

Pollution Incident Response Management Plan (PIRMP)

Austen Quarry

Revision:	Date:	Status:	Prepared/Reviewed by:
11	23.08.2024	Issued for use	Jilu John

Concrete & Aggregates

HTA-E-SOP-001

Adbri Quarries

Safety Management System

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Pollution Incident Response Management Plan (PIRMP)

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21. ENVIRONMENTAL INCIDENT RESPONSE – POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

21.1 PURPOSE

C&A Adbri Quarries have systems in place to ensure all environmental/pollution incidents and hazards are controlled and monitored in line with the relevant state legislation.

21.2 SCOPE

This element applies to all C&A Adbri Quarry employees, contractors, sub-contractors, and visitors to ensure that all individuals are aware of requirements with regards to environmental incident issues. This element is used in conjunction with ABL-HSE-GSS-11 for reporting. If a pollution incident occurs in the course of an activity, so that material harm to the environment (within the meaning of **Part 5.7 – Duty to notify pollution incidents** - section 147 – NSW POEO Act) is caused or threatened, the person carrying on the activity must immediately implement the site’s pollution incident response management plan in relation to the activity required by this Part and report any incident / incidents that cause or threaten material harm **Immediately** after becoming aware of the incident.

21.3 PROCEDURE

All hazards relating to human health, or the environment will be described in the Environmental Hazard Management Matrix (**Appendix 8G**). The details of the pre-emptive action to be taken to minimize or prevent any risk of harm to human health or the environment arising out of the relevant activity will be recorded in a JHA (**Appendix 7C**) and/or a Risk Assessment (**Appendix 7D**). Risks will be minimized using the Risk Management Process (**Appendix 7K**).

An inventory of potential pollutants on the premises will be recorded in a Hazardous Substance Register (**Appendix 17B**). This register will also include the quantity and location of the pollutant.

A description of the safety equipment or other devices that are used to minimize the risks to human health or the environment and to contain or control a pollution incident are listed in the PPE (Personal Protective Equipment) Equipment Matrix (**Appendix 19B**) and Hazard Register (**Appendix 7F**).

The names, positions and contact details of key individuals at the quarry are kept in the Management Structure Register (**Appendix 4B**).

The contact details of each relevant authority are required to be available and displayed. Examples of required authorities are below:

- (a) EPA/OEH
- (b) Local Council
- (c) Local DPI office
- (d) Safe Work
- (e) Fire and Rescue
- (f) Water Catchment Authority
- (g) Ministry of Health
- (h) Department of Agriculture, Water, and the Environment

A neighborhood contact list will be maintained at the site. In an emergency incident, the appropriate neighbors will be contacted by the Quarry Manager or delegate and will be updated as required by the Quarry Manager / delegate. Constant communication such as 2-way radios, mobile phones and Business Communication (Toolbox) Meetings etc. (**Appendix 6B**) will be used as early warning mechanisms to communicate with site staff and management throughout the incident or other times.

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An Environmental Incident Definition and Response Flow Chart (**Appendix 21A**) has been produced for guidance on the process of dealing with a pollution incident. "Pollution" means:

- (a) water pollution, or
- (b) air pollution, or
- (c) noise pollution, or
- (d) land pollution.

Definition - "Pollution Incident" - means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.

The mine plan (**Appendix 3B**) will show the location of the premises with the property boundary and any other relevant detail.

The qualifications and training competencies of all employees will be recorded as required in the Training Register (**Appendix 11F**).

It is a legislative requirement for this plan to be tested and updated on an annual basis and within one month of an incident. To complete this requirement a Pollution Incident Response Drill Report (**Appendix 21B**) has been prepared. The checklist includes the major elements of the plan that require testing. This PIRMP (Pollution Incident Response Management Plan) is to be reviewed and updated as required at least annually to ensure that incident response systems are fully functioning and are ready to be implemented if an incident occurs. This requirement shall be listed as an action item and scheduled on the environmental compliance planner. Training records should be stored on site and in the Adbri Intranet data base.

The plan will be checked and reviewed in accordance with Element 5. Any changes will be recorded along with the date in the SMS Amendment Sheet (**Appendix 1A**).

21.4 REFERENCES

- [Environmental Protection Act 1994](#)
- [Protection of the Environment Operations Act 1997](#)
- [Protection of the Environment Operations \(General\) Amendment \(Pollution Incident Response Management Plans\) Regulation 2012](#)

Appendix 21A Environmental Incident Definition and Response Flow Chart

"Pollution incident" means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.

Meaning of material harm to the environment

(1) For the purposes of this Part:

(a) harm to the environment is material if:

