



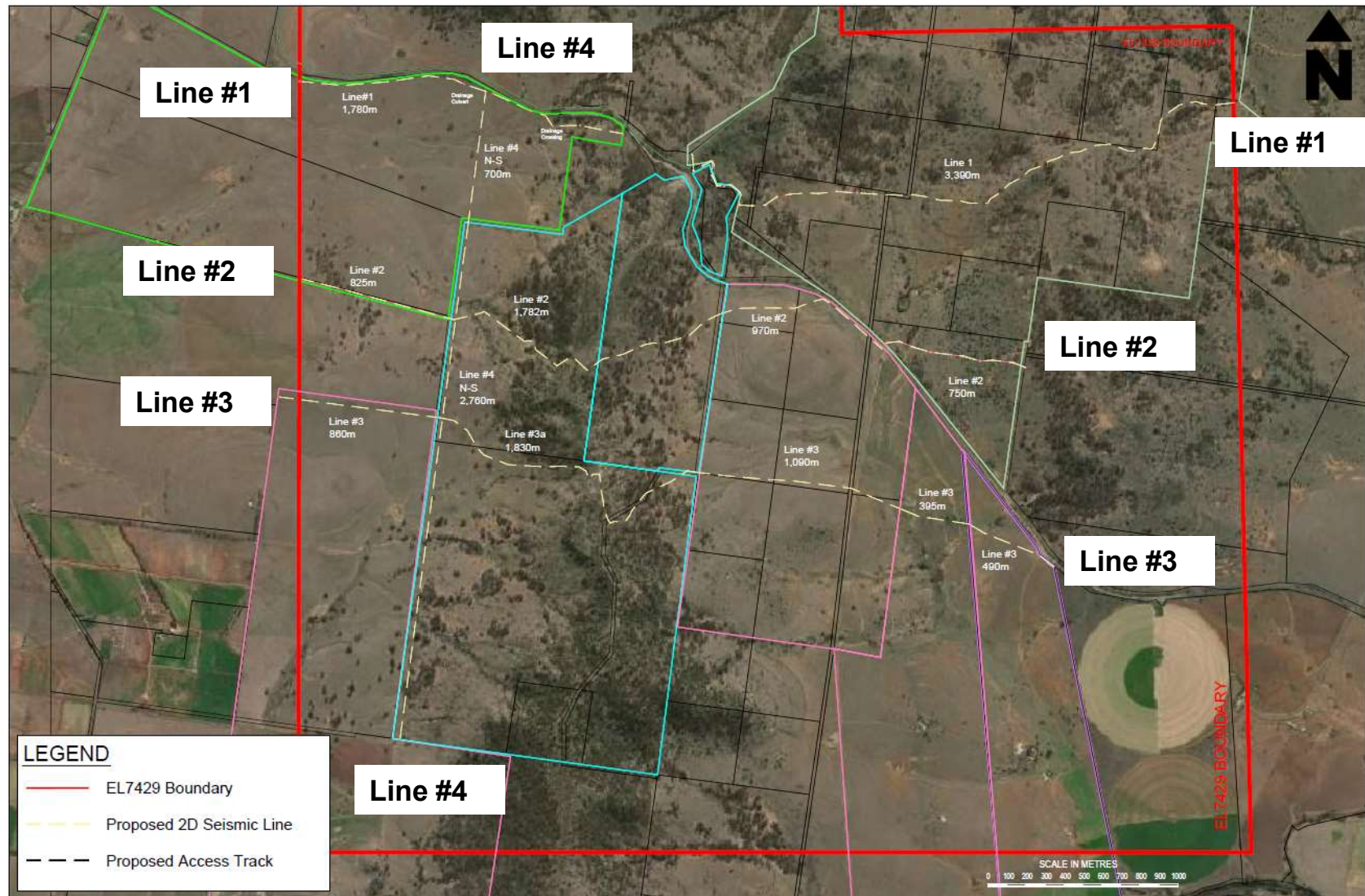
Maxwell CCC Presentation
8 December 2021

Meeting Agenda

No.	Topic	Who
1	Welcome – attendees and apologies	Chairperson
2	Declaration of pecuniary interests	Chairperson
3	Business Arising/Action Items	Chairperson
4	Correspondence	Chairperson
5	Update on Maxwell Mine and Spur Hill Project	James Johnson
6	Management Plans and Environmental Performance	Donna McLaughlin, Alex Newton, Teresa Coleman
7	Community Updates	Teresa Coleman
8	General business	Chairperson
9	Meeting Schedule for 2022	Chairperson
10	Meeting close	Chairperson

