	dB ³	Applies ¹	dB ^{2,4}	dB ^{4,5}
NM1	22/11/2016	20:26	0.6	0	35	Yes	26	Nil
NM1	22/11/2016	20:42	0.5	0	35	Yes	<25	Nil
NM1	21/11/2016	22:47	0.4	0	35	Yes	IA	Nil
NM1	21/11/2016	23:03	0.3	0	35	Yes	IA	Nil
NM2	21/11/2016	21:00	1.3	0	39	Yes	<25	Nil
NM2	21/11/2016	21:15	1.4	0	39	Yes	<25	Nil
NM2	22/11/2016	22:06	0.5	0	39	Yes	IA	Nil
NM2	22/11/2016	22:21	0.5	0	39	Yes	<20	Nil
NM3	21/11/2016	19:32	0.4	0	35	Yes	IA	Nil
NM3	21/11/2016	19:47	0.4	0	35	Yes	IA	Nil
NM3	22/11/2016	23:29	2.4	0	35	Yes	IA	Nil
NM3	22/11/2016	23:44	2.7	0	35	Yes	IA	Nil
NM4	22/11/2016	21:15	0.7	0	NA	NA	IA	NA
NM4	22/11/2016	21:33	0.2	0	NA	NA	IA	NA
NM4	21/11/2016	22:00	0.6	0	NA	NA	<25	NA
NM4	21/11/2016	22:15	0.3	0	NA	NA	<25	NA
NM5	22/11/2016	19:45	0.7	0	35	Yes	IA	Nil
NM5	22/11/2016	20:00	0.3	0	35	Yes	IA	Nil
NM5	21/11/2016	23:48	0.4	0	35	Yes	IA	Nil
NM5	22/11/2016	0:03	0.5	0	35	Yes	IA	Nil
NM6	21/11/2016	20:12	0.2	0	35	Yes	IA	Nil
NM6	21/11/2016	20:27	0.2	0	35	Yes	IA	Nil
NM6	22/11/2016	22:47	0.3	0	35	Yes	IA	Nil
NM6	22/11/2016	23:02	0.2	0	35	Yes	IA	Nil

December Monitoring – Evening & Night Period

		Time	Wind Speed	Rainfall	Criterion	Criterion	MCC LAeq	Exceedance
			m/s	mm	dB ³	Applies ¹	dB ^{2,4}	dB ^{4,5}
NM1	14/12/2016	20:20	0.5	0	35	Yes	IA	Nil
NM1	14/12/2016	20:37	0.5	0	35	Yes	<25	Nil
NM1	13/12/2016	22:49	0.5	0	35	Yes	<20	Nil
NM1	13/12/2016	23:06	0.7	0	35	Yes	<20	Nil
NM2	13/12/2016	20:56	0.4	0	39	Yes	<20	Nil
NM2	13/12/2016	21:12	0.9	0	39	Yes	<20	Nil
NM2	14/12/2016	22:00	0.5	0	39	Yes	<25	Nil
NM2	14/12/2016	22:16	0.2	0	39	Yes	<20	Nil
NM3	13/12/2016	19:23	2.5	0	35	Yes	IA	Nil
NM3	13/12/2016	19:40	1.1	0	35	Yes	IA	Nil
NM3	14/12/2016	23:32	0.8	0	35	Yes	IA	Nil
NM3	14/12/2016	23:48	5.2	0	35	No	IA	NA
NM4	14/12/2016	21:06	1.2	0	NA	NA	<20	Nil
NM4	14/12/2016	21:23	0.8	0	NA	NA	<20	Nil
NM4	13/12/2016	22:00	0.3	0	NA	NA	<20	Nil
NM4	13/12/2016	22:16	0.5	0	NA	NA	<20	Nil
NM5	14/12/2016	19:37	0.4	0	35	Yes	IA	Nil
NM5	14/12/2016	19:53	0.4	0	35	Yes	IA	Nil
NM5	13/12/2016	23:35	0.2	0	35	Yes	<20	Nil
NM5	13/12/2016	23:51	0.3	0	35	Yes	<20	Nil
NM6	13/12/2016	20:08	0.4	0	35	Yes	IA	Nil
NM6	13/12/2016	20:24	0.5	0	35	Yes	<20	Nil
NM6	14/12/2016	22:46	0.6	0	35	Yes	IA	Nil
NM6	14/12/2016	23:02	0.5	0	35	Yes	IA	Nil

In addition to the 15 minute average for Day, Evening and Night, the Maules Creek Coal (MCC) EPL20221 also has a '1 Minute - Night' criteria (LA1) that applies from 10pm to 7am Monday to Saturday & 10pm to 8am Sundays and Public Holidays. The results for the LA1 monitoring are shown below. The results show that mine operations did not exceed the applicable LA1 criteria during attended noise monitoring in Q4 2016.

Tables – LA1, 1minute GENERATED BY MCC AGAINST OPERATIONAL EVENING NOISE CRITERIA – OCTOBER TO DECEMBER 2016.

October Monitoring – Evening & Night Period

L _{A1} (1min)		October		Rainfall	Criterion	Criterion	MCC L _{A1} (1min)	Exceedance
		Time	Wind Speed					
			m/s	mm	dB ³	Applies ¹	dB ^{2,4}	dB ^{4,5}
NM1	18/10/2016	22:49	0.3	0	45	Yes	32	Nil
NM1	18/10/2016	23:06	0.5	0	45	Yes	38	Nil
NM2	19/10/2016	22:00	0.7	0	45	Yes	35	Nil
NM2	19/10/2016	22:15	0.9	0	45	Yes	38	Nil
NM3	19/10/2016	23:32	0.7	0	45	Yes	30	Nil
NM3	19/10/2016	23:49	0.7	0	45	Yes	<25	Nil
NM4	18/10/2016	22:00	0.3	0	NA	NA	39	NA
NM4	18/10/2016	22:16	0.3	0	NA	NA	27	NA
NM5	18/10/2016	23:34	0.4	0	45	Yes	30	Nil
NM5	18/10/2016	23:50	0.4	0	45	Yes	32	Nil
NM6	19/10/2016	22:46	0.3	0	45	Yes	<20	Nil
NM6	19/10/2016	23:02	0.4	0	45	Yes	<20	Nil

November Noise Monitoring – Night

L _{A1} (1min)		November		Rainfall	Criterion	Criterion	MCC L _{A1} (1min)	Exceedance
		Time	Wind Speed					
			m/s	mm	dB ³	Applies ¹	dB ^{2,4}	dB ^{4,5}
NM1	21/11/2016	22:47	0.4	0	45	Yes	1A	Nil
NM1	21/11/2016	23:03	0.3	0	45	Yes	1A	Nil
NM2	22/11/2016	22:06	0.5	0	45	Yes	1A	Nil
NM2	22/11/2016	22:21	0.5	0	45	Yes	<20	Nil
NM3	22/11/2016	23:29	2.4	0	45	Yes	1A	Nil
NM3	22/11/2016	23:44	2.7	0	45	Yes	1A	Nil
NM4	21/11/2016	22:00	0.6	0	NA	NA	25	NA
NM4	21/11/2016	22:15	0.3	0	NA	NA	<25	NA
NM5	21/11/2016	23:48	0.4	0	45	Yes	1A	Nil
NM5	22/11/2016	0:03	0.5	0	45	Yes	1A	Nil
NM6	22/11/2016	22:47	0.3	0	45	Yes	1A	Nil
NM6	22/11/2016	23:02	0.2	0	45	Yes	1A	Nil