(i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

(ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and

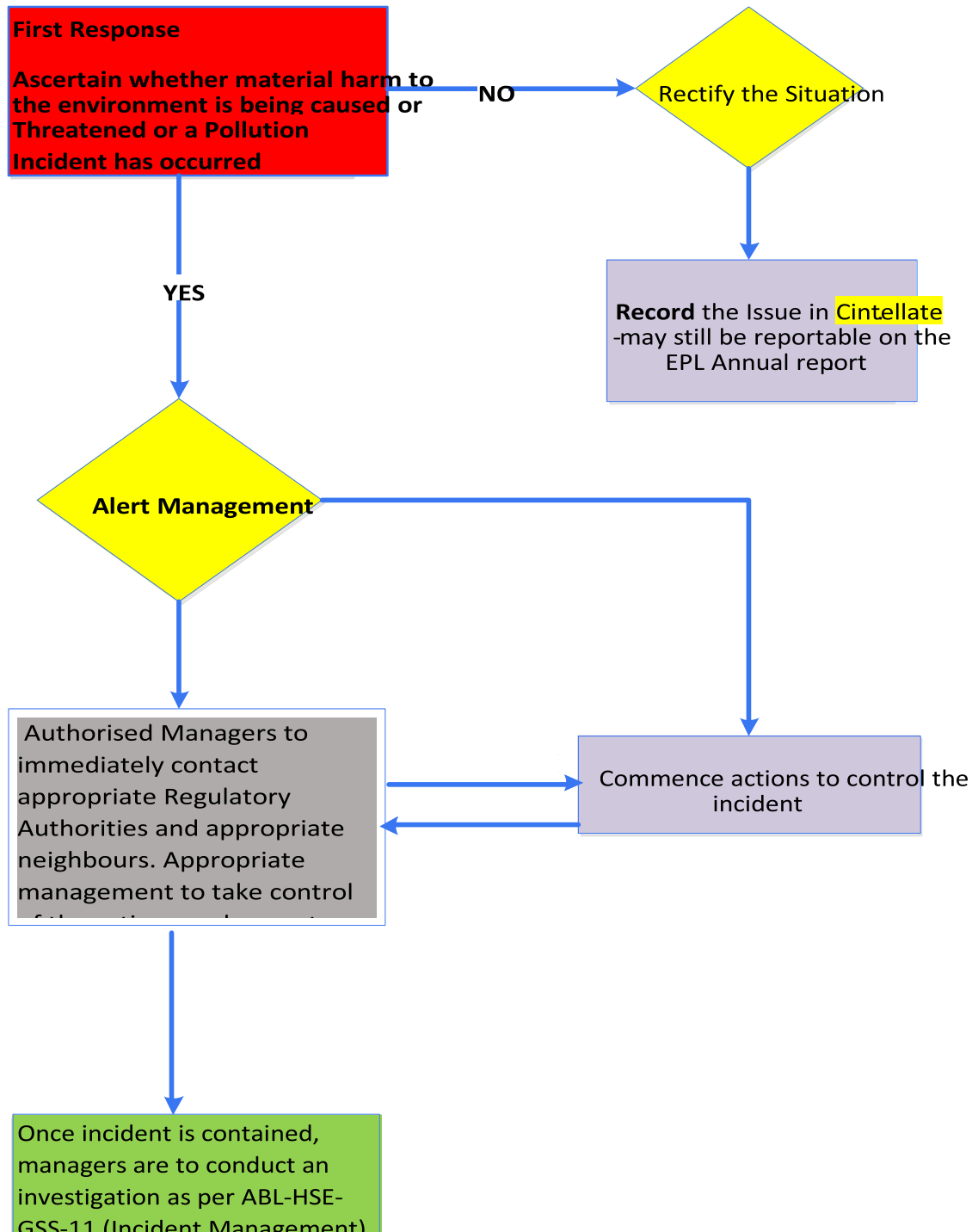
(b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

(2) For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.

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Appendix 21A

Environmental Incident Definition and Response Flow Chart



SAFETY MANAGEMENT SYSTEM

HTQY-E-SFT-024

Adbri Quarries– Austen Quarry

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Appendix 21B

Environmental Response Plan Drill Report

Site/Location:		Date of Drill / Environmental Issue	
Method Used for initiating response:			
Time of Environmental incident:		Was Management contacted?	
Was Incident contained?		Method/equipment used?	
Was regulatory Authority notified?		Name of reporting person?	
Name of regulatory authority reported to		Contact person at Reg. Authority?	
Was incident adequately cleaned up?		Was waste disposed of correctly?	
Comments on the Drill / Environmental Emergency:			
Corrective actions to be adopted as a result of this Drill / Environmental Emergency		By whom	By Date
Report Compiled by			Date

