

Narrabri Mine Community Consultative Committee Meeting Minutes (AMENDED 09th JULY)

Meeting No: 44
Date: Wednesday 6 March 2019
Time: 5:00pm
Location: Narrabri Mine Office

Present: Russell Stewart (RS) – Independent Chair
 Peter Webb (PW)
 Mark Foster (MF)
 Geoff Hunter (GH)
 Rodney Dunlop (RD)
 Cameron Staines (CS) – Narrabri Shire Council Delegate
 Steve Bow (SB) – Narrabri Mine General Manager
 Mark Vile (MV) – Narrabri Mine Environmental Superintendent

1. APOLOGIES

James Stieger (JS)
 David Ellwood (DE) – Technical Services Superintendent
 Aron Cane (AC) – Surface Operations Manager

2. DECLARATION OF PECUNIARY OR OTHER INTERESTS

MF leases land from the Narrabri Mine.

3. PREVIOUS MINUTES

Moved: GH Seconded: RD

3.1 BUSINESS ARISING FROM PREVIOUS MINUTES

3.1.1 Readvertise for CCC Members

- CCC currently advertising for new members.
- Opportunity to include other members of the community. A CCC member suggested someone from a school to pass information on to students and parents.
- New guideline process needs to be followed.

Actions

- RS to chase up new process for CCC member, and proforma for advertisement.
- RS to request current CCC members to put forward any potential member’s from section of the community that may not be covered at the moment.

3.1.2 Community Meetings for Stage 3

- **Approval process update:**

- Gateway Certificate lodged and is available on Department of Planning and Environment (DPE) website and Whitehaven Coal website. Access limited for undertaking some survey works.
- Request for SEARs to be submitted in the coming weeks.
- **Community meeting** - CCC requested a community meeting. Narrabri Coal Operations has not undertaken this to date as further information from mine planning and environmental studies required so there is adequate information to present.

Actions

- NCO to bring a plan for a community meeting to the next CCC meeting.
- Dave Ellwood to attend next CCC meeting to provide update to members on Stage 3

3.1.3 Use of Mayfield Road for Stage 3

- CCC members asked if Mayfield Road would be used as an access point for Stage 3
- NCO confirmed that the access point for Stage 3 will be the current access point on Kurrajong Ck road. Any work on Mayfield road would be a negotiation with Council.

3.1.4 Mine-owned Land Lease Conditions

- Land management practices of lessees - CCC member's raised that there is concern in the community regarding the practices of some lessees, and this is reflecting poorly on Whitehaven Coal. Asked if there are any conditions in the leases regarding land management. MV tabled a standard lease agreement which had the following clause:

Clause 6 – Best Agricultural Practice

1. *The licensee must manage the property according to the best agricultural and environmental practices*
2. *the licensee must not overstock the property having regard to seasonal conditions in accordance with the agents recommendations.*
3. *The licensee must minimise soil erosion on and from the property.*

- CCC members asked what actions can be taken if this clause is not followed. NCO said this is overseen by Tim Muldoon (Group Manager - Community Relations & Property). SB noted that TM is looking at aggregating leases to make more attractive as leases are coming up for renewal, as well as looking at some improvements in lease conditions including more rights as the owner.

3.1.5 White Substance Around Boreholes

- White material on drill pads raised by a neighbouring landowner.
- NCO confirmed it has inspected these areas and the material is cement.

Action

- CCC to write to neighbouring landholder notifying it was cement.

3.1.6 Exploration / Approvals Update

- EL6243 is going to be renewed in May.
- NCO gained approval for further exploration in the EL via an Activity Approval which required a Review of Environmental Factors.
- Some activities have commenced on the EL, including four coal quality sampling drill pads. Another 12 are planned for this financial year.
- Works on Scratch Road was undertaken by Forestry to align with its public road design guidelines. Recent works included widening of road, installation of mitre drains and roll overs.

4. Operations Progress Report and Safety Update

SB presented:

- **Operations** - fairly standard, however some issues with longwall face at the moment which is affected planned production volumes. Expecting same issues in the same area of next longwall panel (LW109) as the geology stretches across several longwalls. Also expecting slower production when mining through a fault in the coming 6 months. These issues are typical in any mining operation.
- **Employment** - steady, similar to last quarter. Currently looking to employ more local people, targeting local operators, more local trades such as fitters and electricians.
- **Safety** - a few injuries in last quarter, but in line with previous results. Still within top 10% in the state.

Detailed information below:

Mine Progress Report (to 28 February 2019)

Coal produced (t):	February 2019	372,602
	FY-to-date	3,727,170
Coal Railed (t):	February 2019	317,574
	FY-to-date	3,926,417

Average workforce numbers (February 2019):

NCO	Waged – 124
	Salary – 125
	Total – 249
Contractors	Total – 266

Safety Update (FY to February 2019):

Lost Time Injury (LTI)	5
Days LTI Free:	8
Total Recordable Injuries:	12
Planned Task Observations:	8,269
Take 5 Assessments:	124,397
Work Hours (Feb-19):	95,097

5. Environmental Monitoring Report

MV presented

- **Noise** – attended noise monitoring in November 2018 – all results within compliance limits
- **Dust** – deposited dust all within compliance limits
- **HV samples** – overall aver D9 and D10 associated with regional dust storms
- **Groundwater** – fairly steady, however P13 and P9 dropped and recovered due to a production bore.
- **Surface water** – no licenced discharge, so no monitoring
- **Subsidence** – maximum subsidence within predicted modelling. Tilt values were within modelled values. Some occurrences above modelled for maximum tensile strain and maximum compressive strain, however 97-98% within predicted ranges. Key matter is subsidence which remains within modelled predictions.
- **Complaints in last quarter:**
Four in total
 - Three from the same complainant related to dust from the CHPP – resolved with complainant at the time of complaint.
 - One complaint is a follow up from October 2018 related to noise, dust, odour, management of biodiversity areas and lighting. A number of actions will be committed to in a letter, and discussions and actions ongoing to resolve complaint, including additional noise and dust monitoring.
- CCC member noted that one complainant had also approached Council, and suggested further communication would help with addressing the complaints.

Actions

- NCO to continue to communicate with complainants

6. New/General Business

- **Water** – CCC members asked what plans are in place if the dry period continues. SB explained currently extracting from the licenced bore and current predictions are that there will be adequate for the rest of the financial year.
- **Water licence** – CCC members asked who purchased the recent water access licence. SB explained it was purchased by Whitehaven and may be utilised at one of several sites.

- **Other water sources** - CCC members asked if WHC can purchase other water sources if extra needed rather than from alluvial system, such as the coal seam. SB noted that the most accessible water is the alluvial system and other sources do not produce the flow rates required.
- **Property purchases** – Oakleigh in process of being purchased now. A number of properties also being negotiated as part of planning for the Stage 3 expansion.
- **NCO personnel** - Dave Ellwood moving to new role in NCO and will be replaced by Aron Cane. However, DE may attend when requested.
- **CCC meeting minutes** – CCC members asked if they could be shorter and more clearly identify the actions.

Actions

- NCO to reformat meeting minutes to clearly highlight actions.

7. Date and Agenda for next meeting

Next CCC meeting proposed for Wednesday 12 June.

8. Closure of meeting

Meeting closed at 6:23pm.

Narrabri Mine Community Consultative Committee Meeting #44

Environmental Monitoring Report: December 2018 – February 2019

Noise Monitoring

Attended noise monitoring was undertaken between Monday 26th to Wednesday 28th November 2018 (Table 1) to verify if noise levels were within compliance limits. The results from this monitoring are detailed in the table below.

Table 1: Monitoring Results

EPL ID	Monitoring Date	Daytime Measured L _{Aeq} dB	Evening Measured Levels L _{Aeq} dB	Night Measured Levels L _{Aeq} dB	Night Measured Level L _{A1,1minute} dB	Noise Limit(s)	Compliance
N5 Oakleigh	26/11/2018	30	29	29	38	Day/Evening/Night L _{Aeq,15minute} : 35 dB Night L _{A1,1minute} : 45 dB	Yes
	27/11/2018	IA	27	29	33		Yes
	28/11/2018	NM	27	28	38		Yes
N6 Newhaven	26/11/2018	35	NM	35	38		Yes
	27/11/2018	NM	IA	NM	NM		Yes
	28/11/2018	<25	NM	35	43		Yes
N1 Bow Hills	26/11/2018	33	35	38 ¹	45		Yes ¹
N3 Ardmona	26/11/2018	NM	35	NM	NM		Yes
N7 Merriman	26/11/2018	<25	IA	29	32		Yes
N8 Matilda	26/11/2018	25	NM	IA	IA		Yes

Notes:

1. A private agreement is in place so this result is compliant.
2. Noise levels provided in these columns are highest NAR only contributions, where criteria were applicable, during each period;
3. Bolded results indicate exceedance of criteria;
4. As detailed in the EPL, noise emission limits apply under all meteorological conditions except:
 - Wind speeds greater than 3 m/s at 10 metres above ground level; or
 - Stability class F temperature inversion conditions, and wind speeds greater than 2 m/s at 10 metres above ground level; or
 - Stability class G temperature inversions;
5. 'NM' denotes not measureable.
6. 'IA' denotes inaudible.

During the November 2018 monitoring, under the operating and meteorological conditions at the time, for the worst-case 15-minute compliance measurement periods, the mine noise was compliant at all locations.

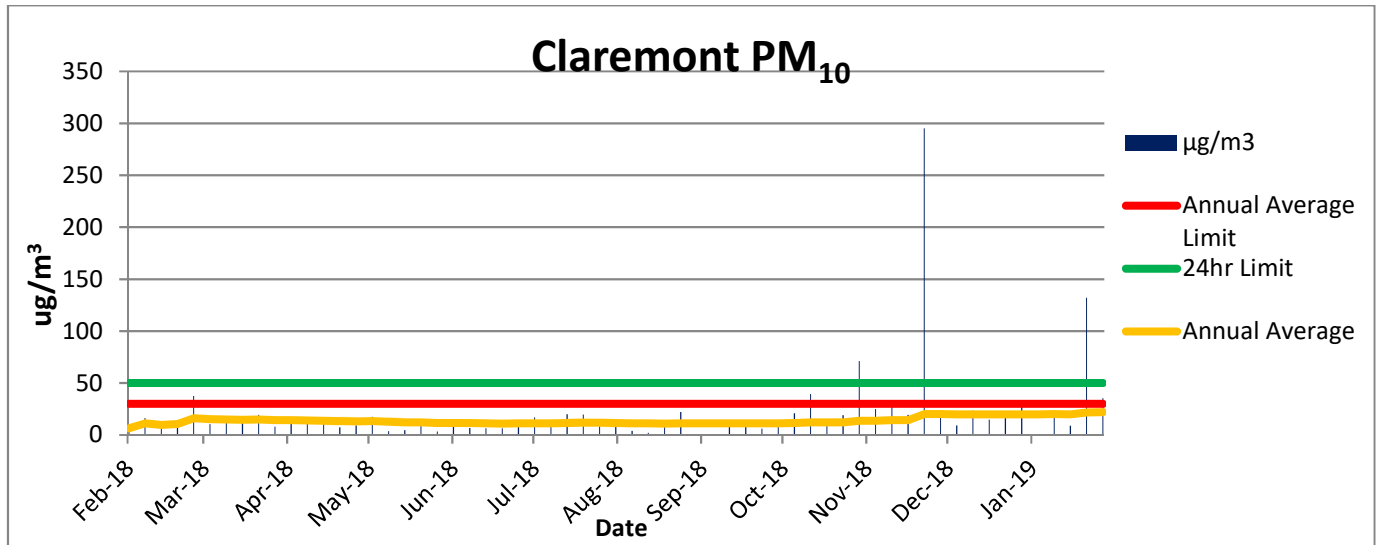
Deposited Dust Monitoring

Month	ND1 Turrabaa	ND2 Claremont	ND3 Bow Hills	ND4a New Matoppo	ND5 Claremont	ND6 Willarah	ND7 Claremont	ND8 Claremont	ND11 Oakleigh	ND12 Merriman	ND13 Darjeeling
Jan-19	2.9	2.2	2.9	3.6	2.7	3.6	1.2	3.4	-	5.3	3.9
Mar-19	2.4	2.5	1.9	1.7	2.8	2.6	1.6	1.6	1.7	1.8	2.0
Quarterly Average	2.7	2.4	2.4	2.7	2.8	3.1	1.4	2.5	1.7	3.6	3.0

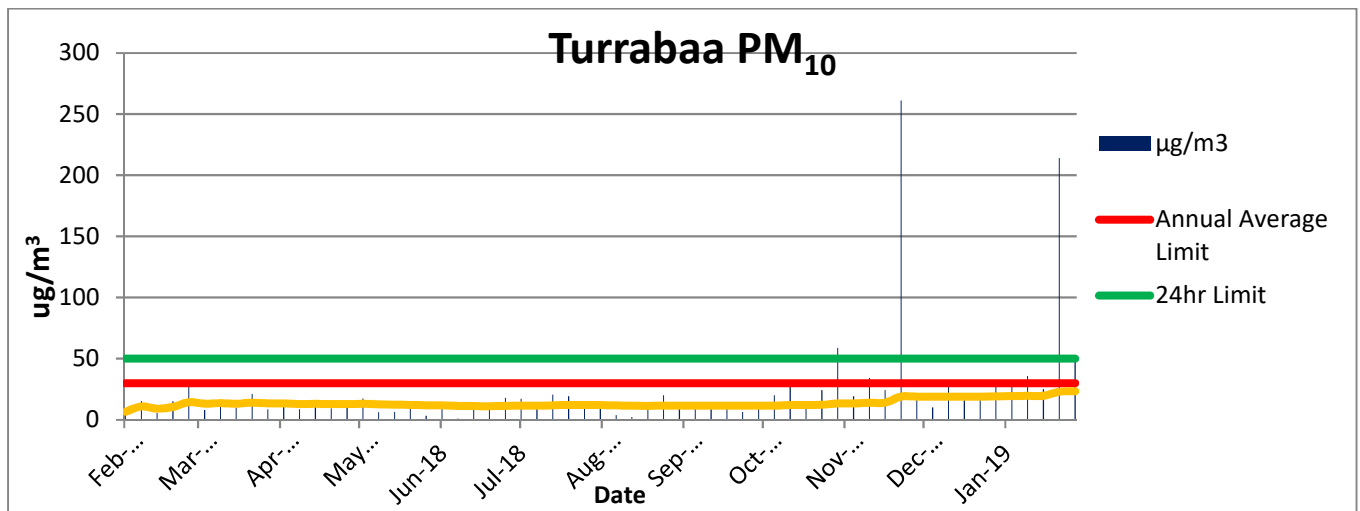
All deposited dust levels are within the compliance limit of 4 g/m²/mth with the exception of ND1 and ND8. Both of these gauges annual ash limit, i.e. the component of the deposited dust attributable to mining, are below the annual limit being 3.4 and 2.9 g/m²/mth, respectively.

High Volume Air Sampling (PM10)

PM10 measurements taken to 19 February 2019 for the “Claremont” High Volume Air Sampler (HVAS) are returning a running annual average of 22.09 $\mu\text{g}/\text{m}^3$, which is well below the annual average limit of 30 $\mu\text{g}/\text{m}^3$.



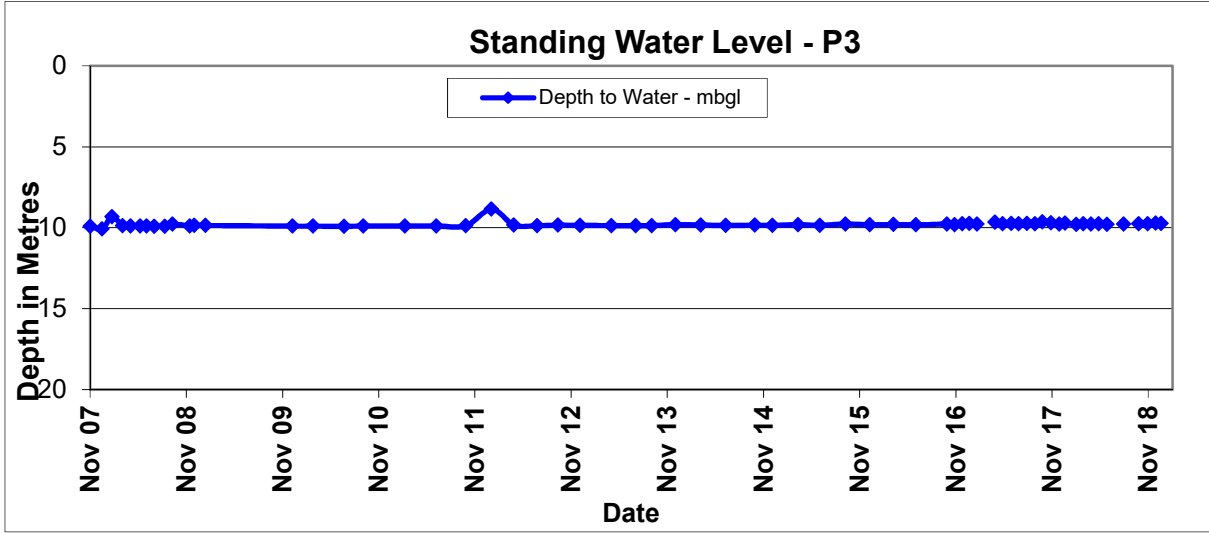
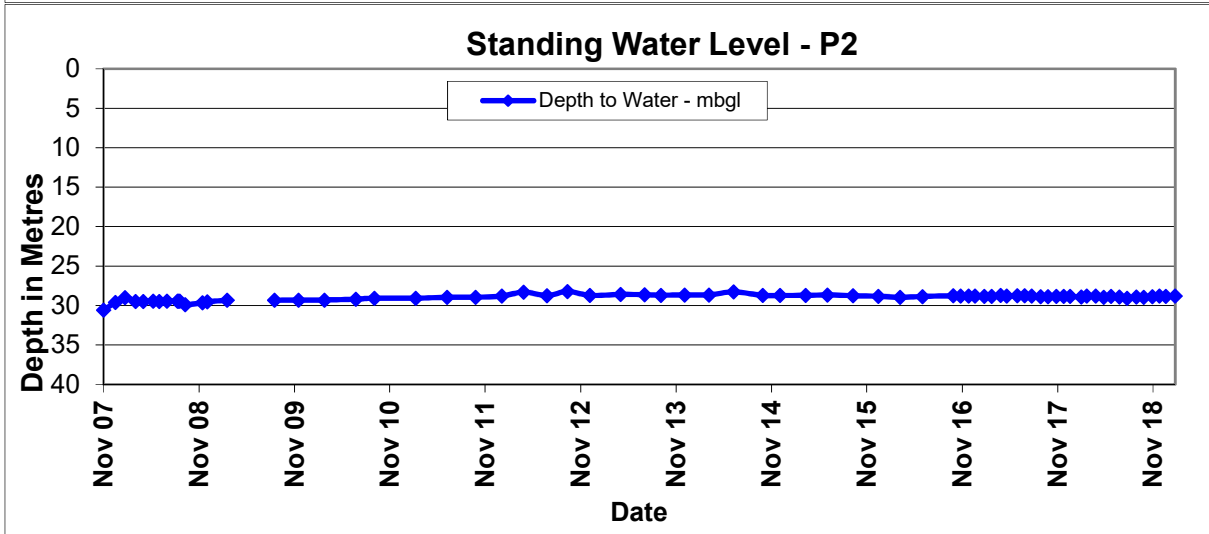
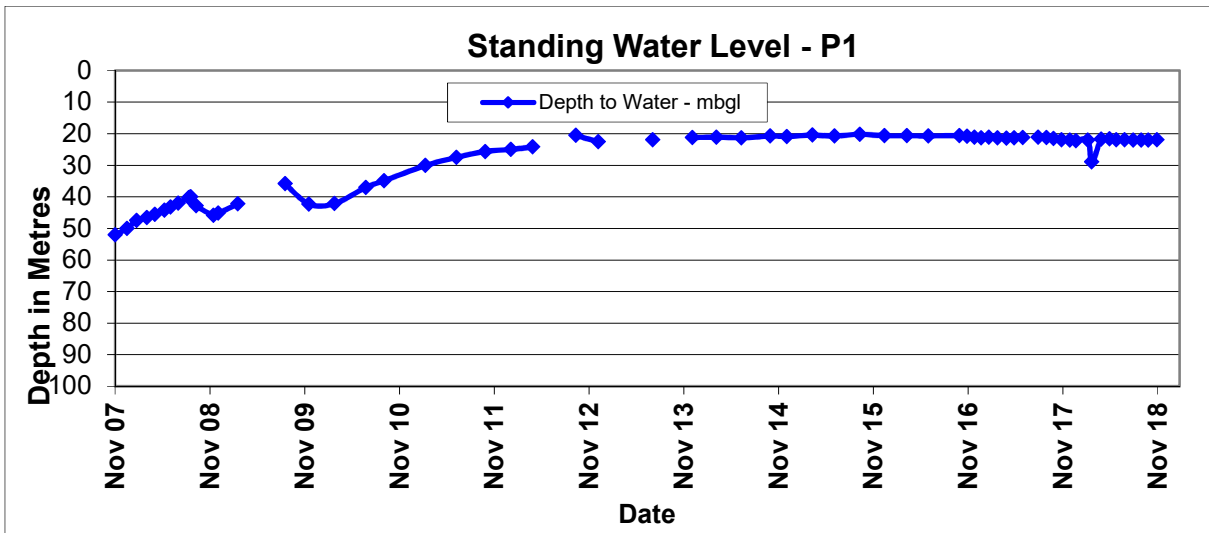
PM10 measurements taken to 19 February 2019 for the “Turrabaa” High Volume Air Sampler are returning a running annual average of 23.36 $\mu\text{g}/\text{m}^3$, which is also well below the annual average limit of 30 $\mu\text{g}/\text{m}^3$.

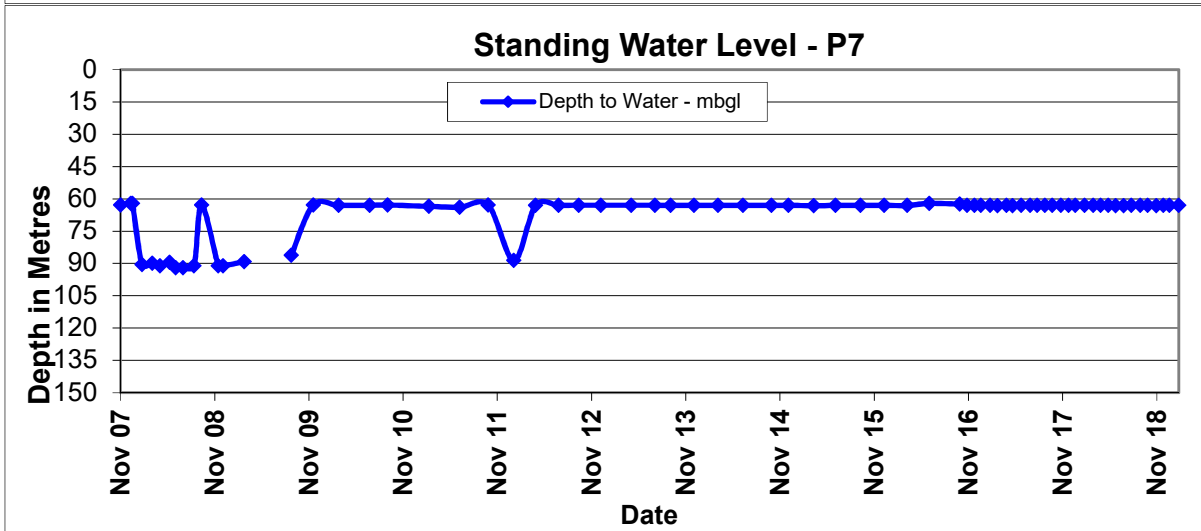
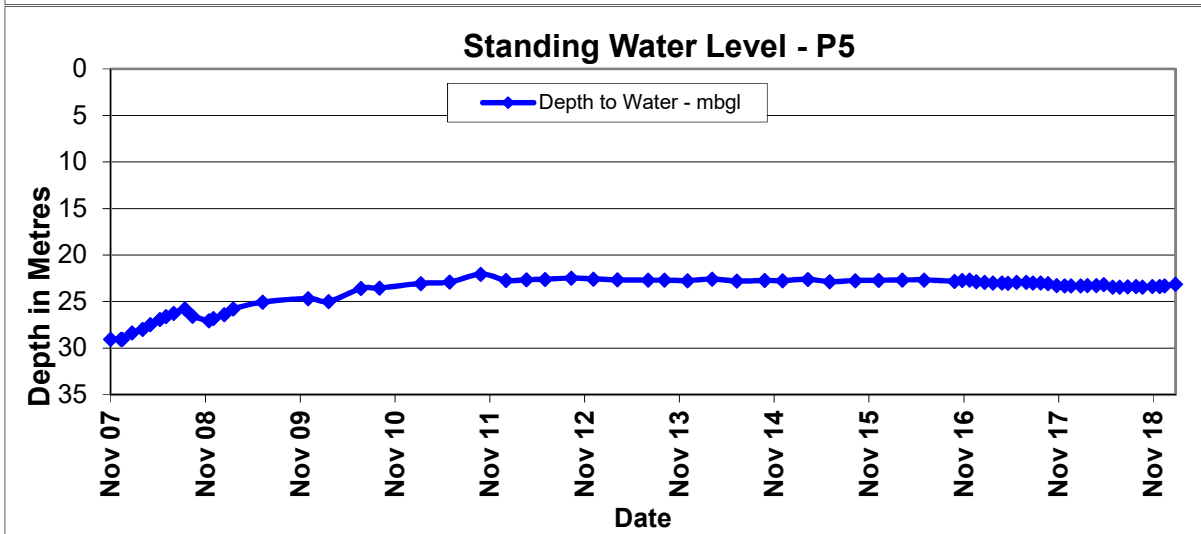
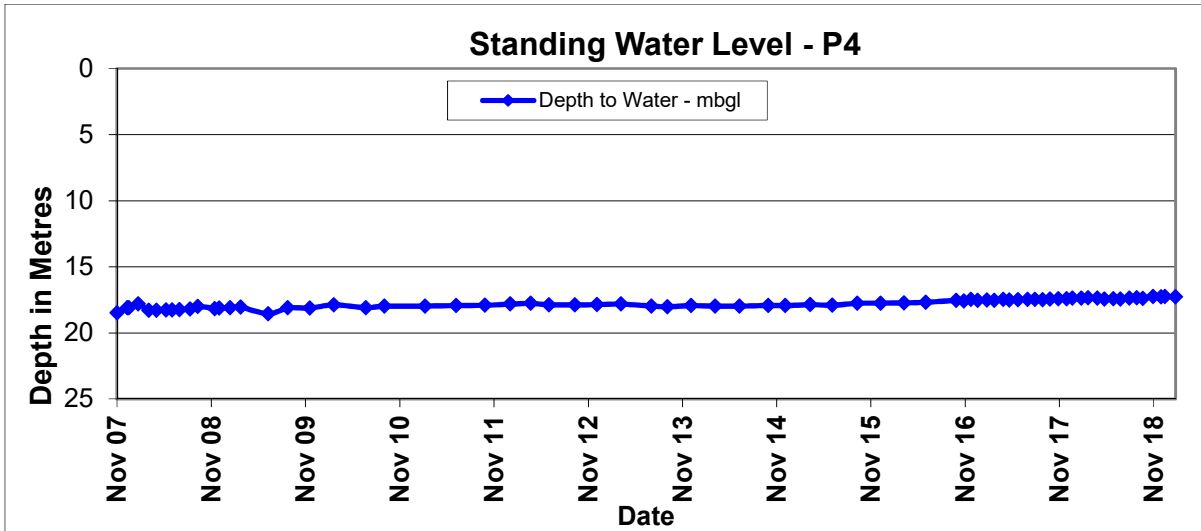


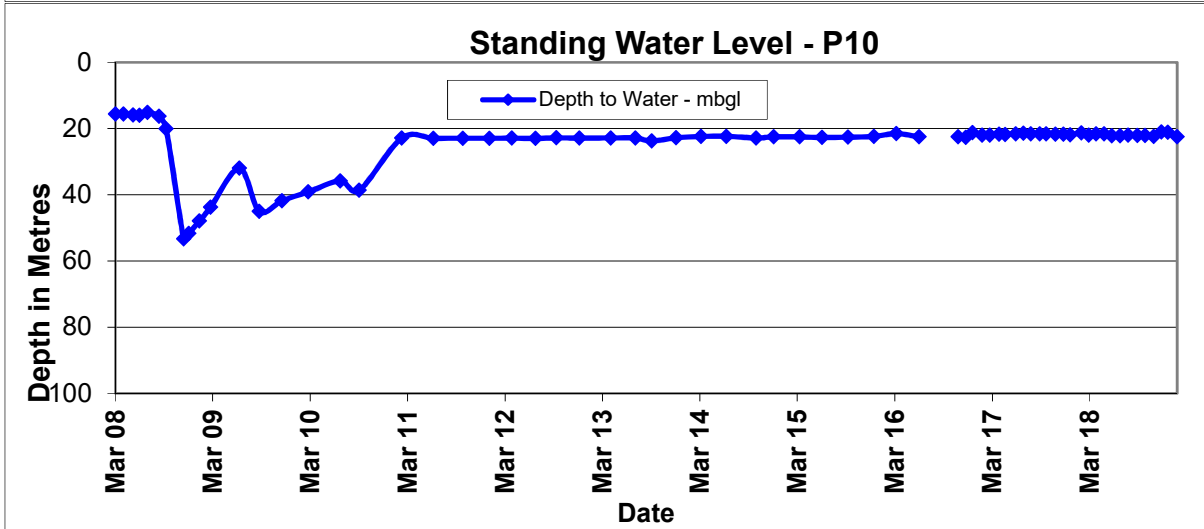
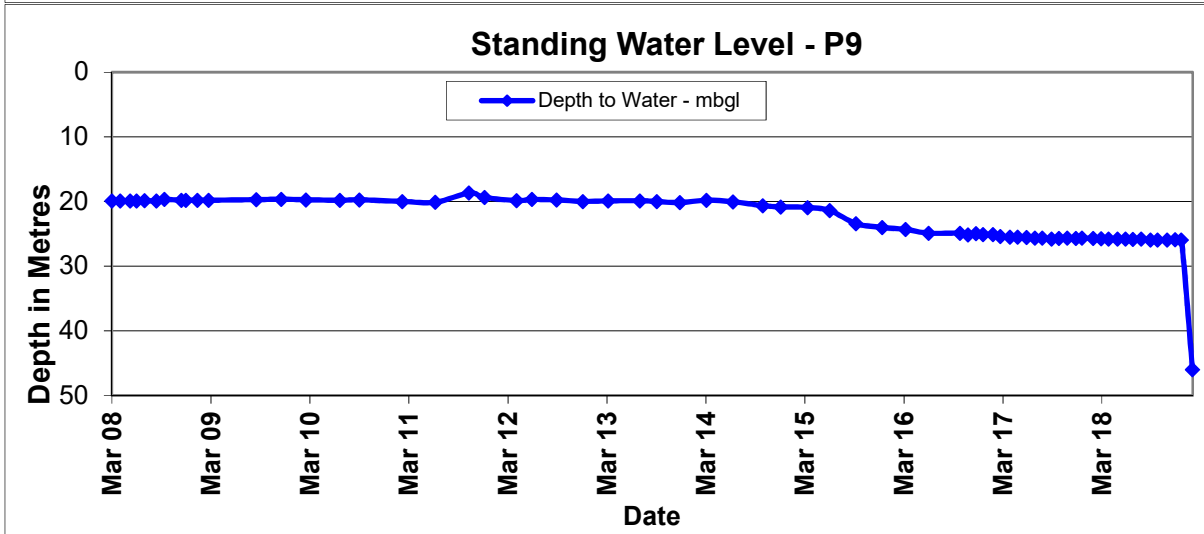
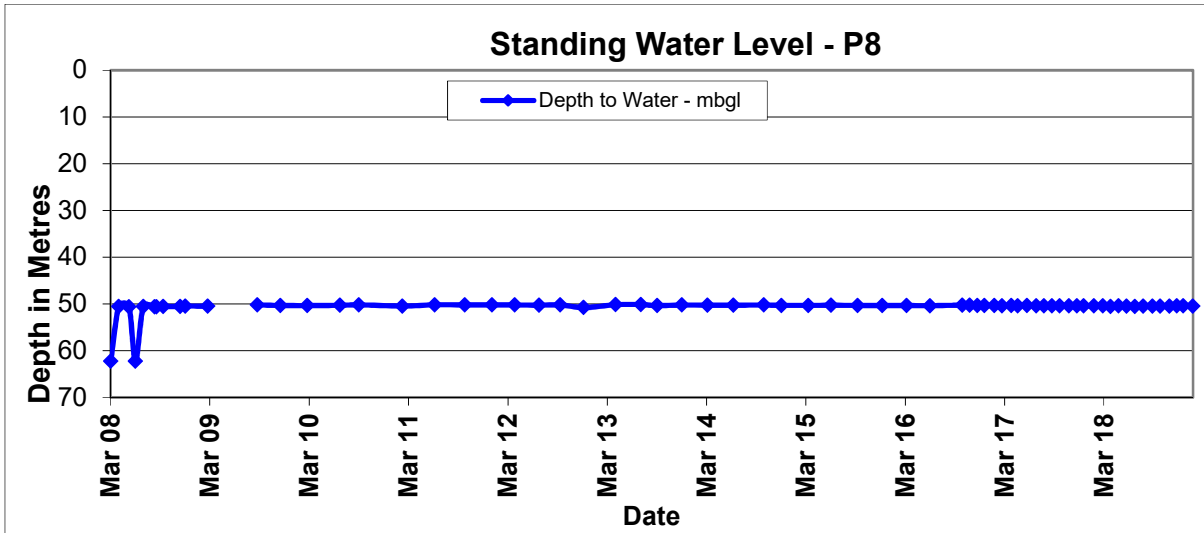
PM10 annual average levels have remained compliant since the last meeting. ND9 and ND10 both recorded exceedances on the 21st of November, 15th of December and 13th February 2019 as result of regional dust storms that affected much of NSW. The mine notified the DP&E as required by the sites’ Air Quality Management Plan.

