

CONFIDENTIAL**PRELIMINARY BRIEFING PAPER FROM ANGLO TO COUNSEL ASSISTING THE BOARD OF INQUIRY**

THIS IS NOT A FORMAL SUBMISSION ON BEHALF OF ANGLO. IT PROVIDES AN INTRODUCTION TO THE OPERATIONS, SYSTEMS AND RELEVANT MINING PRACTICES OF ANGLO RELEVANT TO THE TERMS OF REFERENCE

Briefing paper topics**1. ABOUT ANGLO AMERICAN, INCLUDING IN AUSTRALIA (TOR 1III)****1.1 Anglo American – Global business**

- (a) Anglo American is a global mining company, with operations in Canada, a number of countries in South America and Africa, the United Kingdom, Finland, China and Singapore, as well as its operations in Australia¹. Its operating divisions are in Diamonds (De Beers), Copper, Platinum Group Metals and Bulk Commodities and other Minerals, which includes metallurgical coal².
- (b) Mr Mark Cutifani is the Chief Executive Officer and a member of the Anglo American Board. He and the Anglo American headquarters are located in London. His direct reports³ include Mr Tony O'Neill, as Director Technical and Sustainability and Mr Seamus French as CEO Bulk Commodities and Other Minerals. Each of them is located in London.
- (c) Mr French's direct reports include Mr Tyler Mitchelson, CEO of Anglo American's metallurgical coal business (Anglo Met Coal Business). Mr Mitchelson is located in Brisbane, Queensland.

1.2 Anglo American – Metcoal Business

- (a) Anglo Metcoal is Australia's second largest producer and exporter of metallurgical coal, with five metallurgical coal mines and associated infrastructure and a mining project in Queensland as well as other joint venture interests. This includes underground coal mine operations Grosvenor and Moranbah North, Grasstree and the Aquila Project, which will replace Grasstree mine which is coming to the end of its economic life. In addition, Anglo Metcoal operates two open-cut mines, Capcoal Opencut and Dawson. Anglo Metcoal employs around 5,500 people.
- (b) As head of Anglo Metcoal, from 1 July 2019 to now, relevantly, the following persons report to Tyler Mitchelson (amongst others):
 - (i) Head of Technical, Luca Rocchi;
 - (ii) Executive Head of Open Cut Operations, Hans Hayes;
 - (iii) Executive Head of Underground Operations, Glen Britton;
 - (iv) Head of Geosciences Integration, Andrea Rutley;
 - (v) Acting Head of Safety and Health, Chris Gately;

¹ Integrated Annual Report for the year ending 31 December 2019 (**Annual Report**) page 2

² Annual Report 2019 pages 2 - 3

³ [[[AAMC.001.007.0002](#)]]

(vi) Head of Human Resources, Warwick Jones;

The following Site Senior Executives and General Managers of each of the relevant mines report to Glen Britton:

- (A) Grosvenor: Trent Griffiths;
- (B) Grasstree: Damien Wynn; and
- (C) Moranbah North: Paul Stephan

2. ABOUT THE INDIVIDUAL MINES

2.1 The Coal resource

- (a) At each of the mines, Anglo is mining metallurgical coal, which is used for steel making⁴. Anglo is the world's third largest exporter of metallurgical coal.
- (b) Each of the mines are located in the Queensland's Bowen Basin, as shown below⁵:



2.2 Operating entity of each Mine and directors

Mine	Operating entity	Directors
Grosvenor	Anglo Coal (Grosvenor Management) Pty Ltd	Trent Griffiths Simon Anthony Patterson Karen Michelle Price
Grasstree	Anglo Coal (Capcoal Management) Pty Ltd	Hans Joseph Hayes Michael Shane Keough Simon Anthony Patterson

⁴ Annual Report page 72

⁵ Moranbah Grosvenor Complex Socio-Economic Assessment Toolbox Report 2019-2021 at page 13

		Karen Michelle Price Damien Bernard Wynn
Moranbah North	Anglo Coal (Moranbah North Management) Pty Ltd	Simon Anthony Patterson Karen Michelle Price Paul James Stephan

2.3 About Grosvenor (TOR 1ia, ib, ii and iii)

- (a) Grosvenor Mine is an underground longwall mine operation, which began commercial longwall production in 2016. The mine adjoins Moranbah North and Grosvenor Mine's raw coal is transported there via conveyor to shared coal handling and processing facilities. The coal is transported from Moranbah North via rail to port. Grosvenor Mine is owned 100% by Anglo American. It has a nameplate capacity of 7.5 million tonnes per annum. As at November 2019 it employed 173 employees and retained the services of 597 contractors⁶.
- (b) The Grosvenor Mine is located around six kilometres north of the Moranbah township, and approximately 190 kilometres south-west of Mackay⁷. The remaining life of mine for Grosvenor Mine, based on current rates of production, known reserves, commodity prices and numerous other factors is approximately 29 years⁸.
- (c) The Grosvenor Mine operates under Anglo American's Social Way Policy, a comprehensive social performance system, which at a site level is overseen by a Social Performance Committee, chaired by the General Manager. Grosvenor has a range of measures in place to minimise social impacts and create benefits for the community and this includes a dedicated and resourced 'shopfront' in Moranbah to ensure accessibility to the community, regular planned stakeholder engagement and a social investment program⁹.
- (d) A visual image of the Grosvenor surface infrastructure is set out below¹⁰.