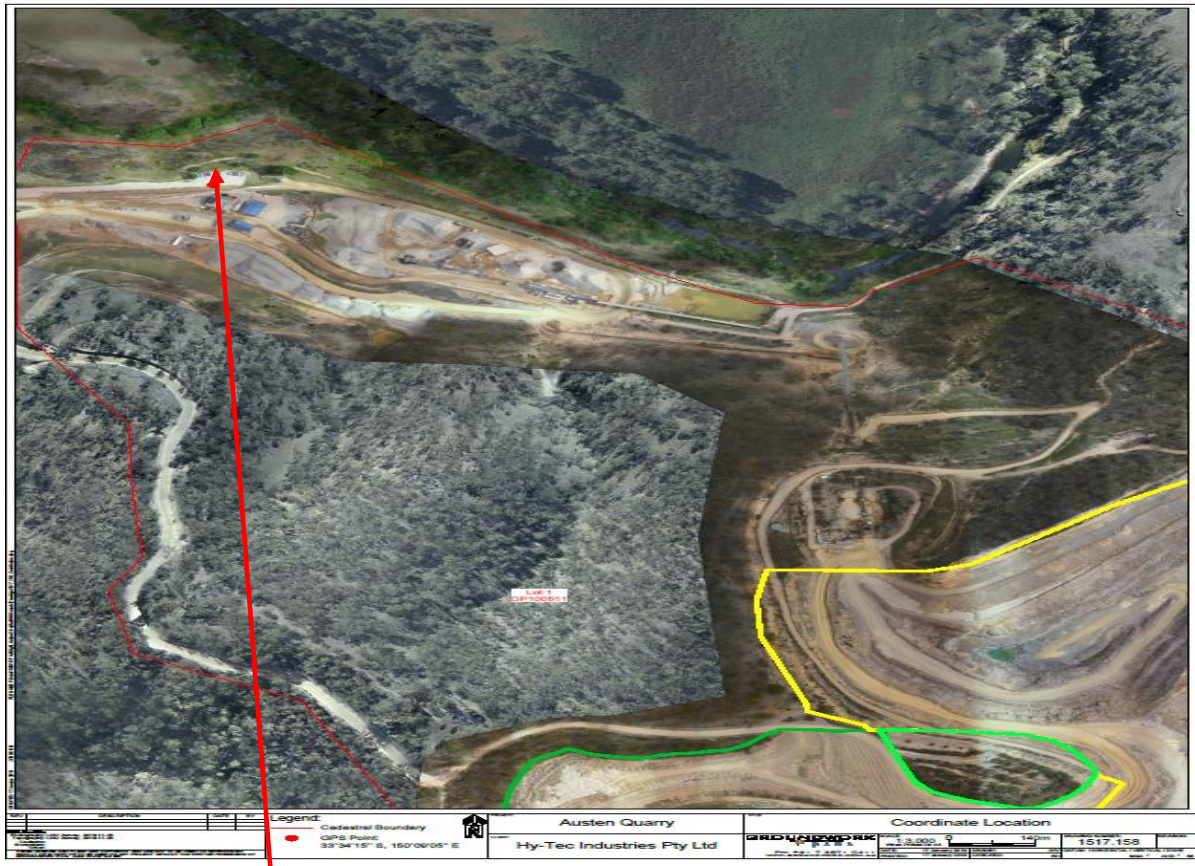
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EXTERNAL EMERGENCY RESPONSE ORGANISATIONS			
Service	Emergency Contact	General Enquiry	Address
Ambulance	000		21/15 Railway Pde, Lithgow
Department of Industry – Water	02 9338 6600	02 9338 6600	www.industry.nsw.gov.au/water
Department Planning & Environment	1300 305 695		www.planning.nsw.gov.au
Depart. P & E – Resources Regulator	1300 814 609		www.resourcesregulator.nsw.gov.au
Doctor – Coal Services	N/A	02 6350 1050	3 Proto Ave, Lithgow
E.P.A	131 555		
Fire Brigade	000	02 6353 1862	58 Cook St Lithgow
Lithgow Hospital	000	02 6350 2300	Great Western Hwy Lithgow.
Lithgow Council		02 6354 9999	180 Mort St, Lithgow
Poisons Information Centre	N/A	13 11 26	www.poisonsinfo.nsw.gov.au
Police	000	02 6352 8399	244 Mort St Lithgow
Ministry of Health		02 9391 9000	www.health.nsw.gov.au
SafeWork NSW	13 10 50	13 10 50	contact@safework.nsw.gov.au
State Emergency Service	13 25 00	N/A	Lithgow

If any emergency service (**Police, Fire or Ambulance**) is called to site, a nominated employee must meet the response team at the front gate (391 Jenolan Caves Road) to the Quarry and escort them to the required location.

List of Neighbourhood contacts to be maintained at the Quarry – **For privacy reasons, this list is not to be published.**

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Helicopter Directions For emergency purposes

Latitude & Longitude 33°34'15" South 150°09'05" East – Carpark opposite Quarry Office

Being 33 degrees, 34 minutes and 15 seconds south / 150 degrees, 9 minutes and 5 seconds East

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Adbri Quarries – Austen Quarry

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Appendix 4B

Register of persons occupying positions in the Management Structure

Position	Name	Responsible for activating Incident Response Plan (Y/N)	Authority to Notify (Y/N)	Responsible to Manage Pollution Incident (Y/N)	Finish Date
Chief Operating Officer – Concrete, Aggregates & Masonry	Andrew Dell (02) 9751 7115 / 0417 607 450	N	Y	N	
Group Manager – Health, Safety & Environment	Steven De Musso 0439 740 293	N	Y	N	
General Manager NSW	David Cilento (02) 9751 7143 / 0418 162 498	N	Y	N	
Business Partner Health and Safety – CAM (NSW)	Joe Perulero 0479 188 381	N	Y	N	
Manager – Quarry Operations NSW	Lee Attard 0497 603 401	Y	Y	N	
Quarry Manager	Craig McDonald 0405 123 700	Y	Y	Y	
Quarry Supervisor	Michael Greenwood 0418 678 323	Y	N	Y	
Quarry Supervisor	Luke McNamara 0429 394 197	Y	N	Y	
Administration	Kylie Ann Fryer	Y	N	N	
Primary Plant Operator	Brett Barker	Y	N	N	
Quarry Worker	Bob Rowlandson	Y	N	N	
Quarry Worker	Alan Eckford	Y	N	N	
Quarry Worker	Peter Ray	Y	N	N	



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Adbri Quarries – Austen Quarry