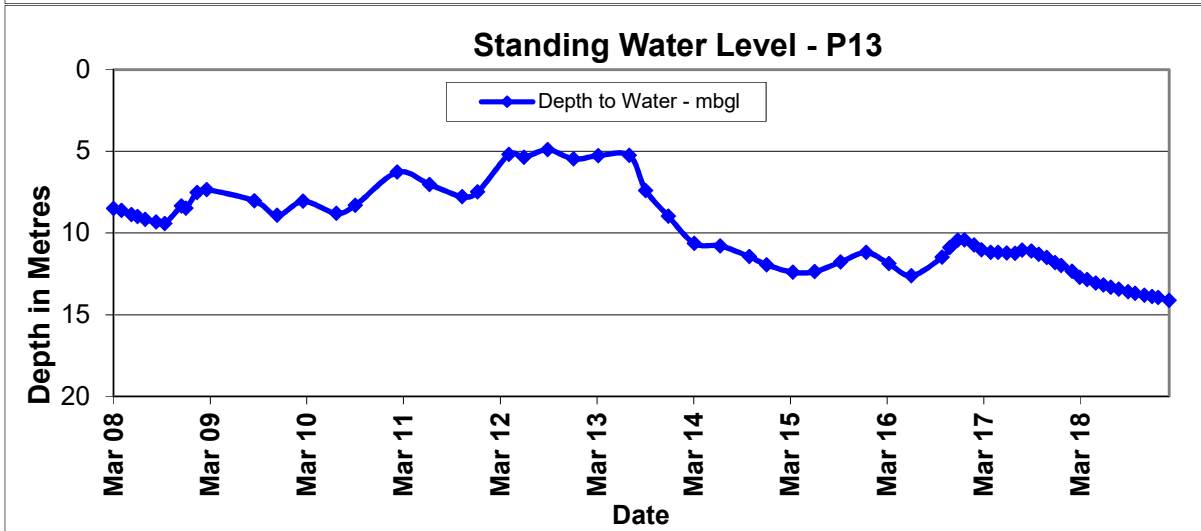
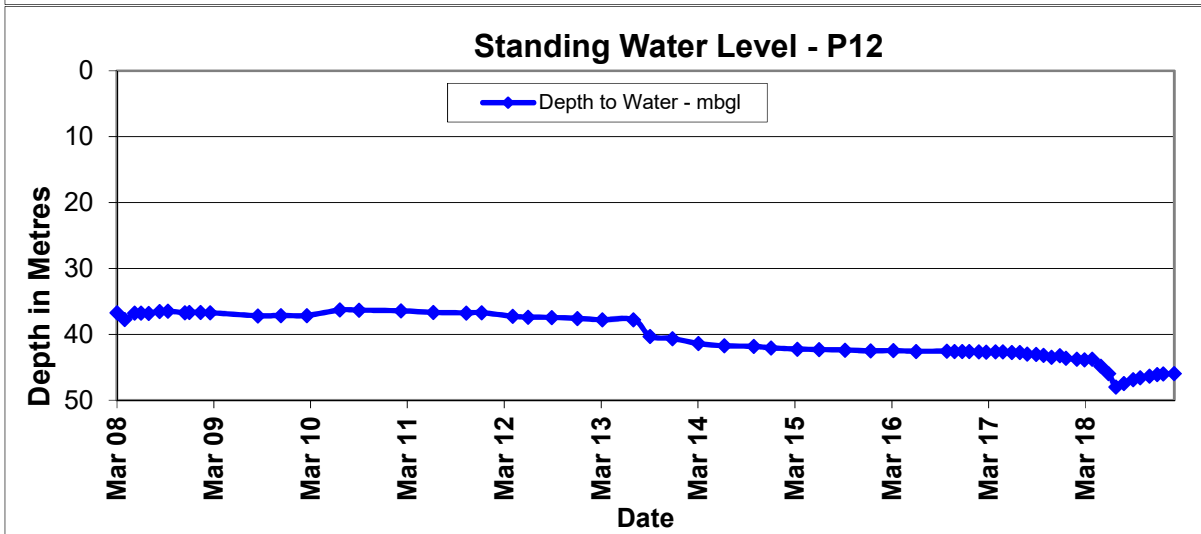
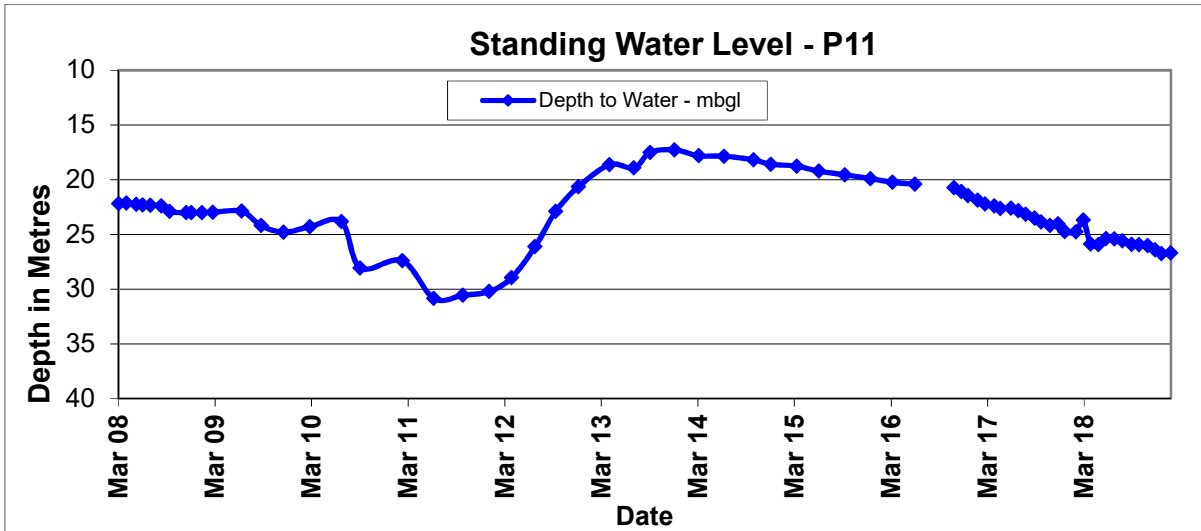
Groundwater Monitoring

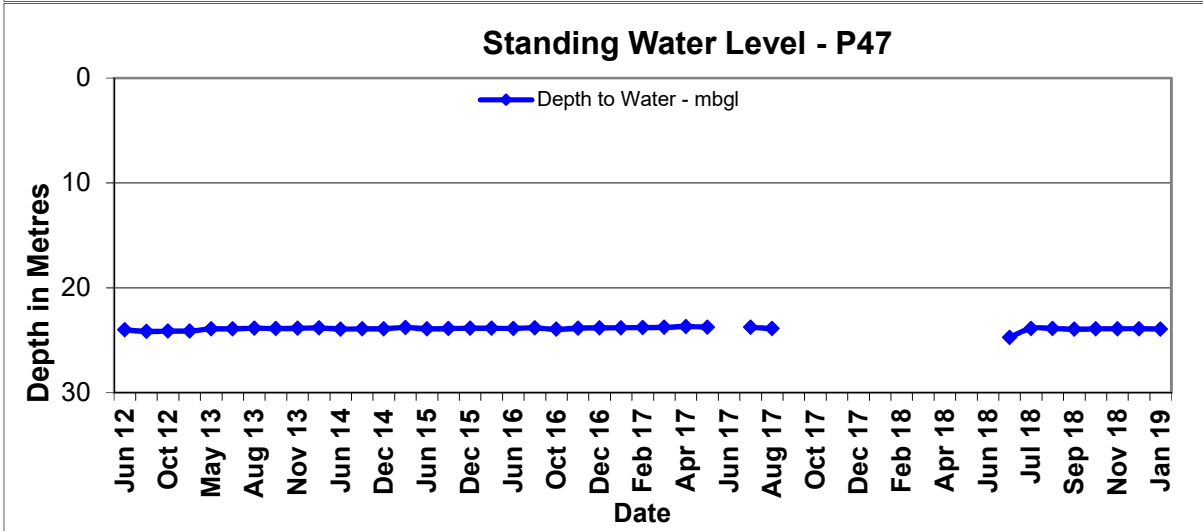
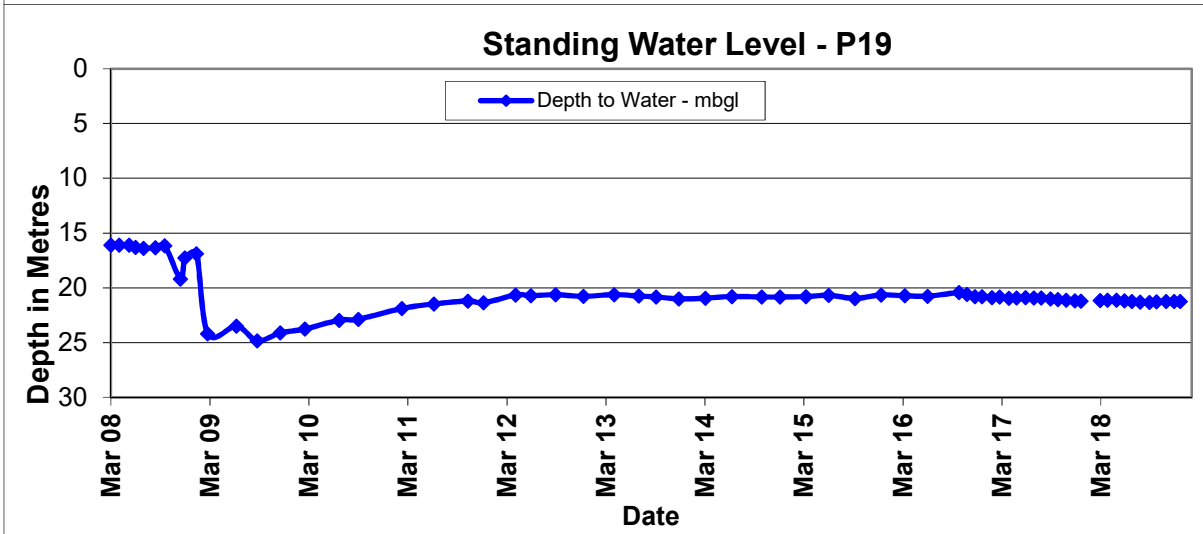
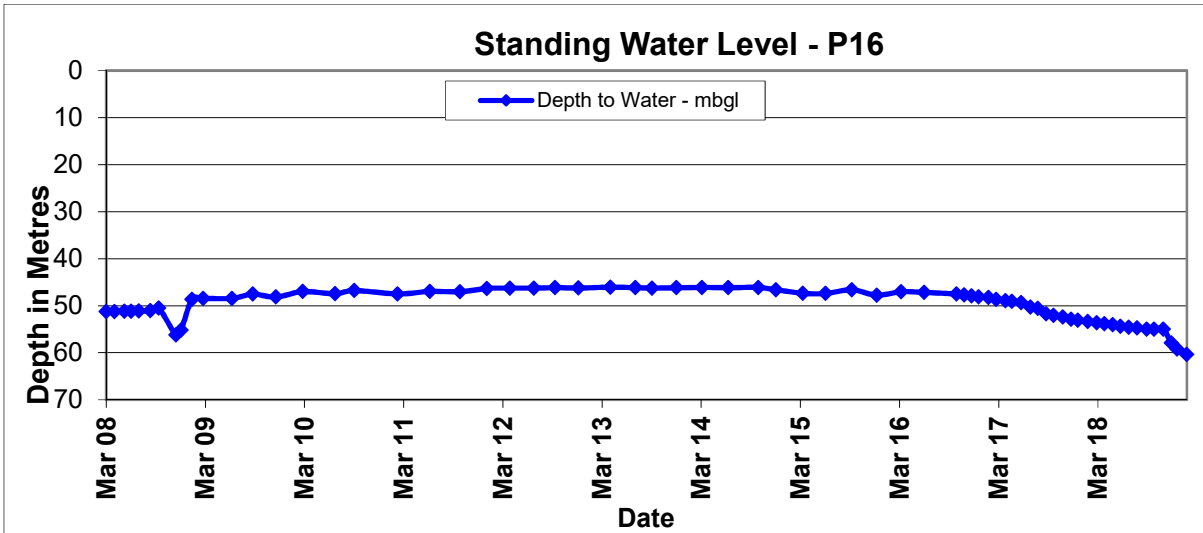
Groundwater monitoring was completed in November 2018. Monitoring results are included below.

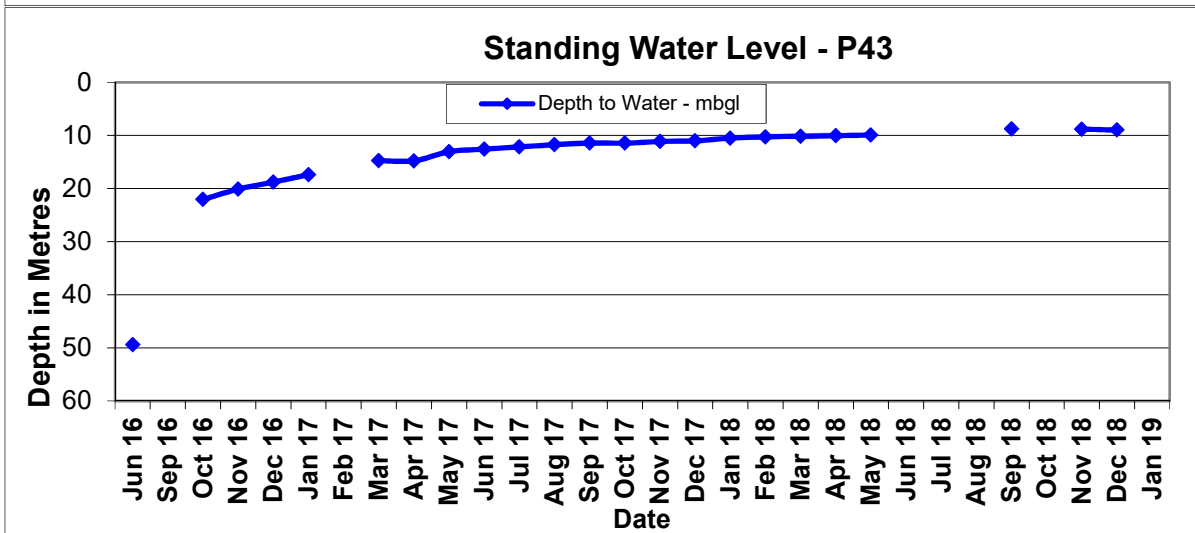
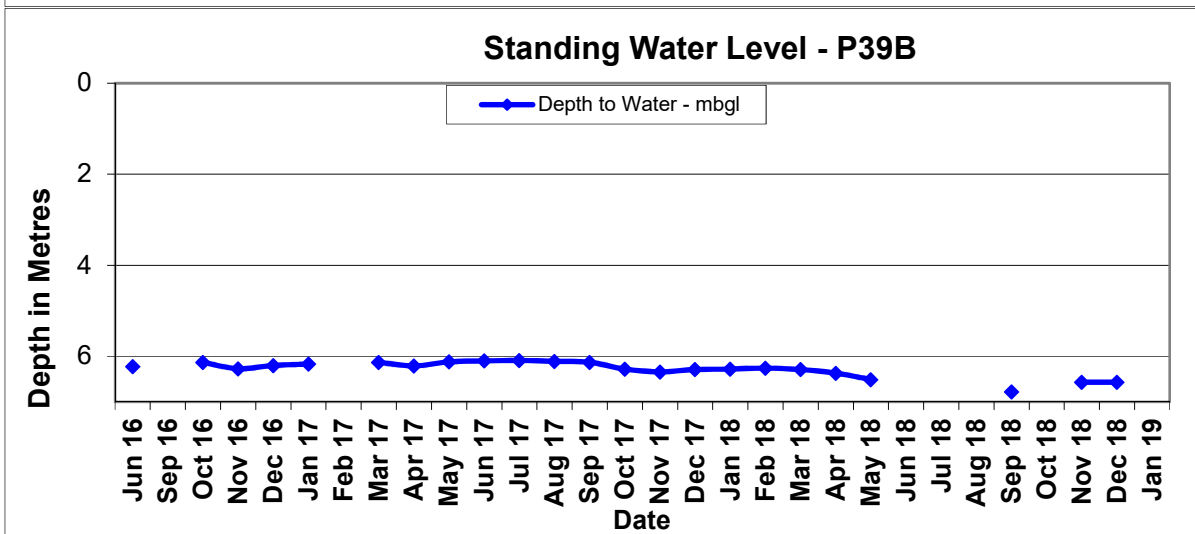
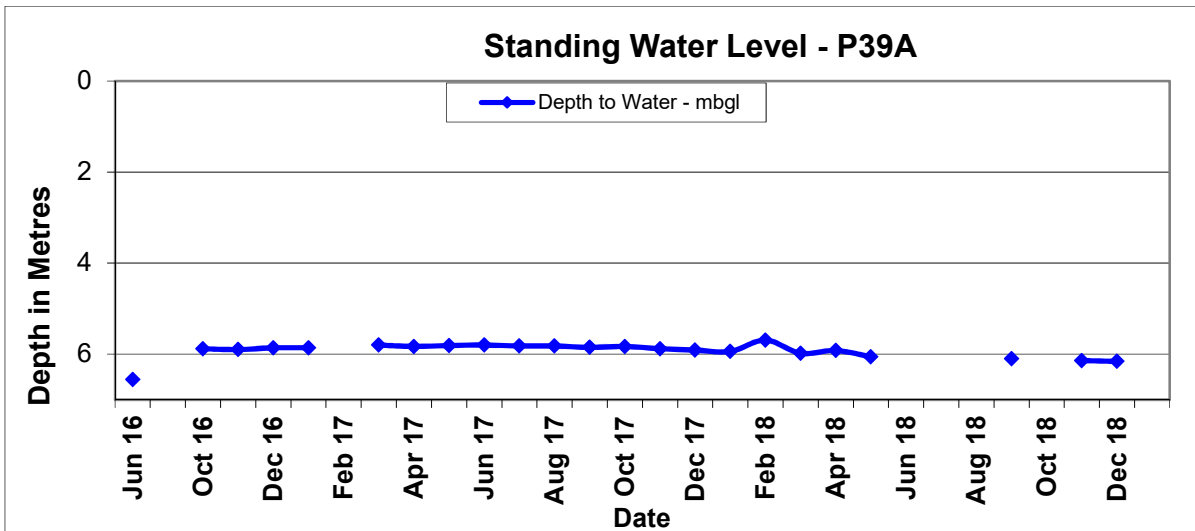












Monitoring results show the recent rounds have been relatively stable. As covered in previous reports, P13 is 30 m deep and targets the Garrawilla Volcanics. A production bore, WB2, is approximately 300 m to the south and targets the same aquifer and as such the drop in water level in P13 is likely associated with production from WB2.

Surface Water Monitoring

No wet weather discharges from licensed discharge points occurred during the December 2018 to February 2019 period.

Subsidence

Narrabri Mine has monitored the subsidence movement across the surface of LW103 to LW108 in accordance with the approved Extraction Plans (LW101 and LW102 are no longer monitored). The table below outlines the maximum subsidence parameters recorded as part of the subsidence monitoring program and a comparison with the maximum predicted subsidence parameters as outlined in the Extraction Plan.

Longwall Panels (LW) 103 to LW108		
	Maximum Predicted Extraction Plan	Maximum Measured
Line 101 – Centre of LW101 – Monitoring has ceased		
Line 102 – Centre of LW102 – Monitoring has ceased		
Line 103 – Centre of LW103 – Northern		
Subsidence (m)	2.75	2.729
Tilt (mm/m)	62	40.2
Tensile Strain (mm/m)	20 – 30 [^]	18.8
Compressive Strain (mm/m)	26 – 39 [^]	32.0
Angle of Draw (°, Degrees)	22.5 – 26.5	15.2
Line 103 – Centre of LW103 – Southern		
Subsidence (m)	2.75	2.583
Tilt (mm/m)	62	30.3
Tensile Strain (mm/m)	20 – 30 [^]	9.3
Compressive Strain (mm/m)	26 – 39 [^]	10.2
Angle of Draw (°, Degrees)	22.5 – 26.5	20.2
Line 104 – Centre of LW104 – Northern		
Subsidence (m)	2.75	2.802
Tilt (mm/m)	65	48.4
Tensile Strain (mm/m)	22 – 33 [^]	42.6
Compressive Strain (mm/m)	28 – 42 [^]	42.3
Angle of Draw (°, Degrees)	22.5 – 26.5	15.8
Line 104 – Centre of LW104 – Southern		
Subsidence (m)	2.75	2.713
Tilt (mm/m)	65	31.3
Tensile Strain (mm/m)	22 – 33 [^]	8.1
Compressive Strain (mm/m)	28 – 42 [^]	6.7
Angle of Draw (°, Degrees)	22.5 – 26.5	13.2
Line 105 – Centre of LW105 – Northern		
Subsidence (m)	2.75	2.674
Tilt (mm/m)	57	46.5
Tensile Strain (mm/m)	18 – 27 [^]	18.1
Compressive Strain (mm/m)	23 – 35 [^]	44.6
Angle of Draw (°, Degrees)	22.5 – 26.5	17.9
Line 105 – Centre of LW105 – Southern		
Subsidence (m)	2.75	2.626
Tilt (mm/m)	57	25.2
Tensile Strain (mm/m)	18 – 27 [^]	7.1

Longwall Panels (LW) 103 to LW108		
	Maximum Predicted Extraction Plan	Maximum Measured
Compressive Strain (mm/m)	23 – 35 [^]	9.9
Angle of Draw (°, Degrees)	22.5 – 26.5	16.6
Line 106 – Centre of LW106 – Northern		
Subsidence (m)	2.75	2.584*
Tilt (mm/m)	47	41*
Tensile Strain (mm/m)	14 – 21 [^]	12.2*
Compressive Strain (mm/m)	18 – 27 [^]	17.1*
Angle of Draw (°, Degrees)	22.5 – 26.5	25.5*
Line 107 – Centre of LW107 – Northern		
Subsidence (m)	2.75	2.738*
Tilt (mm/m)	53	28.0*
Tensile Strain (mm/m)	20	10.3*
Compressive Strain (mm/m)	24	12.4*
Angle of Draw (°, Degrees)	26.5	24.7*
Line 108 – Centre of LW108 – Northern		
Subsidence (m)	2.75	2.515*
Tilt (mm/m)	46	36.3*
Tensile Strain (mm/m)	15	16.2*
Compressive Strain (mm/m)	20	38.9*
Angle of Draw (°, Degrees)	32.1	27.6*
Line A – Cross Panel Survey Line		
Subsidence (m)	2.75	2.680*
Tilt (mm/m)	65	56.3*
Tensile Strain (mm/m)	22 – 33 [^]	39.0*
Compressive Strain (mm/m)	28 – 42 [^]	33.0*
Angle of Draw (°, Degrees)	22.5 – 26.5	24.2*
Line B – Pine Creek Tributary 1 – Monitoring has ceased		
Line D – Pine Creek		
Subsidence (m)	2.75	2.842*
Tilt (mm/m)	65	45.5*
Tensile Strain (mm/m)	22 – 33 [^]	10.8*
Compressive Strain (mm/m)	28 – 42 [^]	15.2*
Gradient Change (%)	Up to 6	4.54*
Line E – Pine Creek Tributary 1 Crossline 1 – Monitoring has ceased		
Line F – Pine Creek Tributary 1 Crossline 2 – Monitoring has ceased		
Line G – Pine Creek Tributary 1 Crossline 3 – Monitoring has ceased		
Line H – Cross Panel Survey Line		
Subsidence (m)	2.75	2.669*
Tilt (mm/m)	53	32.0*
Tensile Strain (mm/m)	13 – 20 [^]	9.2*
Compressive Strain (mm/m)	16 – 24 [^]	5.9*

* - subsidence development incomplete.

^ - values for 'smooth' and 'discontinuous' (i.e. crack affected) subsidence profiles.

Based on the above table the subsidence predictions for the most recently completed survey, i.e. LW108 northern line, indicate:

- The maximum subsidence measurements were within the predicted value of 2.75 m with a maximum measured value of 2.515 m.
- The maximum tilt measurements recorded were within the predicted value of 46 mm/m with a maximum measured value of 27.0 mm/m.
- The maximum tensile strain measurement, i.e. 16.1 mm/m, exceeded the maximum predicted value of 15 mm/m. However, 98% of all values were within the predicted range.
- The maximum compressive strain measurement, i.e. 35.4 mm/m, exceeded the maximum predicted value of 20 mm/m. However, 97% of all values were within the predicted range.

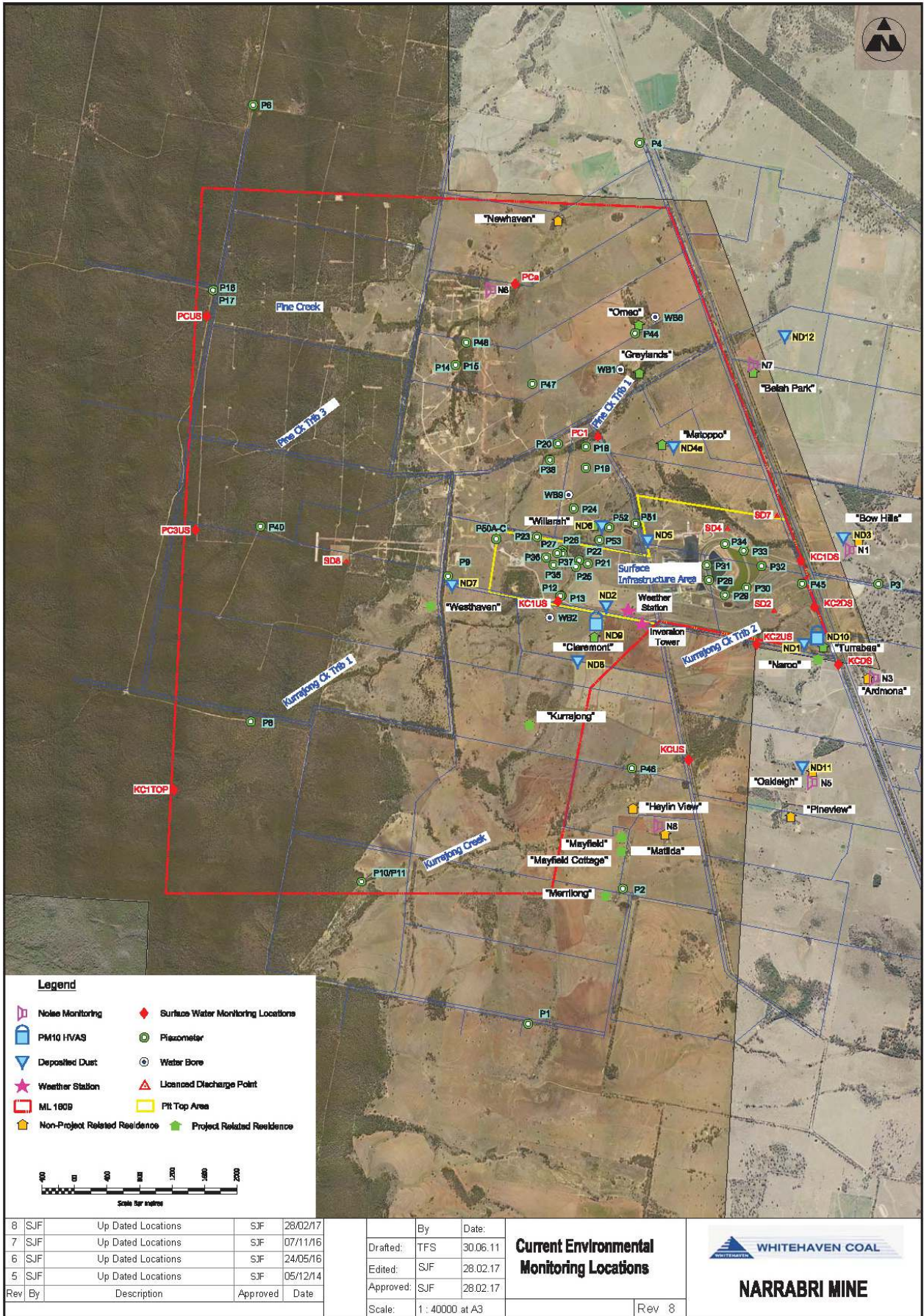
The centreline subsidence results for LW101 to LW108 indicate that the Garrawilla Volcanics and Basalt Sill have not reduced subsidence through spanning behaviour and that the maximum subsidence is also considered closer to 63% of the average mining height of 4.3m.