⁶ [[AAMC.001.006.0504]] at .0550: Investor briefing 12 November 2019

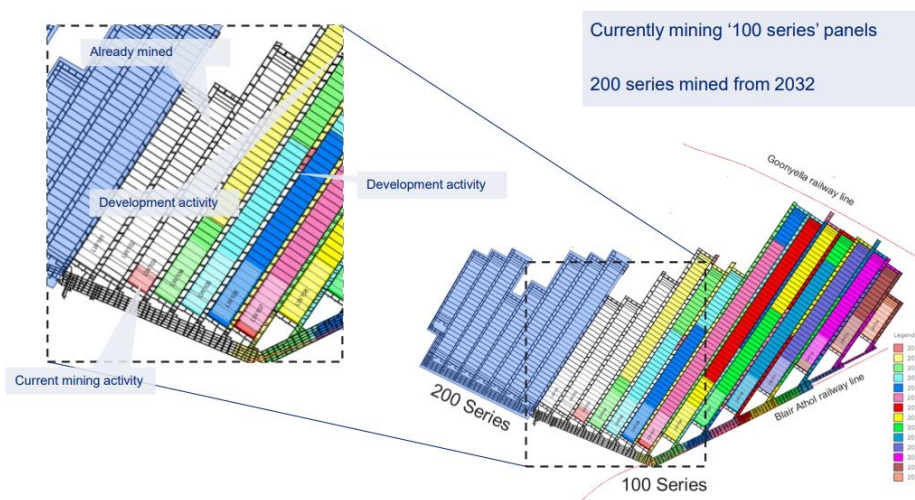
⁷ [[AAMC.001.022.0046]] at .0057: Moranbah Grosvenor Complex: Socio Economic Assessment Toolbox Report 2019 – 2021

⁸ [[AAMC.001.022.0046]] at .0057: Moranbah Grosvenor Complex: Socio Economic Assessment Toolbox Report 2019 – 2021

⁹ <https://socialway.angloamerican.com/>

¹⁰ [[AAMC.001.006.0504]] at .0549

- (e) The Men and Materials Drift (mine entrance) can be seen in the above photograph circled in red.¹¹
- (f) Over the span of 1 July 2019 – 19 October 2019 (the time of the first 12 HPIs the subject of the ToR) the panel being cut was LW103. As at 9 March 2020 and from then until and including 6 May 2020 (the day of the serious accident the subject of the ToR) the panel being cut was LW104.¹²
- (g) The Grosvenor mine plan looks broadly as set out on the right side of the image extracted below. A close up of the area where the current mining activity was, as at 13 November 2019, is shown on the left¹³.



- (h) At Grosvenor, longwall panels are, on average, up to 4 kilometres long and 300 metres wide. Coal is cut by a shearer with a 1 metre advance per shear and extraction height ranges from 4.7 to 3.8 metres¹⁴.
- (i) An image taken of the longwall at Grosvenor is set out below¹⁵. The image shows the chocks (or supports) over the miner's head, and the shearer in the middle of the image.

¹¹ [[AAMC.001.006.0504]] at .0553

¹² [[AAMC.001.023.0001]] at .0005

¹³ [[AAMC.001.006.0504]] at .0555

¹⁴ [[AAMC.001.006.0504]] at .0556

¹⁵ [[AAMC.001.006.0504]] at .0556



- (j) Details of the number of employees and contractors at Grosvenor as at May 2020 are set out in the table below:

	May 2020
Employees – Individual contracts	173
Employees - Shared	76
Mining Contractor	624
Total	873

- (k) The employees forming Anglo staff at Grosvenor currently occupy the following roles as at May 2020 are set out in the table below:

Classification	Includes roles such as	Count
Senior Leadership Role	Management role	9
Statutory Role	Deputy, CRO, VO	46
Team Leadership Role	Superintendents and Supervisors	16
Operational Team Member Role	Mine Technicians, Trades (UG roles)	0
Staff Team Member	Officers, Engineers, Graduates etc	102
Total		173

- (l) A breakdown of the length of employment for Grosvenor as of May 2020 is set out in the table below. The average length of service is calculated by reference to all employees and the average for the One Key Contractors is average across time at Grosvenor and other mines.

*

Grosvenor Anglo		One Key Grosvenor		Prior to Grosvenor
New	15	New	9	
Less than 2 years	77	Less than 2 years	96	
3 to 5 years	51	3 to 5 years	152	
6 to 10 years	25	6 to 10 years	150	
10 to 20 years	5	10 to 20 years		
20+ years	0	20+ years		
Total	173	Total	407	
Average	3.7years	Average	3.7 years	Average 8.5 years

- (m) The average years of industry experience of the One Key contractors prior to commencing at Grosvenor is 8.5.
- (n) In February 2019 the management team at Grosvenor launched a programme known as "How we rock up matters". Its purpose was to encourage all coal mine workers at Grosvenor, be they Anglo employees or contractors, to ask questions of their supervisors and the management team and to encourage a culture where workers are prepared to speak up about issues that concern them. One of the modules was called 'convos that count' which was aimed at equipping workers to be able to speak up. Actions continue to have been taken around the feedback received from the workers and contractors which were and are designed to respond to the issues raised.
- (o) Further, there is a communications session with each crew each month where members of the leadership team at Grosvenor present to the crew on topics related to safety at the mine and take questions from the crews. Before the COVID 19 restrictions, there were 16 of these meetings held monthly, for an hour a session. With the limitations consequent upon COVID processes have been modified.
- (p) In 2019 the Grosvenor Mines Rescue Team was placed first at the Queensland Mines Rescue Competition and the Australian Mines Rescue Competition¹⁶.
- (q) The mine structure current at the time of the HPI required by section 55 of the CSMH Act was provided on 18 June 2020 in response to Attendance Notice No. 1 from the Board.