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Appendix 4B

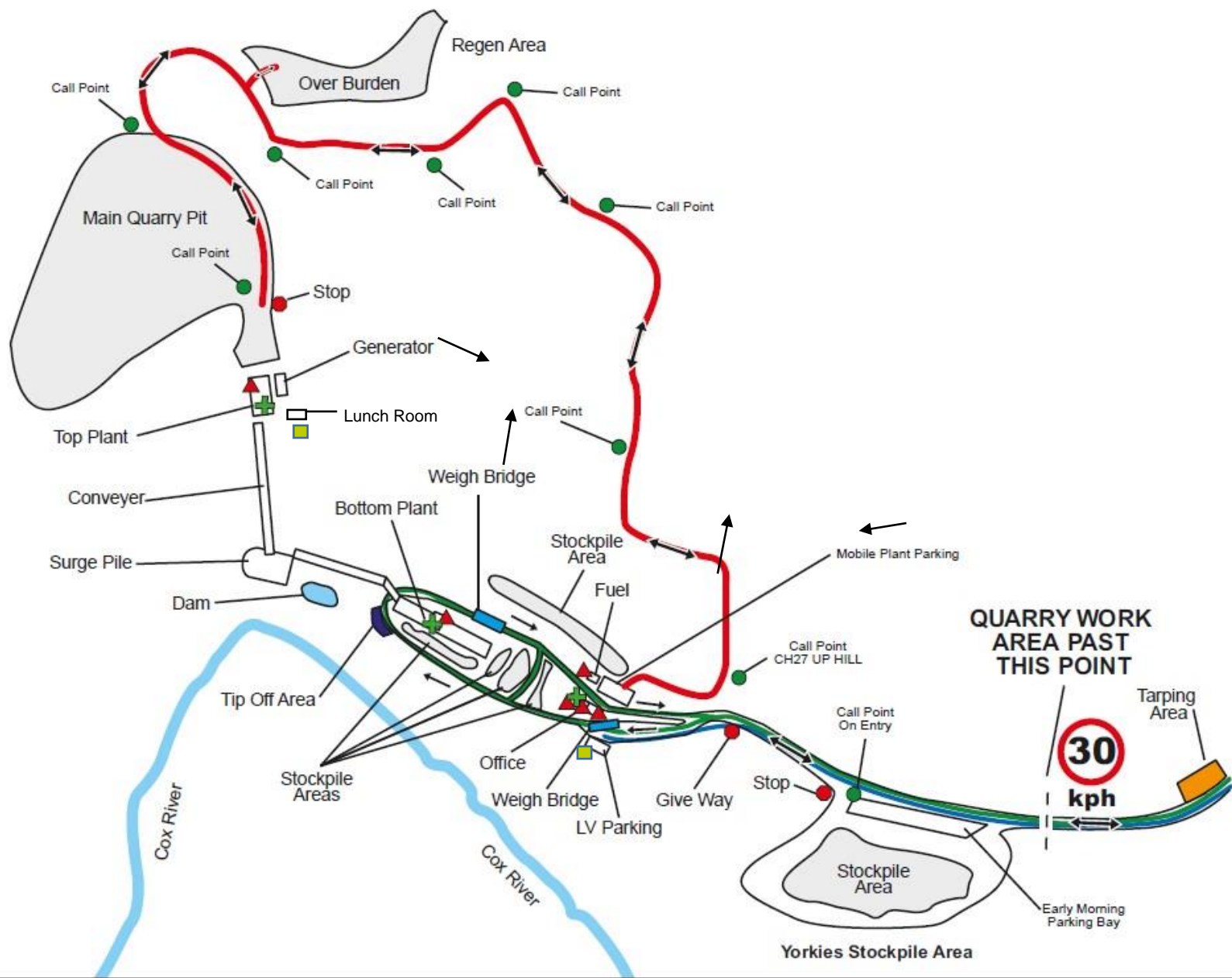
Register of persons occupying positions in the Management Structure

Quarry Worker	Duncan Stanfield	Y	N	N	
Quarry Worker	Chris O’Malley	Y	N	N	
Quarry Worker	Dylan Holland	Y	N	N	
Quarry Worker	Mark Cullen	Y	N	N	
Quarry Worker	Brendan Neaves	Y	N	N	
Quarry Worker	Shannon Rhodes	Y	N	N	
Quarry Worker	Craig Silcock	Y	N	N	
Quarry Worker	Michael Fry	Y	N	N	
Quarry Worker	Ryan Millard	Y	N	N	
Quarry Worker	John Ray	Y	N	N	
Quarry Worker	Paul Egberts	Y	N	N	
Quarry Worker	Brett Doble	Y	N	N	
Quarry Worker	Robert Sheather	Y	N	N	
Quarry Worker	Justin Jones	Y	N	N	
Sales Representative	Anna Antonis (0439103570)	Y	N	N	
Sales Representative	Peter Mckee (0417 452 098)	Y	N	N	
Electrician	Paul Taylor (0409 514 993)	Y	N	N	
Plant Maintenance	Mark Gracey (0417727227)	Y	N	N	

LEGEND

- | | | | |
|---|---------------------------|---|--------------------------------------|
|  | FIRE EXTINGUISHER |  | TARPING AREA |
|  | FIRST AID KIT |  | DUMP TRUCKS QUARRY ACCESS/LOAD/ EXIT |
|  | STOP/ GIVE-WAY |  | HAUL TRUCKS QUARRY ACCESS/LOAD/ EXIT |
|  | CALL POINT |  | LV/Pedestrian Access road |
|  | NO ENTRY |  | EMERGENCY EVACUATION AREA |
|  | GENERAL TRAFFIC DIRECTION | | |
|  | TIP OFF AREA | | |

AUSTEN QUARRY 391 JENOLAN CAVES ROAD



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SPILL KIT & HYDROCARBON LOCATION



Legend

- Hydrocarbon Storage Area
- Spill Kits
- Project Boundary



ChemAlert's distinct colour rating system to allows for an easy visual interpretation of the hazard level associated with chemical substances.

The three distinct colours and their meaning are as follows:

GREEN

Low Health Hazard with normal use.

User Check List:

- Read the SDS and ChemAlert report thoroughly before using the product
- Clarify any concerns you might have about the product or its application
- If PPE is specified, are workers experienced in its use?

AMBER

Moderate Health Hazard with normal use.

User Check List:

- Read the SDS and ChemAlert report thoroughly before using the product
- Clarify any concerns you might have about the product or its application
- Is there a safer substitute?
- Is the area adequately ventilated?
- Does the area of application need to be isolated?
- Is air monitoring required to evaluate exposure levels?
- Have safe work practices or procedures been established?
- If PPE is specified, are workers experienced in its use?