Complaints

Four formal complaints were received during the period December 2018 to February 2019. The three complaints from December and January related to dust and were from the same complainant and were managed at the time. The complaint from February was a follow-up from a previous complaint that included a range of issues. This residence is now being added to the sites EPL for noise monitoring.

Environmental Incident(s)

No environmental incidents occurred during the September to November 2018 period.



Rev	By	Description	Approved	Date
8	SJF	Up Dated Locations	SJF	28/02/17
7	SJF	Up Dated Locations	SJF	07/11/16
6	SJF	Up Dated Locations	SJF	24/05/16
5	SJF	Up Dated Locations	SJF	05/12/14

By	Date
Drafted: TFS	30.06.11
Edited: SJF	28.02.17
Approved: SJF	28.02.17
Scale:	1 : 40000 at A3

Current Environmental Monitoring Locations

Rev 8

WHITEHAVEN COAL
NARRABRI MINE

Narrabri Mine Community Consultative Committee Meeting #45**Date:** Wednesday 26th June 2019**Time:** 5:00pm**Location:** Narrabri Mine Office

Present: Peter Webb (PW)
Mark Foster (MF)
Geoff Hunter (GH)
James Stieger (JS)
Allan Grumley (prior to meeting Geoff Hunter requested permission for Allan to attend as Observer)
Steve Bow (SB) – Narrabri Mine General Manager
Aron Cane (AC) – Narrabri Mine Surface Operations Manager
David Ellwood (DE) – Narrabri Mine Director – Stage 3 Project
Brent Baker (BB) – Narrabri Mine Environmental Superintendent
Shena Newman (SN) – Narrabri Mine Graduate Environmental Officer

Apologies: Russell Stewart (RS) – Independent Chair (apology submitted via phone during the meeting)

CCC agreed for James Stieger to preside over meeting as Acting Chairman.

1. DECLARATION OF PECUNIARY OR OTHER INTERESTS

Pecuniary Interest forms submitted by all attending CCC members.

Mark Foster declared Pecuniary Interest as he leases land owned by Whitehaven Coal.

James Stieger mentioned Whitehaven is planting some trees to screen substation from house (as part of earlier agreement).

2. PREVIOUS MINUTES

GH wished to clarify some issues on previous minutes:

- CCC committee- GH under impression that Russell Stewart would advise on process of nominating CCC members. GH understands this has since been clarified.
- Water expert- GH wanted to clarify that it was not agreed for an independent water expert to attend, and it was not agreed for Tim Muldoon to attend to provide an update on Whitehaven Property Leasing.
- SB confirmed that the meetings are recorded, and a transcript is available. However it was discussed at the previous meeting that instead of 'verbatim' written minutes, it would be preferable to have a summarised version to make it easier to read.
- **ACTION: Moved that Previous Minutes (#44) have to be amended to clarify these points.**

Moved: JS

Seconded: SB

2.1 BUSINESS ARISING FROM PREVIOUS MINUTES**2.1.1 New Members for CCC**

- GH understanding is that you don't readvertise. GH reviewed new Guidelines, and is of the understanding that allowed up to 7 community members. GH has interest from new potential members; Allan Grumley and Charlie

Melbourne. GH asked if we can accept these new members? SB advised there is a process to follow. GH agreed that it must go through Independent Chair and Dept. Planning.

- **ACTION: Names of two new members are to be submitted to Chairman (RS) by GH. Chairman will follow process and update CCC at next meeting.**

2.1.2 Ratify previous minutes

- GH is of the opinion that Summarised minutes is easier to read.
- GH mentioned new Guideline expectations. Draft Minutes to be released in a week and issued to members for comment. Final minutes to be released after another 2 weeks.
- NCO to continue to prepare minutes. Generally agreed.
- JS asked if any objections. No objections.
- **ACTION: NCO (Brent) to prepare draft minutes within 1 week of meeting and issue to CCC members for comment.**

2.1.3 Cement substance around borehole on Exploration Lease

- CCC to write to affected landholder regarding cement substance around borehole on Exploration Lease drill site.
- CCC and NCO not sure if this has been completed.
- **ACTION: NCO (Brent) to follow up with Russel Stewart, and ensure this is completed, with update provided to CCC members at next meeting.**

3. AGENDA ITEMS DISCUSSED IN CURRENT MEETING

3.1 Stage 3 Project Update

- DE discussed the drop-in session held at Baan-Baa on the 7th of May 2019. 22 people attended: community members and other Stakeholders (Narrabri Council). GH raised that they knew a few community members had stated that they had not heard about the drop-in-session. DE stated that there were approximately several thousand letters sent out to all letterboxes in the surrounding area, however there was an error with PO boxes and they were missed. DE confirmed that this issue will be amended prior to the next drop-in session. GH requested that CCC notified in advance of next Stage 3 Community Meeting so that they can relay information.
- Social Impact Assessment: DE advised of EIS process, and the Social Impact Assessment required. DE advised important that CCC included in this process, and would like Sharon Briggs of CDM Smith to attend next CCC meeting in September to obtain feedback from CCC members. This would require an additional 45 minutes to be added to next meeting. No objections to this request from CCC members.
- DE provided general update on EIS. Passed around plan showing distance from Stage 3 to Baan-Baa (7.5km). DE advised that property acquisition with several affected landholders are underway.
- DE advised that have to complete Environmental Impact Studies to determine area of influence, and that until we have this information we cannot pass on the exact information to landowners.
- DE explained basic overview of Stage 3 Project- eg. extension to the existing underground mine not proposing a new ROM or new drift/pit top area etc. There will however be some surface disturbance in the form of ventilation shafts, subsidence and there will be an extension of the gas drainage network.

3.2 Mine-owned Land Lease Conditions

- General discussion around this issue which was raised in previous meetings. DE understanding is that action from previous meetings was for NCO to review its Lease Agreements to ensure that any landholders are properly managing the land.
- GH mentioned that previous meeting minutes NCO provided the excerpt from Lease Agreements regarding 'Best Agricultural Practices'. GH believed that NCO felt they had satisfied request from CCC by providing this info. GH happy to leave it at that, however if NCO want feedback he still believes we can do better.

Steve Bow confirmed he would provide feedback from CCC to Whitehaven company managers/directors.

- Mayfield Lease: Allan Grumley described poor fencing on Mayfield, and feels he is getting the blame for this and subsequent poor stock management. Allan explains how this is a hard issue for him to manage. Mine dozing down fences, and leaving gates open. No signage indicating that it is Mine Lease. Allan has tried to get fences/gates/signage etc.

Allan explained issues with Omeo Lease, and the reduction in size of the property he is able to access due to Mine impacts on the SE edge of property.

Allan mentioned impacts (ie. Dust) at his residence on Darjeeling. Even though NCO have provided results and it is below limits, he questions who sets the limits.

Despite the impacts over the years Allan has not complained, and feels that mine is not doing anything for him even though he is a neighbour.

Allan advised he has a meeting scheduled tomorrow with Darryl Campbell- Whitehaven Community Rep.

3.3 Exploration Lease Renewal

- EL6243 Renewal Application lodged on 17 May. For a term of 6 years, over existing area (6,940ha). Renewal currently being assessed by the Department of Planning & Environment.

3.4 Operations and Safety Progress Report

Presented by Steve Bow

Coal produced (t):	May 2019	353,000
	FY-to-date	5,055,000

Coal Railed (t):	May 2019	309,000
	FY-to-date	5,152,000

Average workforce numbers (May 2019):

NCO	Waged – 127
	Salary – 135
	Total – 262

Contractors	Total – 260
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Safety Update (YTD):

Lost Time Injury (LTI)	7
Days LTI Free:	8
TRIFR:	11.35
NSW Underground industry TRIFR average	34

- SB stated that production has been steady in the last few weeks due to the end of the financial year coming up. Coal produced below budget, but price of coal is positive.
- SB stated employment was steady and NCO has not increased employee numbers. Continuing to employ more locals. GH asked if NCO takes apprentices; AC explained that NCO take seven apprentices across the Whitehaven group per year, with 2-4 each year at Narrabri Mine. SB added that NCO also take cadets from local schools, assisting in financial aid for higher education (i.e. engineering etc).
- SB provided Safety update. NCO's last injury at the time of the meeting was on the 29th of April. SB said currently this Financial Year looking to be best Safety Performance result. JS asked about injury type and SB shared that manual handling is the biggest safety concern. SB discussed safety statistics
- AC provided an update on the ROM, currently holding 850,000t of coal (600K ROM- 200K Product). Train outages and Port of Newcastle causing issues with coal deliveries.

3.5 Environmental Monitoring Report

Presented by Brent Baker

3.5.1 Noise Monitoring

Noise monitoring was undertaken between Tuesdays 26th to Thursday 28th of March 2019. The monitoring is conducted quarterly to validate that noise levels are within compliance limits. At this time NCO is within compliance of the Project Approval. The results are demonstrated below. BB advised that another round had been conducted during June, but results not yet available.

Discussed addition of new monitoring report 'High Range'.

Table 1: Monitoring Results

EPL ID	Monitoring Date	Daytime Measured L _{Aeq} dB	Evening Measured Levels L _{Aeq} dB	Night Measured Levels L _{Aeq} dB	Night Measured Level L _{A1,1minute} dB	Noise Limit(s)	Compliance
N5 Oakleigh	26/03/2019	NM	IA	IA	IA		Yes
	27/03/2019	NM	30	30	36		Yes
	28/03/2019	NM	IA	IA	IA		Yes
N6 Newhaven	26/03/2019	30	31	31	35		Yes
	27/03/2019	NM	IA	25	28		Yes
	28/03/2019	IA	NM	27	28	Day/Evening/Night	Yes
N1 Bow Hills	26/11/2018	IA	32	31	39	L _{Aeq,15minute} : 35 dB	Yes ¹
N3 Ardmona	26/11/2018	IA	IA	IA	IA		Yes
N7 Merriman	26/11/2018	NM	27	30	32	Night L _{A1,1minute} : 45 dB	Yes
N8 Haylin View	26/03/2019	22	IA	<25	28		Yes
	27/03/2019	30	25	25	26		Yes
	28/03/2019	NM	IA	IA	IA		Yes
N9 High Range	26/03/2019	27	26	26	27		Yes
	27/03/2019	NM	NM	NM	NM		Yes
	28/03/2019	NM	NM	<25	27		Yes

Notes:

1. A private agreement is in place so this result is compliant.
2. Noise levels provided in these columns are highest NAR only contributions, where criteria were applicable, during each period;
3. As detailed in the EPL, noise emission limits apply under all meteorological conditions except:

- Wind speeds greater than 3 m/s at 10 metres above ground level; or
 - Stability class F temperature inversion conditions, and wind speeds greater than 2 m/s at 10 metres above ground level; or
 - Stability class G temperature inversions;
4. 'NM' denotes not measureable.
 5. 'IA' denotes inaudible.

3.5.2 Dust Monitoring

GH asked about dust issue in January. BB stated that NCO had been issued a PIN (Penalty Infringement Notice) by EPA for failure to operate within a correct manner- relating to coal dust from stockpiles. SB stated that Whitehaven have appealed the PIN. CCC will be provided an update at next meeting.

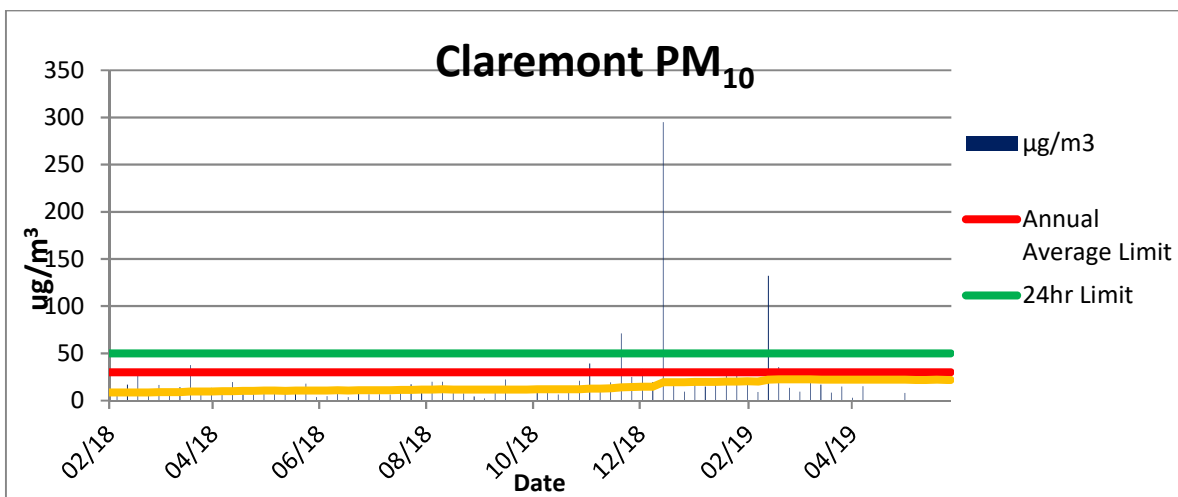
3.5.2.1 Deposited Dust Monitoring

The deposited dust results for this quarter are within the compliance limit of 4 g/m²/mth with the exception of ND4a- Matoppo, where the ash limit (i.e. the component of the deposited dust attributable to mining) is below the annual limit being 1.7 g/m²/mth.

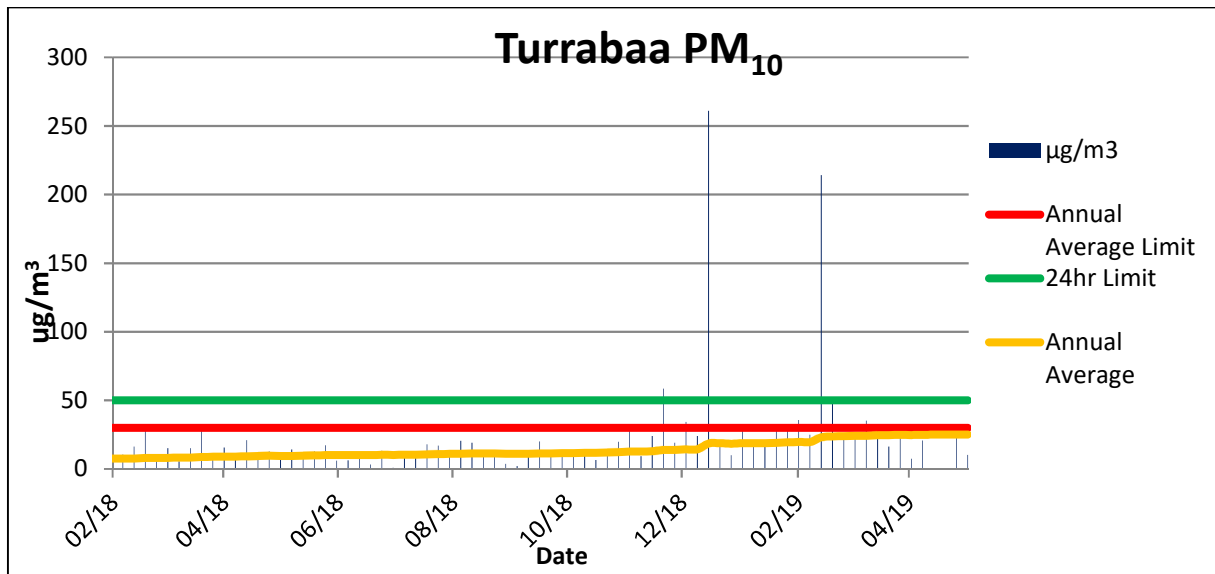
Month	ND1 Turrabaa	ND2 Claremont	ND3 Bow Hillis	ND4a New Matoppo	ND5 Claremont	ND6 Willarah	ND7 Claremont	ND8 Claremont	ND11 Oakleigh	ND12 Merriman	N13 Darjeeling
Apr-19	3.9	1.3	2.1	2.3	3.2	1.6	1.4	2.2	1.9	2.8	2
May-19	0.9	0.8	1.3	6.1	3.2	1.6	1.4	1.2	1.1	0.9	1.1
Quarterly Average	2.4	1.1	1.7	4.2	3.2	1.6	1.4	1.7	1.5	1.9	1.6

3.5.2.2 High Volume Air Sampling (PM10)

PM10 measurements taken to 28th May 2019 for the "Claremont" High Volume Air Sampler (HVAS) are returning a running annual average of 21.79 µg/m³, which is well below the annual average limit of 30 µg/m³.



PM10 measurements taken to 28th May 2019 for the “Turrabaa” High Volume Air Sampler are returning a running annual average of 24.96 µg/m³, which is also well below the annual average limit of 30 µg/m³.



PM10 annual average levels have remained compliant since the last meeting. ND9 and ND10 both recorded exceedances on the 21st of November, 15th of December and 13th February 2019 as result of regional dust storms that affected much of NSW. The mine notified the DP&E as required by the sites’ Air Quality Management Plan. Since these events we have remained within exceedance levels according to the Project approval.

3.5.3 Groundwater Monitoring

No information available at time of report.

GH discussed Annual Review. GH requested more information regarding mine usage of Zone 5 water. AC advised NCO have used approx. 400ML this financial year, with licensed limit of 417ML.

ACTION: NCO to provide update on water usage at each CCC meeting.

3.5.4 Surface Water Monitoring

No wet weather discharges from licensed discharge points occurred during the March-May period, so no monitoring undertaken

3.5.5 Subsidence Monitoring

Subsidence monitoring will be reported on in next CCC meeting.

3.5.6 Environmental Incidents

Narrabri Coal were issued with a Clean-Up Notice from the EPA on 24th April. This incident involved the incorrect disposal of underground respirator units into General Waste skip bins, which subsequently ended up at Narrabri Landfill. Whilst in the landfill the units have caused small fires within the landfill.

Narrabri Coal have been undertaking clean-up activities at the landfill site for 4 weeks. Work is ongoing and NCO have been in discussions with Narrabri Shire Council and EPA. EPA are continuing investigations into this incident.

3.5.7 Environmental Complaints (01 March-31 May)

- 18 complaints related to noise. 17 from the same complainant, all Noise related. A Noise monitoring point has been added to the EPL and quarterly attended monitoring undertaken to date has shown no exceedances of noise criteria. Despite compliance, mine has also offered additional control measures. Negotiations are ongoing.
- 2 complaints relating to odour. Investigations have revealed source of odour to be Brine ponds. Water analysis indicates anaerobic conditions in the two brine dams, and odour causing bacteria are commonly generated under anaerobic conditions. Investigations are ongoing, with consideration given to treatment and aeration/circulation of water in the dams.

3.6 General Business

- GH stated that it is rumoured that NCO is treating waste water from other gas companies. NCO assured this is not happening, and explained capacity of our relatively small water treatment plant, and general cycle/process of mine water.
- Discussed meeting time, generally agreed to leave the time as it is, until discussion at next meeting.
- Next CCC meeting scheduled for Wednesday 04th September at 5pm.

ACTIONS FOR NEXT MEETING

1. **PREVIOUS MINUTES:** NCO to amend previous minutes to remove 2 items (requests for meeting attendance by groundwater licensing expert, and Tim Muldoon regarding Leases/Property Management). BB has completed and amended minutes will be sent to CCC members.
2. **NEW MEMBERS:** Names of two new members are to be submitted to Chairman (RS) by GH. Chairman will follow process and update CCC at next meeting.
3. **MEETING MINUTES:** NCO (Brent) to prepare draft minutes within 1 week of meeting and issue to CCC members for comment.
4. **EXPLORATION LEASE:** Cement substance around drillhole. NCO (Brent) to follow up with Russel Stewart, and ensure this is completed, with update provided to CCC members at next meeting.
5. **GROUNDWATER USAGE:** NCO to provide update on licensed water usage at each CCC meeting.

Meeting Close: 6:45pm

Narrabri Mine Community Consultative Committee Meeting #46**Date:** Wednesday 11th September 2019**Time:** 5:00pm**Location:** Narrabri Mine Office**Present:** Russell Stewart (RS)
Peter Webb (PW)
Mark Foster (MF)
Geoff Hunter (GH)
James Steiger (JS)
Gerald Linde (GL) – Narrabri Coal - Mine Manager
David Ellwood (DE) – Narrabri Coal – Director Stage 3 Project
Brent Baker (BB) – Narrabri Coal - Environmental Superintendent**Apologies:** Steve Bow (SB) – Narrabri Coal – General Manager**1. DECLARATION OF PECUNIARY OR OTHER INTERESTS**

Nil

2. PREVIOUS MINUTES

RS Moved that previous minutes are accepted as an accurate record.

Moved: GH Seconded: DE

2.1 BUSINESS ARISING FROM PREVIOUS MINUTES

2.1.1 Format of environmental monitoring report presented in June meeting was different. JS requested that format be kept the same to make it easy for comparison against historical versions.

BB advised that Environmental Monitoring Report presented in current meeting has been changed back to historical format.

2.1.2 New Members for CCC

- RS placed ad in Narrabri Courier. Only 2 Expressions of Interest received. RS advised CCC of names of applicants. CCC members do not object to the applicants. RS will submit nominations to the Department of Planning for approval.
- Discussion around non-attendance at meetings, and RS to send a letter to CCC member if 3 meetings missed in a row. RS requested BB to keep track of CCC meeting attendance and alert RS if three meetings in a row missed.

2.1.3 Cement substance around borehole on Exploration Lease

- RS confirmed that he notified complainant personally.

3. GENERAL BUSINESS

3.1 Stage 3 Project Update (delivered by DE)

- Social Impact Assessment (SIA) undertaken by CDM Smith consultants. Had hoped to have CDM Smith at this meeting, unfortunately couldn't accommodate with the change in date of CCC meeting, and wished to submit an apology to the CCC.

Work to date on SIA has included first Community Engagement trip, which were face-to-face meeting with Narrabri Chamber of Commerce, Shire Councils, RFS etc. Purpose was to obtain feedback from these groups. Some of key issues came back;

- benefits of mining need to be distributed locally (eg. infrastructure, employment, sponsorship)
- use of water by mine needs to be communicated better to the community
- increased traffic on Kamilaroi Highway
- Company needs to do more around communicating aspects of the operation and community involvement.

DE explained this is not all of the issues raised, and that the outcomes of the engagement with these groups will be fed into SIA.

- Community Survey was undertaken. Online survey on Whitehaven website. Advertisement placed in local newspaper. Survey now closed. Purpose was to get understanding of community concerns which can be used to target SIA. DE stated that survey was only completed last week, and he has some high-level results to share, however full details would be provided in the SIA.
 - 81 respondents. 50% were from outside region (i.e. Gunnedah & Narrabri Shire Council regions).
 - Of 50% local respondents- approximately 65% said they would be negatively impacted, and 22% would be positively impacted, by extension of life of mine.
 - MF wanted to make note that discussions with various community members revealed concerns around increased traffic. DE advised that the mine was not expanding, only life of mine, and therefore an increase in traffic is unlikely.
- Upcoming Engagement:
 - will be contacting interested landholders around mine in coming months
 - meetings held with Local Aboriginal groups
 - CDM Smith will attend next CCC meeting.

Questions?

GH wanted to know why Community Survey was released without notifying CCC members, that part of the role of the CCC members is to feed details (like the survey) back into the community. General agreement by CCC members and NCO. RS suggested this be captured in a motion.

MOTION: CCC are provided notice by NCO prior to any consultation with the community.

Moved: GH

Seconded: JS

Discussions around clarification of what CCC expects. DE agreed to provide an Engagement Strategy so that CCC are aware of key community interactions going forward. CCC agreed that they don't require notification prior to individual correspondence with landholders.

- Stage 3 Fact Sheet (draft) shared with CCC members. DE discussed key changes;
 - Maintaining existing production approval of 11million tonnes. General discussion around this change.
 - GH queried 'Extension of existing surface infrastructure'. DE clarified that this relates to surface infrastructure related to gas drainage, mine ventilation, access tracks and power line. DE explained current planned

locations of ventilation infrastructure. GH outlined his view on major impacts would be around vent fans (eg. noise) and dust.

3.2 Exploration Licence 6243 Suspension (delivered by DE)

- Resources Regulator (RR) suspended exploration activities by letter in August. DE advised we are still authorised to undertake rehabilitation works under the suspension. DE discussed reasons for Suspension, main reason being constructing tracks in locations not approved by plans. DE outlined circumstances around leading up to constructing the tracks.
- DE discussed timeframe; RR inspection on 17 June, RR correspondence received by Narrabri Coal Operations (NCO) on 24 July outlining allegations of breaches. Following this NCO met with RR regarding the allegations. Following the meeting NCO received official Suspension Notice from RR. NCO is now undertaking various works to demonstrate to the RR that Suspension can be lifted.
- JS thinks that CCC should have been notified during the June meeting of this issue. DE outlined that the initial visit on 17 June of the RR was an Audit, and that at the time of the CCC 26 June meeting NCO had not received any official correspondence from the RR about the breaches.
- DE outlined steps that NCO are working through in order to demonstrate to RR that suspension can be lifted, including Independent Audit and completion of any actions arising from the Audit. NCO also advised that all areas in Exploration Lease are being rehabilitated in coming months.

3.3 Stage 3 Property Acquisitions

- GH discussed contracts for Stage 3 landholder acquisitions. GH heard it has been a slow process. DE stated that NCO are actually making great efforts in this space, and that currently we are in compliance with contract clauses around timing.

3.4 Bow Hills

- JS heard that Bow Hills was used as a good ambassador for the mine around negotiations for properties etc. JS wants it on record that he still wishes the mine wasn't in its current location and whilst he has a good relationship with mine, he doesn't want Bow Hills to be portrayed as a 'happy neighbour'.

3.5 Santos

- RS heard in Coal Seam Gas CCC that Santos has mentioned that Whitehaven Coal will be able to use some of their excess salt. DE said it is the first time he has heard of this, it's not happening at NCO , but will follow up.

4. OVERVIEW OF NARRABRI COAL ACTIVITIES

4.1 Operations and Safety Progress Report

Presented by GL

Mine Progress Report (August 2019)

Coal produced (t):	Aug 2019	411,925
	FY-to-date	1,184,052
Coal Railed (t):	Aug 2019	588,796
	FY-to-date	1,369,974

Average workforce numbers (Aug 2019):

NCO	Waged – 123
	Salary – 123
	Total – 246
Contractors	Total – 211

Safety Update (FY to 31st Aug):

Lost Time Injury (LTI)	1
Days LTI Free:	38
Total Recordable Injuries:	1
Planned Task Observations:	2,228
Take 5 Assessments:	31,952
Work Hours (May-18):	227,846

- GL said that focus remains on recruiting ‘cleanskin’ underground inexperienced mine workers from local community. NCO is now transitioning those cleanskins from contractors over to Whitehaven employees. Target is to increase Waged numbers up. JS asked why such a large % of contractors, and that these contractors won’t buy houses etc in local communities due to job stability. GL outlined that this is exactly what NCO are doing with cleanskins, and there are some certain projects that are more practical for contractors. GL states that most contracts are still pretty stable (generally 2-3 years), and that other conditions Whitehaven places on the primary underground contractors for any inexperienced mine worker that the contractor wants to employ must be ‘local’ (reside within 100km of mine). DE/GL mentions that majority of recruitment is done on-site at the mine.

4.2 Environmental Monitoring Report (delivered by BB)

See Appendix A

- GH questions dust spikes on PM10 results. Discussion around dust storms.
- Noise monitoring results from June presented in report and discussed. BB advised that another round of monitoring was undertaken early September but NCO do not have report at time of CCC meeting.
- Groundwater levels. DE outlined metering is applied to box-cut dewatering and other groundwater pumping, and is all licensed.
- Subsidence: DE discussed closing out subsidence monitoring lines on older LW panels.
- Rehabilitation: BB mentioned significant progress NCO has made on rehabilitation.
- Pest control: BB mentioned recent pig trapping and Mother of Millions weed spraying.
- EPA- BB discussed Penalty Infringement Notice (PIN) was issued to NCO on 14th June, in relation to alleged dust pollution from coal stockpiles on 05th January. Whitehaven lodged an appeal to the PIN on 10th July. Appeal unsuccessful. Fine of \$15,000 paid on 07th August.
- EPA- BB discussed Clean-Up Notice regarding Narrabri Landfill. NCO are continuing negotiations with Narrabri Shire Council and EPA regarding resolution of this matter.

5. NEW BUSINESS

- GH reminded that NCO were going to provide CCC with updates in each meeting on water licence usage. BB said this would be presented going forward.
- DE/GL discussed restructure of Whitehaven corporate 'community and landholder' team, and NCO will make this clearer to CCC members in next meeting, particularly around how agricultural properties will be managed.

6. NEXT MEETING

Next CCC meeting scheduled for Wednesday 04th December at 5pm.