December Noise Monitoring – Night

L _{A1} (1min)		December		Wind Speed	Rainfall	Criterion	Criterion	MCC L _{A1} (1min)	Exceedance
		Time							
			m/s		mm	dB ³	Applies ¹	dB ^{2,4}	dB ^{4,5}
NM1	13/12/2016	22:49	0.5		0	45	Yes	<20	Nil
NM1	13/12/2016	23:06	0.7		0	45	Yes	<20	Nil
NM2	14/12/2016	22:00	0.5		0	45	Yes	27	Nil
NM2	14/12/2016	22:16	0.2		0	45	Yes	<20	Nil
NM3	14/12/2016	23:32	0.8		0	45	Yes	IA	Nil
NM3	14/12/2016	23:48	5.2		0	45	No	IA	NA
NM4	13/12/2016	22:00	0.3		0	NA	NA	<20	Nil
NM4	13/12/2016	22:16	0.5		0	NA	NA	<20	Nil
NM5	13/12/2016	23:35	0.2		0	45	Yes	<20	Nil
NM5	13/12/2016	23:51	0.3		0	45	Yes	<20	Nil
NM6	14/12/2016	22:46	0.6		0	45	Yes	IA	Nil
NM6	14/12/2016	23:02	0.5		0	45	Yes	IA	Nil

Evening L_{Aeq}15min Night L_{Aeq}15min, Night L_{A1}min

Notes:

- Noise emission limits do not apply during periods of rainfall or wind speeds greater than 3 metres per second (at 10 metres);
- Estimated or measured L_{Aeq},15minute attributed to MCCM;
- NM4 was acquired by MCCP, therefore criteria are no longer applicable as per the EPL and project approval. The NMP requires monitoring at this location and results have been provided for informational purposes;
- Estimated or measured L_{A1},1minute attributed to MCCM;
- NA in exceedance column means atmospheric conditions outside those specified in Project Approval and criterion is not applicable. Since September 2016;
- IA – Inaudible
- NM – Not measurable

Wind Direction during Attended Monitoring

Wind direction data is collected from the MCCM Automated Weather Station (AWS). Wind data for the duration of the attended monitoring assessment, recorded at the MCCM AWS is presented in the table below.

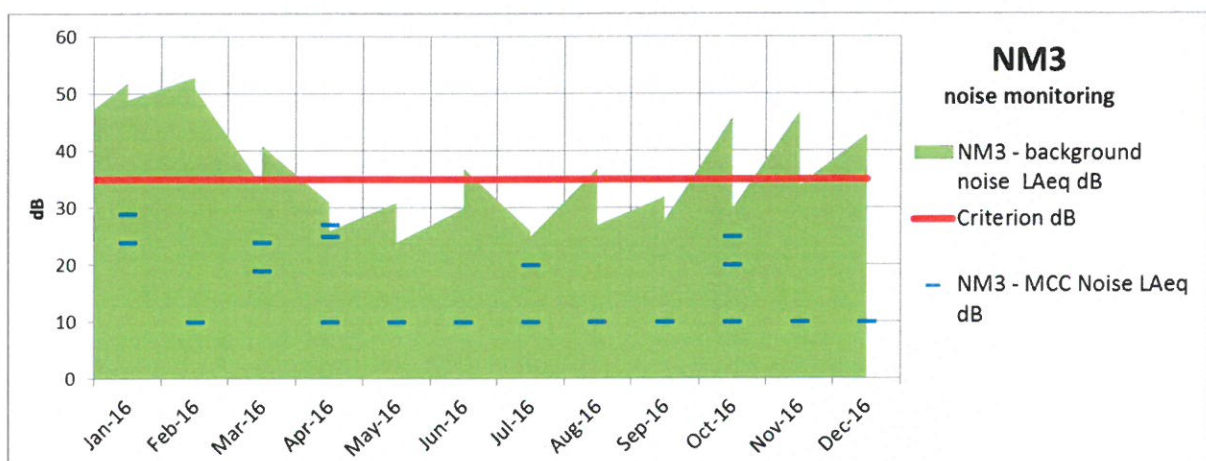
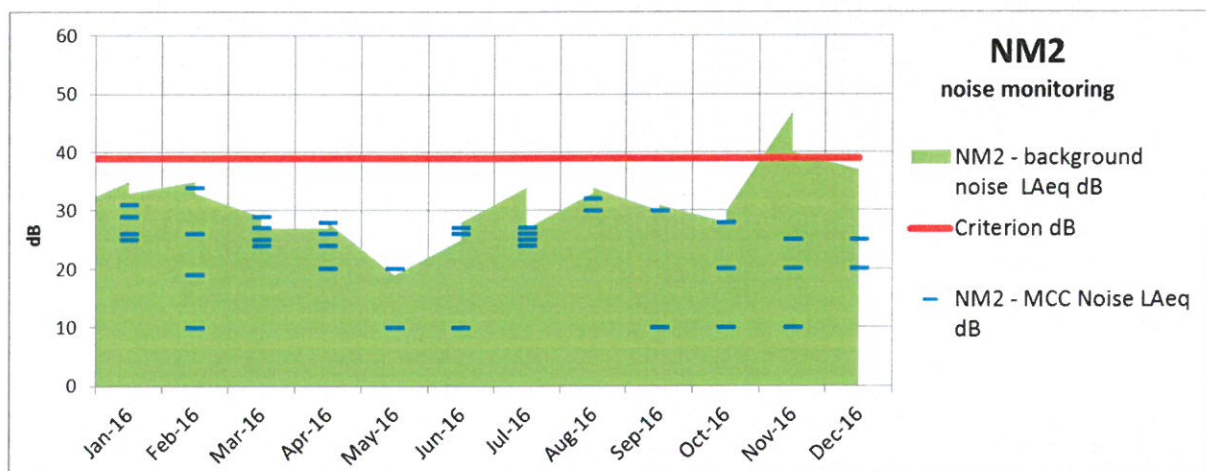
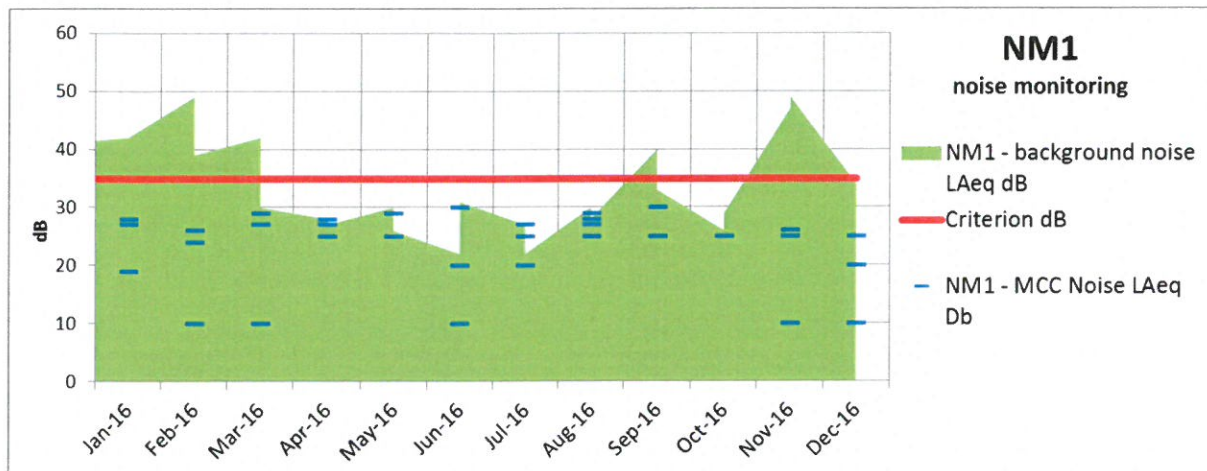
Table: Prevailing Wind Direction