6. Update on the Spur Hill Underground Metallurgical Project

Spur Hill 2D Seismic Lines



Spur Hill 2D Seismic Lines

- 4 Lines Proposed for a total of 17.5klm
 - East West Line #1: 5.2klm
 - East West Line #2: 4.2klm
 - East West Line #3: 4.7klm
 - North South Line #4: 3.5klm
- Site access and line routes confirmed with landholders
- Proposed line inspections and optimisation undertaken with Geophysical Resources and Services (GRS)
- Velseis Integrated Seismic Technologies (Velseis) planned to commence acquisition in February 2022
- Archaeological and Ecological surveys to be completed to allow submission of ESF4 Form (10 days)

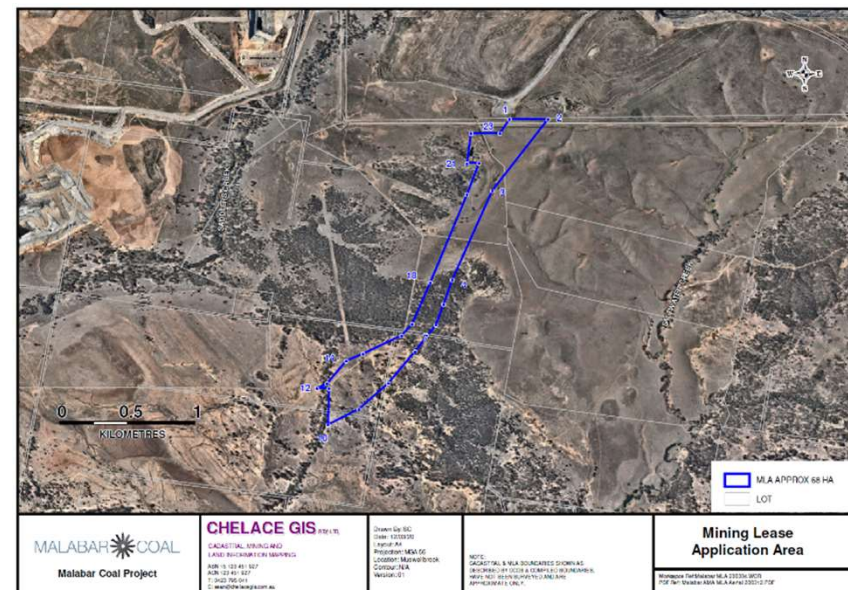
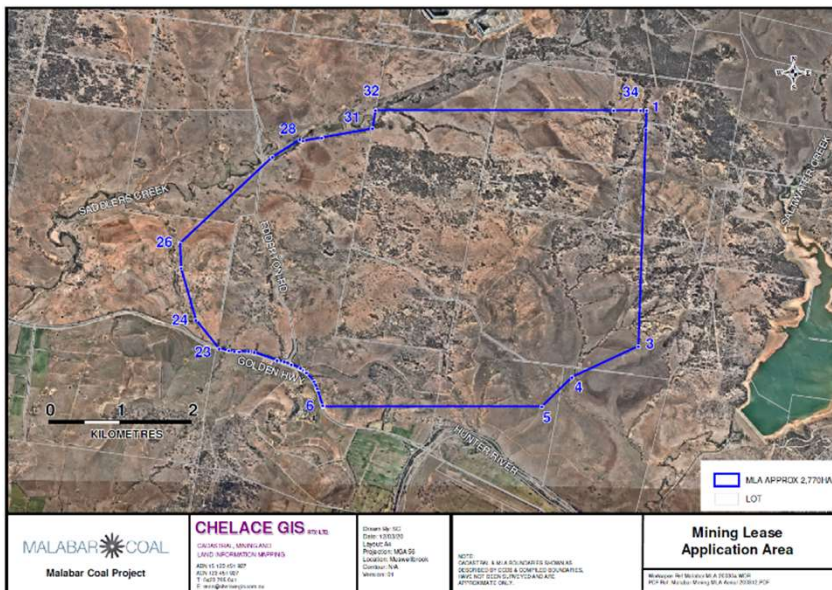
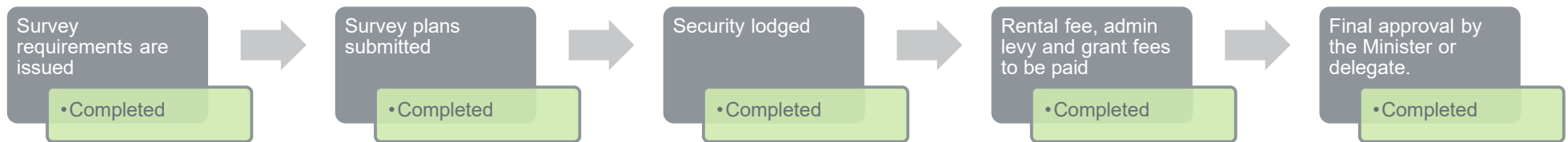