Meeting Close: 6:30pm

Narrabri Mine Community Consultative Committee Meeting #46

Environmental Monitoring Report: June – September 2019

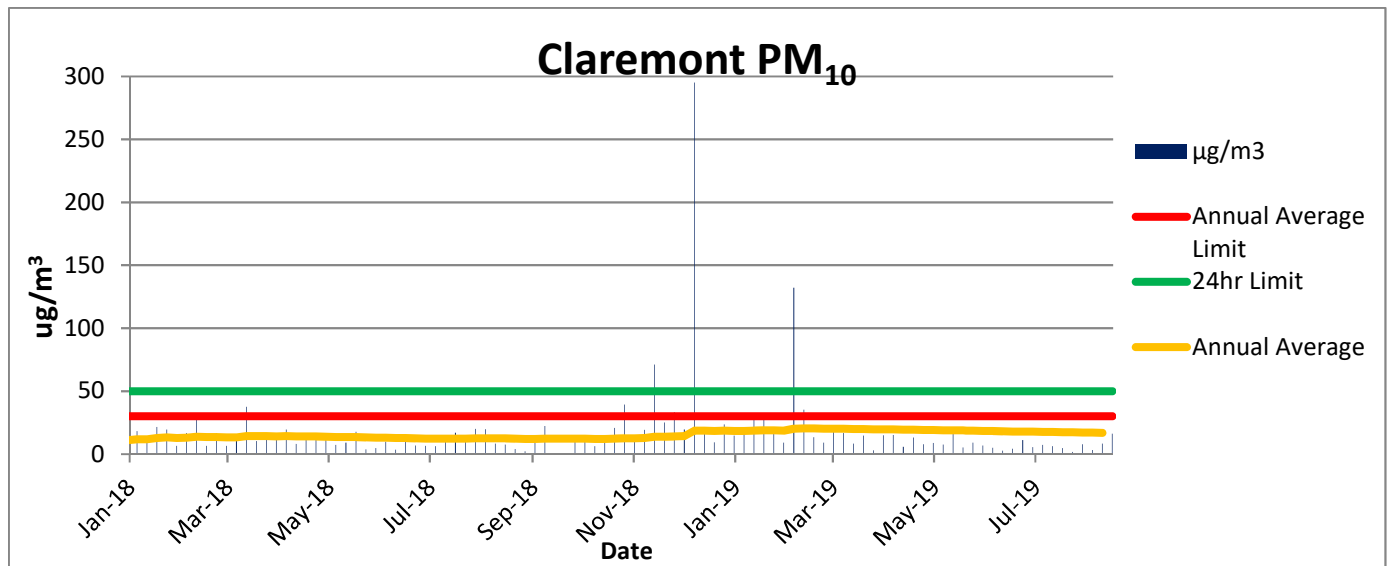
Deposited Dust Monitoring

Month	ND1 Turrabaa	ND2 Claremont	ND3 Bow Hills	ND4a New Matoppo	ND5 Claremont	ND6 Willarah	ND7 Claremont	ND8 Claremont	ND11 Oakleigh	ND12 Merriman	ND13 Darjeeling
Jan-19	2.9	2.2	2.9	3.6	2.7	3.6	1.2	3.4		5.3	3.9
Feb-19	4.9	1.6	2	13.7	13.3	4.4	3.1	3.8		2.4	2.2
Mar-19	2.4	2.5	1.9	1.7	2.8	2.6	1.6	1.6	1.7	1.8	2
Apr-19	3.9	1.3	2.1	2.3	3.2	1.6	1.4	2.2	1.9	2.8	2
May-19	0.9	0.8	1.3	6.1	3.2	1.6	1.4	1.2	1.1	0.9	1.1
Jun-19	2.4	1.1	1.4	1.1	4.6	1.2	1.9	1.5	1.1	0.9	0.8
Jul-19	2.6	0.9	1.5	0.9	2	0.9	1.4	3.4	0.8	0.6	0.6
Aug-19	3.5	2.2	2.8	1.2	3.6	2	2.9	1.7	1.3	1.9	0.7

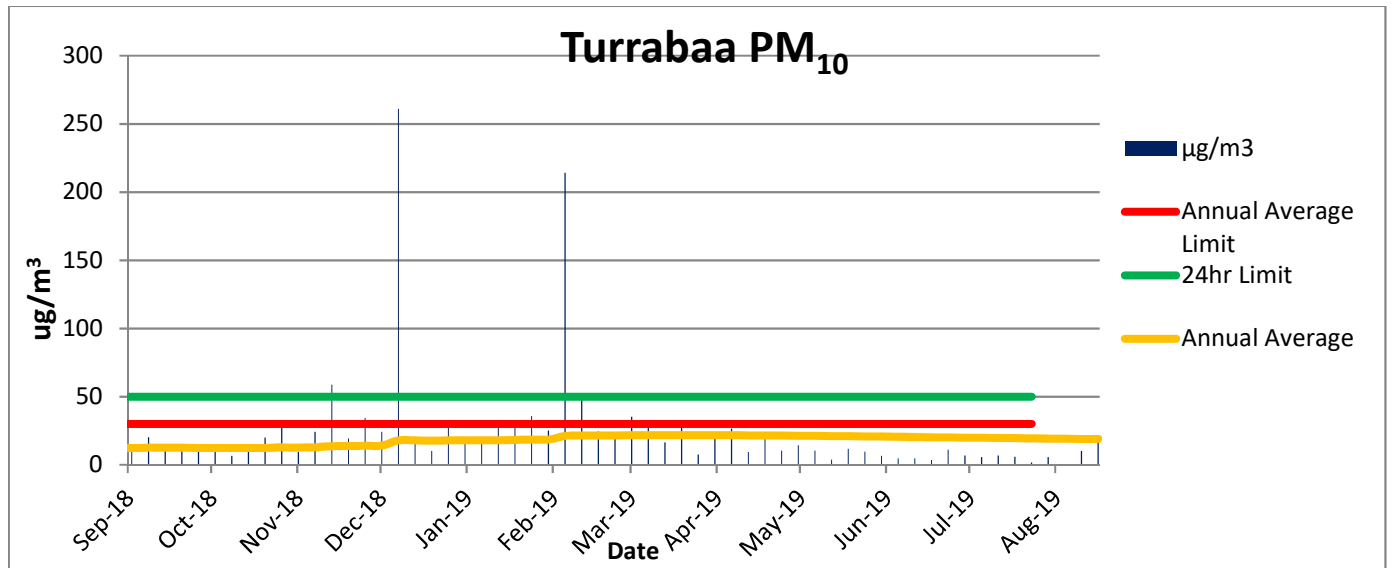
Recent deposited dust levels are within the compliance limit of 4 g/m²/mth.

High Volume Air Sampling (PM10)

PM10 measurements taken to 24th of August 2019 for the “Claremont” High Volume Air Sampler (HVAS) are returning a running annual average of 16.97 µg/m³, which is well below the annual average limit of 30 µg/m³.



PM10 measurements taken to 24th of August 2019 for the “Turrabaa” High Volume Air Sampler are returning a running annual average of 18.94 $\mu\text{g}/\text{m}^3$, which is also well below the annual average limit of 30 $\mu\text{g}/\text{m}^3$.



*PM10 levels have remained compliant since the last meeting. The higher peaks of PM10 concentration correspond to dust storm events on the 15th of December 2018 and 12th of February 2019.

Noise Monitoring

Attended noise monitoring was undertaken between Monday the 3rd June to Thursday 06th June 2019 in accordance with Environmental Protection Licence and Project Approval. Narrabri Mine was found to be in compliance with the relevant noise criteria during all time periods where standard weather conditions were present. Results from the monitoring are detailed over the page.

Table 1 Performance Assessment – Operations

EPL ID	Location	Date	Narrabri Mine Contribution dBA				Noise Criteria ³	Measurement Periods	Weather Compliant			Compliant
			LAeq 15 min Day	LAeq 15 min Evening	LAeq 15 min Night	LA1 (1 min) Night			Day	Evening	Night	
N5	Oakleigh	04/06/2019	N/M	I/A	I/A	I/A	Day, Evening and Night – LAeq(15minute) 35 dBA Night LA1(1minute) – 45 dBA	Day - 1.5 hrs Evening - 0.5 hrs Night – 1hrs	N	Y	N	Y
		05/06/2019	I/A	I/A	I/A	I/A			N	Y	Y	Y
		06/06/2019	N/M	N/M	I/A	I/A			N	Y	Y	Y
N6	Newhaven	04/06/2019	42 ¹	31	33	38			N	Y	N	N/A ²
		05/06/2019	33	31	32	34			Y	Y	Y	Y
		06/06/2019	34	28	30	34			Y	Y	Y	Y
N8	Haylin View	04/06/2019	33	N/M	27	29			N	Y	N	Y
		05/06/2019	I/A	I/A	I/A	I/A			N	Y	Y	Y
		06/06/2019	28	28	30	34			Y	Y	Y	Y
N9	High Range	04/06/2019	43 ¹	31	32	35	N	Y	N	N/A ²		
		05/06/2019	30	30	30	35	Y	Y	Y	Y		
		06/06/2019	33	N/M	25	28	Y	Y	Y	Y		
N1	Bow Hills ³	03/06/2019	30	33	38 ³	48 ³	Day 15 min Evening 15 min Night 15 min	N	N	Y	Y	
N3	Ardmona	03/06/2019	N/M	33	34	45		N	N	Y	Y	
N7	Merriman	03/06/2019	I/A	32	35	43		N	Y	Y	Y	
N8	Matilda	03/06/2019	I/A	35	25	30		N	N	Y	Y	

I/A = Inaudible

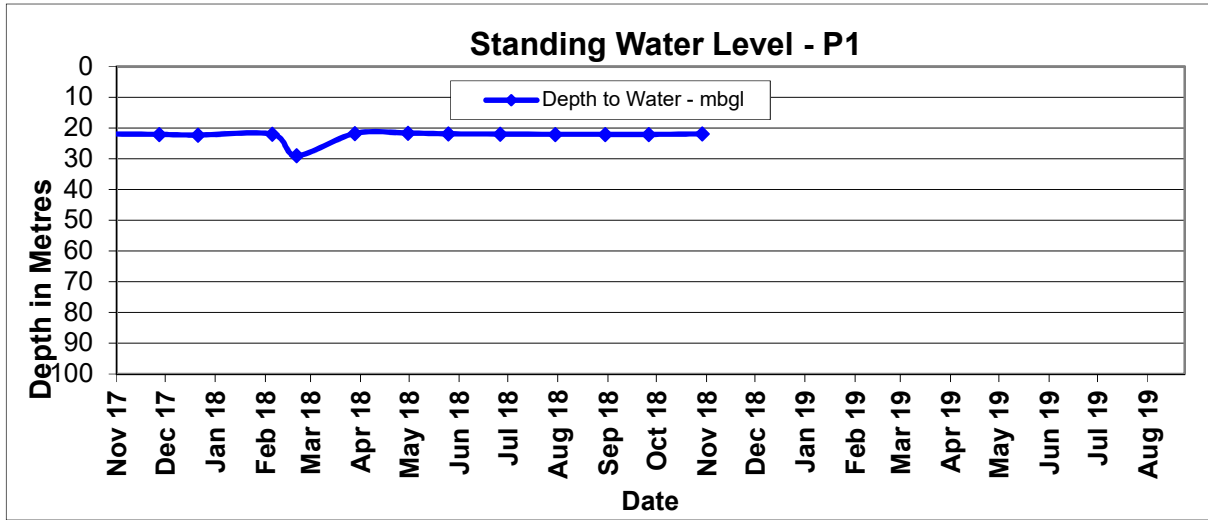
N/M = Not Measurable

Note 1: 2dB modifying factor correction for low frequency noise has been applied in accordance with the NPfI.

Note 2: Measured during non-compliant weather conditions. Wind speed >3m/s throughout measurement period.

Note 3: A private agreement between NCOPL and the residents of N1 Bow Hills of 50 dBA LAeq(15minute) is in place. This new level of 50 dBA LAeq(15minute) replaces the levels identified in Conditions 1-3, Schedule 4 of PA 08_0144 Mod 2 and the identical limits contained in condition L3 of Environment Protection Licence No 12789

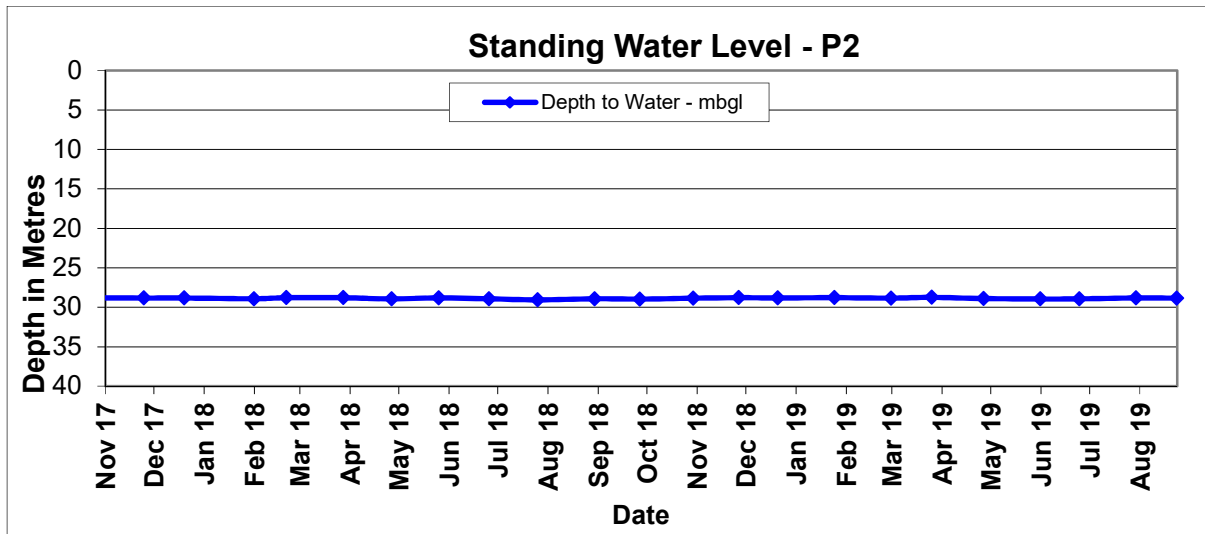
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Groundwater Monitoring


Location: Yarrabee

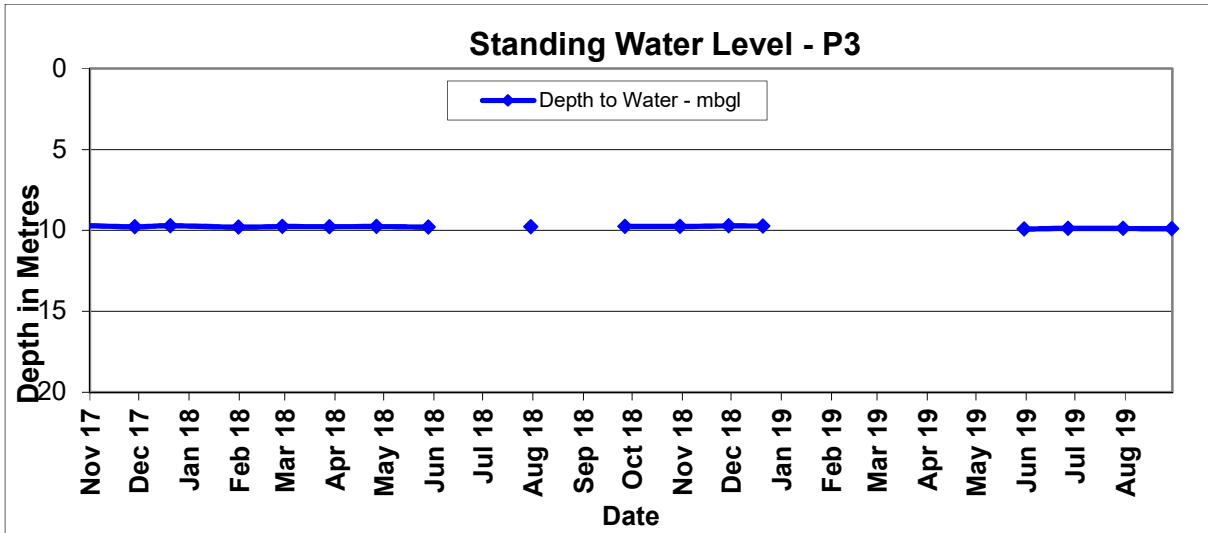
Bore depth: 50m

Explanation: ALS has had no property access, NCO to organise 24hours prior to sampling.



Location: Matilda

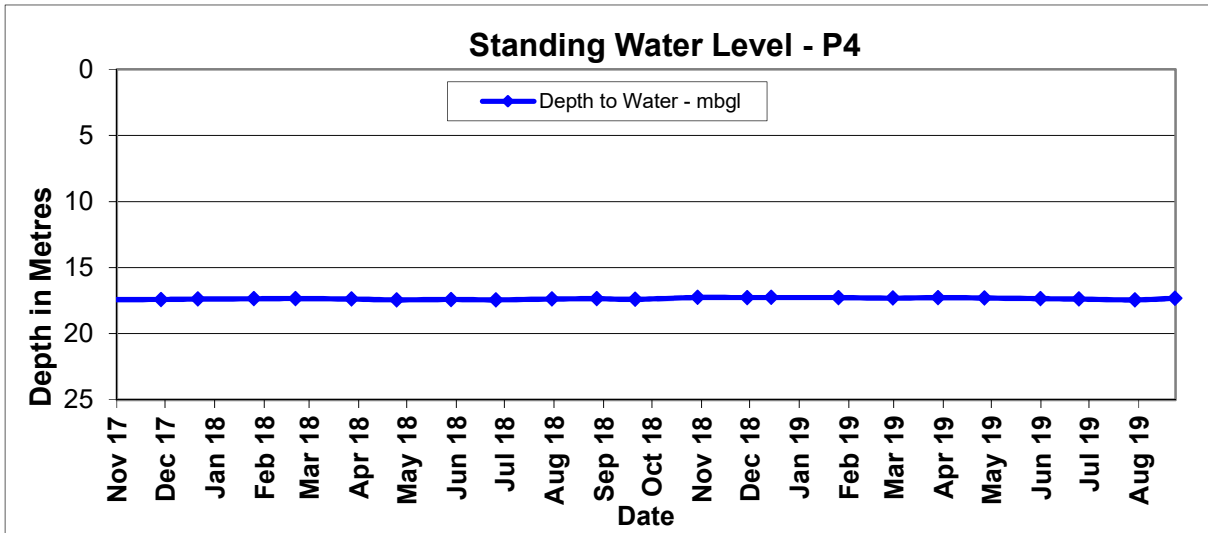
Bore depth: 50m



Location: Bow Hills

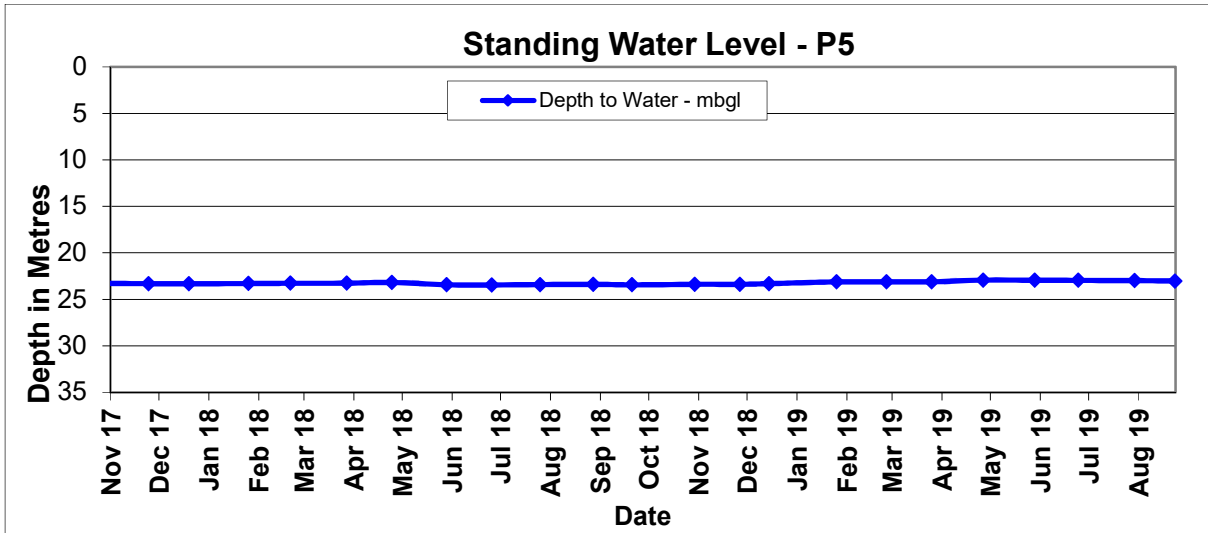
Bore depth: 45m

Explanation: Gaps in data due to access issues however data trend shows consistency over the last 2 years.

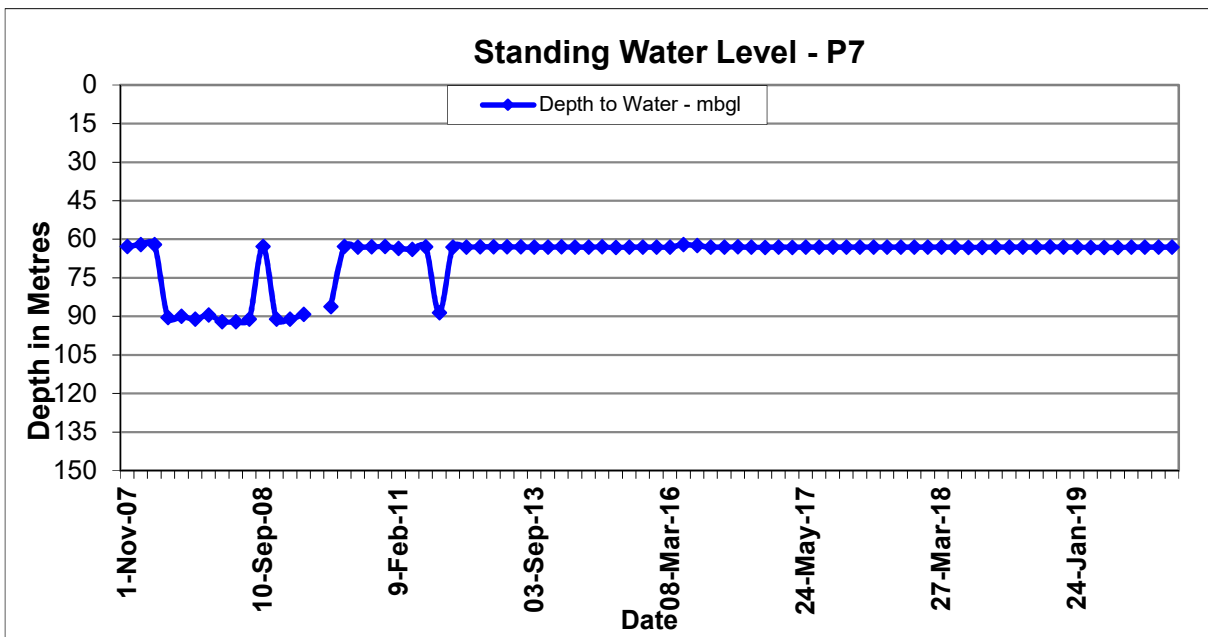


Location: North of Newhaven on Kamilaroi highway

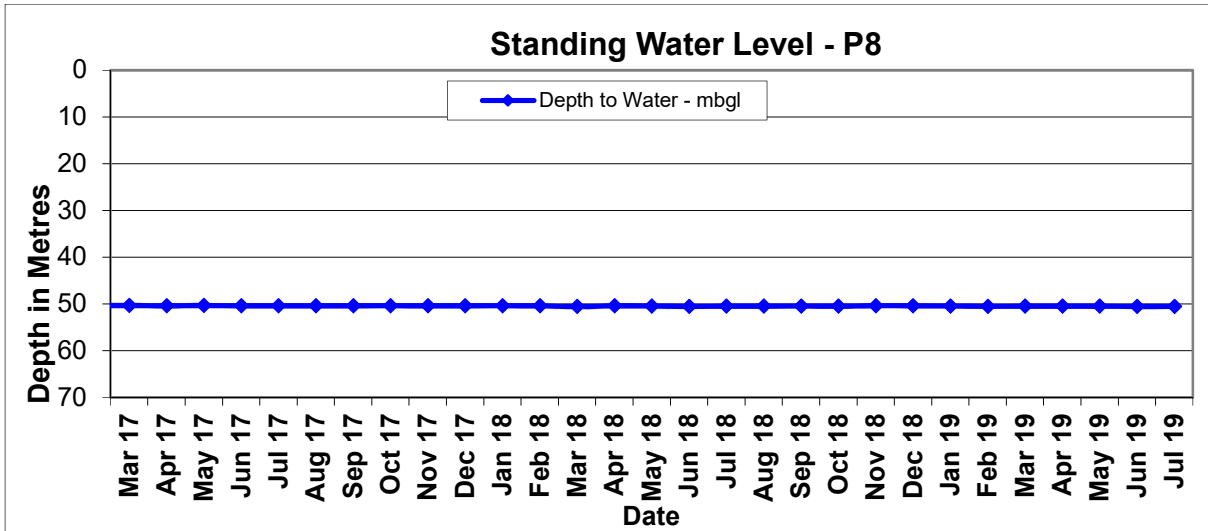
Bore depth: 30m



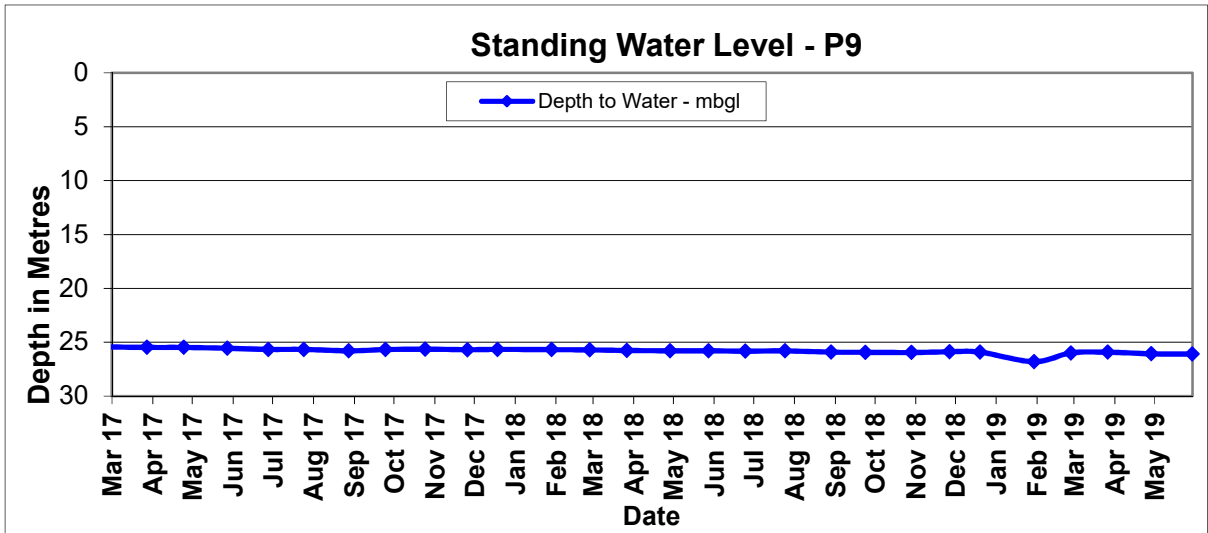
Location:
Bore depth: 30m



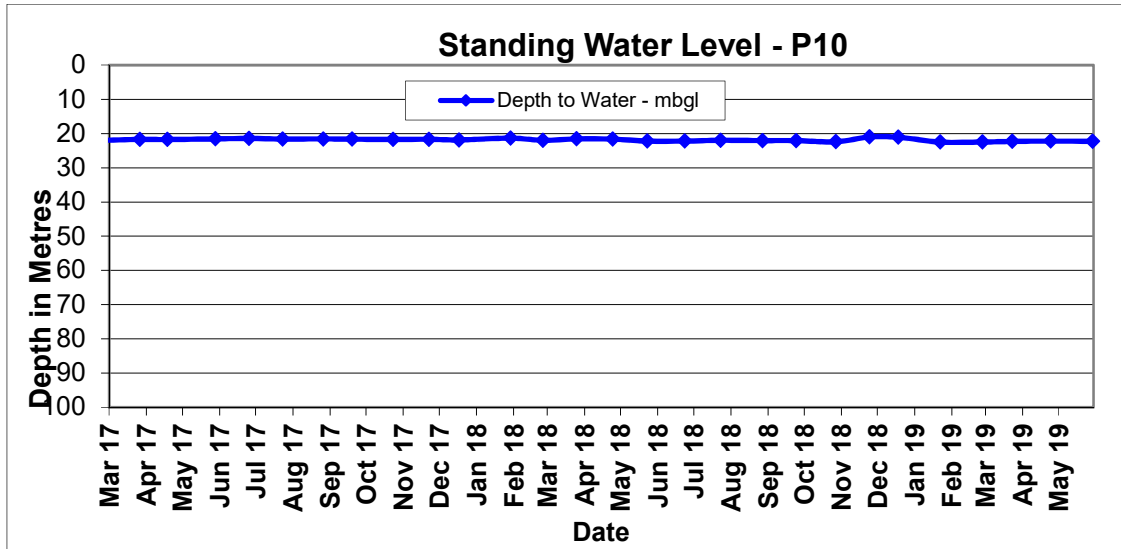
Location: TBA
Bore depth: 90m



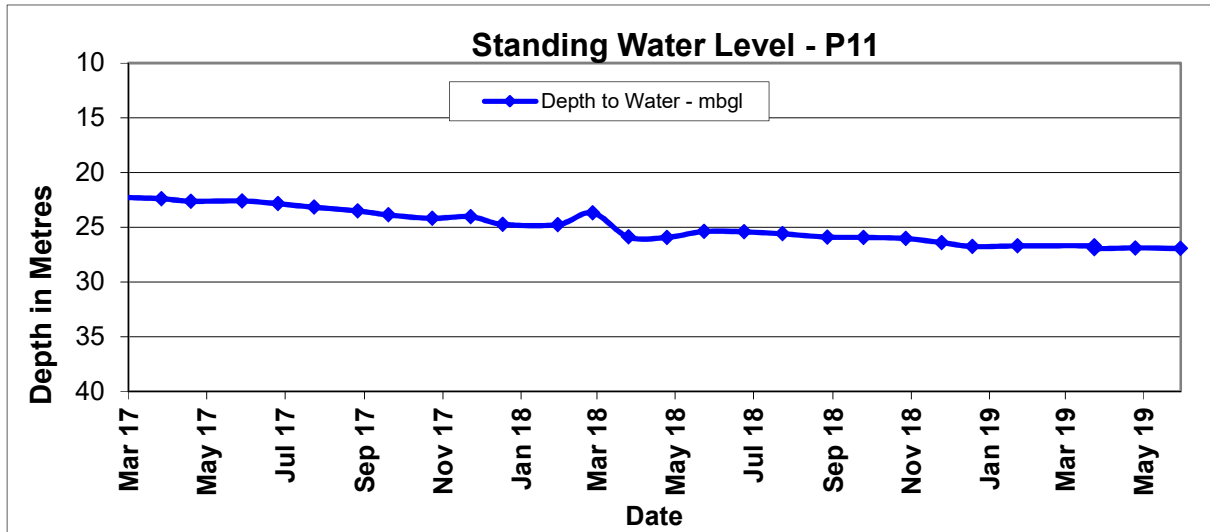
Location: Kurrajong
Bore depth: 65m



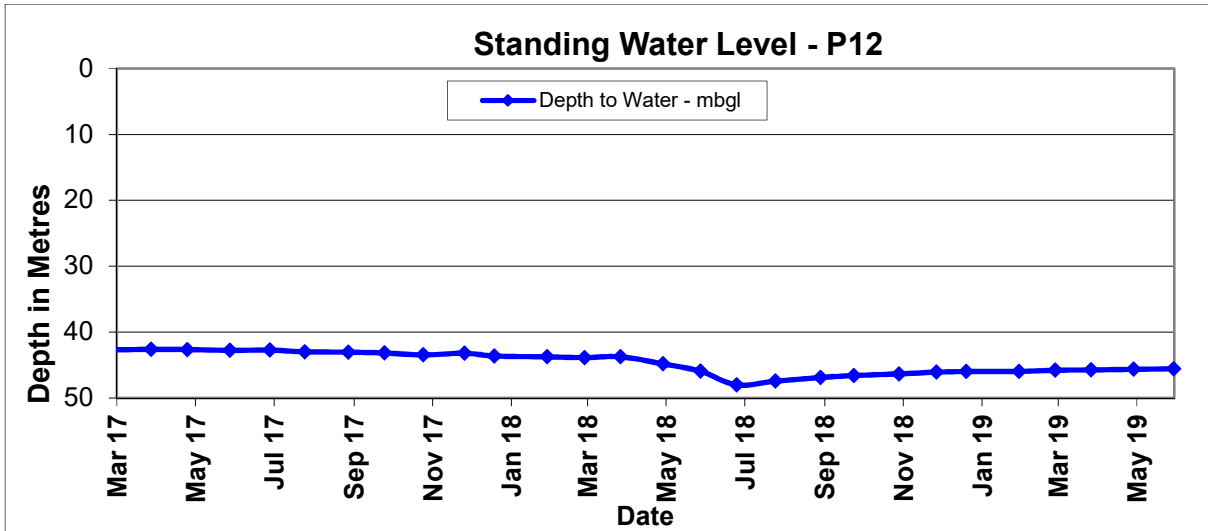
Location: NCO
Bore depth: 30m



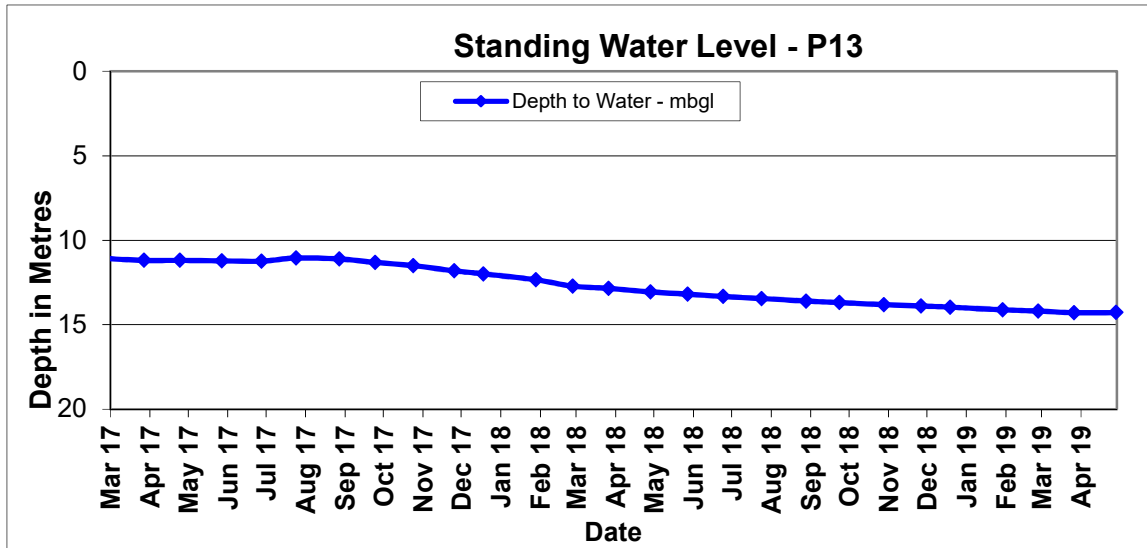
Location: NCO (Located near P11)
Bore depth: 130m