2.4 About Grasstree (TOR 1ic, ii and iii)

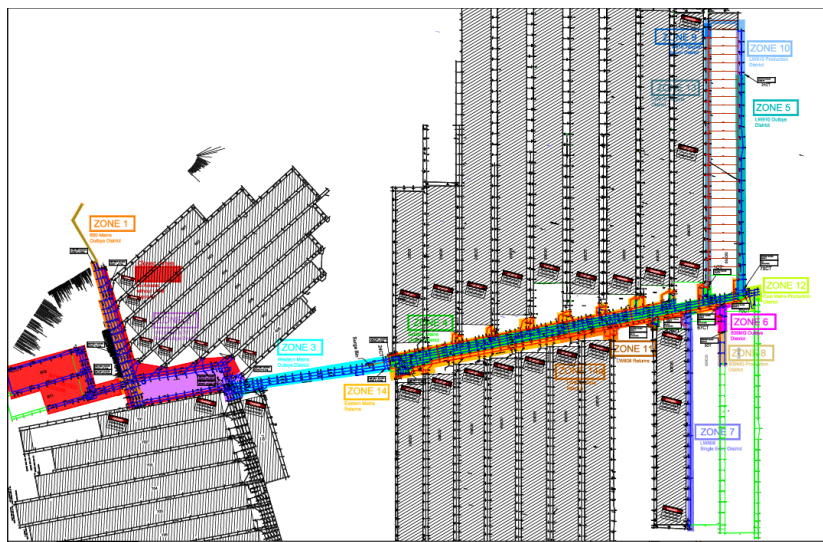
- (a) Grasstree Mine began production in around 2002 and is located approximately 37 kilometres south west of Middlemount and 120km north west of Emerald in the Bowen Basin. Together with Capcoal Open Cut Mine, it forms part of the Capcoal complex.¹⁷
- (b) Grasstree Mine employs or contracts around 700 people. Anglo American is responsible for a large proportion of the housing and facilities in the nearby town of Middlemount. Like Grosvenor, the Mine operates under Anglo American's Social Way Policy, a comprehensive social performance system, which is overseen by a Social Performance Committee, chaired by the General Manager. The Capcoal Complex (which includes Grasstree and Capcoal Open Cut) has a range of measures in place to minimise social impacts and create benefits for the community, including a dedicated and resourced 'shopfront' in Middlemount to

¹⁶ [[AAMC.001.006.0504]] at .0551

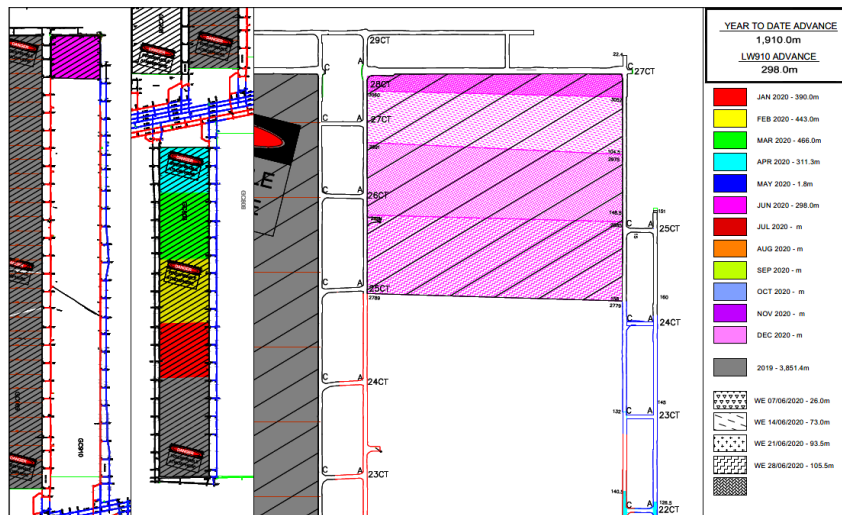
¹⁷ [[AAMC.001.022.0001]] at .0010 Capcoal Complex Socio Economic Assessment Toolbox Report 2019 – 2021: p 11

ensure accessibility to the community, regular planned stakeholder engagement and a social investment program.