RED

High Health Hazard with normal use.

User Check List:

- Read the SDS and ChemAlert report thoroughly before using the product.
- Clarify any concerns you might have about the product or its application.
- Does the product need to be used (can the product or task be eliminated)?
- Is there a safer substitute?
- Is the area adequately ventilated?
- Does the area of application need to be isolated?
- Is there a first aid officer or nurse available?
- Is air monitoring required to evaluate exposure levels?
- Have safe work practices or procedures been established?
- Are medical records kept for those handling this product?
- If PPE is specified, are workers experienced in its use?



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Stock Register

(Location Name: CONCRETE & AGGREGATES/ NEW SOUTH WALES/ HY-TEC/ AUSTEN QUARRY, Child Locations Included)

(Sort By: Product Name, Filter By: None)

Stock Number	Product Name				Supplier (Emergency Contact)				
	Hazardous	Dangerous Good	UN number	Packing Group	Hazchem Code	Status	In Stock Inventory	Risk Assessment	SDS Date
2423	298 ASPHALT EMULSION				WESTERN COLLOID S.C., INC. (1-323-231-8292)				
	Yes	No	-	-	-	None	Yes	-	07-Oct-2015
2388	636-LINE BRITISH PAINTS H2O ENAMEL SEMI GLOSS				DULUX GROUP (AUSTRALIA) PTY LTD (1800 220 770/ 0800 220 770)				
	Yes	No	-	-	-	None	Yes	-	16-Jul-2021
2387	637-LINE BRITISH PAINTS H2O ENAMEL GLOSS				DULUX GROUP (AUSTRALIA) PTY LTD (1800 220 770/ 0800 220 770)				
	Yes	No	-	-	-	None	Yes	-	12-Oct-2021
2707	653-D0040 BRITISH PAINTS PREP 4 IN 1 ACRYLIC				DULUX GROUP (AUSTRALIA) PTY LTD (1800 220 770/ 0800 220 770)				
	Yes	No	-	-	-	None	Yes	-	14-Aug-2021
2691	ABRASIVE HAND CLEANER				CHEMSOL AUSTRALIA PTY LTD (0439977798)				
	No	No	-	-	-	None	Yes	-	14-Dec-2022
2521	ACETYLENE				ELGAS LTD (STARGAS) (1800 819 783 (24 hours))				
	Yes	DG 2.1	UN 1001	-	2SE	None	Yes	-	07-Sep-2023
569	ACETYLENE (DISSOLVED)				AIR LIQUIDE AUSTRALIA LIMITED (1800 800 055, 1800 812 588)				
	Yes	DG 2.1	UN 1001	-	2SE	None	Yes	-	07-Apr-2022
2074	ADBLUE				AUSBLUE (1300 287 258)				
	No	No	-	-	-	None	Yes	-	05-Oct-2020
1773	AIR TOOL OIL				GULF WESTERN OIL ((02) 9673 9600/ 13 11 26)				
	No	No	-	-	-	None	Yes	-	30-Sep-2020
2695	AJAX HOSPITAL GRADE DISINFECTANT MULTIPURPOSE CLEANER LEMON CLEANSE				COLGATE-PALMOLIVE PTY LTD ((02) 9037 2994)				
	Yes	No	-	-	-	None	Yes	-	08-Feb-2022
2400	ALPHASYN EP 150				CASTROL AUSTRALIA PTY LTD ((02) 8014 4558; 1800 141 474)				
	No	No	-	-	-	None	Yes	-	21-Aug-2023
2401	ALPHASYN EP 220				CASTROL AUSTRALIA PTY LTD ((02) 8014 4558; 1800 141 474)				
	No	No	-	-	-	None	Yes	-	21-Aug-2023
2405	ALPHASYN EP 460				CASTROL AUSTRALIA PTY LTD ((02) 8014 4558; 1800 141 474)				
	No	No	-	-	-	None	Yes	-	16-Aug-2023
1792	AMMONIUM NITRATE				ORICA AUSTRALIA PTY LTD (1800 033 111)				
	Yes	DG 5.1	UN 1942	PG III	1Y	None	Yes	-	09-Nov-2021
2397	AMPLIFY DIESEL				AMPOL AUSTRALIA PETROLEUM PTY LTD (FORMERLY CALTEX AUSTRALIA) (1800 033 111)				
	Yes	No	-	-	-	None	Yes	-	15-Oct-2020

Stock Register

(Location Name: CONCRETE & AGGREGATES/ NEW SOUTH WALES/ HY-TEC/ AUSTEN QUARRY, Child Locations Included)

(Sort By: Product Name, Filter By: None)