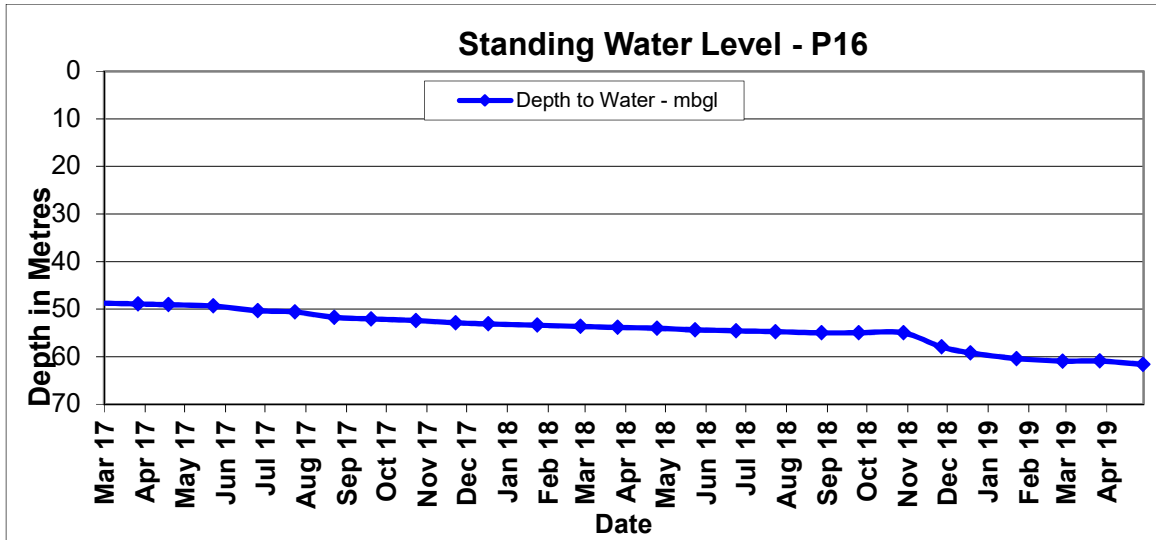
Location: NCO (Located near P10)
Bore depth: 50m
Explanation: Decreasing in water level since 2015



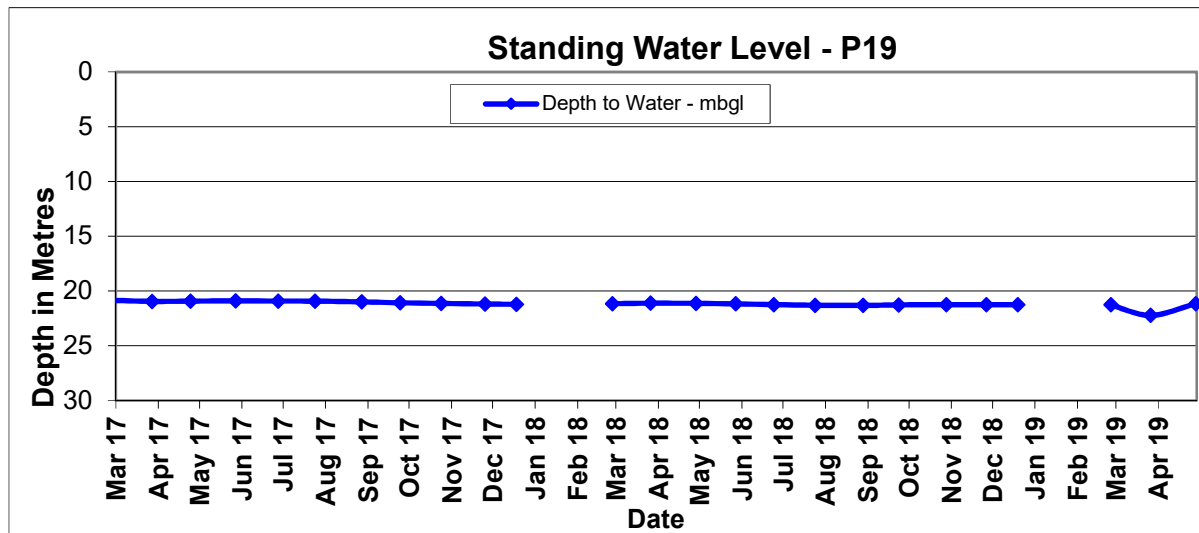
Location: NCO (Near P13)
 Bore depth: 90m



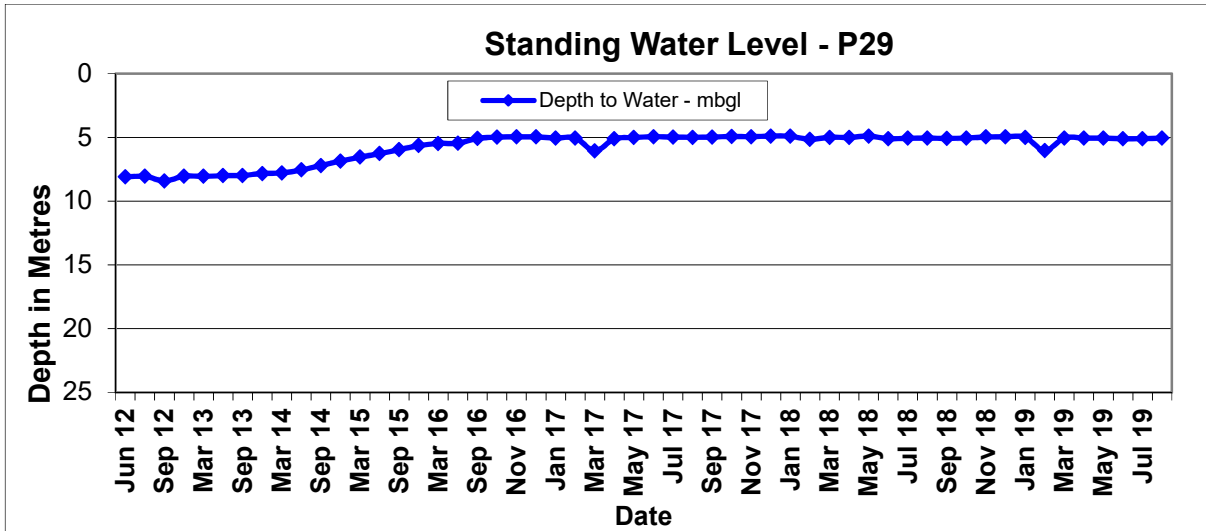
Location: NCO (Near P12)
 Bore depth: 30m



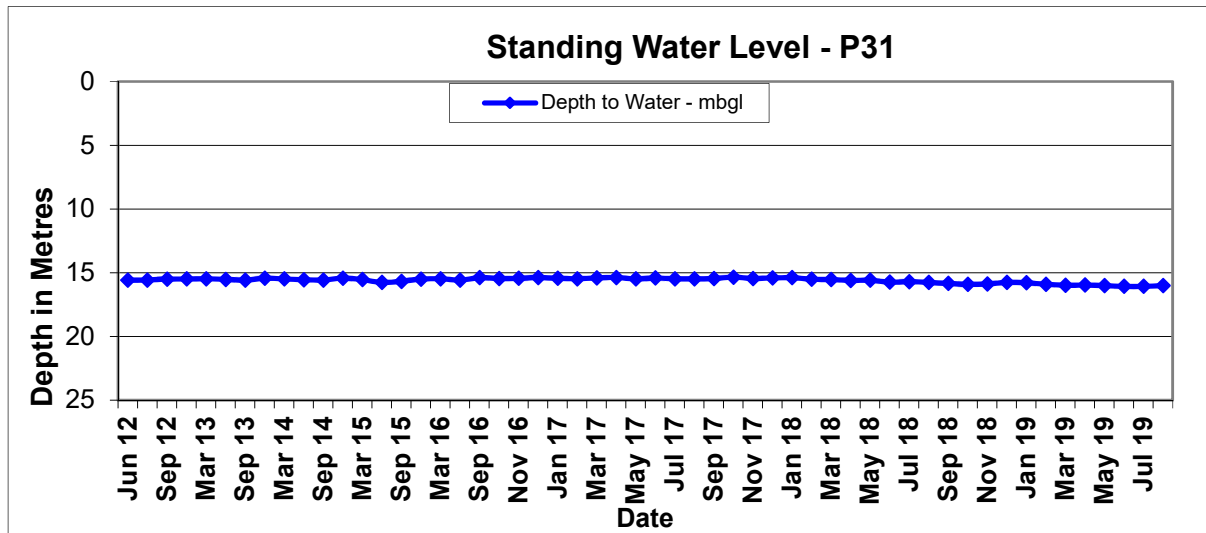
Location: NCO (Western Boundary)
 Bore depth: 146m



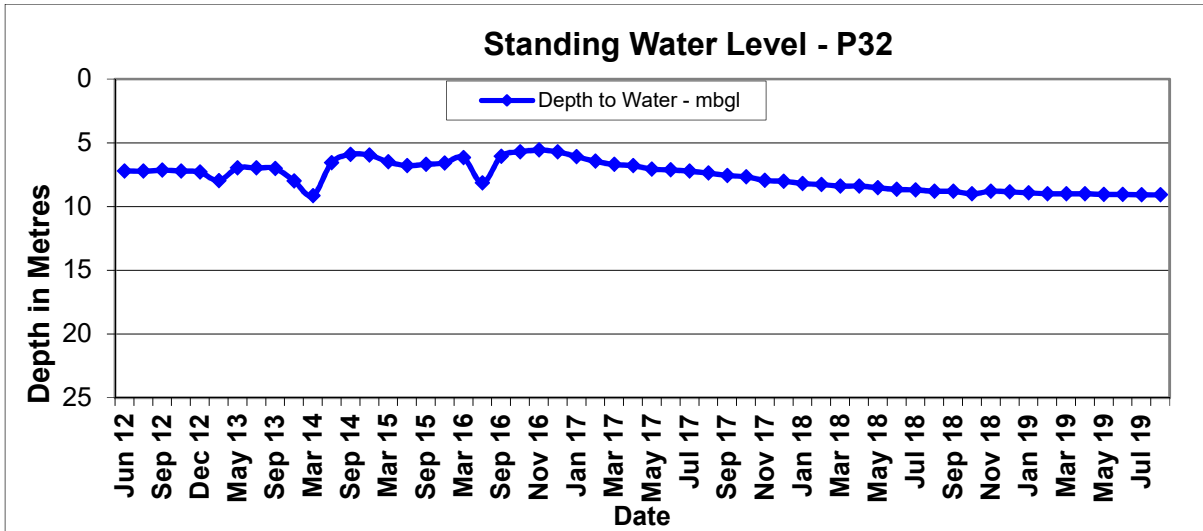
Location: NCO
 Bore depth: 187m
 Explanation: Data gaps due to missed measurements.



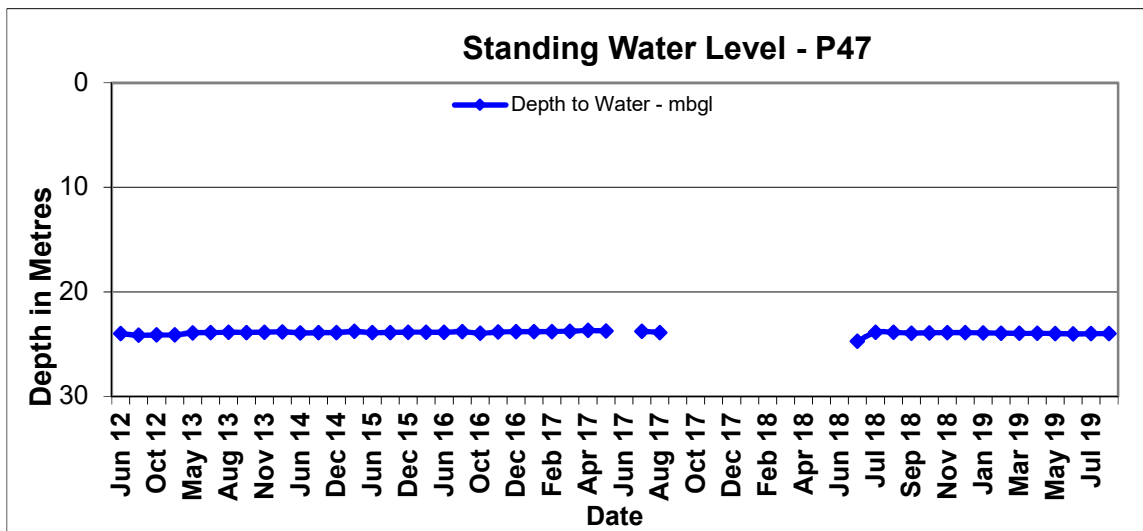
Location: NCO (Near site dams)
Bore depth: 25m



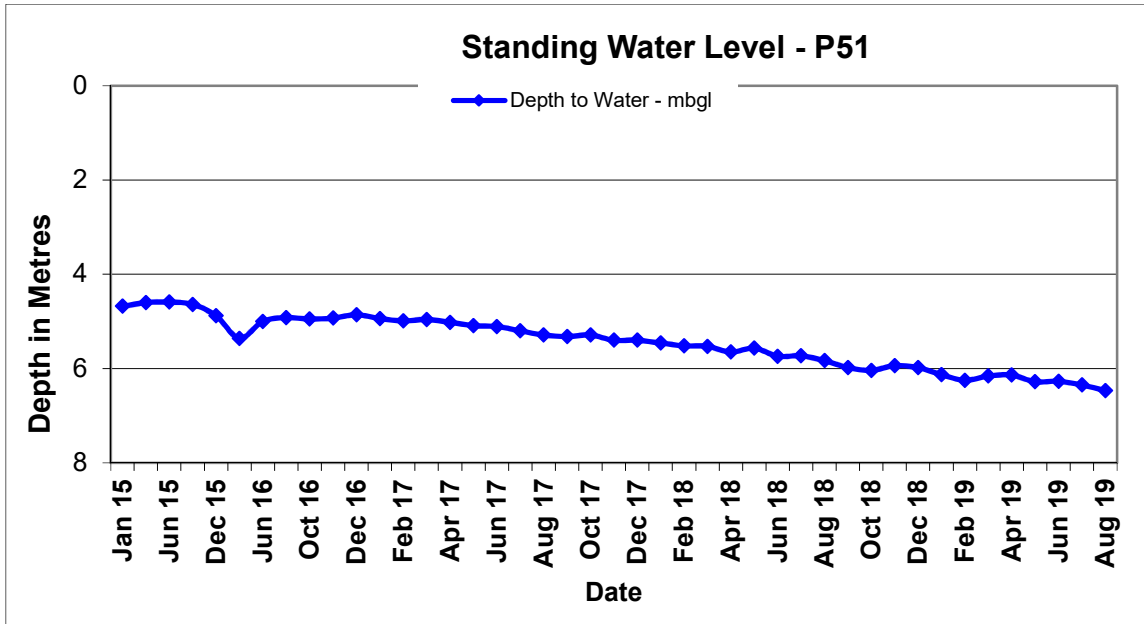
Location: NCO (Near site dams)
Bore depth: 15m



Location: NCO (Near site dams)
 Bore depth: 15m

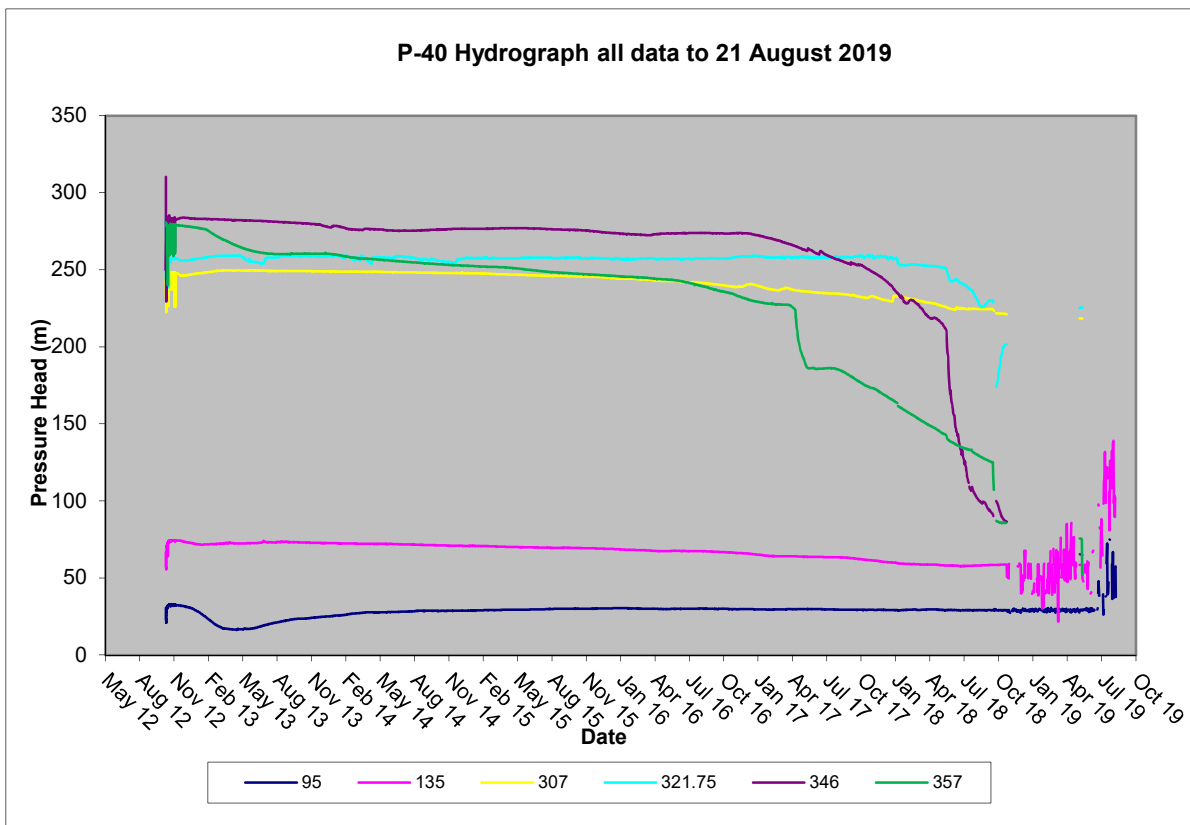


Location: NCO
 Explanation: Remains consistent, data gap due to damage.



Location: NCO (behind rejects)

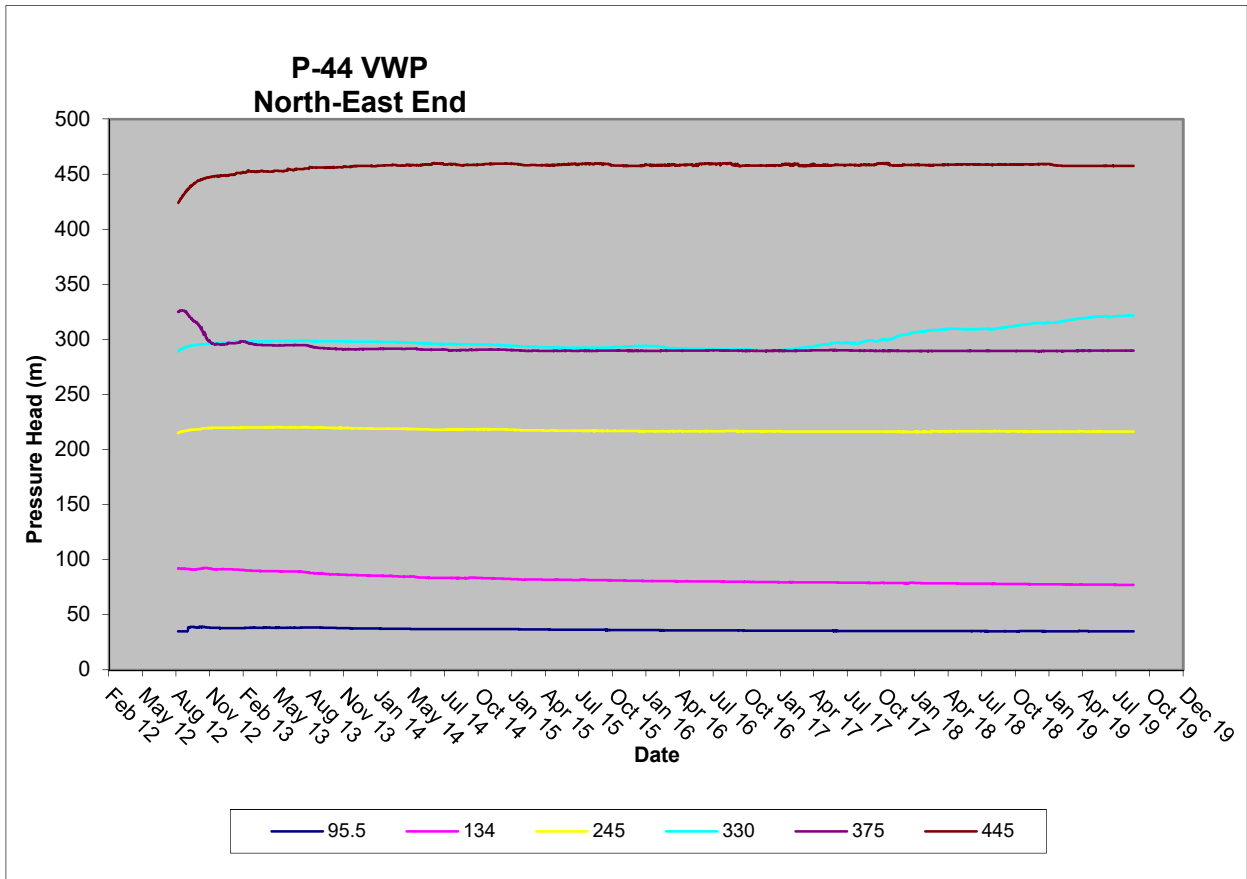
Groundwater Piezometer Data August 2019



Location: NCO

Piezometer depth: Corresponds to the colour of the line as shown in the legend.

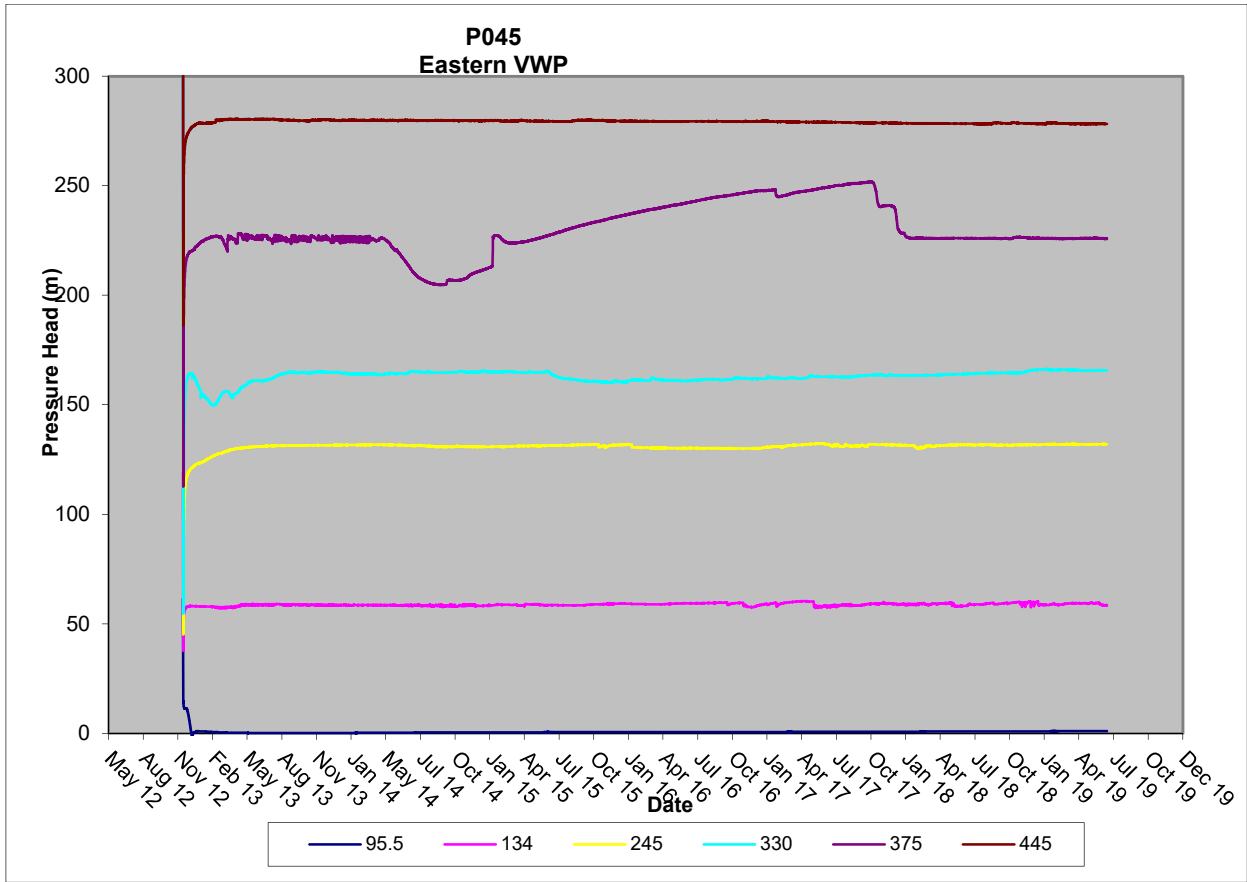
Explanation: The data abnormality from October 2018 is due to the severing of piezometers due to ground movement in the coal seam.