- (c) In 2018, Grasree won the 2018 Queensland Mining Industry Health and Safety Innovation awards (Foam dust suppression system) for their dust suppression system, which significantly reduced respirable dust in the underground development process. The system, which was conceived, designed, built and refined by the team at Grasree, is now being implemented more broadly across the business and wider mining industry.
- (d) Production at the Grasree mine will largely cease toward the end of 2021. The Grasree workforce will begin transitioning to the Aquila mine from approximately the end of 2020.
- (e) An image of the Grasree mine plan and current longwall is extracted below:



(Mine map)¹⁸



(Longwall current as at 28 June 2020)¹⁹

¹⁸ [[AAMC.001.021.0003]]

¹⁹ [[AAMC.001.021.0006]]

- (f) Photographs of the Grasstree Mine are set out below²⁰:



- (g) Grasstree Mine is 70% owned by Anglo American, with the remaining 30% owned by Mitsui.
- (h) Details of the number of employees and contractors as at May 2020 are set out in the table below:

	May 2020
Employees - Staff	134
Employees – Operators	304
Employees - Shared	91
Mining Contractor	171
Total	700

- (i) The 438 employees forming Anglo staff currently occupy the following roles as at May 2020 are set out in the table below:

²⁰ [[AAMC.001.021.0008]], [[AAMC.001.021.0015]]

Classification	Includes roles such as...	Count
Senior Leadership Role	Management role	8
Statutory Role	Deputy, CRO, Ventilation Officers etc	46
Team Leadership Role	Supervisors and Superintendent	31
Operational Team Member	Mine Technician, Trades (Operational UG roles)	268
Team Member	Officers, Engineers, Graduates etc	85
Total		438

- (j) A breakdown of the length of employment for Grasstree's current employed workforce is set out in the table below which is calculated as an average across all employees as at May 2020:

New	20
Less than 2 years	120
3 to 5 years	32
6 to 10 years	116
10 to 20 years	144
20+ years	6
Total	438
Average	6.6 years

- (k) The mine structures current at the time of the HPIs required by section 55 of the CSMH Act was provided on 18 June 2020 in response to Attendance Notice No. 2 from the Board.

2.5 About Moranbah North (TOR 1id, ii and iii)

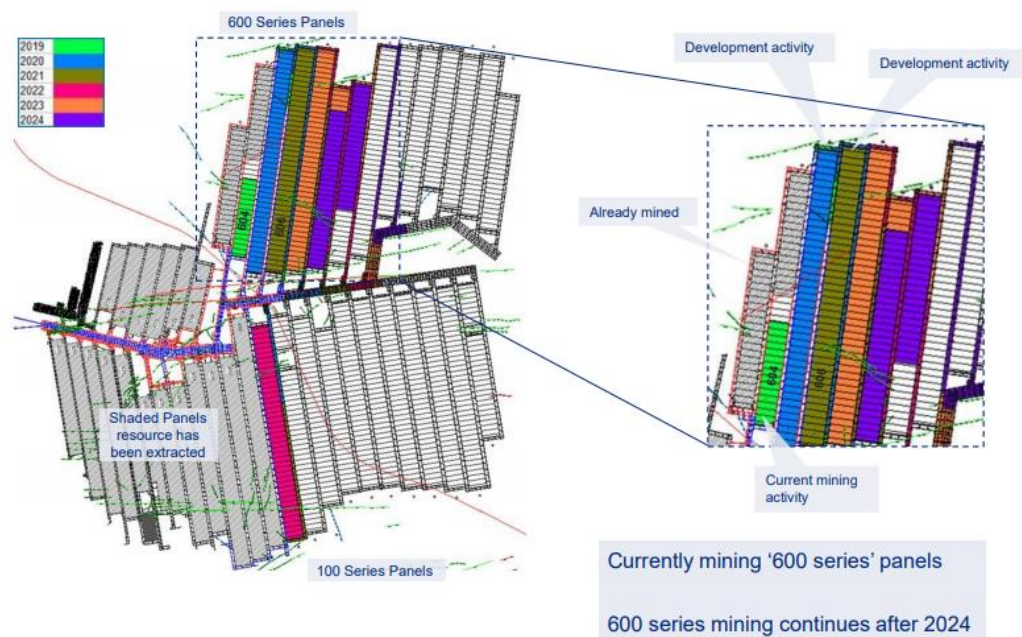
- (a) Moranbah North is an underground longwall mine which has been in operation since 1996. Moranbah North's hard coking coal is mined from the Goonyella Middle Seam mainly for export to Japan, Korea, Taiwan, India, Brazil and Europe. Moranbah North is 88% owned by Anglo American, with the remaining 12% owned by joint venture partners. In 2018, Moranbah North produced around nine million tonnes of high fluidity, hard coking coal. As at November 2019 the mining operation employed 431 employees and retained 501 contractors.²¹
- (b) The Moranbah North Mine is located 16 kilometres north of the Moranbah township, and approximately 220 kilometres south-west of Mackay.²²
- (c) The Moranbah North Mine employs or contracts approximately 915 people. As with Grosvenor and Grasstree, the Mine operates under Anglo American's Social Way Policy, a comprehensive social performance system, which at a site level is overseen by a Social Performance Committee, chaired by the General Manager. Moranbah North has a range of measures in place to minimise social impacts and create benefits for the community and this includes a dedicated and resourced 'shopfront' in Moranbah (which also supports Grosvenor Mine) to ensure accessibility to the community, regular planned stakeholder engagement and a social investment program.
- (d) Moranbah North mine's remaining life of mine, based on current rates of production, known reserves, commodity prices and numerous other factors, is approximately 24 years²³.