Velseis IVI Envirovibe

6. Update on the Maxwell Underground Metallurgical Mine

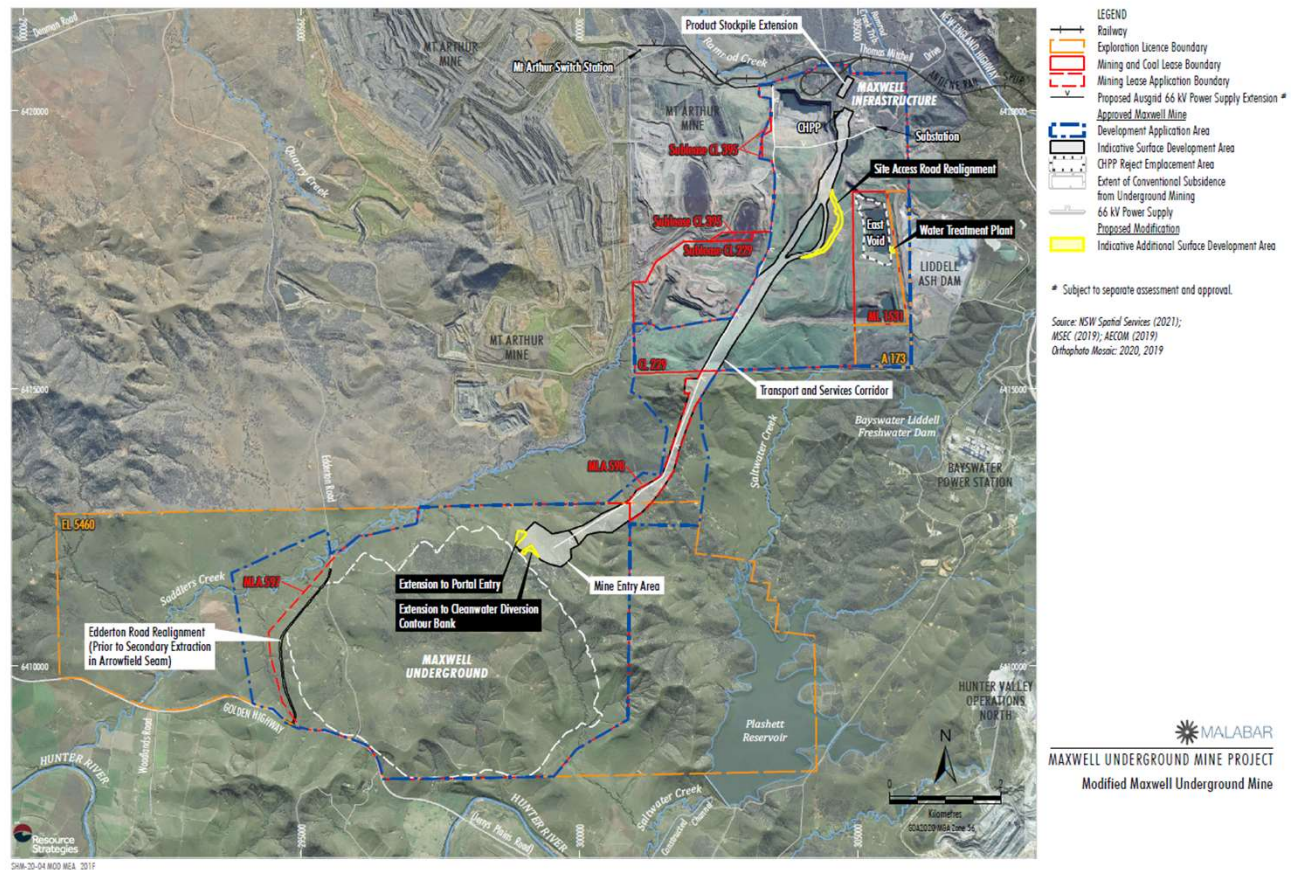
Mining Leases

- ML1820 and ML1822 granted in November 2021.
- Updating Mining Operations Plan to include ML1820 and ML1822



MOD1 - Mine Entry Area Modification

- MOD1 submitted on 6 August 2021.
- Draft conditions received 29 September 2021.
- Approved 19 November 2021.
- Next steps – update environmental management plans.