Location: Omeo

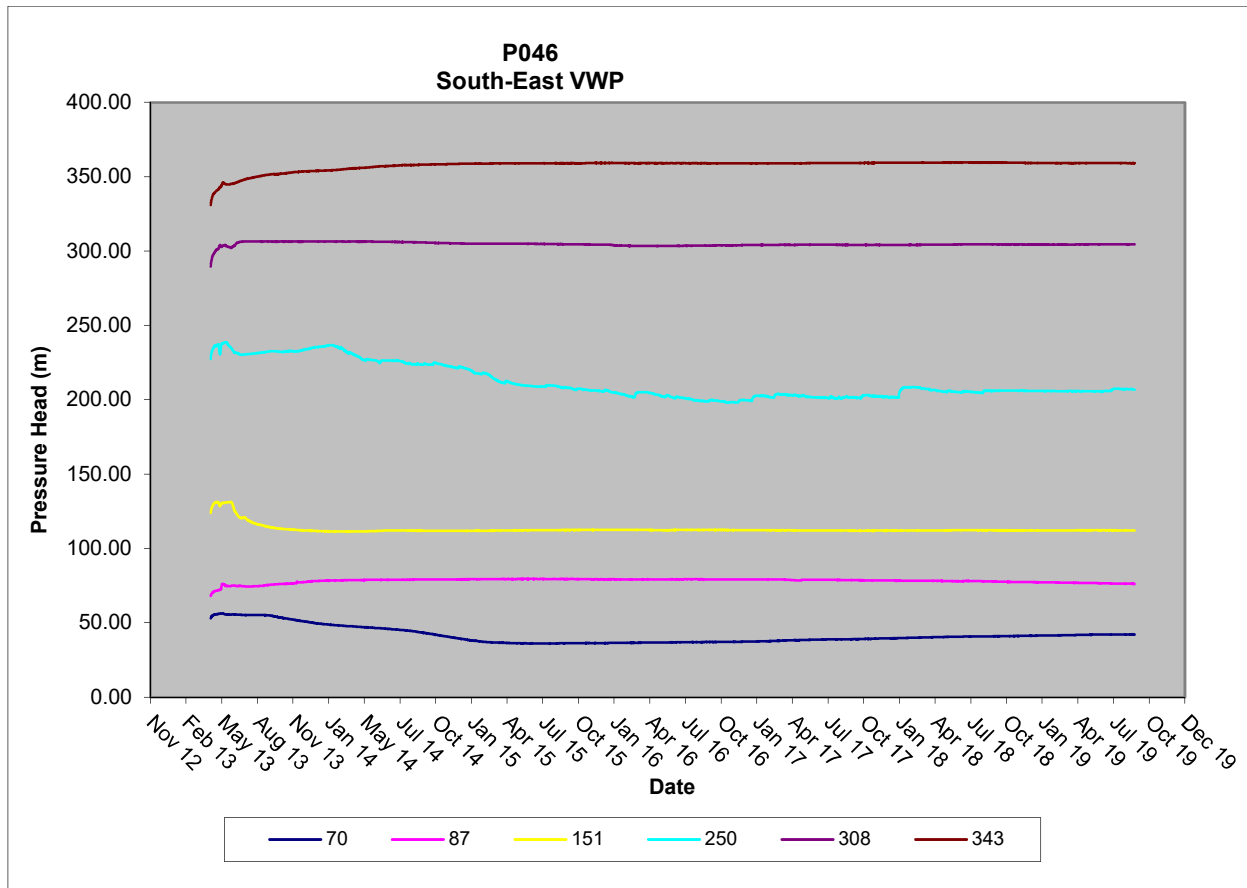
Piezometer depth: Corresponds to the colour of the line as shown in the legend.

Explanation: All pressure (water level) remain consistent.



Location: Entrance to the mine, off the Kamilaroi Highway

Piezometer depth: Corresponds to the colour of the line as shown in the legend.



Location: Kurrajong

Piezometer depth: Corresponds to the colour of the line as shown in the legend.

Surface Water Monitoring

No wet weather discharges from licensed discharge points has occurred since 2017.

Subsidence (5/2/2019)

Narrabri Mine has monitored the subsidence movement across the surface of LW 107, 108 & Line H in accordance with the approved Extraction Plans. The table below outlines the maximum subsidence parameters recorded as part of the subsidence monitoring program and a comparison with the maximum predicted subsidence parameters as outlined in the Extraction Plan.

Longwall Panels (LW) 107 – 108		
	Maximum Predicted Extraction Plan	Maximum Measured
Line 101 – Centre of LW101 – Monitoring has ceased		
Line 102 – Centre of LW102 – Monitoring has ceased		
Line 103 – Centre of LW103 – Northern – Monitoring has ceased		
Line 103 – Centre of LW103 – Southern – Monitoring has ceased		
Line 104 – Centre of LW104 – Northern – Monitoring has ceased		
Line 104 – Centre of LW104 – Southern – Monitoring has ceased		
Line 105 – Centre of LW105 – Northern – Monitoring has ceased		
Line 105 – Centre of LW105 – Southern – Monitoring has ceased		
Line 106 – Centre of LW106 – Northern – Being closed out		
Line 107 – Centre of LW107 – Northern		
Subsidence (m)	2.75	2.74
Tilt (mm/m)	44	28.0
Tensile Strain (mm/m)	13	10.3
Compressive Strain (mm/m)	16	12.4
Angle of Draw (°, Degrees)	26.5	24.1
Line 108		
Subsidence (m)	2.75	2.64
Tilt (mm/m)	38	36.3
Tensile Strain (mm/m)	10	16.2
Compressive Strain (mm/m)	13	38.9
Angle of Draw (°, Degrees)	?	27.1
Line 108 – Southern		
Line A – Cross Panel Survey Line – Being closed out		
Line B – Pine Creek Tributary 1 – Monitoring has ceased		
Line D – Pine Creek – Monitoring has ceased		
Line E – Pine Creek Tributary 1 Crossline 1 – Monitoring has ceased		
Line F – Pine Creek Tributary 1 Crossline 2 – Monitoring has ceased		
Line G – Pine Creek Tributary 1 Crossline 3 – Monitoring has ceased		
Line H – Cross Panel Survey Line		
Subsidence (m)	2.75	2.86
Tilt (mm/m)	53	30.9
Tensile Strain (mm/m)	13 – 20 [^]	15.6
Compressive Strain (mm/m)	16 – 24 [^]	6.8

* - subsidence development incomplete.

[^] - values for 'smooth' and 'discontinuous' (i.e. crack affected) subsidence profiles.

Based on the above table the subsidence predictions for the most recently completed survey, i.e. LW108 northern line, indicate:

- The maximum subsidence measurement of Line H (2.86m) exceeds predicted value of 2.75m. LW 107 and 108 are within compliance.
- The maximum tilt measurements recorded were within the predicted values.
- The maximum tensile and compressive strain measurements for LW107 and Line H were within predicted values, with LW 108 exceeded the predicted values.

Complaints

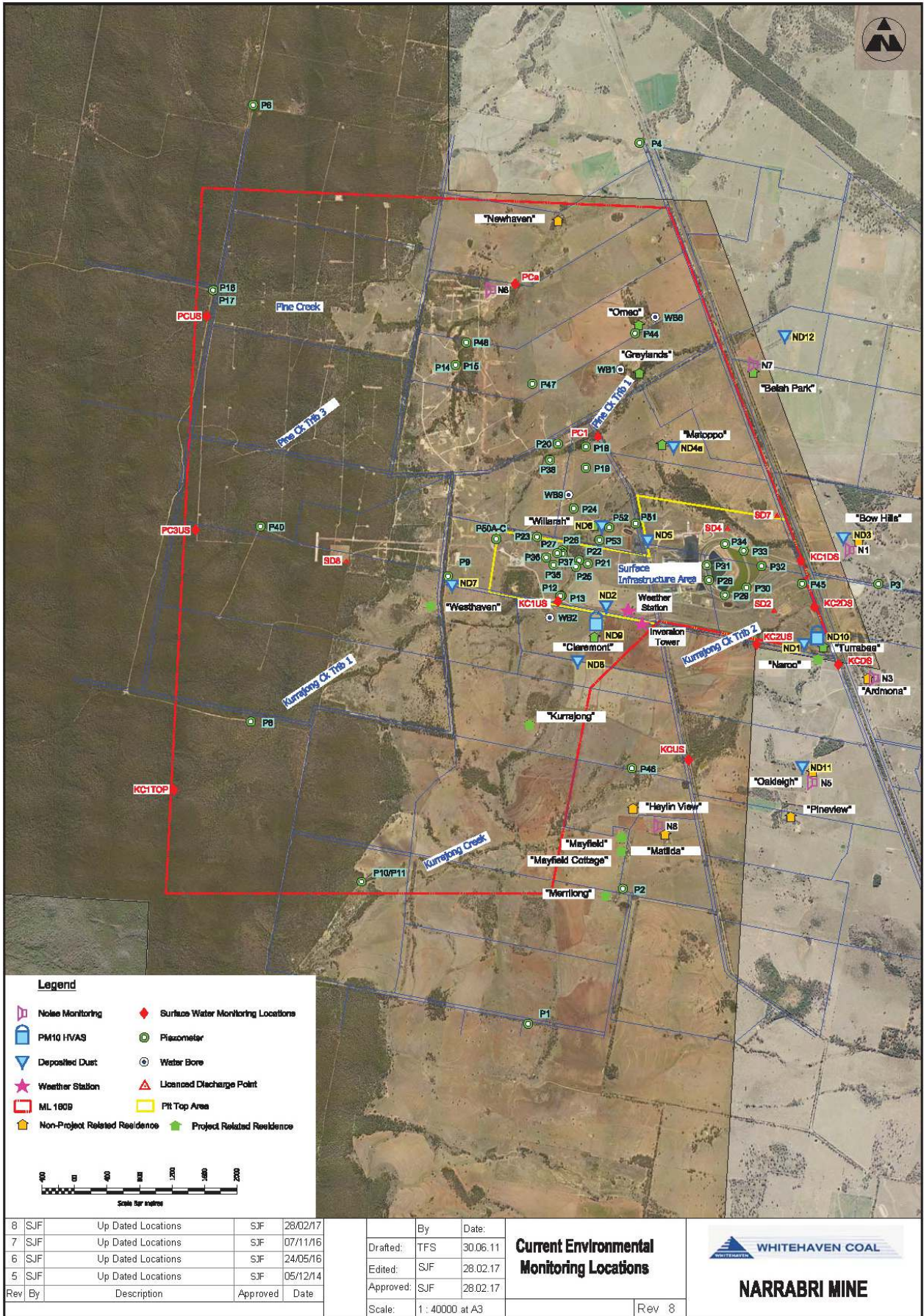
14 complaints received during the period 01st July to 11th September. Complaints in relation to Noise from main vent fan. 13 Complaints from single complainant. Noise attenuation activities undertaken on main vent fan and gas drainage extraction units.

Incident(s)

No reportable incidents.

Regulator Interaction

- Resources Regulator
 - A Decision to Suspend Exploration License 6243 was issued by the Regulator on Thursday the 22nd of August 2019. NCO are progressing rehabilitation works and other actions requested by the Regulator, such as undertaking of an independent audit and review of Environmental Management Systems.
 - Final component of information was provided to the Resources Regulator to address a Section 240 Notice in relation to the Rejects Emplacement Area.
- EPA
 - A Penalty Infringement Notice (PIN) was issued to NCO on 14th June, in relation to alleged dust pollution from coal stockpiles on 05th January. Whitehaven lodged an appeal to the PIN on 10th July. Appeal unsuccessful. Fine of \$15,000 paid on 07th August.
 - Response to Clean-Up Notice (Narrabri Landfill incident) was lodged with EPA on 17th July. NCO are continuing negotiations with Narrabri Shire Council and EPA regarding resolution of this matter.



Rev	By	Description	Approved	Date
8	SJF	Up Dated Locations	SJF	28/02/17
7	SJF	Up Dated Locations	SJF	07/11/16
6	SJF	Up Dated Locations	SJF	24/05/16
5	SJF	Up Dated Locations	SJF	05/12/14

By	Date
Drafted: TFS	30.06.11
Edited: SJF	28.02.17
Approved: SJF	28.02.17
Scale:	1 : 40000 at A3

Current Environmental Monitoring Locations

Rev 8



Narrabri Mine Community Consultative Committee Meeting #47

Date: Wednesday 04th December 2019
Time: 5:00pm
Location: Baan Baa Hotel

Present: Russel Stewart (RS)
Peter Webb (PW)
Mark Foster (MF)
Rodney Dunlop (RD)
James Steiger (JS)
Cameron Staines (CS)
Steve Bow (SB) – Narrabri Coal – General Manager
David Ellwood (DE) – Narrabri Coal – Director Stage 3 Project
Brent Baker (BB) – Narrabri Coal - Environmental Superintendent
Shena Newman (SN) – Narrabri Coal- Graduate Environmental Officer
Aron Cane (AN)- Narrabri Coal- Surface Operations Manager
Danielle Russell- CDM Smith (for Stage 3 Social Impact Assessment)
Brenton Doyle- CDM Smith (for Stage 3 Social Impact Assessment)

Apologies: Geoff Hunter (GH)

1. DECLARATION OF PECUNIARY INTEREST

- RD advised that he is contracting to Narrabri Coal Operations part-time, assisting with environmental matters.
- CS advised he is contracting to Namoi Waste, carting water at Whitehaven Coal- Maules Creek mine.

2. PREVIOUS MINUTES

CS moved that previous minutes are accepted as an accurate record.

Moved: JS Seconded: MF

2.1 BUSINESS ARISING FROM PREVIOUS MINUTES**2.1.1 New CCC members**

- RS informed the CCC that an advertisement was put in local papers and three responses received. Ian Duffy, Charles Melbourne and Alan Grumly.
- RS asked if the committee could revisit and re-think how many new members the CCC will take, as previous meeting it was agreed that only two new members would be accepted. General discussion ensued and all members were OK with three new members. RS raised motion to accept all three applicants.
Moved: JS Seconded: RD
- RS said that all three new CCC members will be approved by the next meeting.

2.1.2 Water Licence Usage update

- BB informed CCC that we have added water licensing data to the environmental report and that we will discuss when we go through that report. GH asked if we had full water licences and BB informed him that we do and we are compliant in terms of our water usages. SB informed CCC that we use a lot less water than Maules Creek.

2.1.3 Update on Whitehaven Corporate restructure re. Community and Landholder team

- BB informed that much has not happened at this stage and that there have been a lot of changes in the Whitehaven corporate structure/leadership team. Whitehaven are currently recruiting for a new role in Gunnedah.

3. OPERATIONS PROGRESS REPORT AND SAFETY UPDATE

Presented by SB

Mine Progress Report (September – November 2019)

Coal produced (t):	Nov 2019	230,219
	FY-to-date	2,008,305
Coal Railed (t):	Nov 2019	382, 526
	FY-to-date	2,648,462
Average workforce numbers (Nov 2019):		
	NCO	Waged – 148
		Salary – 121
		Total – 269
	Contractors	Total – 172

Safety Update (FY to 30 Nov 2019):

Lost Time Injury (LTI)	3
Days LTI Free:	35
Total Recordable Injuries:	5
Planned Task Observations:	5293
Take 5 Assessments:	77,337
Work Hours	400,000

- SB informed that nothing unusual has occurred, production has been steady in the last quarter, NCO is on budget for the year and our safety has been good.
- SB discussed ongoing work around rectifying Exploration Lease suspension and Narrabri landfill issues.
 - JS asked if landfill is still catching on fire, SB advised that the landfill has not been on fire since April.
- Other matters: Employment has been steady, still completing Clean Skin recruitment program, minimal employment turn over.
- RS asked about alcohol and random drug testing. SB discussed that alcohol testing is conducted during sign in and everyone has to do it. Drug testing is on a random basis every 3 months or so, everyone should be tested at least once a year.

4. ENVIRONMENTAL MONITORING REPORT

See Appendix A

Presented by BB

- DEPOSITIONAL DUST- the table shows annual average below compliance limit of 4g/m²/month.
- PM10 AIR QUALITY- NCO recorded exceedances at monitoring locations Claremont (on 17/10/19) and Turrabaa (29/10/19). Results attributed to poor regional air quality. Both exceedances have been reported to the Department of Planning (DPI&E).
- QUARTERLY NOISE MONITORING- was conducted during the morning, evening and night time between the 3rd-5th of September with one exceedance reported at High Range property. The exceedance was reported to the landholder and regulatory authorities.
- SURFACE WATER MONITORING: No discharges.
- WATER LICENSING: Water Licencing will be included in every meeting going forward. First graph is Zone 5 usage. Current 'Available Water' allocation is approximately 360 ML, with usage YTD at 140 ML so we are tracking fine. MF asked if this was FY19-FY20, BB confirmed. BB asked for clarification as to whether this is the sort of information the CCC members want to see in regard to water licencing, JS confirmed that it is.
CS asked if we could share the unused allocation of water licenses with farmers or other WHC sites (eg. in a really wet year with plenty of River flow etc). CS stated that he thinks it's important that when the good times come it's important for others to know that Whitehaven will consider sharing their water supply. BB stated that NCO would not commit to this at this stage however it could be considered in the future.
RS stated that we should note that this water licencing discussion took place for future reference.
Nothing happening on Namoi River graph, no river flow.
Mine dewatering graph: BB explained the licence is for 850ML for aquifer interference. JS asked if desalination plant is still doing 2 ML per day. AC anything from 1.2-1.5ML per day. JS asked if graph could show a water usage number for how much water is desalinated, SB stated it's not a simple calculation as there is a lot of different types of water going through the desalination plant.
- GROUNDWATER MONITORING: BB stated that during our annual review these graphs are interpreted by a groundwater hydrologist, and we can discuss in more detail once Annual Review is completed which should be in the next CCC meeting (January 2020).
- SUBSIDENCE MONITORING: Last monitoring on the 13th of November and survey data collected 6 monthly. BB discussed that Line H exceeded the predicted value for the maximum subsidence measurement. LW107 – LW108 are within compliance however LW 108 did exceed in predicted tensile and compressive strain values. BB discussed that NCO completed an internal audit which a subsidence expert attended. The subsidence expert had to go over all our subsidence data to date. Do not have current report, information should be shared at next meeting if there were any subsidence issues discovered. Next panel, LW109, will be started in January 2020, LW move currently underway, moving west from LW108.
- COMPLAINTS: BB discussed complaints summary. SB stated that we are looking at installing noise attenuation measures around the main vent fans.

5. GENERAL BUSINESS

- JS asked about the meeting minutes, and commented that it was over-kill that the meeting minutes are sent out in DRAFT format following the meeting, and then a FINAL copy is sent. BB stated that was requested by CCC members and was agreed on in the last meeting. JS stated that this can be revisited at any stage. Was discussed that Minutes be sent out with no DRAFT text on them, and if BB receives no amendments to the minutes within the two weeks he will assume that all CCC members agree to what is written in the minutes.

6. Stage 3 Update

Presented by DE

- **Past three months:** Over the past three months work on a series of EIS studies have been ongoing. Some of these studies include Aboriginal Cultural Heritage Assessment surveys which has just been completed, Flora and fauna surveys which are ongoing, and the road transport assessment is currently in a final draft format.

Some feedback from the road transport plan is that due to the project being an extension and not a new mine that it will have minor or no impact to the current usage on the Kamilaroi Highway.

Community consultation undertaken over the last three months included meetings with the local aboriginal parties on 5 November (Narrabri LALC) and 4 December (GNAC), surrounding landholder where interviewed as part of SIA during 4-7 November, further consultation is being undertaken this week (4-5 December). Further consultation will be undertaken in January and February with landholders, RAPs and Councils once results of EIS studies are available. A Community newsletter was issued in the Narrabri and Gunnedah newspapers on the 7th November. A surface site tour was held for the Narrabri chamber of commerce this morning.

- **Next three months:** Further interviews with local landholders will be held in January and February, Whitehaven is planning to attend Gypsy Willow River Markets early next year, a series of government briefings will be held over the coming weeks to update them on the project. We are also reviewing the timing of the next information session, this session will be dependent upon the completion of EIS studies to be able to supply more information.
- JS asked how many went on the site surface tour, DE stated it was the Chamber of Commerce and that more tours will be held in the future.
- CS asked about EIS results, DE clarified that there will be more studies conducted in June with the final report being submitted for approval at the end of next year.
- Reviewing the time of the next information session, holding off until feedback is given from the consultants conducting the EIS.

DE introduced CDM Smith, who presented Stage 3 Social Impact Assessment (refer attached).

Date and Agenda for next meeting: Wednesday 5pm- 04/03/2020 at NCO offices.

Deposited Dust Monitoring

Month	ND1 Turrabaa	ND2 Claremont	ND3 Bow Hills	ND4a New Matoppo	ND5 Claremont	ND6 Willarah	ND7 Claremont	ND8 Claremont	ND11 Oakleigh	ND12 Merriman	ND13 Darjeelang
16-Sep-19	2.8	0.4	1.8	0.6	1.4	NS	2.0	0.8	0.9	1.2	1.1
15-Oct-19	5.7	3.1	2.2	2.2	3.3	1.6	1.8	1.2	1.9	1.8	0.9
15-Nov-19	5.2	1.1	4.1	2.3	2.0	2.0	2.4	1.0	1.7	3.7	1.2

Results are assessed during the end of year Annual Review process, and if it is determined that mine related activities have caused an exceedance above the annual average limit of 4 g/m²/month appropriate notifications will be prepared. Currently average results for all sampling locations are below the compliance limit.

PM₁₀ High Volume Air Sampling (HVAS)

The Claremont HVAS is returning an annual average of 12.82 µg/m³, which is well below the annual average limit of 30 µg/m³. Since the previous CCC meeting there has been an exceedance of the 24 hour limit of 50 µg/m³ on the 17th of October 2019 (result of 57.7 µg/m³) due to poor average air quality across NSW. The exceedance was reported to DPI&E.

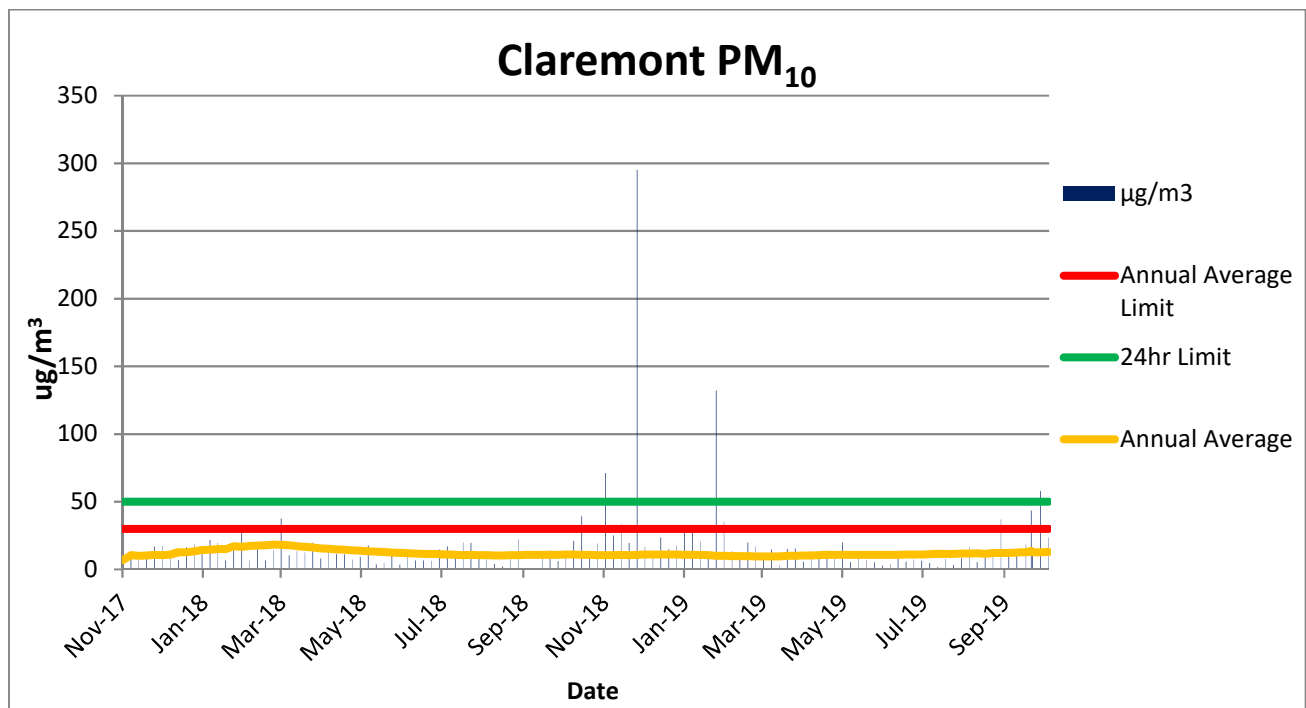


Figure 1: Claremont PM₁₀ HVAS results. Samples are collected over a 24 hour period once every week, with a (24hr) compliance limit of 50.0µg/m³. Peaks in Nov 2018, Feb 2019 and Oct/Nov 2019 have been attributed to poor regional air quality and were reported to DPI&E.

The Turrabaa HVAS is returning an annual average of 15.85 $\mu\text{g}/\text{m}^3$, which is well below the annual average limit of 30 $\mu\text{g}/\text{m}^3$. Since the previous CCC meeting there has been exceedance of the 24 hour limit of 50 $\mu\text{g}/\text{m}^3$ on the 17th September (result of 50.9 $\mu\text{g}/\text{m}^3$) and 29th October (result of 69.4 $\mu\text{g}/\text{m}^3$) due to poor average air quality across NSW. The exceedances were reported to DPI&E.

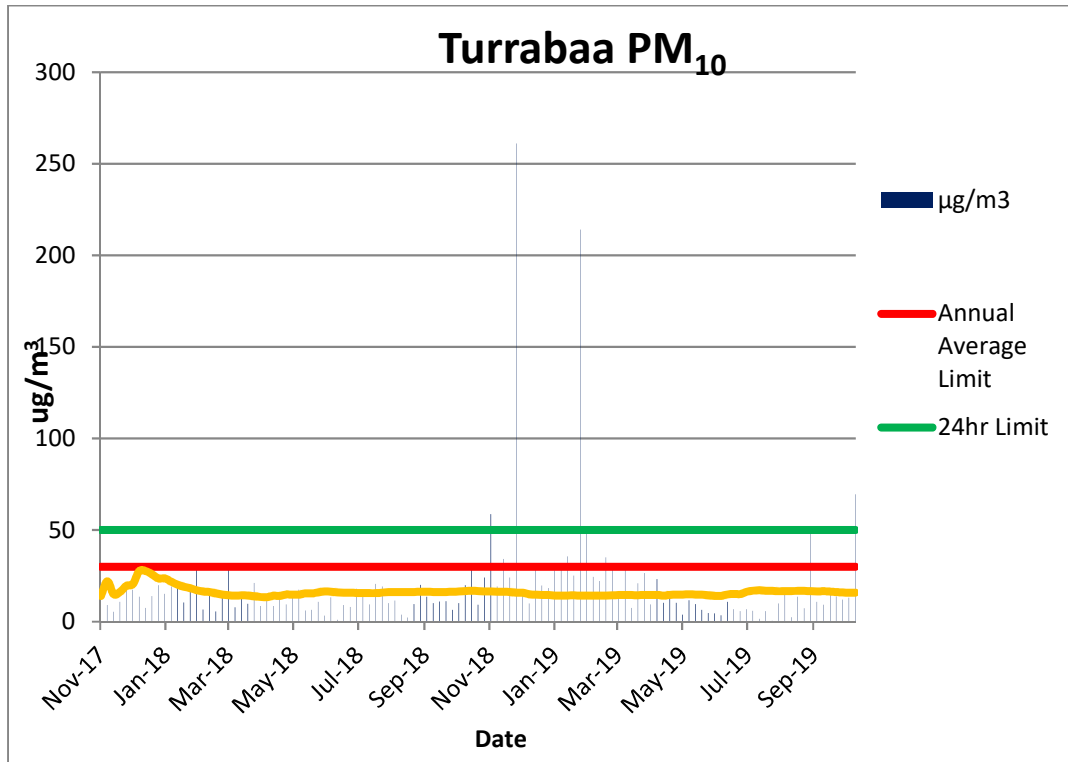


Figure 2: Claremont PM10 High Volume Air Sampler results. Samples are collected over a 24 hour period once every week, with a (24hr) compliance limit of 50.0 $\mu\text{g}/\text{m}^3$. Peaks in Nov/Dec 2018, Feb 2019 and Nov 2019 have been attributed to poor regional air quality and were reported to DPI&E.

Noise Monitoring

Attended noise monitoring was undertaken between 03-05 September 2019 in accordance with mine approvals. An exceedance of the LAeq(15minute)35dBA compliance limit was recorded at monitoring location N9 "High Range" property during the evening on 04/09/2019. The result was 37dB with a 2dB modifying factor correction for low frequency noise applied. The exceedance was reported to the affected landholder and relevant authorities. Compliance was achieved at all other monitoring locations.

Quarter 4 attended noise monitoring was undertaken between 19-21 December 2019. Interim results indicate compliance was achieved at all locations.

Table 1 Performance Assessment – Operations

EPL ID	Location	Date	Narrabri Mine Contribution dBA				Noise Criteria ²	Measurement Periods	Weather Compliant			Compliant		
			LAeq 15 min Day	LAeq 15 min Evening	LAeq 15 min Night	LA1 (1 min) Night			Day	Evening	Night			
N5	Oakleigh	03/09/2019	I/A	34	33	39	Day, Evening and Night – LAeq(15minute) 35 dBA Night LA1(1minute) – 45 dBA	Day - 1.5 hrs Evening - 0.5 hrs Night – 1hrs	Y	Y	Y	Y		
		04/09/2019	29	28	28	34			Y	Y	Y	Y		
		05/09/2019	33	26	30	36			Y	Y	Y	Y		
N6	Newhaven	03/09/2019	31	34	35	41		Day, Evening and Night – LAeq(15minute) 35 dBA Night LA1(1minute) – 45 dBA	Day - 1.5 hrs Evening - 0.5 hrs Night – 1hrs	Y	Y	N	Y	
		04/09/2019	<30	30	32	34				Y	Y	Y	Y	
		05/09/2019	I/A	26	23	24				N	Y	Y	Y	
N8	Haylin View	03/09/2019	I/A	24	30	31			Day, Evening and Night – LAeq(15minute) 35 dBA Night LA1(1minute) – 45 dBA	Day - 1.5 hrs Evening - 0.5 hrs Night – 1hrs	Y	Y	Y	Y
		04/09/2019	<25	I/A	25	27					Y	Y	Y	Y
		05/09/2019	I/A	28	30	31					Y	N	Y	Y
N9	High Range	03/09/2019	35	I/A	32	38	Day, Evening and Night – LAeq(15minute) 35 dBA Night LA1(1minute) – 45 dBA			Day - 1.5 hrs Evening - 0.5 hrs Night – 1hrs	Y	N	N	Y
		04/09/2019	39 ¹	25	28	32					Y	Y	Y	N
		05/09/2019	N/M	I/A	I/A	I/A					Y	N	Y	Y
N1	Bow Hills ²	04/06/2019	I/A	35	38	49		Day 15 min Evening 15 min Night 15 min		Y	Y	Y	Y	
N3	Ardmona	03/06/2019	I/A	33	34	38				Y	Y	N	Y	
N7	Merriman	05/06/2019	<25	30	26	27				N	Y	N	Y	
N8	Matilda	04/06/2019	I/A	I/A	29	33			Y	Y	Y	Y		

I/A = Inaudible, N/M = Not Measurable

Note 1: 2dB modifying factor correction for low frequency noise has been applied in accordance with the NPfl.