²¹ Investor presentation Metallurgical Coal: [[AAMC.001.006.0504]] at .0535

²² [[AAMC.001.022.0046]] at .0057, Moranbah Grosvenor Complex: Socio Economic Assessment Toolbox Report 2019 – 2021

²³ [[AAMC.001.022.0046]] at .0056, Moranbah Grosvenor Complex: Socio Economic Assessment Toolbox Report 2019 – 2021

- (e) The Moranbah North mine plan looks as set out on the left of the diagram extracted below. On 20 July 2019 (the time of the HPI the subject of the ToR) the panel being cut was LW604 shown in green²⁴.



- (f) Work undertaken at Moranbah North Mine has formed part the company's FutureSmart Mining approach, which applies innovative thinking and technological advances to address mining's major challenges. In 2019, after extensive research and development work, Moranbah North introduced the first electronic tablet device certified for use in underground coal mines. In June 2019, the mine's Variable Speed Drive (VSD) project received the Innovation Award at the Mine Electrical Safety Conference, after it became the first Australian longwall mine to implement VSD technology on its Armoured Face Conveyor (AFC).
- (g) The underground panels are accessed by a drift which is approximately 900 metres long at a grade of 1:8²⁵.
- (h) The width of the longwall panel is 300m with 1 metre advances per shear. The extraction height varies between around 4.2 metres to 4.7 metres depending on where in the panel mining is occurring²⁶.
- (i) Below is a photograph of the longwall shearer cutting hard coking coal which is indicative of current operations²⁷.

²⁴ [[AAMC.001.006.0504]] at .0539

²⁵ [[AAMC.001.006.0504]] at .0547

²⁶ [[AAMC.001.006.0504]] at .0540

²⁷ [[AAMC.001.006.0504]] at .0540



- (j) Details of the number of employees and contractors as well as years of service of Anglo employees at Moranbah North as at May 2020 are set out in the table below²⁸:

	May 2020
Employees – Individual contracts	186
Employees - Operators	275
Employees - Shared	76
Mining Contractor	446
Total	983

- (k) The employees forming Anglo staff and those on award currently occupy the following roles at Moranbah North as at May 2020 are set out in the table below:

Classification	Includes roles such as	Count
Senior Leadership Role	Management role	10
Statutory Role	Deputy*, CRO, VO	60
Team Leadership Role	Superintendents and Supervisors	27
Operational Team Member Role	Mine Technicians, Trades (UG roles)	238
Staff Team Member	Officers, Engineers, Graduates etc	126
Total		461

- (l) A breakdown of the length of employment for Moranbah North is set out in the table below which is calculated as an average across all employees as at May 2020 is as set out below:

New	37
Less than 2 years	74
3-5 years	83
6 to 10 years	88
10 to 20 years	163
20+ years	16
Total	461
Average	8.2 years

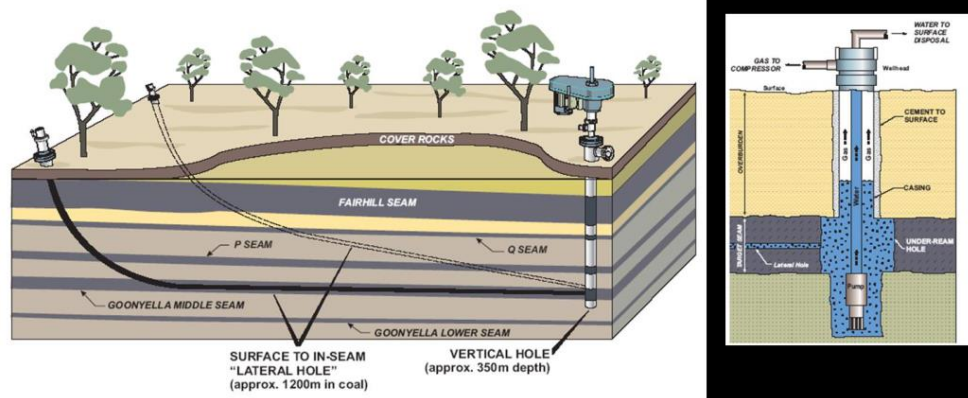
- (m) The mine structure current at the time of the HPI required by section 55 of the CSMH Act was provided on 18 June 2020 in response to Attendance Notice No. 2 from the Board.

3. **MANAGING GASES, INCLUDING METHANE, IN UNDERGROUND MINES**

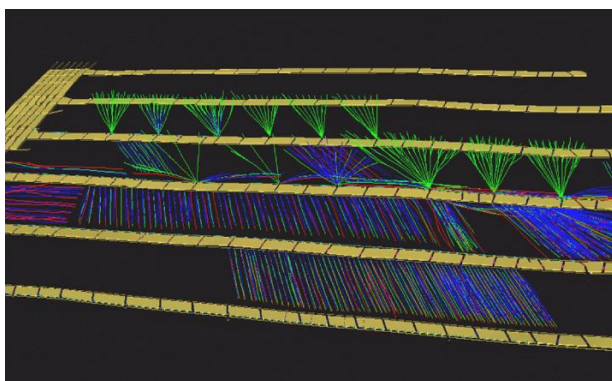
- (a) The short introductory video at <https://www.youtube.com/watch?v=HHaUypSqdzM> contains a 'mining 101' generic illustration of a longwall operation.
- (b) A glossary of commonly used terminology in underground longwall mining is found at **Annexure A** to this briefing paper.