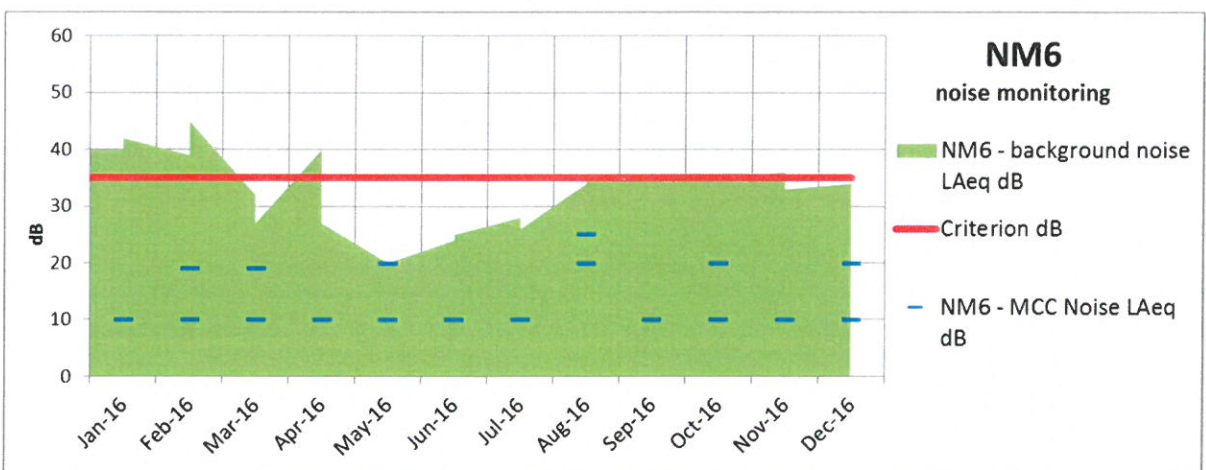
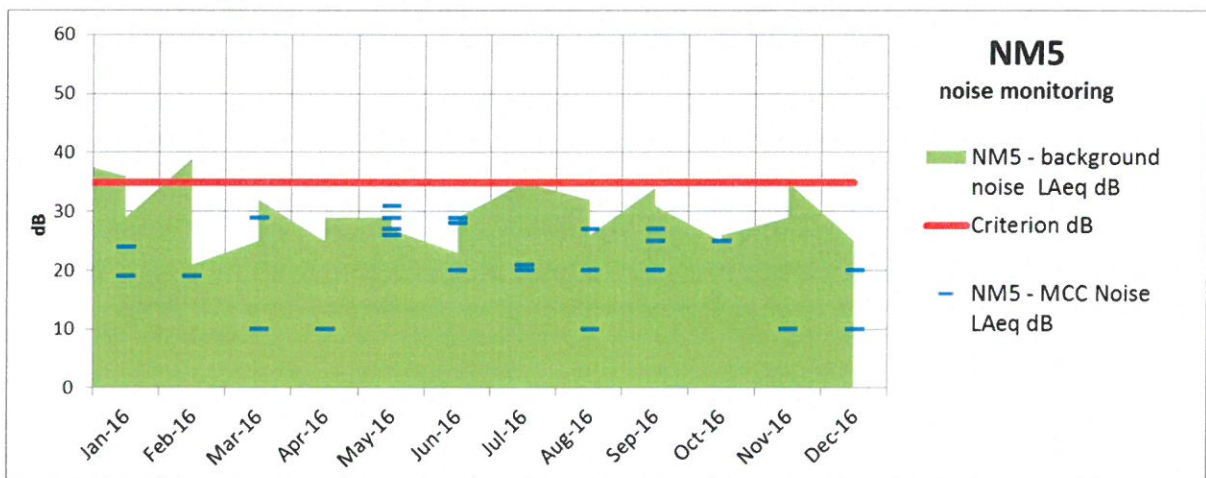
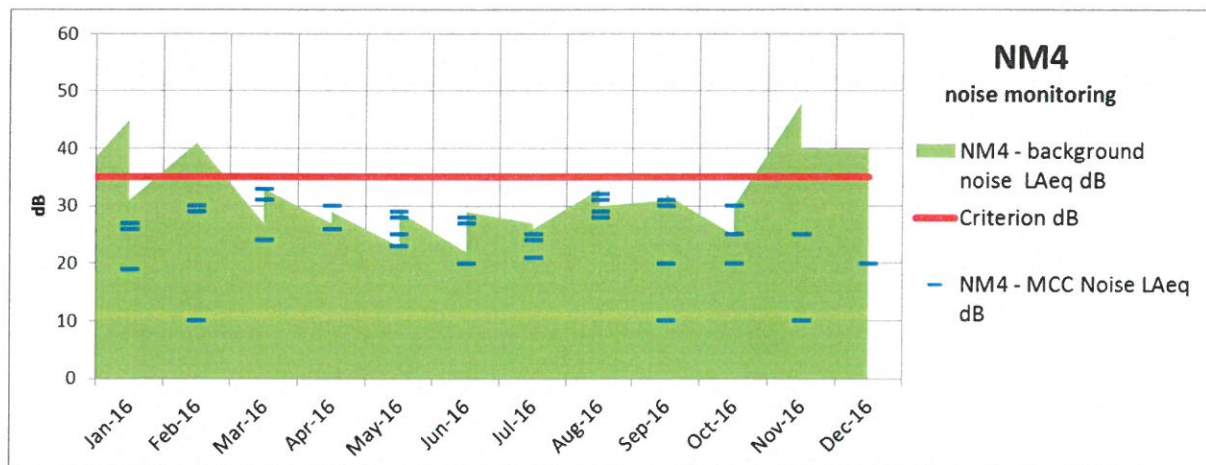
Date	Prevailing Wind Direction
18th October	SW
19th October	S
21st November	N & ENE
22nd November	SSW
13th December	SW
14th December	E & SE

Attended Noise Monitoring

The following six (6) figures below show the 'attended' noise monitoring results recorded over the last twelve (12) months.

Green shading shows the LA_{eq} (15minute) background noise, the blue dash is the portion of the LA_{eq} considered likely attributable to MCCM according to the acoustic engineer and the red line is the Project Approval criteria.





Blast Monitoring

There have been 97 blasts at MCCM to 31st December 2016.

All blast monitoring results recorded within the reporting period have been within the applicable overpressure and ground vibration limits specified in the respective approvals.