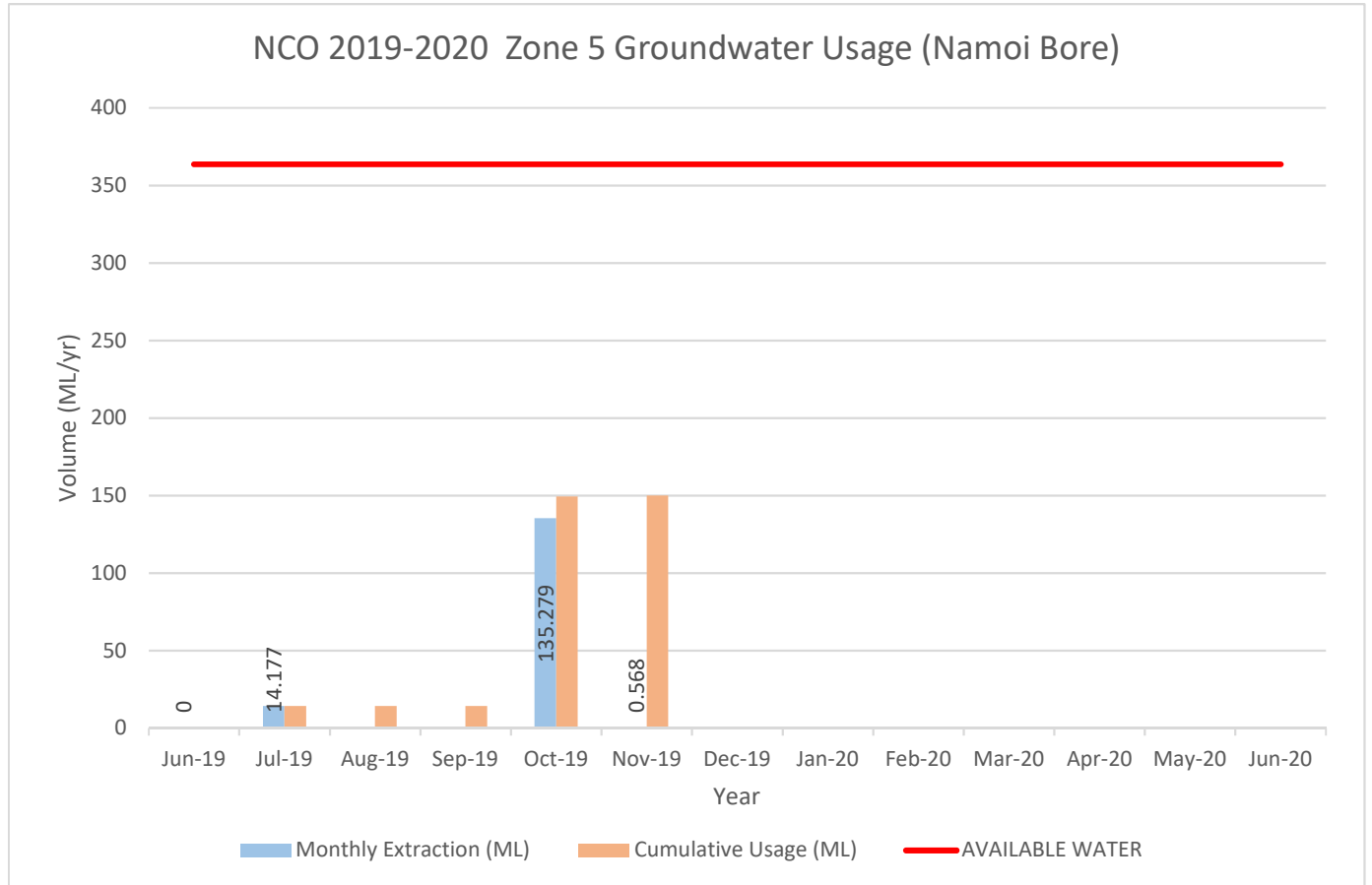
Note 2: A private agreement between NCOPL and the residents of N1 Bow Hills of 50 dBA LAeq(15minute) is in place. This new level of 50 dBA LAeq(15minute) replaces the levels identified in Conditions 1-3, Schedule 4 of PA 08_0144 Mod 2 and the identical limits contained in condition L3 of Environment Protection Licence No 12789

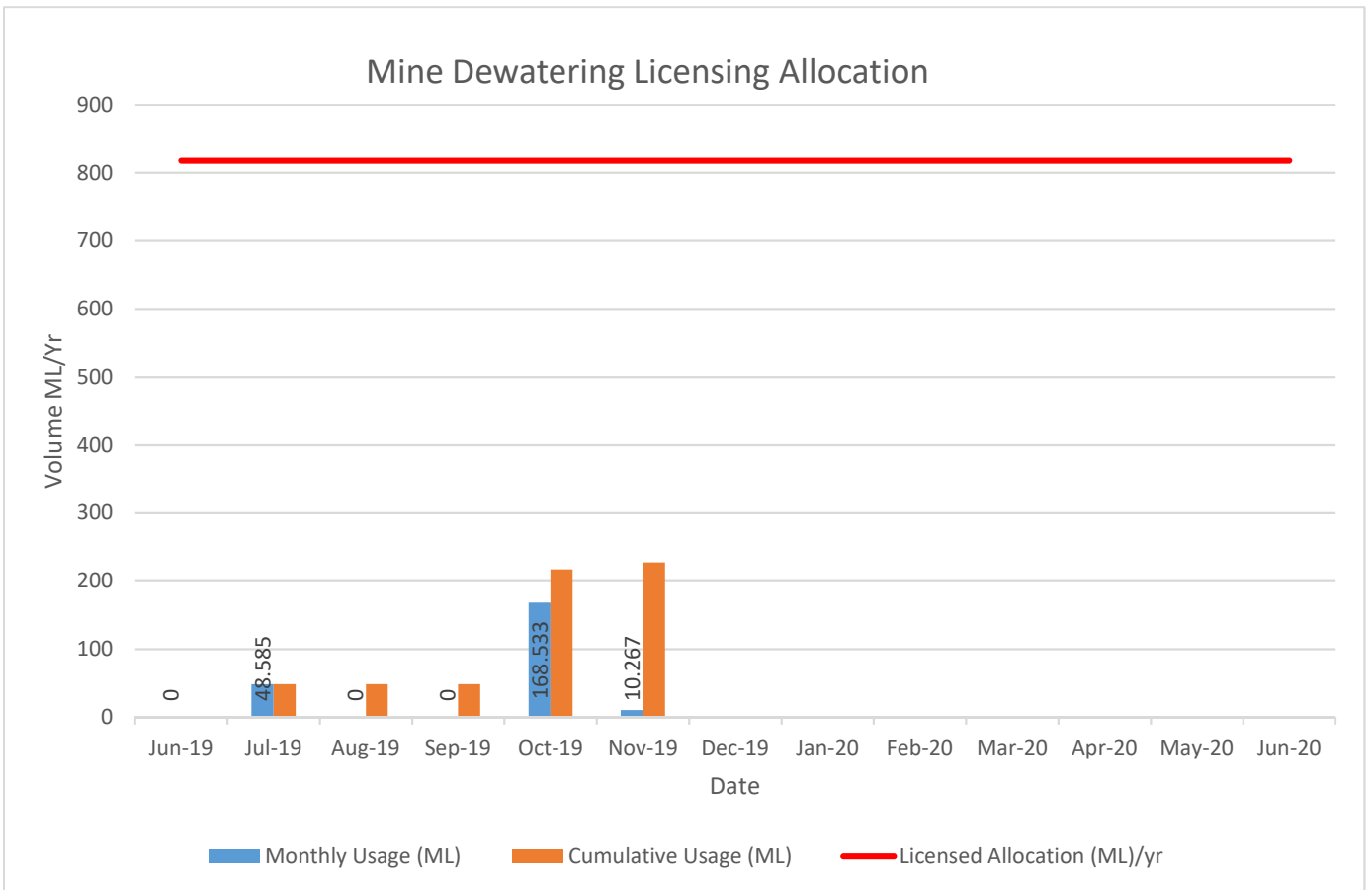
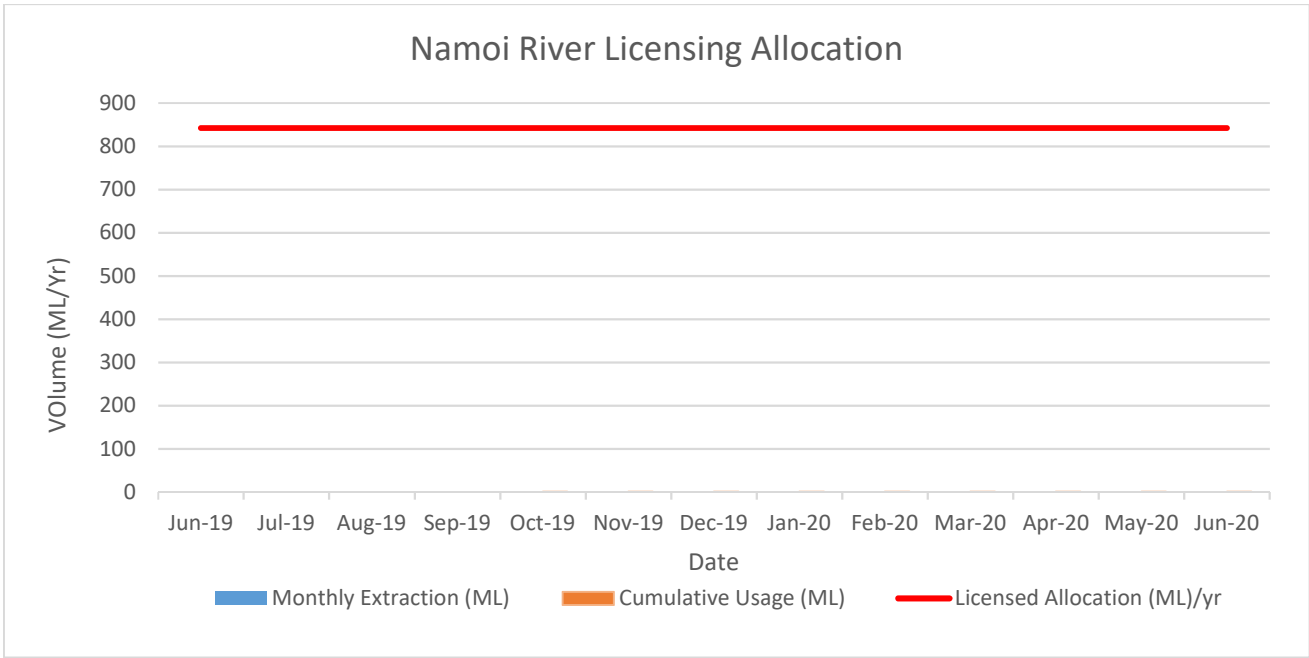
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Surface Water Monitoring

No wet weather discharges from licensed discharge points has occurred since 2017.

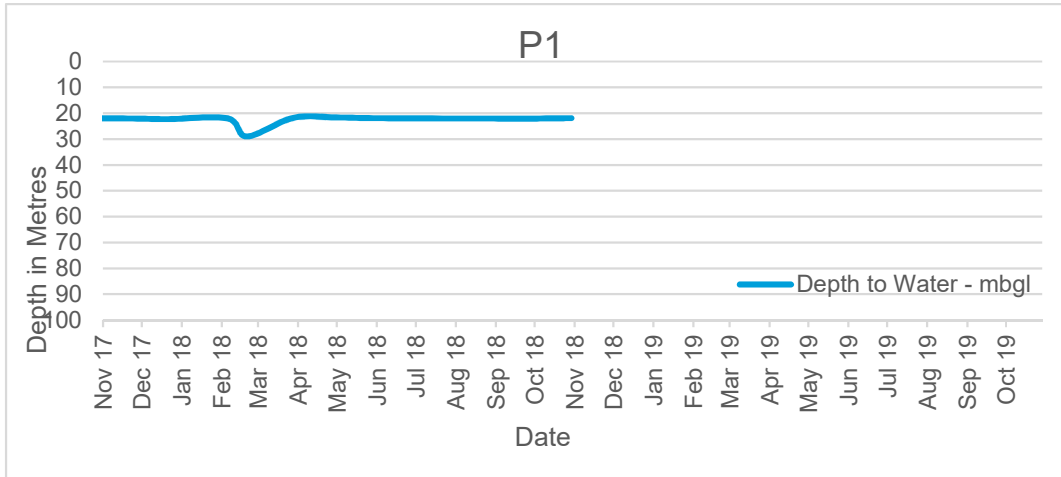
NSW Water- Licenced Usage (financial year-to-date)



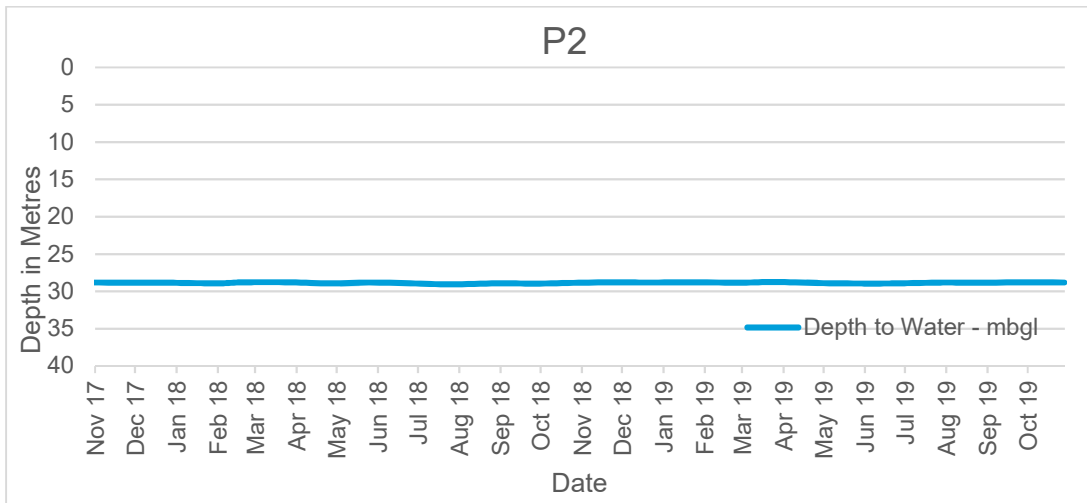


Groundwater Monitoring

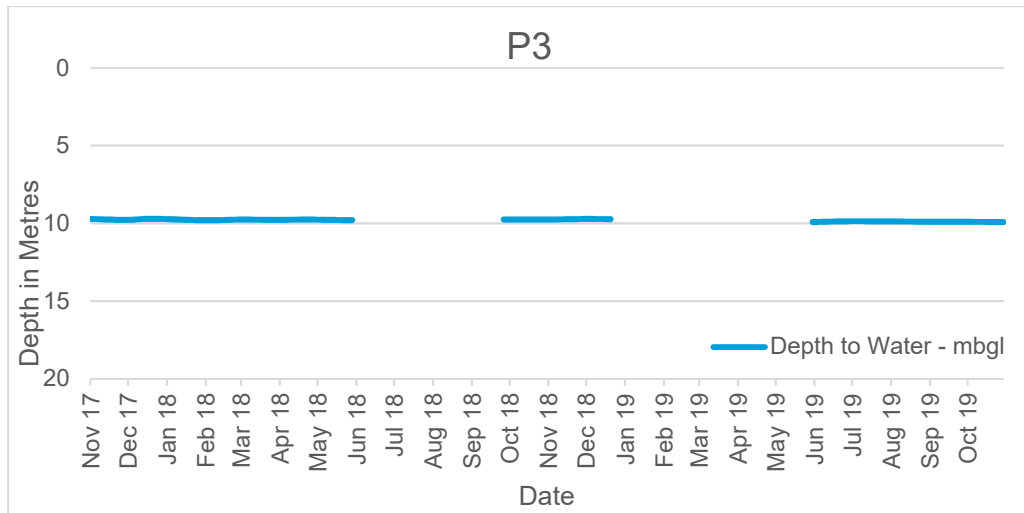
Groundwater monitoring results are reviewed at the end of each year by a suitably qualified hydrogeologist and reported on in the Annual Review.



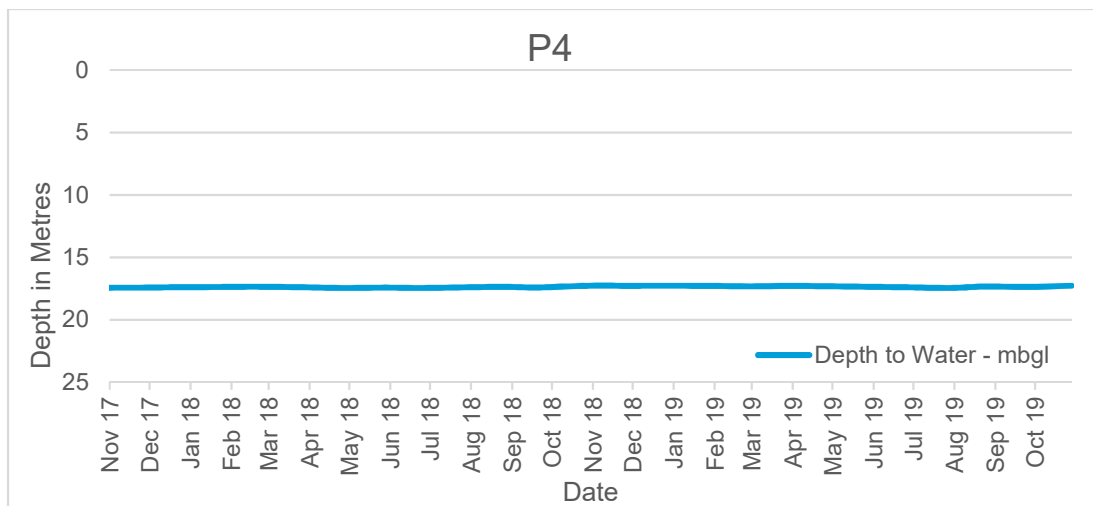
NCO Monitoring bore ID: P1
Location: Yarrabee
Geological unit: Garrawilla Volcanics
Bore depth: 50m
Explanation: land access issues



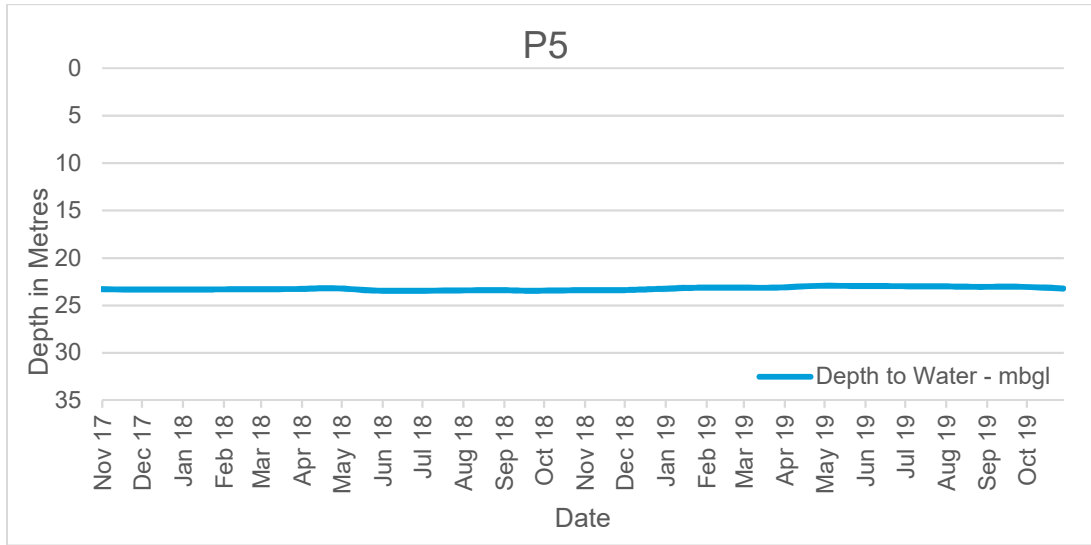
NCO Monitoring bore ID: P2
Location: Matilda
Geological unit: Napperby
Bore depth: 50m



NCO Monitoring bore ID: P3
Location: Bow Hills
Geological unit: Pamboola
Bore depth: 45m
Explanation: land access issues

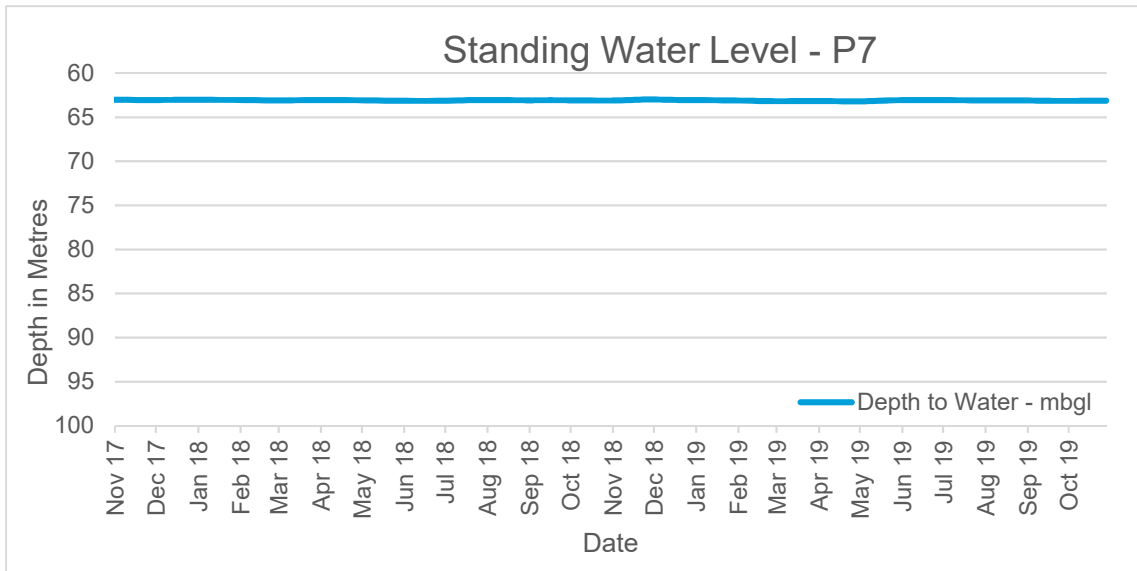


NCO Monitoring bore ID: P4
Location: North of Newhaven on Kamilaroi highway
Geological unit: Napperby
Bore depth: 30m

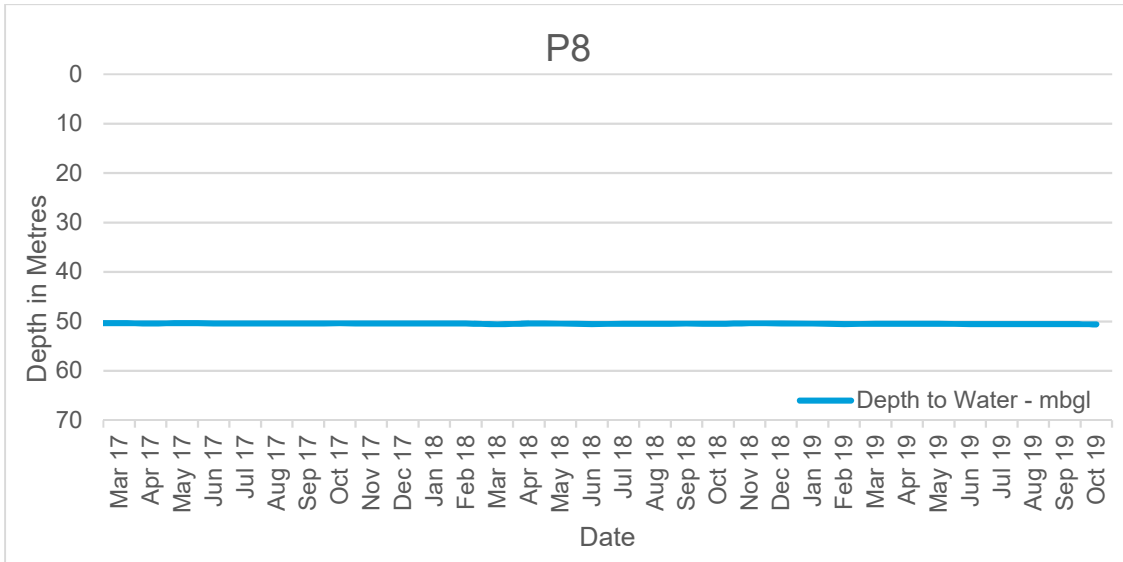


NCO Monitoring bore ID: P5
Location:
Geological unit: Pamboola

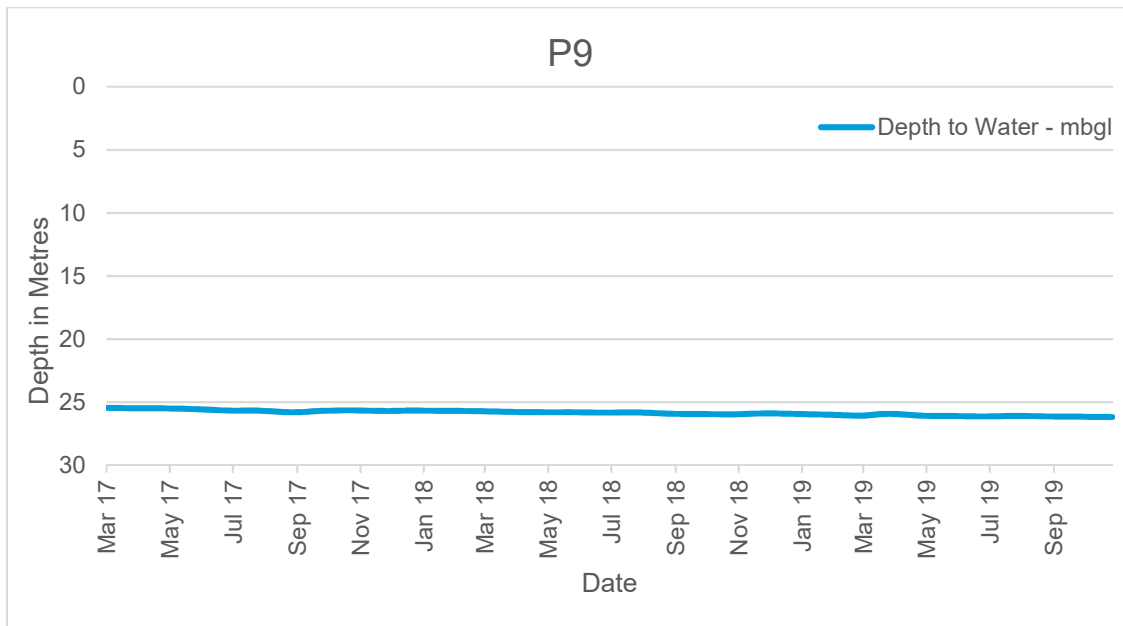
Bore depth: 30m



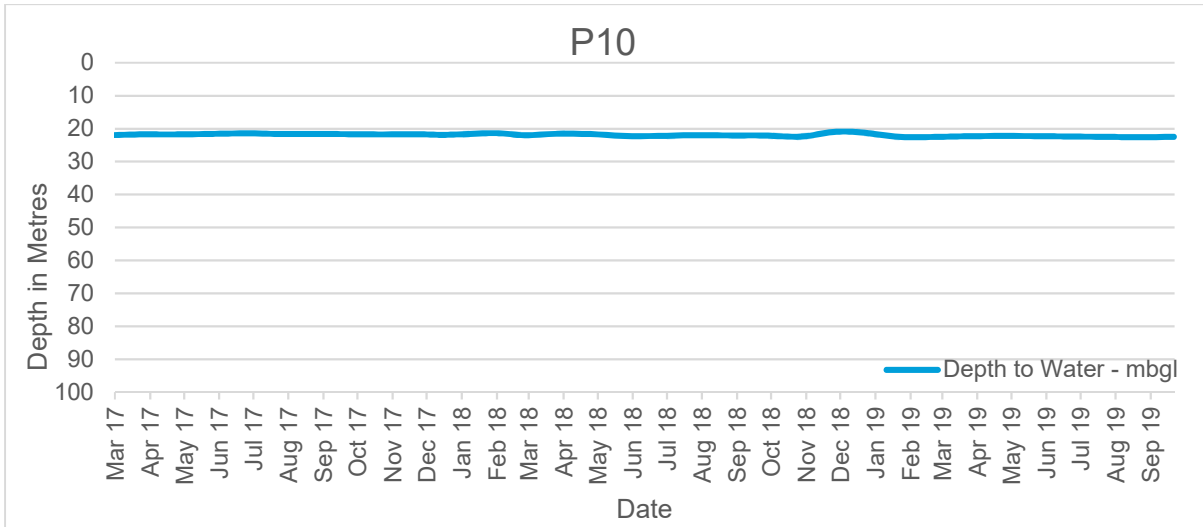
NCO Monitoring bore ID: P7
Location: TBA
Geological unit: Pilliga (Great Artesian Basin)
Bore depth: 90m



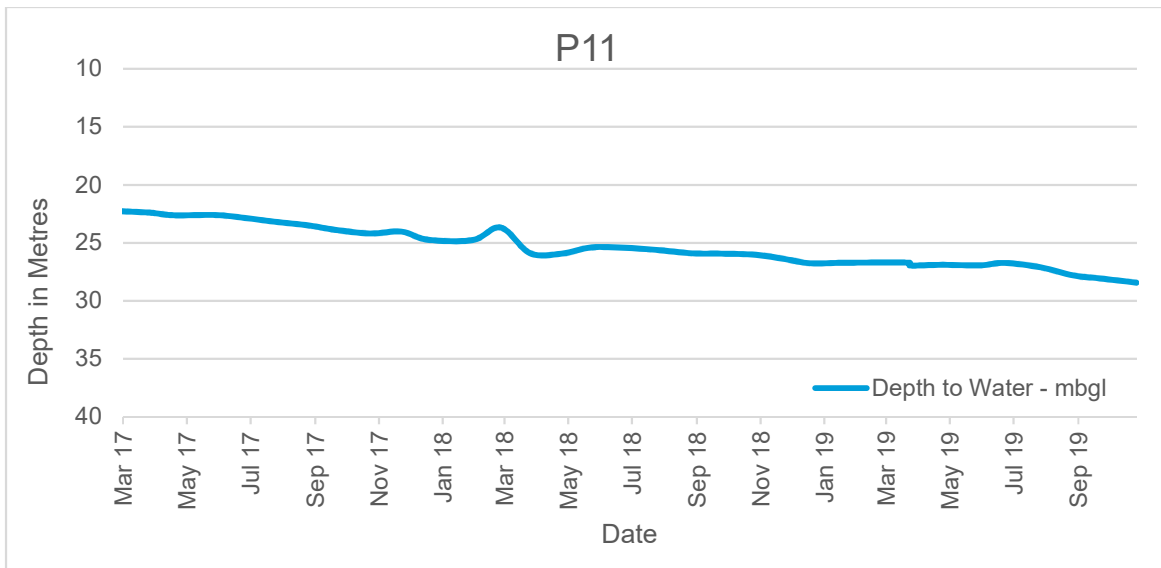
NCO Monitoring bore ID: P8
Location: Kurrajong
Geological unit: Purlawaugh
Bore depth: 65m