3.1 **Management of methane and other gases generally**

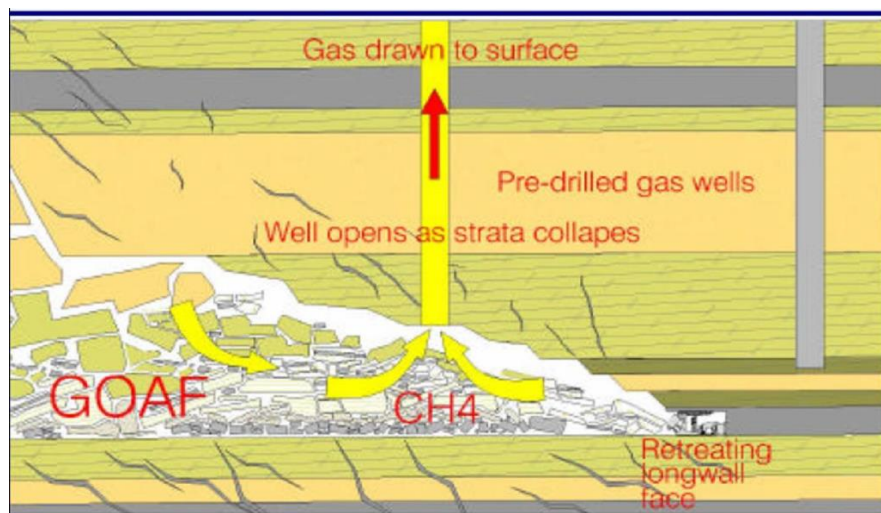
- (a) Methane (CH₄) is lighter than air. It is slightly soluble in water and burns readily in air forming carbon dioxide and water vapour. It is a relatively stable gas but can be flammable when its content is between 5% and 15% in air. Under combustion one molecule of gaseous methane reacts with two molecules of oxygen gas to form one molecule of carbon dioxide gas, two molecules of water vapour and energy. Methane and other gases are intrinsically present in coal seams, as they are generated in the creation of coal, via the earth's natural processes, over millions of years. The amount of methane which is present in a coal seam depends on the type of vegetation which has metamorphosized over time to create the coal, the bacteria which were present when the seam was formed, the current depth of the seam and other geological features of the landscape where the seam occurs.
- (b) The management of methane in underground coal mining occurs in several main stages.
- (c) Pre-drainage is the first of these, and, typically, it occurs some three to five years prior to any mining occurring. The general aim of pre-drainage is to get gas levels below an outburst threshold.
- (d) Pre-drainage occurs where angled holes are drilled from the surface into the coal seam and then along it. The coal seam is generally saturated with water. A pump is installed that pumps the water to the surface, reducing the pressure of water in the seam and allowing the gas to desorb from the coal. Both the gas and water report to the surface where they are separated. It is often referred to as surface to in-seam (**SIS**) drainage. SIS drill holes can be very long – up to 1.5 kilometres. An illustration of a notional set up of SIS drainage at Grosvenor is set out below:



- (e) The next phase of gas management is underground to in-seam (**UIS**) drainage, which utilises a similar principle. In this case more holes are drilled from the underground roadway into the rib and into the coal seam. The water is separated from the gas underground and UIS gas is drained under vacuum to the surface via a "Riser". The vacuum, used to draw gas to the surface through the Riser, is generated by a liquid ring vacuum pump at the surface. An illustration of a notional set up of UIS drainage at an Anglo mine is set out below.



- (f) The final stage of the gas management process is post drainage, or goaf drainage. Drainage holes are drilled ahead of mining, into the area which will become the goaf. At Grosvenor, maingate drainage holes are typically drilled from the surface to approximately 40 to 50 metres above the seam which is being mined. This distance will also vary from mine to mine based on operating experience. These holes typically pick up the gas from seams above the mined seam, which are displaced with the strata movement once the goaf collapses, together with gas from any seams below which may be entering the goaf through collapses in the floor where the mining is occurring or has occurred.



- (g) It is inevitable that during the mining process some gas will make its way into the ventilation network as not all gas can be pre-drained from the coal being mined and the goafing process releases gas from many seams or carbonaceous material which cannot be pre-drained ahead of mining. In addition the ventilation and gas drainage methods are designed to manage and prevent the risk of spontaneous combustion taking place in the goaf by creating an atmosphere which is rich in methane and low in oxygen.
- (h) The gas monitoring system is designed to measure the air composition continuously (or at mandated frequencies) at numerous key parts of the mine. Where concentrations of mining gases reach predetermined levels, the mine's systems are designed to trip power, to stop operations underground and reduce the potential for ignition and to reduce the risk of miners being exposed to irrespirable air.
- (i) The normal diurnal effect on barometric pressure (which occurs twice daily) or specific weather patterns or events can also cause the gas underground to expand and contract within the longwall. The seals in the mines (which direct ventilation and isolate previously extracted panels) can also breath in or out depending on the diurnal effect.