Schedule

Calendar years	2021				2022				2023				2024				2025 onwards			
Mining Leases & Management Plans	■	■	■	■																
Construction of Access Rd & MEA					■	■	■	■	■	■	■	■								
Construction of Mine Access Portals, Drifts & Vent Shaft					■	■	■	■	■	■	■	■								
Construction of site infrastructure					■	■	■	■	■	■	■	■								
Development Coal produced to set up for Longwall production									■	■	■	■	■	■	■	■	■	■	■	■
Longwall ordered, manufactured, delivered and installed					■	■	■	■	■	■	■	■								
Design & Construction of overland conveyor									■	■	■	■								
Longwall production													■	■	■	■	■	■	■	■

7. Management Plans and Environmental Performance

Environmental Management Plans

Management Plans	SQE approved	Draft Prepared	Consultation	Submit to DPIE	Approved
Noise and Blasting Management Plan	Completed	Completed	Completed	Completed	Completed
Spontaneous Combustion Management Plan	Completed	Completed	Completed	Completed	Completed
Air Quality and GHG Management Plan	Completed	Completed	Not Required	Completed	Completed
Water Management Plan	Completed	Completed	Completed	Completed	Completed
Biodiversity Management Plan	Completed	Completed	Completed	Completed	Completed
Aboriginal Heritage Management Plan	Completed	Completed	Completed	Completed	Completed
Visual Impact Management Plan	Not Required	Completed	Not Required	Completed	Completed
Contaminated Materials Protocol	Not Required	Completed	Not Required	Completed	Completed
Bushfire Management Plan	Not Required	Completed	Completed	Not Required	Not Required
Rehabilitation Management Plan (Mining Operations Plan)	Not Required	Completed	Not Required	Completed	Completed
Traffic Management Plan	Completed	Completed	Completed	Completed	Completed
Environmental Management Strategy	Not Required	Completed	Completed	Completed	Completed

	Completed
	Not Required

Rehabilitation Update

- Planted 12,500 trees in mid October, followed by watering.
- Annual Ecological Fauna and Flora monitoring conducted throughout November 2021.
- Weed spraying continued on site.
- Kangaroo cull undertaken on mine rehabilitation.
- Currently undertaking wild dog baiting on site and buffer land.



Environmental Monitoring – Maxwell UG Project

An extensive environmental monitoring programme is in progress.

- Deposited dust (4 locations)
- Airborne dust:
 - PM₁₀ onsite (4 locations) and offsite (1 existing, 1 proposed location)
 - PM_{2.5} offsite (1 existing, 1 proposed location)
- Noise: real time continuous (1) and attended monthly (4)
- Blasting: 6 proposed locations
- Weather: 2 locations
- Groundwater: 37 bores that are sampled for water levels and water quality; plus 7 bores that monitor water levels only. 4 new bores to be installed prior to second workings.
- Surface water: 7 offsite and 10 onsite
- Stream flow: 1 real time continuous gauging station
- Stream health: 3 locations
- Ecological monitoring: 7 reference sites, 12 woodland and 6 pasture rehabilitation sites