Table – Blast Results Summary Quarter 4 2016

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Noise	dB (Lin Peak)	All	29	94.41	114.4	120	No
	Vibration	mm/s		29	0.23	1.11	10	No

Air Quality

Total Depositional Dust

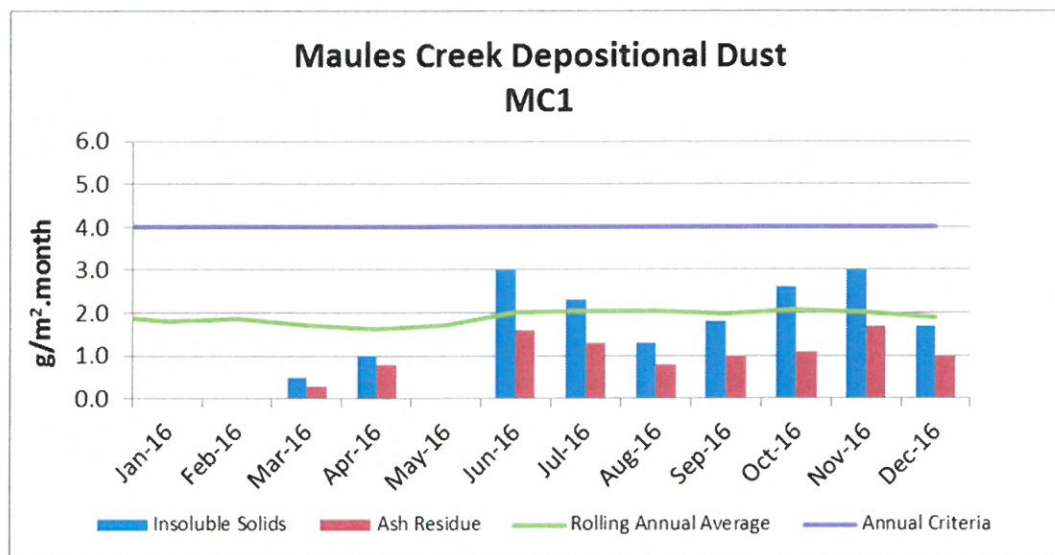
Table - Deposited Dust Monitoring Results *

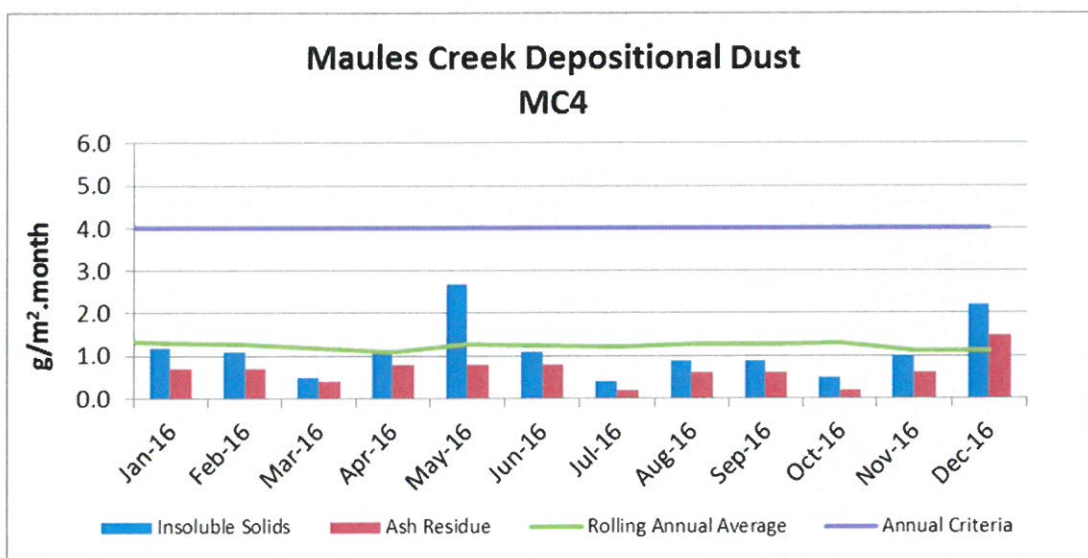
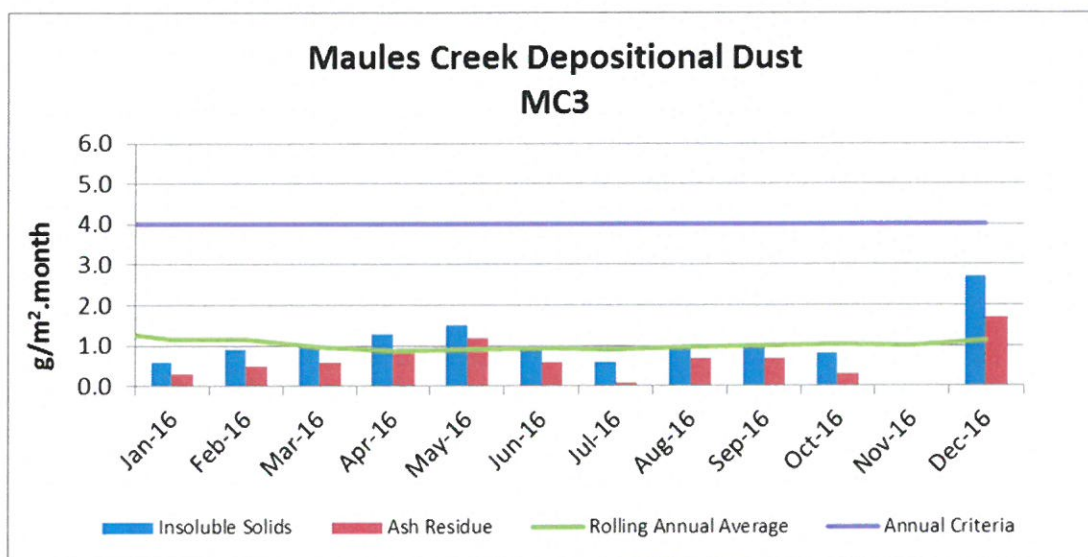
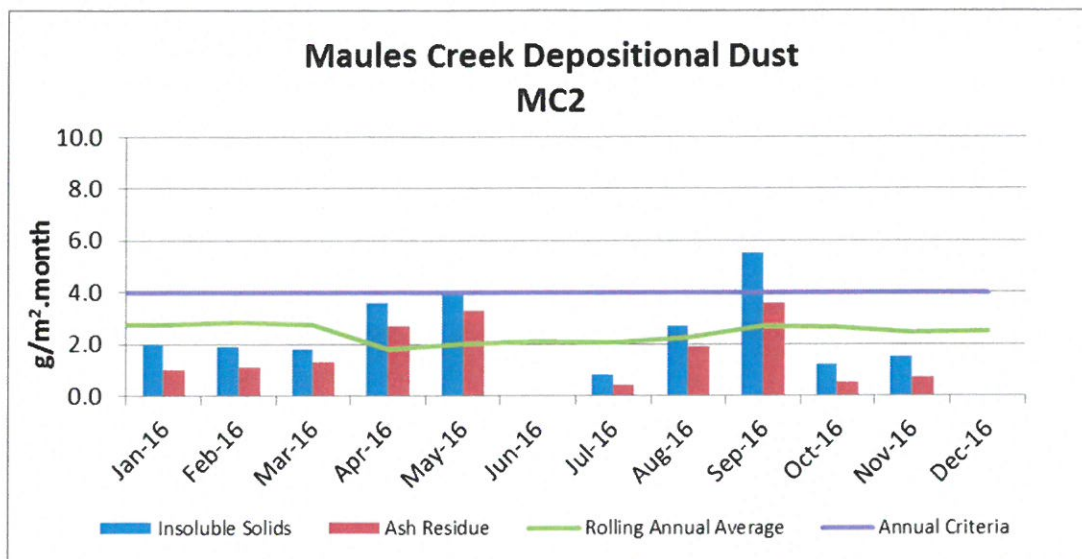
Month	MC1	MC2	MC3	MC4
Jan-16		2.0	0.6	1.2
Feb-16		1.9	0.9	1.1
Mar-16	0.5	1.8	1.0	0.5
Apr-16	1.0	3.6	1.3	1.1
May-16		4.1	1.5	2.7
Jun-16	3.0		1.0	1.1
Jul-16	2.3	0.8	0.6	0.4
Aug-16	1.3	2.7	1.0	0.9
Sep-16	1.8	5.5	1.0	0.9
Oct-16	2.6	1.2	0.8	0.5
Nov-16	3.0	1.5		1.0
Dec-16	1.7		2.7	2.2
Annual Avg	1.91	2.51	1.13	1.13
Project Avg 2010 - 2016	2.17	2.20	1.52	1.30

* Blank cells indicate sample periods where the sample has been contaminated and excluded from the results tables due to contaminated material (insect larvae, bird droppings, vegetation etc.).