4. **GAS EXCEEDANCE HPI**

- 4.1 Anglo adheres to the industry reporting requirements as prescribed in section 198(2)(b) of the *Coal Mining Safety and Health Act 1999* (Qld) (**CMSHA**) and Section 13 of the *Coal Mining Safety and Health Regulation 2017* (Qld) (**CMSHR**).
- 4.2 The Grosvenor, Moranbah North and Grasstree mines operate on a system whereby the power to the shearer and the AFC will automatically trip when methane is detected. By way of example, on Grosvenor LW104 face there are methane sensors in six locations. (see Table 1 below and comment).

On Grosvenor LW104 face there are methane sensors in six locations. The sensors are configured to trigger alarms and power trips based on the level of methane detected at that location (see Table 1 below). When alarm levels are triggered, a visual notification also appears on Citect.

Table 1 – LW104 Methane Sensors

Sensor Location	Actions
Maingate Drive (A)	1.0% audible and visual alarm 2.0% power trip to the face and back to the transformers
Maingate Drive (B)	1.0% audible and visual alarm 2.0% power trip to the face and back to the transformers
Tailgate Drive (A)	1.0% audible and visual alarm 2.0% power trip to the face and back to the transformer
Tailgate Drive (B)	1.0% audible and visual alarm 2.0% power trip to the face and back to the transformer
Shearer (A)	1.0% audible and visual alarm 1.25% shearer heads trip power 2.0% trips power to the Distribution Control Box (DCB)
Shearer (B)	1.0% audible and visual alarm 1.25% shearer heads trip power 2.0% trips power to the Distribution Control Box (DCB)
Sensor - Roof Support ("149 Sensor")	>1.0% audible and visual alarm >2.0% Trip AFC and shearer outlet <1.8% reset
Tailgate Sensor – 400m outbye ("Inbye Sensor")	>1.6% haulage speed reduced to 6m/min >1.8% haulage speed reduction to 4m/min >1.9% shearer halt in MG>TG direction >2.0% Trip AFC and shearer outlet
Tailgate Sensor – 3-4 c/t ("Outbye Sensor")	>2.5% shearer trips power

5. **THE HPIS AT GROSVENOR (TOR 1IB AND III)**

- 5.1 Anglo produced the section 201 reports for each of the HPIS at the mine on 10 June 2020 in response to Attendance Notice No. 1.

The HPIS occurred at longwall panel number 103 (LW103) and at longwall panel number 104 (LW 104).

6. **THE HPIS AT GRASSTREE (TOR 1IC AND III)**

Anglo produced the section 201 reports for each of the 11 HPIS on 10 June 2020 in response to an Attendance Notice No. 1.

7. **THE HPIS AT MORANBAH NORTH (TOR 1ID AND III)**

Anglo has produced the section 201 report for the single HPI the subject of the TOR on 10 June 2020 in response to Attendance Notice No. 1.

8. **THE 6 MAY 2020 SERIOUS INCIDENT (TOR 1II)**

On 10 June 2020 Anglo voluntarily provided to counsel assisting the BOI the report required by section 201 of the CSMH Act into the incident of 6 May 2020.

- (a) At the time of writing this briefing paper:
 - (i) Parts of the mine equipment remain at SIMTARS for testing;
 - (ii) Operations have not resumed; and
 - (iii) It is unknown when re-entry to the mine may be possible.

9. **ANGLO AMERICAN GLOBAL POLICY ARCHITECTURE**

- (a) Anglo American sets out overarching direction for the conduct of its operations through a series of policies and standards²⁹.
- (b) Some of the more relevant policy frameworks are described below.
- (c) In respect of safety, Anglo's internal approach to safety is principally captured in Our Safety Health Environment (SHE) Way policy [\[\[AAMC.001.005.0093\]\]](#), which describes a systematic approach to management of occupational health and safety risks. This policy is adopted at Anglo Coal's operations across the world, including in the Metallurgical Coal business in Australia through the MetCoal SHE Policy [\[\[AAMC.001.005.0092\]\]](#) and in the process of being fully implemented.
- (d) The principles on which SHE Way is based are:
 - (i) Zero mindset – We shall apply the hierarchy of eliminating, avoiding, minimizing, mitigating, remediating/rehabilitating and offsetting the SHE impacts and risks arising from our activities, products and services where possible.
 - (ii) No repeats – All necessary steps will be taken to learn from SHE incidents, audit findings and other non-conformances to prevent their recurrence.
 - (iii) Simple non-negotiable standards – Common non-negotiable Group and SHE management, performance standards and procedures, shall be applied throughout the Group as a minimum requirement.
- (e) In respect of technical matters there are 23 Group Technical Standards. Those relevant to the issues raised by the ToR are:
 - (i) Prevention of Underground Gas and Coal Dust Explosions [\[\[AAMC.001.015.0011\]\]](#);
 - (ii) Geotechnical Standards for UG excavations and slope stability [\[\[AAMC.001.015.0016\]\]](#); and
 - (iii) Fire Prevention [\[\[AAMC.001.022.0119\]\]](#).
- (f) In terms of incident reporting:
 - (i) SSD Group Standard Learning from Incidents is the global policy [\[\[AAMC.001.004.1472\]\]](#); and

²⁹ Annual Report 2019 page 1

- (ii) Met Coal STD Incident Reporting Standard [[[AAMC.001.004.0002](#)]] is the Met Coal standard.