Stock Number	Product Name				Supplier (Emergency Contact)				
	Hazardous	Dangerous Good	UN number	Packing Group	Hazchem Code	Status	In Stock Inventory	Risk Assessment	SDS Date
1742	ARMORALL				ENVIRO CHEMICALS (AUSTRALIA) PTY LTD (1800 033 111)				
	No	No	-	-	-	None	Yes	-	01-Jan-2022
2686	ARTLINE WHITEBOARD CLEANER				ACCO BRANDS AUSTRALIA PTY LTD (13 11 26 (Poisons Information Centre))				
	Yes	DG 3	UN 1219	PG II	•2YE	None	Yes	-	04-Jun-2021
2705	ATF FS FULL SYNTHETIC MULTI VEHICLE AUTO TRANS FLUID				PENRITE OIL COMPANY PTY LTD (1300 736 748/ 0800 533 698)				
	No	No	-	-	-	None	Yes	-	03-Sep-2019
2395	AUTOCHEM HEAVY DUTY ENGINE DEGREASER				CHEMTOOLS PTY LTD (1300 738 250/ 13 11 26)				
	Yes	No	-	-	-	None	Yes	-	31-Jul-2020
2712	AUTOMATIC TRANSMISSION FLUID DX3				TRU-BLU OIL AUSTRALIA PTY LTD (0412 609 722)				
	No	No	-	-	-	None	Yes	-	08-Jan-2022
497	AUTOMOTIVE DIESEL FUEL				AMPOL AUSTRALIA PETROLEUM PTY LTD (FORMERLY CALTEX AUSTRALIA) (1800 033 111)				
	Yes	No	-	-	-	None	Yes	-	23-Jun-2021
2488	BOSISTO'S EUCALYPTUS OIL				FELTON GRIMWADE & BOSISTO'S PTY LTD (0416 118 909; 0451 058 346 (After Hours)/ 13 11 26 (PIC))				
	Yes	DG 3	UN 1993	PG III	•3Y	None	Yes	-	28-Feb-2022
2340	BP KOMATSU HYDRAULIC OIL 46				KOMATSU AUSTRALIA (+61 13 11 26)				
	No	No	-	-	-	Approved	Yes	-	01-Nov-2019
2392	BP KOMATSU LITHIUM EP GREASE G2-LI				KOMATSU AUSTRALIA (+61 13 11 26)				
	No	No	-	-	-	None	Yes	-	01-Nov-2019
2702	BRAKE & CLUTCH CLEANER				HANDIPAC (13 11 26 (Poisons Information Centre))				
	Yes	DG 2.1	UN 1950	-	2YE	None	Yes	-	30-Nov-2022
836	BRAKE AND CLUTCH FLUID				AMPOL AUSTRALIA PETROLEUM PTY LTD (FORMERLY CALTEX AUSTRALIA) (1800 033 111)				
	No	No	-	-	-	None	Yes	-	PRODUCT OBSOLETE
2704	BRAKE CLEANER				GULF WESTERN OIL ((02) 9673 9600/ 13 11 26)				
	Yes	DG 3	UN 1268	PG II	3YE	None	Yes	-	30-Sep-2023
1797	BULK CENTRA PRODUCTS				ORICA AUSTRALIA PTY LTD (1800 033 111)				
	Yes	DG 1.1D	UN 0241	-	E	None	Yes	-	17-Feb-2021
2409	BUTANE GAS				LN MARKETING P/L (03 9775 0713)				
	Yes	DG 2.1	UN 2037	-	2T	None	Yes	-	30-Sep-2019
2389	C4 HYDRAULIC 10W				GULF WESTERN OIL ((02) 9673 9600/ 13 11 26)				
	No	No	-	-	-	None	Yes	-	PRODUCT OBSOLETE

Stock Register

(Location Name: CONCRETE & AGGREGATES/ NEW SOUTH WALES/ HY-TEC/ AUSTEN QUARRY, Child Locations Included)

(Sort By: Product Name, Filter By: None)

Stock Number	Product Name				Supplier (Emergency Contact)				
	Hazardous	Dangerous Good	UN number	Packing Group	Hazchem Code	Status	In Stock Inventory	Risk Assessment	SDS Date
722	CARBON DIOXIDE (GAS & LIQUID)				CHUBB FIRE & SECURITY AUSTRALASIA (1300 369 309)				
	Yes	DG 2.2	UN 1044	-	2	None	Yes	-	16-Dec-2022
2330	CASTROL CARECLEAN LIME				CASTROL AUSTRALIA PTY LTD ((02) 8014 4558; 1800 141 474)				
	Yes	No	-	-	-	None	Yes	-	17-Apr-2024
2419	CASTROL MINE GREASE				CASTROL AUSTRALIA PTY LTD ((02) 8014 4558; 1800 141 474)				
	No	No	-	-	-	None	Yes	-	16-Aug-2023
2193	CASTROL PREMIUM COOL PLUS 50				CASTROL AUSTRALIA PTY LTD ((02) 8014 4558; 1800 141 474)				
	Yes	No	-	-	-	None	Yes	-	16-Aug-2023
237	CASTROL PREMIUM HEAVY DUTY				CASTROL AUSTRALIA PTY LTD ((02) 8014 4558; 1800 141 474)				
	No	No	-	-	-	None	Yes	-	20-May-2024
2518	CASTROL TRANSMAX OFFROAD 10W				CASTROL AUSTRALIA PTY LTD ((02) 8014 4558; 1800 141 474)				
	No	No	-	-	-	None	Yes	-	07-Jan-2020
692	CEMENT SC 2000				REMA TIP TOP AUSTRALIA PTY LTD (1800 638 556/ (02) 8755 8400)				
	Yes	DG 6.1	UN 1710	PG III	2Z	None	Yes	-	12-Dec-2022
1879	CHUBB ABE DRY CHEMICAL POWDER FIRE EXTINGUISHER				CHUBB FIRE & SECURITY AUSTRALASIA (1300 369 309)				
	Yes	DG 2.2	UN 1044	-	-	None	Yes	-	16-Dec-2022
2490	CHUBB AFFF C6 3%				CHUBB FIRE & SECURITY AUSTRALASIA (1300 369 309)				
	Yes	No	-	-	-	None	Yes	-	16-Dec-2022
2413	CHUBB BE DRY CHEMICAL POWDER FIRE EXTINGUISHER				CHUBB FIRE & SECURITY AUSTRALASIA (1300 369 309)				
	Yes	DG 2.2	UN 1044	-	-	None	Yes	-	16-Dec-2022
2412	CHUBB CLASS-D FIRE EXTINGUISHER				CHUBB FIRE & SECURITY AUSTRALASIA (1300 369 309)				
	Yes	DG 2.2	UN 1044	-	-	None	Yes	-	20-Mar-2023
2415	CHUBB ECO FF FOAM FIRE EXTINGUISHER				CHUBB FIRE & SECURITY AUSTRALASIA (1300 369 309)				
	Yes	DG 2.2	UN 1044	-	-	None	Yes	-	16-Dec-2022
2416	CHUBB F3 FOAM MOBILE FIRE EXTINGUISHER				CHUBB FIRE & SECURITY AUSTRALASIA (1300 369 309)				
	Yes	DG 2.2	UN 1044	-	-	None	Yes	-	20-Mar-2023
2361	CLEANER JIF 375ML REGULAR				OFFICEMAX NEW ZEALAND LIMITED (+64 800 700 112/ +61 3 9573 3188)				
	Yes	No	-	-	-	None	Yes	-	01-Nov-2019
2410	COMPANION				SST AUSTRALIA PTY LTD (1800 638 556)				
	Yes	DG 8	UN 1760	PG II	2X	None	Yes	-	16-Aug-2022