The monthly rolling annual average remains below the relevant Project Approval criteria of 4gm/m²/month, as shown on the graphs below.

Deposited Dust Monitoring Figures (MC1 – MC4)



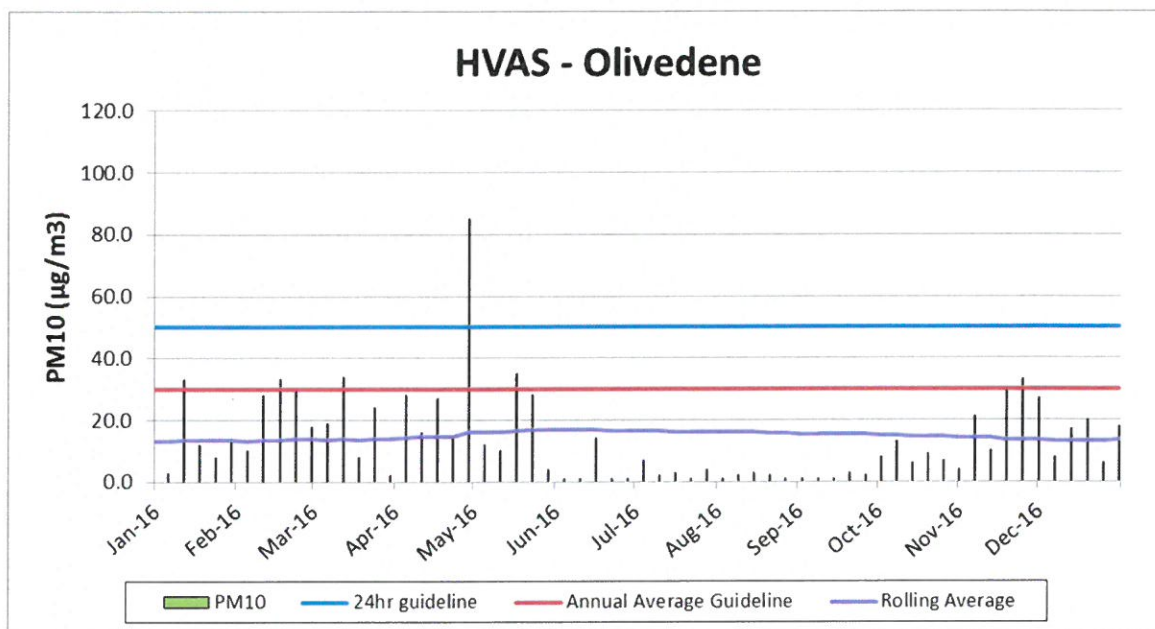


High Volume Air Sampling (HVAS)

The HVAS monitor is located on the property 'Olivedene,' a mine owned property on Therribri Road.

HVAS PM₁₀ Rolling Annual Average results during Q4 2016 remained well below the Annual Average Guideline 30 µg/m³.

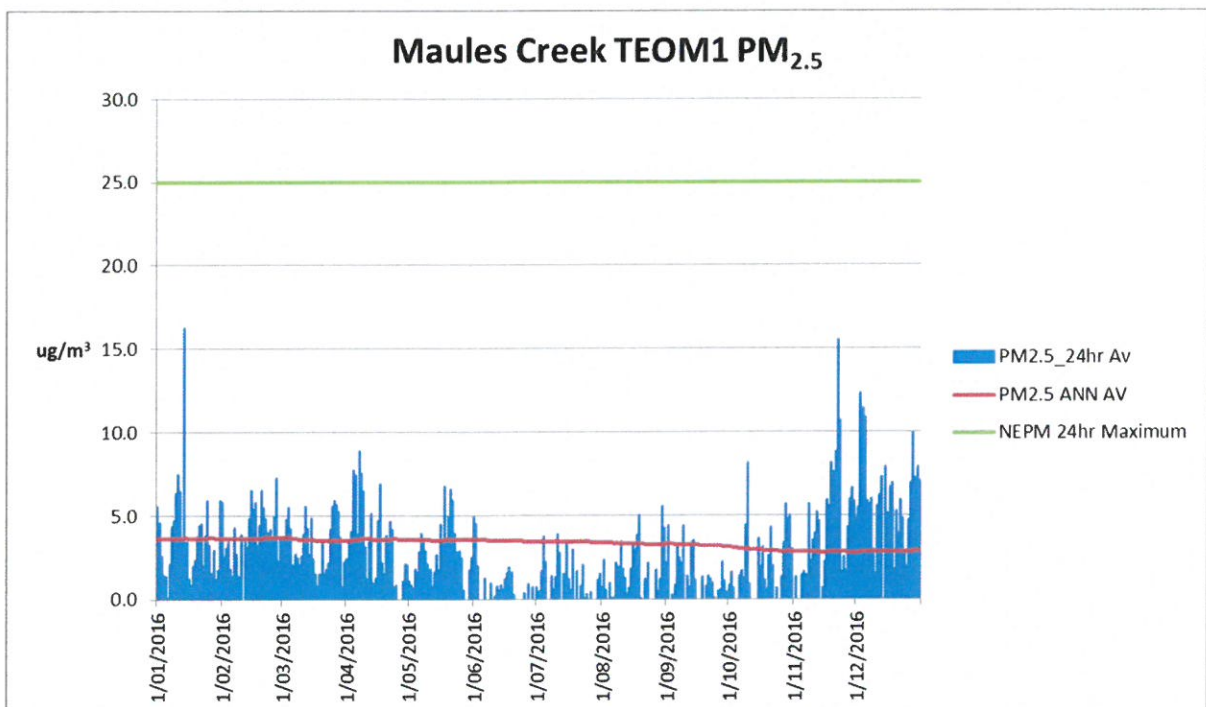
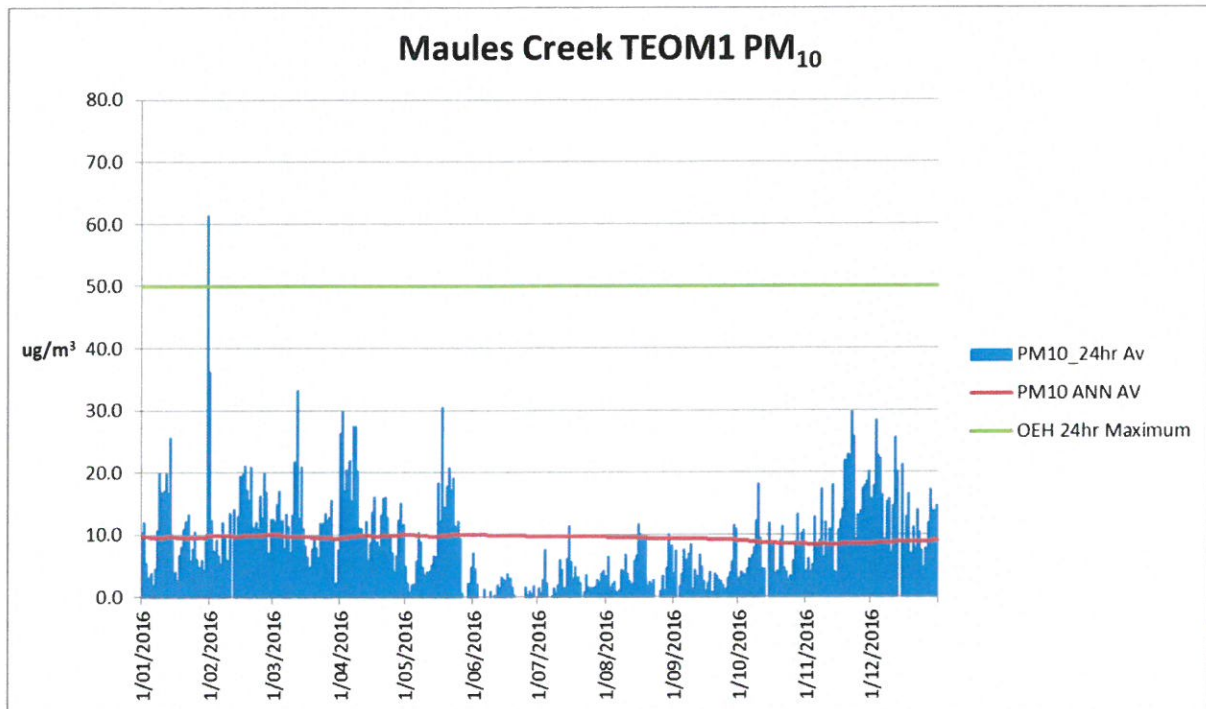
As previously reported, on the 29th April 2016, the HVAS recorded a PM₁₀ result of 85 µg/m³. An investigation indicated likely sources were from localised non-mining related activities. Results recorded at all other approved MCCM air quality monitoring sites on that day remained within the relevant Project Approval criteria.