Results are published on the Malabar website: www.malabarresources.com.au

Environmental Monitoring –Spur Hill Project

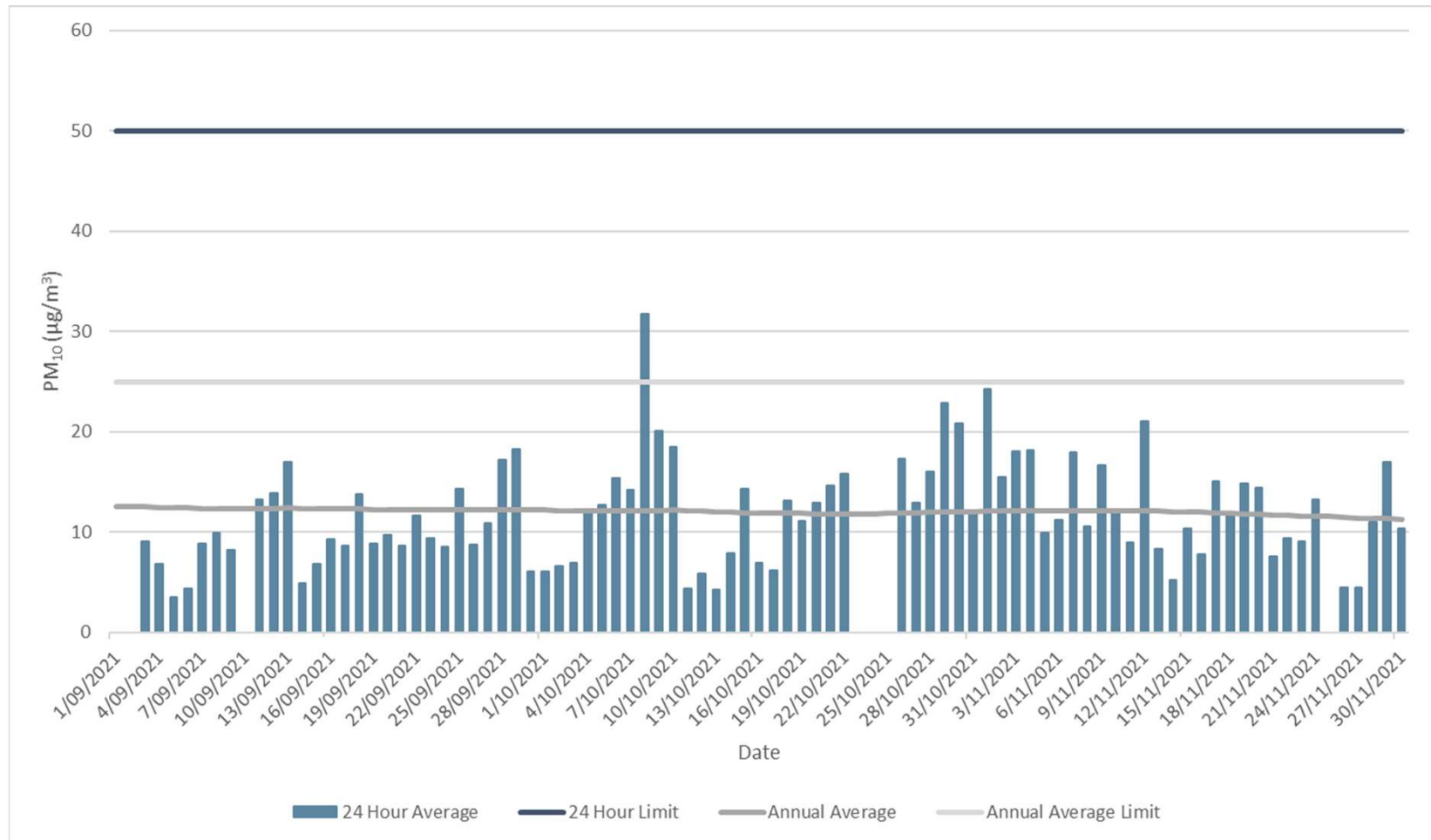
The following environmental monitoring is ongoing for the Spur Hill project.

- Airborne dust: continuous monitoring of PM₁₀ at one location
- Weather: continuous monitoring at one location
- Groundwater: continuous monitoring of water levels and quarterly water quality sampling at 10 bores.
- Surface water: quarterly water quality sampling at 12 locations (creeks/rivers)