9.1 **Anglo American in Australia – the Metcoal business generally**

- (a) The Metcoal business manages safety in line with Anglo American group wide policies and procedures as applicable to its operations.
- (b) The Metcoal Vision for Safety, Health and Environment is to eliminate fatalities and achieve zero Harm to the workforce through the effective management of occupational health and safety risks, within and around its operations [[[AAMC.001.005.0092](#)]].
- (c) This policy also requires that all consultants, agents, contractors and suppliers must follow Metcoal policies and requirements relating to SHE management and practices.

9.2 **Systems**

- (a) Anglo American currently uses Enablon for all hazard, incident, investigation, Visible Felt Leadership (safety interaction), action management and operational risk management. It is a software solution offered by Wolters Kluwer that is used worldwide to minimise risks, increase worker safety, prevent accidents and ensure compliance.³⁰ Of relevance in relation to Enablon:
 - (i) access is across a variety of people with about 1,700 users in the MetCoal business unit. At a site level, that access is given at supervisor level and above as well as to some administrative personnel;
 - (ii) there are site processes to check the data for month end reporting;
 - (iii) the SSE uses Enablon to receive alerts and notices. The mine's operating system includes a daily review of Enablon items which are outstanding. This process aims to ensure reporting to the SSE on what is outstanding and is a mechanism for the SSE to approve action items and close outs. By way of example, a report on an HPI is uploaded into Enablon. It is also put into the Mine Record so it is accessible to coal mine workers. The HPI report is validated when it records the Manager's action to close the action out;
 - (iv) Enablon also records VFLs (where managers go out into the field to review and discuss matters with workers).
- (b) Anglo American's internal ABAS area manages the process the sites and function areas are responsible for being the identification and management of risk recorded in the Risk Register.
- (c) MetCoal adopts the principles in the SHE Way and incorporates them into its own Safety and Health Management System (**SHEMS**). There is no intervening policy suite at the Bulks level. The MetCoal SHEMS was prepared with the assistance of subject matter experts and sits within the Safety and Technical Departments.
- (d) It also embodies:
 - (i) The CMSHA and CMSHR compliance requirements; and
 - (ii) Other relevant regulatory information, which can include other Queensland legislation (eg any relevant aspects of legislation regulating petroleum and

³⁰ Further information about Enablon can be found here: <https://enablon.com/>

gas), and, if appropriate, wider contexts and standards. (Prior to 2016 the MetCoal business had operations in NSW and continues to have operations in Canada as well as Queensland so it has to span multiple regulatory systems).

- (e) The site policies at each site are in the process of being signed off by the local leadership group to confirm they reflect the overarching policy.
- (f) The MetCoal SHEMS is aligned with the Anglo Global SHE Way and takes into account the requirements of the AA Group globally at a policy level. The MetCoal SHEMS doesn't duplicate other materials: so if, for example, there is a relevant Group Technical Standard, that will not appear in the MetCoal SHEMS.
- (g) The site Safety and Health Management Systems (**SHMS**) are to align to the MetCoal SHEMS. So, for example, the risk management standard in the MetCoal SHEMS replicates a four layered process and each site's SHMS (which is developed under the control of the SSE) develops its own procedure for risk management by reference to the MetCoal SHEMS risk management standard.
- (h) A copy of the Safety Health and Environment (**SHE**) Policy for Metcoal is attached [[AAMC.001.005.0092](#)].
- (i) Each site within MetCoal, utilising the principles in the MetCoal SHEMS, then develops its own SHMS.

9.3 The Critical controls

- (a) The critical controls is a process that commenced in approximately 2015, with the MetCoal business as the pilot, consequent upon the death of Mr Paul McGuire in 2014. Initially, it was a site based process, with each site developing its own critical controls.
- (b) In approximately 2017, the wider businesses recognised that it was necessary to align the various identified critical controls across all of the sites internationally. So now, there is a process whereby Functional Bow Ties are done at a Group level which focuses Priority Unwanted Events with a classification of 4 or 5 (being, single or multiple fatality risks). A Bow Tie analyses identifies the causes and consequence of the unwanted event, the controls that prevent it and if the unwanted event occurs mitigator controls to prevent a fatality event occurring.
- (c) As part of the continuous improvement process MetCoal operations conducted a series of workshops to align operations and implement the Group critical controls, including expanding to include erosion and supporting factors of critical controls, and alignment of critical control monitoring activities.
- (d) The changes are currently being uploaded into the system on a site by site basis.

9.4 The Elimination of Fatalities Programme

Anglo's elimination of fatalities program is based around six streams, reflecting the elements of best practice safety management systems in the following areas:

- (a) Leadership
- (b) Caring Culture
- (c) Planning and Scheduling
- (d) Risk and Change Management

(e) Learning Organization

(f) Monitoring and Assurance

The Elimination of Fatalities Programme was developed following fatalities which occurred in 2015 globally. Previously, Met Coal had annual Target Zero Action Plans Yearly (Safety Plan). Met Coal wanted to ensure that eliminating fatalities was a primary focus of the business. This includes the CEO of Met Coal leading the MCLT, SSEs and SHE Managers on a two day review of safety performance and Elimination of Fatalities Plan development and commitments for the coming year. The Elimination of Fatalities taskforce went to every operation worldwide and 23 Elimination of Fatalities Workstreams were implemented by Group. The workstreams' activities are ongoing.