TEOM - PM₁₀ Results

The annual average for PM₁₀ results at the Maules Creek Coal TEOM remain significantly below the Project Approval annual average criteria of 30.0 µg/m³ (at 30 December 2016) as illustrated in the following figure. The PM₁₀ results have remained below this criteria since the TEOM was commissioned in November 2011.

TEOM Results Figures – Particulate Matter PM₁₀µg/m³ and PM_{2.5}µg/m³



Water Monitoring

Ground Water

Groundwater monitoring results in open / standpipe piezometers show levels to be currently stable. 'RB' and 'Reg' series bores were installed between Q4 2013 and Q1 2014. BCM01, BCM03, Reg10 are shallow bores which have been dry since construction in 2013.

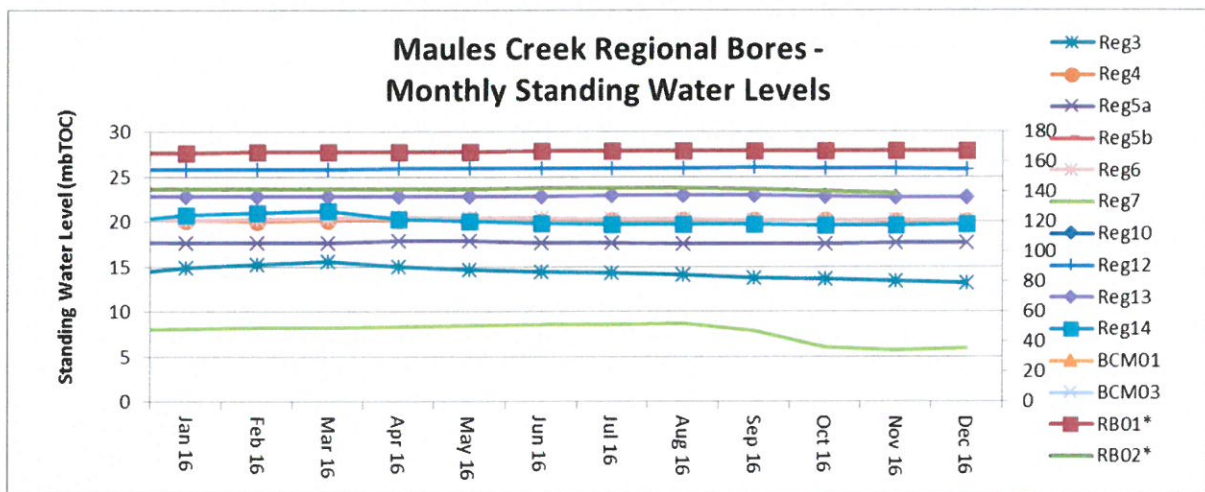
Table 5 – Groundwater Level

SWL	RB01*	RB02*	RB05	Reg3	Reg4	Reg5a	Reg5b	Reg6	Reg7	Reg10	Reg12	Reg13	Reg14	BCM01	BCM03
Jan-16	166.4	141.66	57.25	14.9	20.21	17.71		20.25	8.15		25.86	22.91	20.76		
Feb-16	166.49	141.94	57.35	15.3	20.13	17.71		20.31	8.22		25.83	22.83	21.04		
Mar-16	166.7	141.85	57.45	15.59	20.17	17.71		20.43	8.29		25.85	22.89	21.24		
Apr-16	166.87	142.14	58.56	15	20.17	17.94		20.52	8.42		25.92	22.89	20.34		
May-16	166.97	142.13	58.62	14.75	20.16	17.92		20.42	8.48		25.91	22.9	20.14		
Jun-16	167.3	142.64	58.82	14.51	20.14	17.64		20.43	8.65		25.92	22.83	19.92		
Jul-16	167.35	142.51	58.41	14.37	20.19	17.7		20.33	8.62		25.97	22.92	19.79		
Aug-16	167.59	142.72	58.5	14.18	20.2	17.52		20.29	8.7		25.99	22.95	19.75		
Sep-16	167.64	141.85	58.62	13.77	20.2	**	**	20.27	7.96		26.02	22.93	19.75		
Oct-16	167.53	140.47	58.66	13.69	20.17	17.6		20.24	6.03		25.98	22.87	19.65		
Nov-16	167.31	139.47	58.67	13.39	20.13	17.64		20.24	5.76		25.96	22.75	19.6		
Dec-16	167.37	***	58.65	13.25	20.09	17.7		20.27	5.94		25.9	22.72	19.76		

Blank cells indicate sample periods where bores were dry.

** Tracks were too wet to access bores

*** Unable to sample



* RB01 & RB02 bore depths are listed on the secondary axis.

Acidity / Alkalinity (pH)

Baseline groundwater conditions are still being established, however, 4 bores (RB01, RB02a, Reg4 and Reg13) show elevated pH levels (above pH 8.5) this has been determined to be as a result of low recharge volumes within these bores since the drilling and installation.