Results are published on the Malabar website: www.malabarresources.com.au

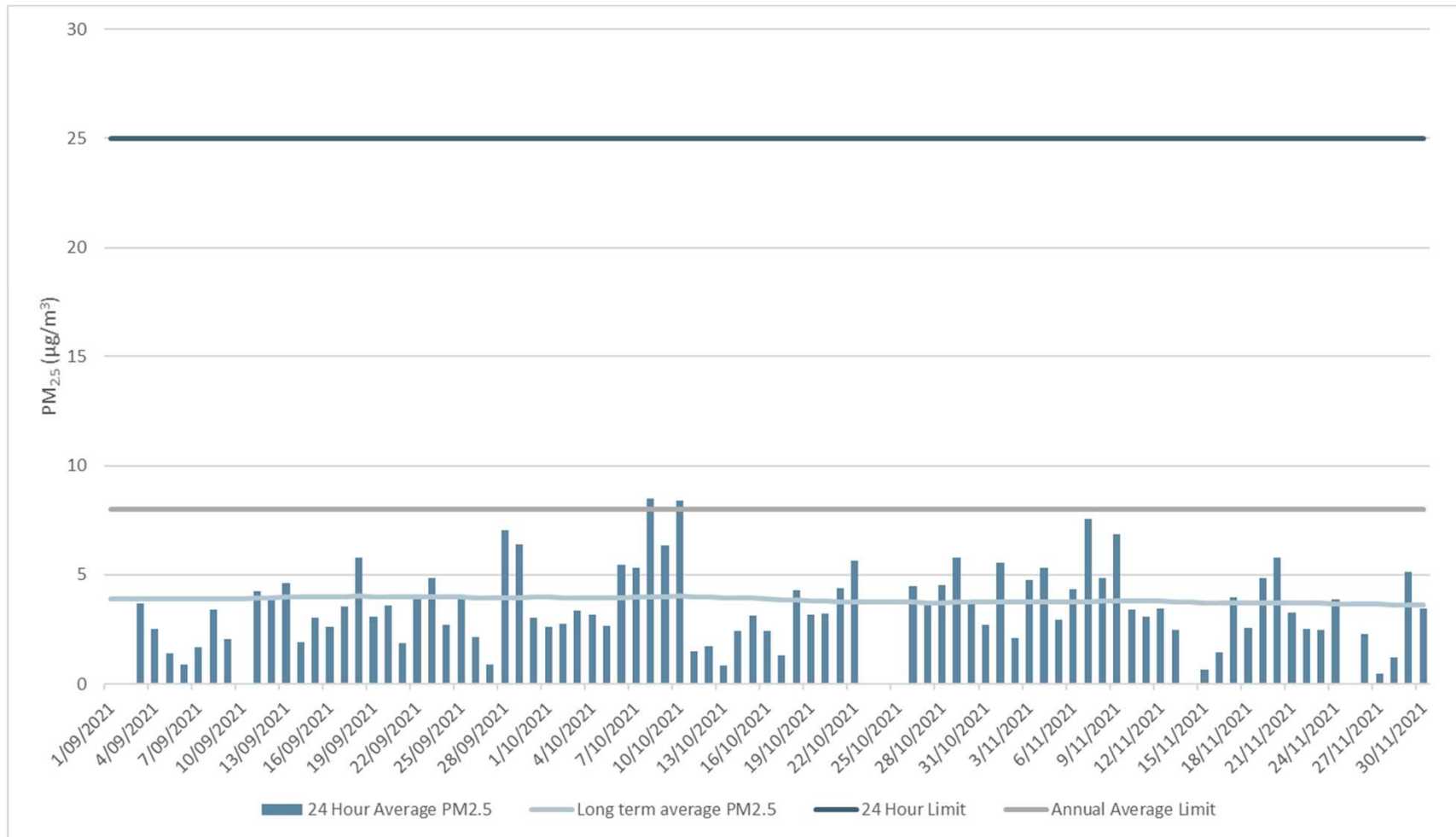


TEOM PM₁₀



The graph shows 24-hour average and long term (rolling annual average) PM₁₀ concentrations recorded from 1 September to 30 November 2021 as measured using a TEOM. All were significantly below the 24-hour and annual impact assessment criteria.

TEOM PM_{2.5}



The graph shows 24-hour average and long term (rolling annual average) PM_{2.5} concentrations recorded from 1 September to 30 November 2021 as measured using a TEOM. All were significantly below the 24-hour and annual impact assessment criteria.

8. Community

Complaints

- No complaints received

Community Update

- Donated ten Christmas Trees to local families in need through Blackroo.
- Continued as major sponsor of the Denman Sandy Hollow Junior Rugby League Club.
- Silver sponsor of the Denman Junior Cricket Club.
- Major sponsor of the Aberdeen Fire and Rescue Santa Lolly Run.
- Collecting gifts and non-perishable food items for the 2NM and Power FM Toy and Food Appeal.