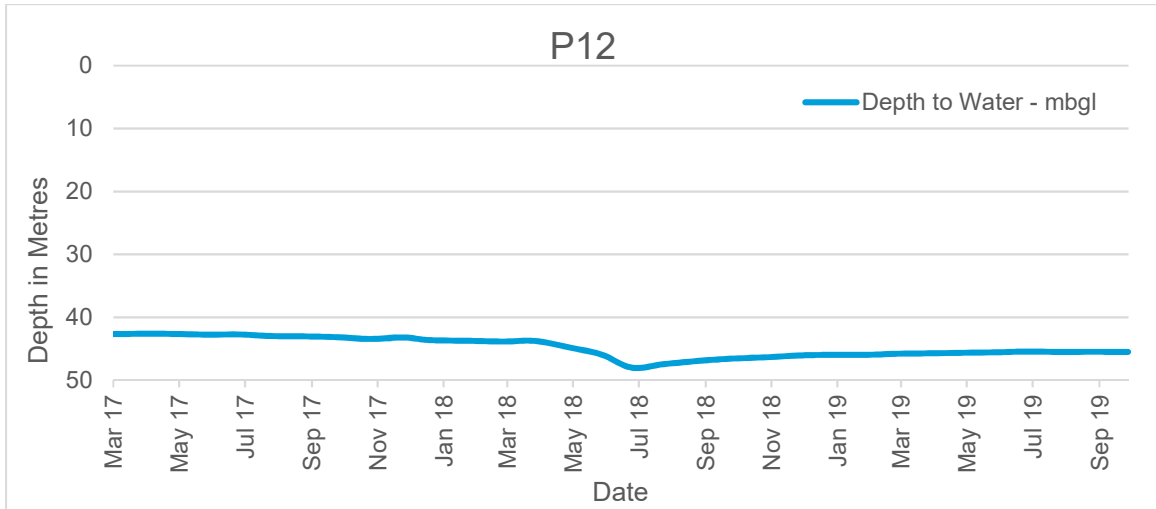
NCO Monitoring bore ID: P9
Location: NCO
Geological unit: Purlawaugh
Bore depth: 30m



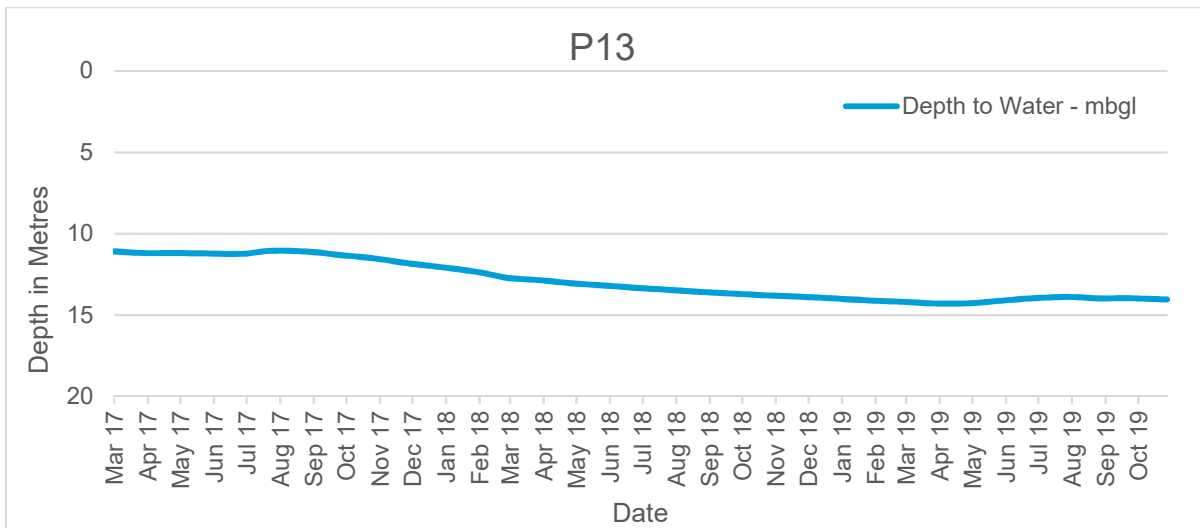
NCO Monitoring bore ID: P10
Location: NCO (Located near P11)
Geological unit: Napperby
Bore depth: 130m



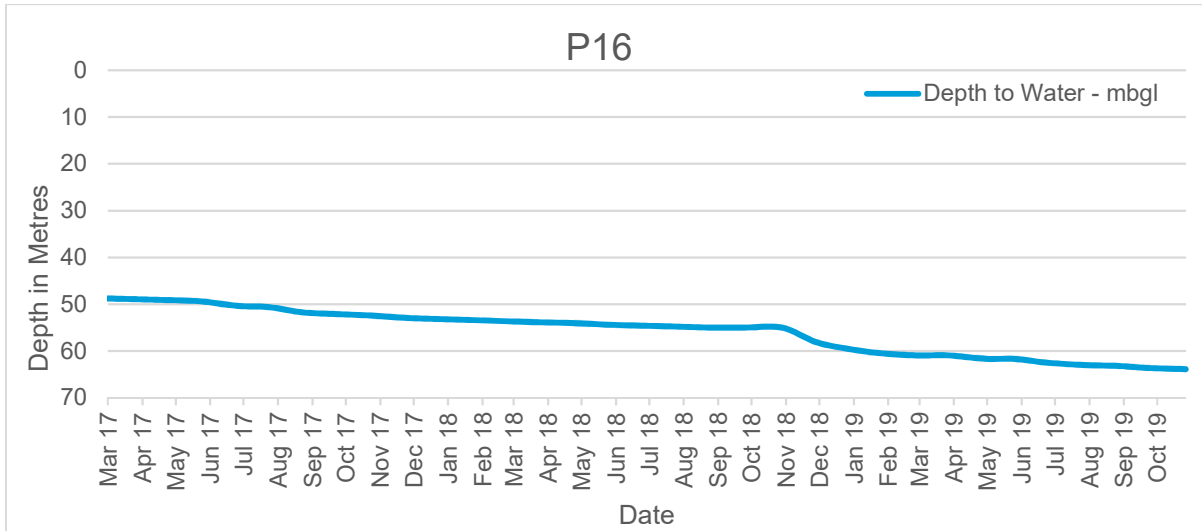
NCO Monitoring bore ID: P11
Location: NCO (Located near P10)
Geological unit: Napperby
Bore depth: 50m



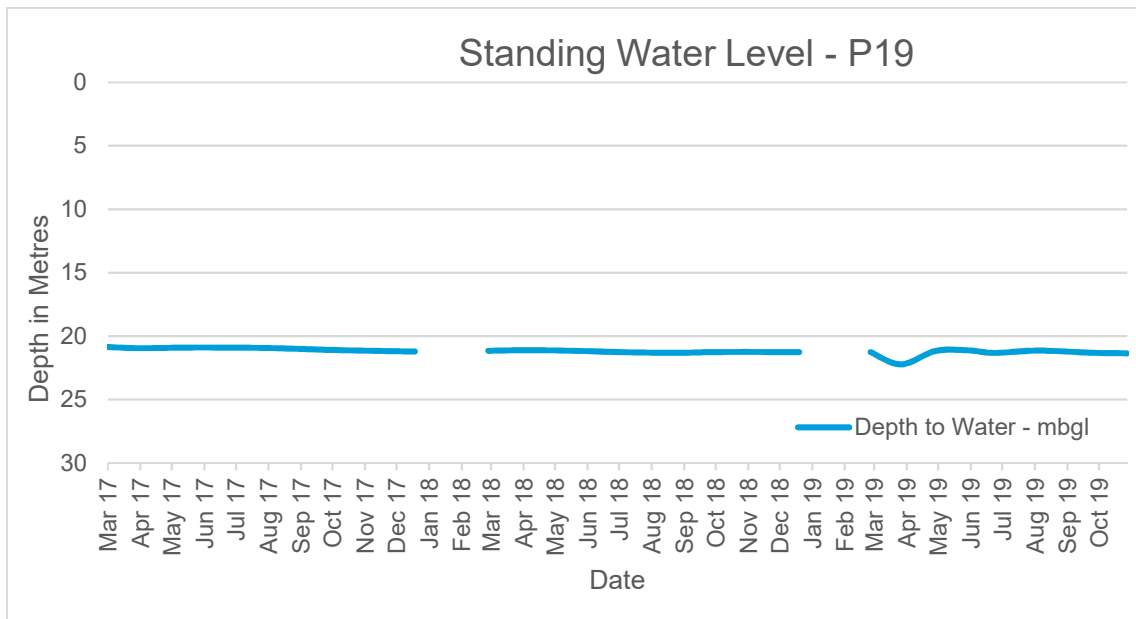
NCO Monitoring bore ID: P12
Location: NCO (Near P13)
Geological unit: Napperby
Bore depth: 90m



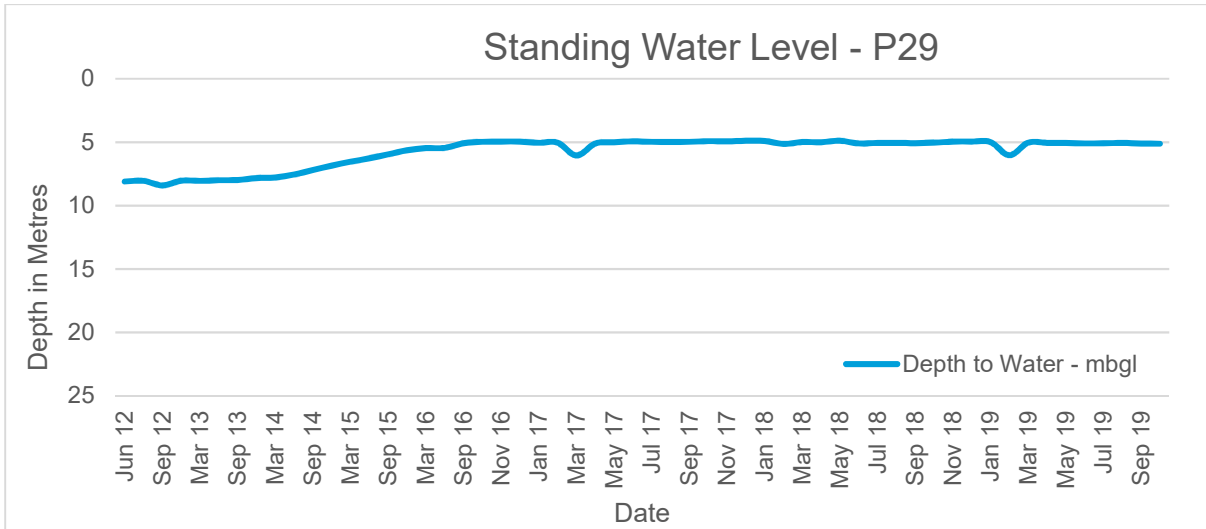
NCO Monitoring bore ID: P13
Location: NCO (Near P12)
Geological unit: Garrawilla
Bore depth: 30m



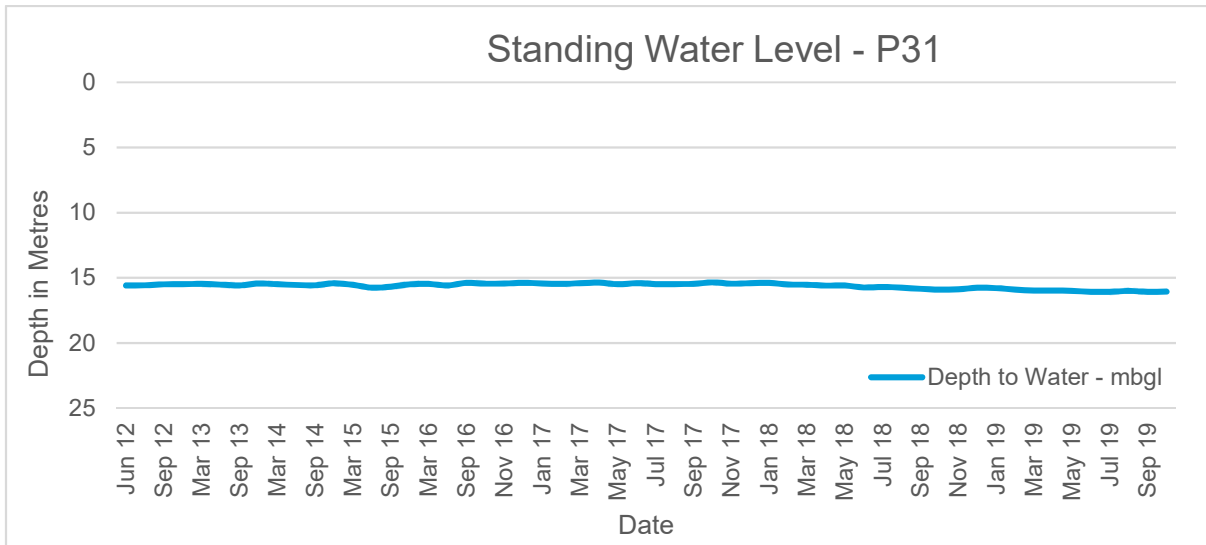
NCO Monitoring bore ID: P13
Location: NCO (Western Boundary)
Geological unit: Garrawilla
Bore depth: 146m



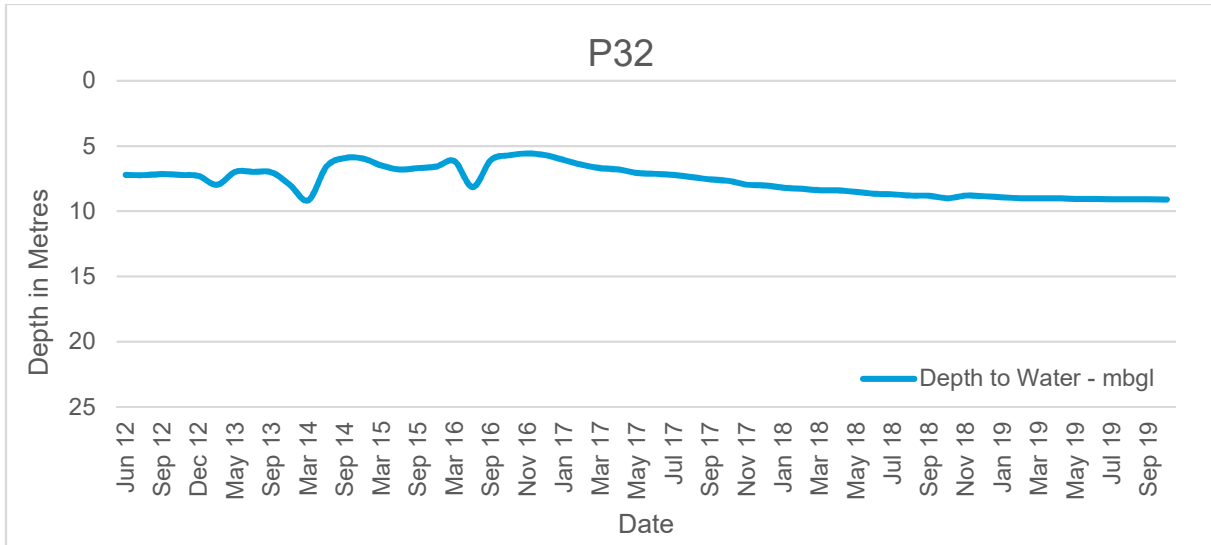
NCO Monitoring bore ID: P19
Location: NCO
Geological unit: Pamboola
Bore depth: 187m



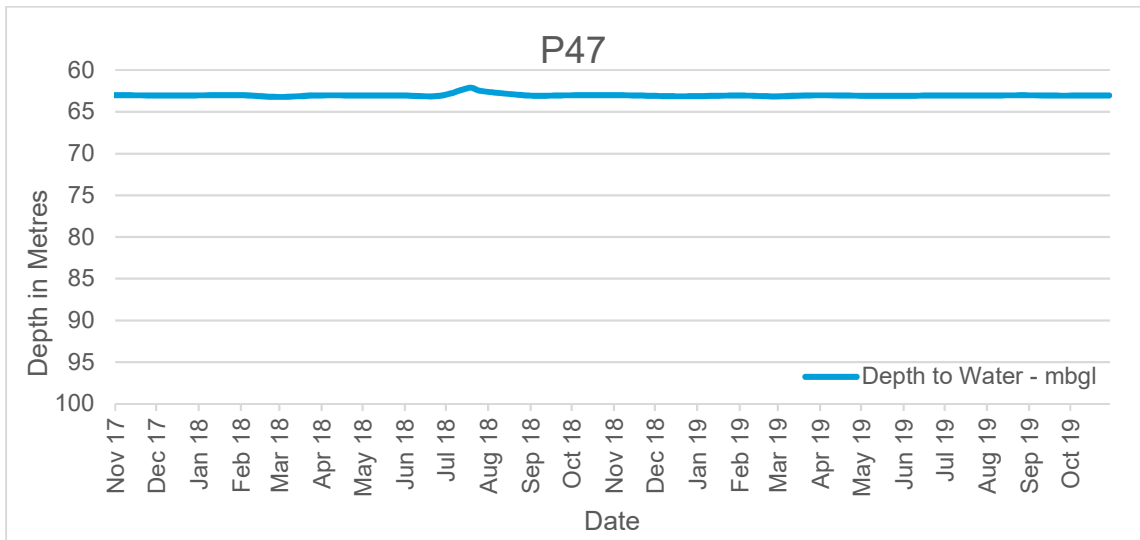
NCO Monitoring bore ID: P29
Location: NCO (Near site dams)
Geological unit: Napperby
Bore depth: 25m



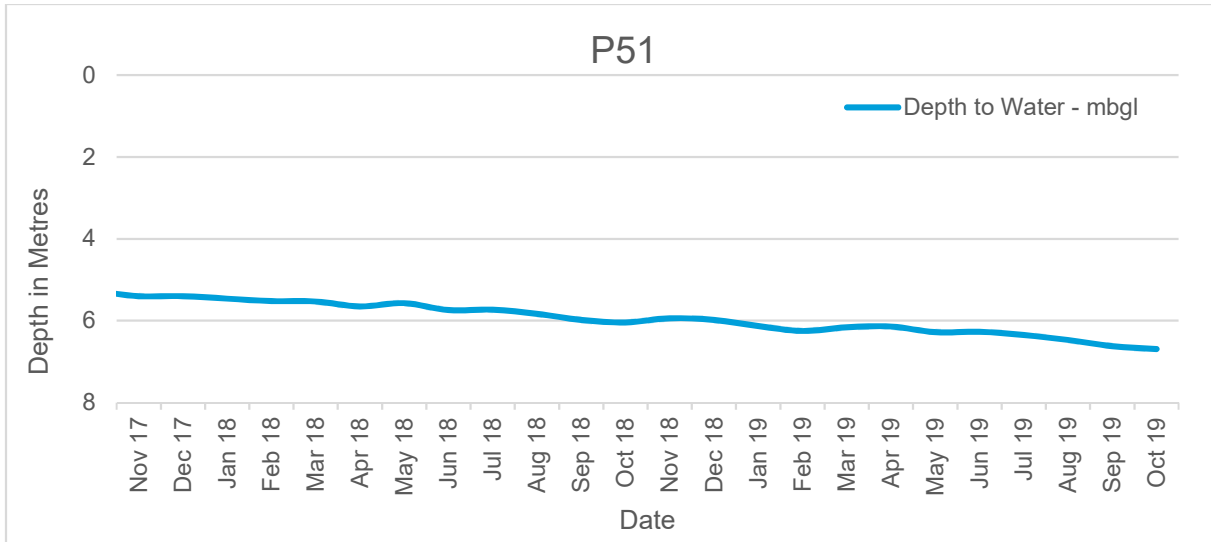
NCO Monitoring bore ID: P31
Location: NCO (Near site dams)
Geological unit: Napperby
Bore depth: 15m



NCO Monitoring bore ID: P32
Location: NCO (Near site dams)
Geological unit: Napperby
Bore depth: 15m



NCO Monitoring bore ID: P47
Location: NCO
Geological unit: Garrawilla



NCO Monitoring bore ID: P51
Location: NCO
Geological unit: Napperby

Subsidence Monitoring

Narrabri Mine has monitored the subsidence movement across the surface of LW 107, 108 & Line H in accordance with the approved Extraction Plans. The table below outlines the maximum subsidence parameters recorded as part of the subsidence monitoring program and a comparison with the maximum predicted subsidence parameters as outlined in the Extraction Plan.

Longwall Panels (LW) 107 – 108		
	Maximum Predicted Extraction Plan	Maximum Measured
Line 101 – Centre of LW101 – Monitoring has ceased		
Line 102 – Centre of LW102 – Monitoring has ceased		
Line 103 – Centre of LW103 – Northern – Monitoring has ceased		
Line 103 – Centre of LW103 – Southern – Monitoring has ceased		
Line 104 – Centre of LW104 – Northern – Monitoring has ceased		
Line 104 – Centre of LW104 – Southern – Monitoring has ceased		
Line 105 – Centre of LW105 – Northern – Monitoring has ceased		
Line 105 – Centre of LW105 – Southern – Monitoring has ceased		
Line 106 – Centre of LW106 – Northern – Being closed out		
Line 107 – Centre of LW107 – Northern		
Subsidence (m)	2.75	2.74
Tilt (mm/m)	44	28.0
Tensile Strain (mm/m)	13	10.3
Compressive Strain (mm/m)	16	12.4
Angle of Draw (°, Degrees)	26.5	24.1
Line 108		
Subsidence (m)	2.75	2.64
Tilt (mm/m)	38	36.3
Tensile Strain (mm/m)	10	16.2
Compressive Strain (mm/m)	13	38.9
Angle of Draw (°, Degrees)	?	27.1
Line 108 – Southern		
Line A – Cross Panel Survey Line – Being closed out		
Line B – Pine Creek Tributary 1 – Monitoring has ceased		
Line D – Pine Creek – Monitoring has ceased		
Line E – Pine Creek Tributary 1 Crossline 1 – Monitoring has ceased		
Line F – Pine Creek Tributary 1 Crossline 2 – Monitoring has ceased		
Line G – Pine Creek Tributary 1 Crossline 3 – Monitoring has ceased		
Line H – Cross Panel Survey Line		
Subsidence (m)	2.75	2.86
Tilt (mm/m)	53	30.9
Tensile Strain (mm/m)	13 – 20 [^]	15.6
Compressive Strain (mm/m)	16 – 24 [^]	6.8

* - subsidence development incomplete.

[^] - values for 'smooth' and 'discontinuous' (i.e. crack affected) subsidence profiles.

Based on the above table the subsidence predictions for the most recently completed survey (13/11/2019) indicate:

- The maximum subsidence measurement of Line H (2.86m) exceeds predicted value of 2.75m. LW 107 and 108 are within compliance.
- The maximum tilt measurements recorded were within the predicted values.
- The maximum tensile and compressive strain measurements for LW107 and Line H were within predicted values, with LW 108 exceeded the predicted values.

Complaints

A total of 57 complaints have been received YTD (49 from a single complainant).

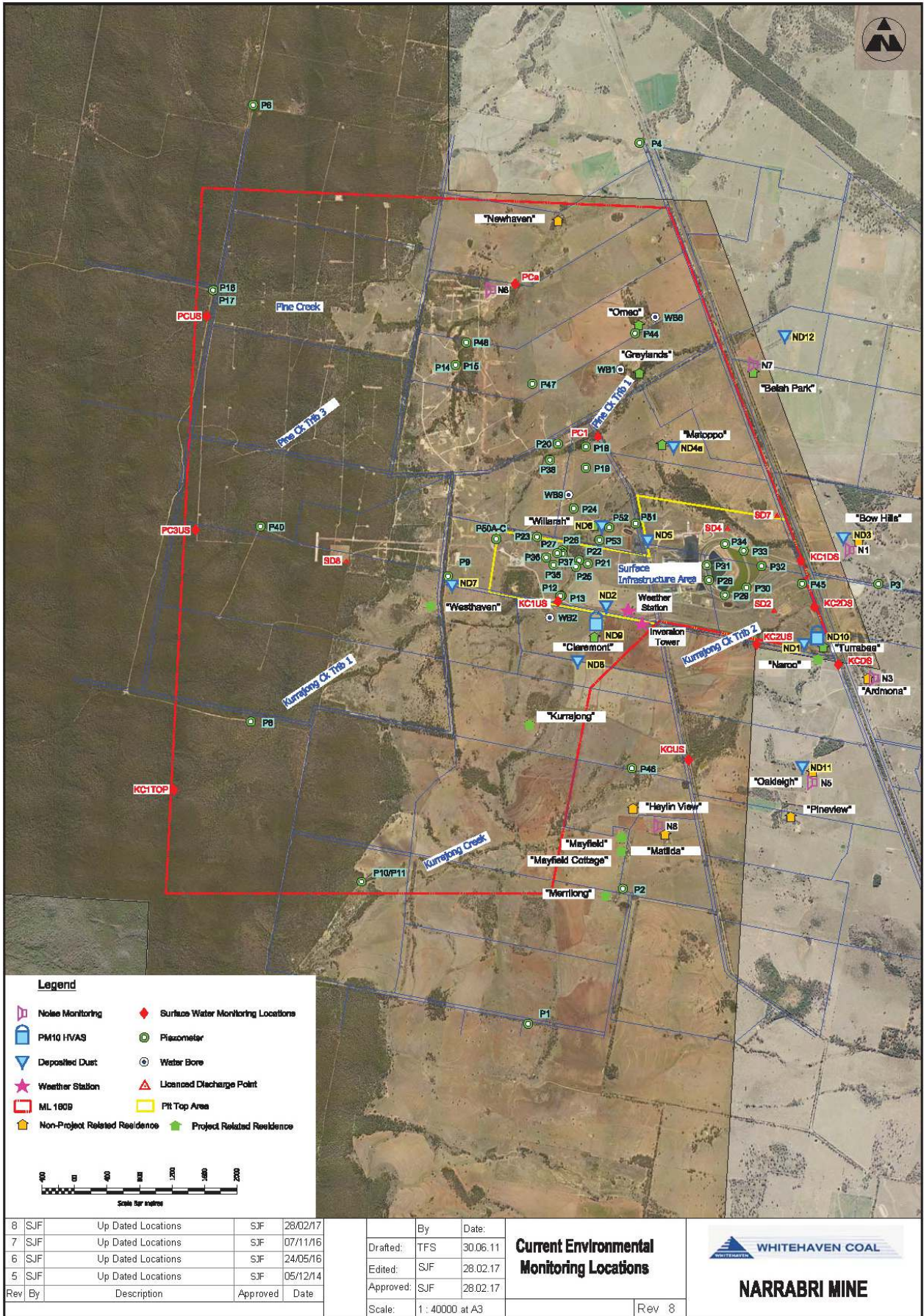
Since the last CCC meeting 9 noise complaints have been received, all from a single complainant. Narrabri Coal continue to engage with the complainant. Attended noise monitoring is being conducted in accordance with licence conditions. Narrabri Mine have undertaken a noise investigation and engineering studies in relation to noise mitigation measures at the main vent fan.

Incident(s)

No reportable incidents.

Regulator Interaction

- Mining Operations Plan (MOP) Amendment A approved by the Resources Regulator on 28/11/19. The amendment was to include description of mine safety pre-conditioning drilling activities.
- Project Approval requires an Independent Environmental Audit every three years. The on-site component of the audit was completed over course of 02-04 December. The final report will be submitted to DPI&E in February 2019.



Rev	By	Description	Approved	Date
8	SJF	Up Dated Locations	SJF	28/02/17
7	SJF	Up Dated Locations	SJF	07/11/16
6	SJF	Up Dated Locations	SJF	24/05/16
5	SJF	Up Dated Locations	SJF	05/12/14

By	Date
Drafted: TFS	30.06.11
Edited: SJF	28.02.17
Approved: SJF	28.02.17
Scale: 1:40000 at A3	

Current Environmental Monitoring Locations

Rev 8



Narrabri Community Consultation Committee (December 2019 meeting)

Social Impact Assessment for Narrabri Underground Mine Stage 3 Extension Project

Agenda: Topics for Discussion:

- Update on social impact assessment progress.
- Engagement undertaken to date and what is next.
- Impacts you raised last time, impacts raised by landholders and the community.
- Your questions.

1. Update on social impact assessment progress:

- Input from landholders currently being added to the social baseline and then draft will be finalised.
- Currently identifying potential social impacts, but these will be confirmed once technical reports have been undertaken.
- Expecting a draft of the full social impact assessment early next year.

2. Engagement undertaken to date and what is next:

- Our fourth trip to Narrabri over twelve months, and at least one more planned.
- Engagement undertaken has included:
 - Community Consultative Committee (this is twice)
 - Meetings with Narrabri Shire Council and Gunnedah Shire Council
 - Online survey of community members
 - Phone calls with service providers
 - Narrabri and District Chamber of Commerce (twice)
 - Representatives from Aboriginal groups (twice)
 - Landholders (progressively being undertaken at the moment).
- We will engage with all of these stakeholder groups at least twice (or provide an opportunity for engaging at least twice).
- Once technical reports completed, and draft social impact assessment is progressed, final round of engagement will be undertaken including:
 - Meeting with Community Consultative Committee (March 2020)
 - Meetings with Narrabri Shire Council and Gunnedah Shire Council
 - Meetings with landholders again to discuss potential impacts for their property
 - EIS (including SIA) will be available for public submissions.

3. Comments you raised last time (summarised in SIA Scoping Report):

- Air quality and dust impacts raising health concerns.
- Noise impacts.
- Subsidence creating issues with water quality and availability.
- Road traffic volume and safety.
- Concerns around leased properties not being sustainably farmed.
- Concerns over sterilisation of land for offsets, rather than productive agricultural use.
- Concerns around economic impacts of mine closure. The area is reliant on the mining industry.
- Initial information provided about mine proposals not accurate or changes later.
- Concern for landowners impacted by the expansion around appropriate compensation, ownership arrangements, loss of productive agricultural land (loss of income) and noise impacts.
- Increase frequency of use of rail infrastructure (now no change to use of rail infrastructure).
- Cumulative impacts of multiple mining projects.

Have we missed anything? Any additional potential impacts you want to raise?

4. Comments raised by landholders (top five)

- Noise impacts.
- Smell impacts.
- Coal dust impacts.
- Property values.
- Positive impact on local jobs and training, especially during current drought conditions.

5. Comments raised by community (top five)

- Water/groundwater.
- Greenhouse gas emissions/climate change.
- Nature/environment.
- Air/coal dust.
- Agriculture/food security and Aboriginal values.

6. Your Questions