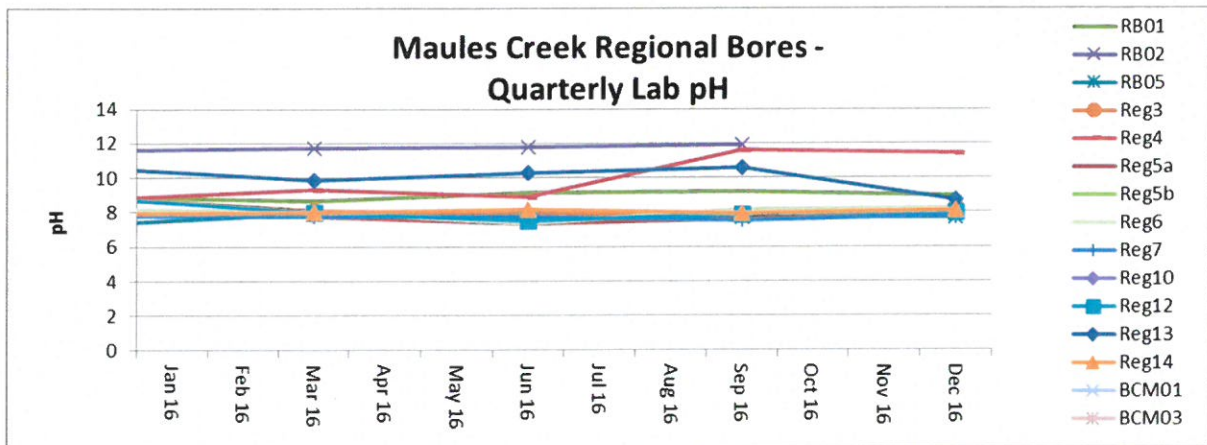
Groundwater Lab Results pH

Lab pH	RB01	RB02	RB05	Reg3	Reg4	Reg5a	Reg5b	Reg6	Reg7	Reg10	Reg12	Reg13	Reg14	BCM01	BCM03
Dec-15	8.87	11.6	7.32	8.83	8.77	7.95		8.15	7.79		8.82		7.95		
Mar-16	8.68	11.7	7.93	8.12	9.31	7.73		8.05	7.77		7.97	9.83	8.01		
Jun-16	9.11	11.8	7.82	7.9	8.88	7.35		7.33	7.77		7.54	10.3	8.15		
Sep-16	9.17	11.9	7.68	7.9	11.6	**	**	8.16	7.49		7.89	10.6	7.96		
Dec-16	8.96	***	7.68	8.25	11.4	7.85		8.26	7.8		7.97	8.71	8.12		

Blank cells indicate sample periods where bores were dry.

** Tracks were too wet to access bores

*** Unable to sample



Electrical Conductivity

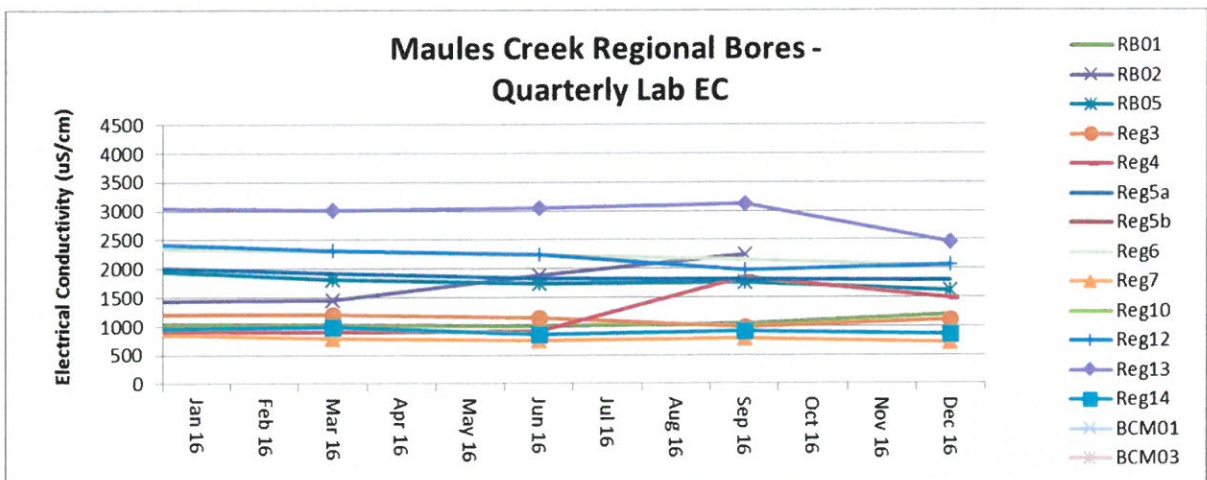
Laboratory Electrical Conductivity (EC) levels are all within historic groundwater EC range of 500 μ S/cm to 2,500 μ S/cm.

Lab EC	RB01	RB02	RB05	Reg3	Reg4	Reg5a	Reg5b	Reg6	Reg7	Reg10	Reg12	Reg13	Reg14	BCM01	BCM03
Dec-15	1040	1430	1970	1200	925	2040		2360	860		2440	3060	959		
Mar-16	1030	1460	1820	1210	896	1930		2300	788		2310	3020	983		
Jun-16	1010	1890	1740	1150	921	1830		2240	758		2240	3060	871		
Sep-16	1040	2240	1760	986	1860			2160	790		1980	3130	921		
Dec-16	1200	***	1620	1120	1500	1800		2050	714		2060	2460	856		

Blank cells indicate sample periods where bores were dry.

** Tracks were too wet to access bores.

*** Unable to sample



Wet Weather Discharge Sampling

There were no wet weather licensed discharge events during Q4 2016 (October to December).

Surface Water – Creeks and Rivers

Routine surface water monitoring is conducted in surrounding creeks and rivers on a monthly basis. Results for parameters including pH, EC and Total Suspended Solids (TSS) are shown in the tables and figures below.

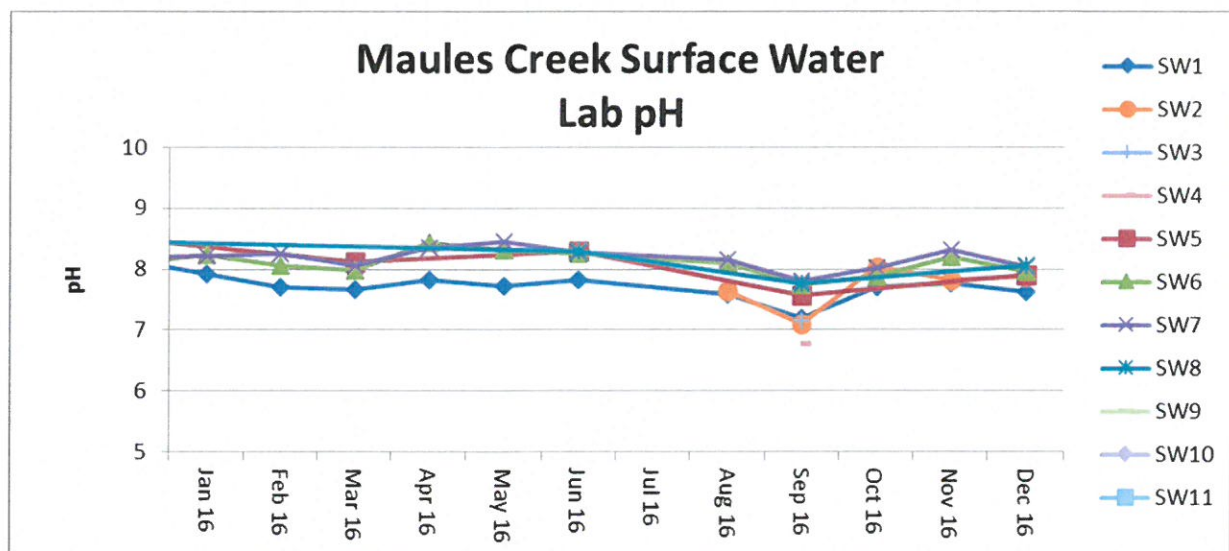
Acidity / Alkalinity (pH)

Laboratory pH in creeks and rivers surrounding MCCM are all trending within the ANZECC acceptable range for Irrigation, Ecosystem Health and Recreation. Back Creek and upper Maules Creek are ephemeral systems.