Community Update

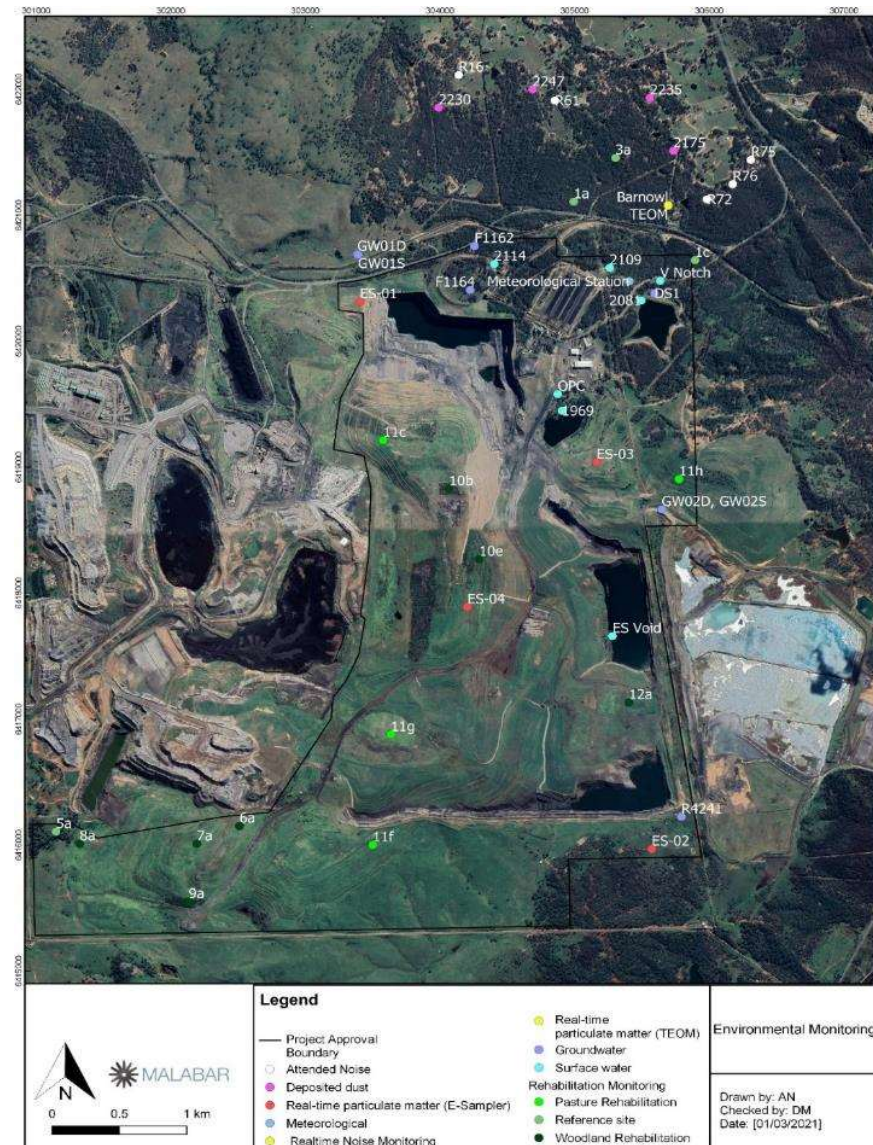
- Upper Hunter Regional Museum Inc:
 - Contributed financially towards the business case study
 - Malabar recognised as a founding member.
 - Museum a major drawcard for the region and is planned to include various exhibits including one on the coal mining industry.
 - Facility to include a visitor information centre, café, gift shop and playground.
- Malabar contributed financial support of \$300 towards the annual presentation awards night to:
 - Denman Public School
 - Muswellbrook High School
 - Muswellbrook Public School