Stock Register

(Location Name: CONCRETE & AGGREGATES/ NEW SOUTH WALES/ HY-TEC/ AUSTEN QUARRY, Child Locations Included)

(Sort By: Product Name, Filter By: None)

Stock Number	Product Name				Supplier (Emergency Contact)				
	Hazardous	Dangerous Good	UN number	Packing Group	Hazchem Code	Status	In Stock Inventory	Risk Assessment	SDS Date
2706	COMPRESSOR OIL SAE 30 - ISO 100				GULF WESTERN OIL ((02) 9673 9600/ 13 11 26)				
	No	No	-	-	-	None	Yes	-	01-Jul-2023
1791	CORDTEX DETONATING CORDS				ORICA AUSTRALIA PTY LTD (1800 033 111)				
	Yes	DG 1.1D	UN 0065	-	E	None	Yes	-	27-Jul-2022
2066	DETTOL LIQUID HAND WASH				RB (HYGIENE HOME) AUSTRALIA PTY LTD (13 11 26 (PIC))				
	No	No	-	-	-	None	Yes	Available	06-Jan-2023
2122	DY-MARK SPRAY INK ALL COLOURS				DY-MARK AUSTRALIA ((07) 3327 3099)				
	Yes	DG 2.1	UN 1950	-	2Y	None	Yes	-	10-Dec-2021
2719	DY-MARK TREAD RITE BULK ALL COLOURS				DY-MARK AUSTRALIA ((07) 3327 3099)				
	Yes	DG 3	UN 1263	PG III	●3Y	Approved	Yes	-	23-Aug-2022
2393	DY-MARK ZINC GUARD SILVER ZINC				DY-MARK AUSTRALIA ((07) 3327 3099)				
	Yes	DG 2.1	UN 1950	-	2YE	None	Yes	-	07-Sep-2021
2489	EARTH CHOICE ANTIBACTERIAL HAND WASH				NATURES ORGANICS PTY LTD ((03) 9759 0300)				
	Yes	No	-	-	-	None	Yes	-	06-Apr-2020
2703	ENGINE DEGREASER				HANDIPAC (13 11 26 (Poisons Information Centre))				
	Yes	DG 2.1	UN 1950	-	2YE	None	Yes	-	30-Nov-2022
1187	EXEL DETONATORS (1.1B PACKAGING)				ORICA AUSTRALIA PTY LTD (1800 033 111)				
	Yes	DG 1.1B	UN 0360	-	E	None	Yes	-	15-Mar-2023
2118	FAST ACTION RATAK WAX BLOCKS				YATES AUSTRALIA, A DIVISION OF DULUXGROUP (AUSTRALIA) PTY LTD (1800 033 111 (ALL HOURS))				
	No	No	-	-	-	None	Yes	-	26-Apr-2024
2531	FLAMESTOP (ABE) (ABCE) EXTINGUISHERS				FLAMESTOP AUSTRALIA PTY LTD (0425 342 729)				
	Yes	DG 2.2	UN 1044	-	-	None	Yes	-	14-Jan-2021
2714	FLAMESTOP CARBON DIOXIDE FIRE EXTINGUISHER				FLAMESTOP AUSTRALIA PTY LTD (0425 342 729)				
	Yes	DG 2.2	UN 1044	-	-	None	Yes	-	12-Jan-2022
2713	FLAMESTOP FLUORINE FREE & ALCOHOL RESISTANT EXTINGUISHER				FLAMESTOP AUSTRALIA PTY LTD (0425 342 729)				
	Yes	DG 2.2	UN 1044	-	-	None	Yes	-	12-Jan-2022
2701	GALMAX 2SG BRIGHT SILVER 2-IN-1 GALVANISING PAINT				CHEMTOOLS PTY LTD (1300 738 250/ 13 11 26)				
	Yes	DG 2.1	UN 1950	-	2YE	None	Yes	-	30-Sep-2020
2700	GALMAX 90 COLD GALVANISING PAINT - SPRAYABLE				CHEMTOOLS PTY LTD (1300 738 250/ 13 11 26)				
	Yes	DG 3	UN 1263	PG III	●3Y	None	Yes	-	30-Sep-2020

Stock Register

(Location Name: CONCRETE & AGGREGATES/ NEW SOUTH WALES/ HY-TEC/ AUSTEN QUARRY, Child Locations Included)