Lab pH	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8	SW9	SW10	SW11
12/10/2015	7.9					8.25	8.36				
12/11/2015	7.62					8.09	8.14				
11/12/2015	8.15				8.5	8.1	8.2	8.46			
8/01/2016	7.92					8.23	8.21				
12/02/2016	7.7					8.07	8.26				
15/03/2016	7.67				8.12	7.99	8.06				
15/04/2016	7.83					8.43	8.35				
16/05/2016	7.72					8.32	8.45				
15/06/2016	7.83				8.3	8.25	8.28	8.29			
15/08/2016	7.58	7.64				8.1	8.16				
22/08/2016	7.66					8.1	8.19				
14/09/2016	7.2	7.09	7.15	6.78	7.57	7.75	7.8	7.77	*	*	*
13/10/2016	7.71	8.05				7.88	8.03				
7/11/2016	7.77	7.83				8.19	8.31				
12/12/2016	7.62	7.88			7.91	7.96	8.04	8.06			

Blank cells indicate sample periods where waterways were dry.

*Too wet to access monitoring locations



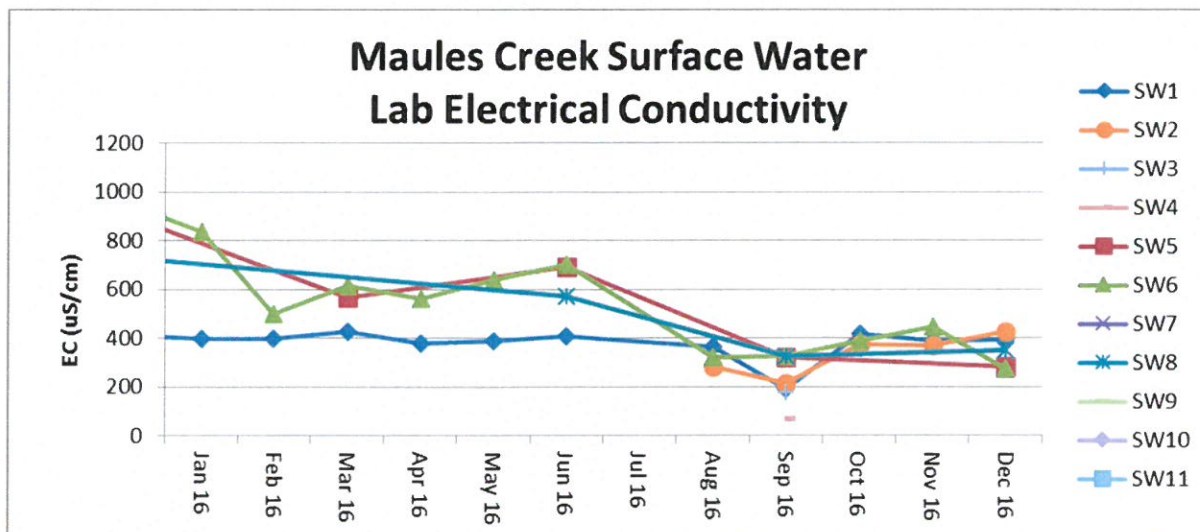
Electrical Conductivity

Surface water EC trends have remained consistent with SW5, SW6, SW7 and SW8 all historically variable. SW5 to SW8 are stations along the Namoi River which is subject to regulated / variable flow regimes.

Lab EC	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8	SW9	SW10	SW11
8/01/2016	398					838	797				
12/02/2016	401					498	483				
15/03/2016	426				565	615	673				
15/04/2016	380					561	606				
16/05/2016	391					640	638				
15/06/2016	407				691	700	569	574			
15/08/2016	367	284				320	325				
22/08/2016	451					378	376				
14/09/2016	190	216	175	69	323	326	338	327	*	*	*
13/10/2016	416	373				387	385				
7/11/2016	388	370				447	461				
12/12/2016	394	428			285	274	292	352			

Blank cells indicate sample periods where waterways were dry.

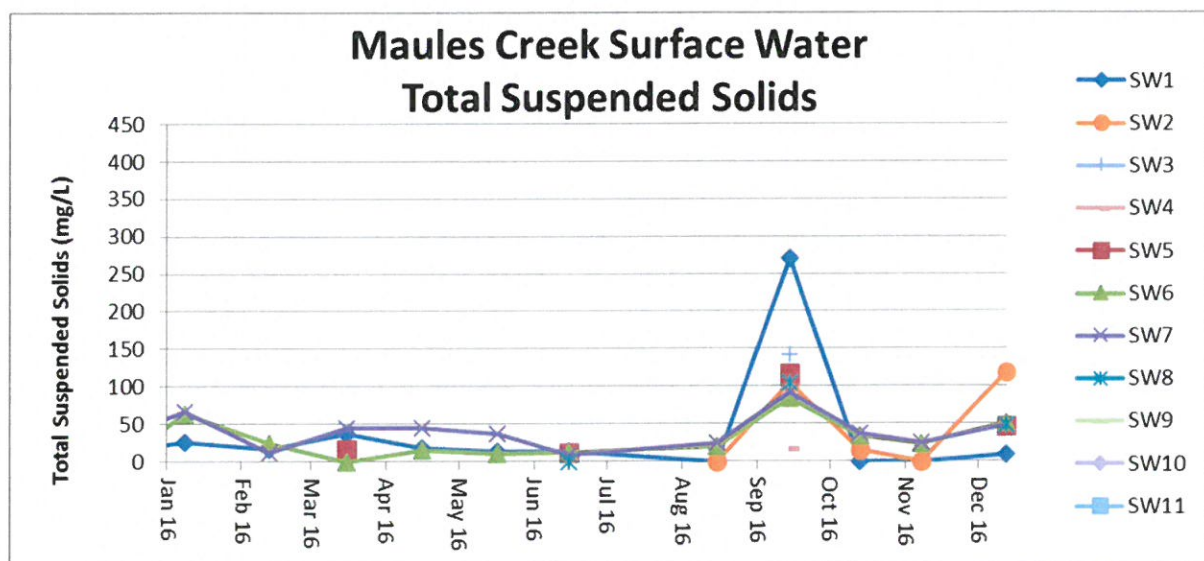
*Too wet to access monitoring locations



Total Suspended Solids (TSS)

As previously reported, significantly higher than average rainfall was recorded in August and September. Elevated TSS results recorded along the Namoi River correlate to periods of high flow and flooding. SW5, SW6, SW7 and SW8 are historically variable as they are located along the Namoi River which is subject to regulated and variable flow regimes.

TSS	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8	SW9	SW10	SW11
8/01/2016	26					64	67				
12/02/2016	16					25	12				
15/03/2016	37				16	<5	44				
15/04/2016	18					15	45				
16/05/2016	14					10	37				
15/06/2016	13				12	12	9	<5			
15/08/2016	<5	<5				20	24				
22/08/2016	5					29	26				
14/09/2016	270	104	142	16	117	84	91	105			
13/10/2016	<5	15				34	37				
7/11/2016	<5	<5				22	25				
12/12/2016	9	118			47	51	48	48			



Rehabilitation

No final landform areas are available for rehabilitation since the commencement of mining in August 2014. Rehabilitation has been restricted to areas associated with rail and infrastructure areas during this period.

Community Complaints

33 complaints were received during Q4 2016. Please refer to the Community Complaints Register published on the Whitehaven Coal Maules Creek website.