10. General Business

Thank you

Appendix- Monitoring Locations



Appendix- Acronyms

ACARP	Australian Coal Association Research Program (grazing trials)
ACHMP	Aboriginal Cultural Heritage Management Plan
AEMR	Annual Environmental Management Report (see AR)
AL	Assessment Lease
AQI	Air Quality Index (as used by UHAQMN – see below)
AQGHGMP	Air Quality and Greenhouse Gas Management Plan
AR	Annual Review
BAM	Biodiversity Assessment Method (in the biodiversity context)
BAM	Beta Attenuation Monitor (air quality monitor PM10, PM2.5)
BCD	Biodiversity Conservation Division (of DPIE)
BCM's	Bank Cubic Metres - volume of waste rock or coal.
BCT	Biodiversity Conservation Trust
BFMP	Blast Fume Management Procedure
BMP	Biodiversity Management Plan
BOMP	Biodiversity Offset Management Plan (and Strategy)
BSS	Biodiversity Stewardship Site
CCC	Community Consultative Committee
CCL	Consolidated Coal Lease
CEMP	Construction Environmental Management Plan
CHPP	Coal Handling Preparation Plant
CMS	Conservation Management Strategy
DA	Development Application
dB	Decibels (sound power)
DDG	Dust Deposition Gauge
DGR	Director General Requirements (See SEARS)
DPIE	NSW Department of Planning, Industry and Environment
DRG	NSW Department of Planning and Environment- Division of Resources and Geoscience
EA	Environmental Assessment (See EIS)
EARs	Environmental Assessment Requirements
EC	Electrical Conductivity $\mu\text{s}/\text{cm}^2$ (microsiemens per cubic centimetre).
EIS	Environmental Impact Statement
EL	Exploration Licence
EMS	Environmental Management Strategy (Individual Plan); or Environmental Management System (collective)
EPA	Environment Protection Authority
EP&A Act	NSW Environmental Planning and Assessment Act 1979
EPBC Act	Commonwealth Environment Protection and Biodiversity Conservation Act 1999
EPL	Environment Protection Licence
ESCP	Erosion and Sediment Control Plan
GIS	Geographical Information System
GJ	Gigajoules
GWMP	Groundwater Monitoring Plan
g/m²/month	Grams per square metre per month
Ha	Hectares
Hi-Vol	High Volumetric Air Sampler- Air quality measurement
HRSTS	Hunter River Salinity Trading Scheme
IEA	Independent Environmental Audit
IPC	Independent Planning Commission
kbcm	kilo bank cubic meter
L_{A1, 1minute}	The 'A-weighted' (approximates frequency response of human ear) noise level exceeded for 1% of the specified time period of 1 minute.
L_{Aeq(15min)}	The energy average noise from a source measured over a 15-minute period.

L_{Amax}	Maximum root mean squared 'A-weighted' sound pressure level (or maximum noise level) during measuring interval
LFA	Land Function Analysis
LGA	Local Government Area
LLS	Local Land Services
LW	Longwall (underground mining method)
MARNP	Mine Affected Road Network Plan (MSC 2020)
MIA	Mine Infrastructure Area
MIC	Maximum Instantaneous Charge (used in blasting)
MLA	Mining Lease Application
ML	Mining Lease
ML	Megalitres (in the water context)
MOP	Mining Operations Plan
MSC	Muswellbrook Shire Council
Mtpa	Million tonnes per annum
NBMP	Noise and Blasting Management Plan
NGER	National Greenhouse Gas and Energy Reporting
NMP	Noise Management Plan
NPWS	National Parks and Wildlife Service
NRAR	Natural Resources Access Regulator
NTU	Nephelometric Turbidity Units (measure of turbidity)
OCE	Open Cut Examiner- Mining Supervisor
OEH	Office of Environment & Heritage
PA	Project Approval
pH	A logarithmic scale used to specify the acidity or alkalinity of an aqueous solution.
PIN	Penalty infringement notice
PIRMP	Pollution Incident Response Management Plan
PM_{2.5}	Particulate Matter - 2.5 Micron- Air quality measurement
PM₁₀	Particulate Matter - 10 Micron - Air quality measurement
POEO	Protection of the Environment Operations Act 1997
PPV	Peak Particle Velocity- Blasting vibration measurement.
RCE	Rehabilitation Cost Estimate
RMP	Rehabilitation Management Plan (in place of a MOP)
ROM	Run of Mine (Coal - Raw Coal prior to processing)
RR	Department of Planning and Environment- Resources Regulator
SEARS	Secretary's Environment Assessment Requirements
SEPP	State Environmental Planning Policy
SIA	Social Impact Assessment
SIMP	Social Impact Management Plan
SOC	Statement of Commitments
SSC	Singleton Shire Council
SSD	State Significant Development
SWGRRP	Surface Water and Groundwater Response Plan
SWMP	Surface Water Monitoring Plan
t	Tonnes
tCO_{2-e}	Tonnes of carbon dioxide equivalent
TARP	Trigger Action Response Plan
TDS	Total Dissolved Solids- Water quality measurement
TEOM	Tapered Element Oscillating Microbalance - an air quality monitoring device.
TMP	Traffic Management Plan
TSP	Total Suspended Particulates- Air quality measurement
TSS	Total Suspended Solids- Water quality measurement
UHAQMN	Upper Hunter Air Quality Monitoring Network
$\mu\text{g}/\text{m}^3$	Micrograms per cubic metre

VLAMP	Voluntary Land Acquisition and Mitigation Policy (DPIE 2018)
VPA	Voluntary Planning Agreement
WAL	Water Access Licence
WMP	Water Management Plan
WS(N/S)	Weather Station (North/South)
YTD	Year To Date