(Sort By: Product Name, Filter By: None)

Stock Number	Product Name				Supplier (Emergency Contact)				
	Hazardous	Dangerous Good	UN number	Packing Group	Hazchem Code	Status	In Stock Inventory	Risk Assessment	SDS Date
2699	GALMAX NPR COLOURED GALVANISING PAINT				CHEMTOOLS PTY LTD (1300 738 250/ 13 11 26)				
	Yes	DG 3	UN 1263	PG II	•3YE	None	Yes	-	30-Apr-2020
2386	GALMET SPRAYPAINT AEROSOL (ALL COLOURS EXCEPT SILVER)				ITW POLYMERS & FLUIDS PTY LTD ((03) 9573 3188 (Chemwatch Emergency Response 24/7)/ 1800 951 288 (Chemwatch Emergency Response 24/7)/ (02) 9186 1132 (Chemwatch))				
	Yes	DG 2.1	UN 1950	-	2YE	None	Yes	-	23-Dec-2022
2411	GASSER 2, GASSIT, UGS 400 SERIES GASSER (UNDERGROUND GASSER)				ORICA AUSTRALIA PTY LTD (1800 033 111)				
	Yes	No	-	-	-	None	Yes	-	01-Mar-2023
870	GLEN 20 ALL IN ONE SPRAY DISINFECTANT - ORIGINAL (AU)				RB (HYGIENE HOME) AUSTRALIA PTY LTD (13 11 26 (PIC))				
	Yes	DG 2.1	UN 1950	-	2YE	None	Yes	-	26-May-2023
2696	GLEN 20 SPRAY DISINFECTANT - BERRY BREEZE				RB (HYGIENE HOME) AUSTRALIA PTY LTD (13 11 26 (PIC))				
	Yes	DG 2.1	UN 1950	-	2YE	None	Yes	-	20-May-2020
2716	HAND SANITIZER				CLEAN PLUS CHEMICALS PTY LTD (1800 201 700)				
	Not specified	No	-	-	-	Approved	Yes	-	21-Jan-2021
2359	HARPIC LIQUID FRESH POWER – TROPICAL BLOSSOM				RB (HYGIENE HOME) AUSTRALIA PTY LTD (13 11 26 (PIC))				
	Yes	No	-	-	-	Approved	Yes	-	31-Jan-2020
2711	HEAVY DUTY DEGREASER AEROSOL				GULF WESTERN OIL ((02) 9673 9600/ 13 11 26)				
	Yes	DG 2.1	UN 1950	-	2YE	None	Yes	-	30-Apr-2024
207	HHS2000				WURTH AUSTRALIA PTY LTD (1300 657 765/ 13 11 26)				
	Yes	DG 2.1	UN 1950	-	2YE	None	Yes	-	02-Nov-2023
2522	IDEMITSU – HITACHI GENUINE SUPER WIDE DH-2 10W-40 ENGINE OIL				HITACHI CONSTRUCTION MACHINERY (AUST) PTY LTD (1800 039 008)				
	No	No	-	-	-	None	Yes	-	25-Feb-2020
2477	INDUSTRIAL GEAR OIL 220				GULF WESTERN OIL ((02) 9673 9600/ 13 11 26)				
	No	No	-	-	-	None	Yes	-	30-Apr-2023
816	INOX-MX3 AEROSOL				CANDAN INDUSTRIES PTY LTD ((07) 5574 8205)				
	Yes	DG 2.1	UN 1950	-	2YE	None	Yes	-	28-Feb-2022
917	KEROSENE				GLENDALE PACKAGING PTY LTD (0401 699 204)				
	Yes	DG 3	UN 1223	PG III	3Y	None	Yes	-	01-Jun-2024
1999	KOMATSU AXLE OIL AXO80				BP AUSTRALIA PTY LTD (1800 14 14 74 within Australia or +61 2 8014 4558)				
	No	No	-	-	-	None	Yes	-	12-Dec-2023
1998	KOMATSU EO15W40-DH				BP AUSTRALIA PTY LTD (1800 14 14 74 within Australia or +61 2 8014 4558)				
	Yes	No	-	-	-	None	Yes	-	12-Jul-2021

Stock Register

(Location Name: CONCRETE & AGGREGATES/ NEW SOUTH WALES/ HY-TEC/ AUSTEN QUARRY, Child Locations Included)

(Sort By: Product Name, Filter By: None)

Stock Number	Product Name				Supplier (Emergency Contact)				
	Hazardous	Dangerous Good	UN number	Packing Group	Hazchem Code	Status	In Stock Inventory	Risk Assessment	SDS Date
2399	KOMATSU EO15W40-DH				KOMATSU AUSTRALIA (+61 13 11 26)				
	No	No	-	-	-	None	Yes	-	23-Dec-2022
2402	KOMATSU GENUINE ENGINE COOLANT (CONCENTRATE)				KOMATSU AMERICA CORP. (+1 352 323 3500)				
	Yes	DG 9	UN 3082	PG III	•3Z	None	Yes	-	07-Oct-2020
2407	KOMATSU GENUINE HYDRAULIC OIL HO-MVK EX				KOMATSU LTD (+81 3 5561 2952; +81 3 5561 107 8414)				
	No	No	-	-	-	None	Yes	-	01-Jul-2019
1467	KOMATSU HYDRAULIC OIL 46				CASTROL AUSTRALIA PTY LTD ((02) 8014 4558; 1800 141 474)				
	No	No	-	-	-	None	Yes	Available	11-Feb-2020
2406	KOMATSU HYPER GREASE G2-TE				CASTROL AUSTRALIA PTY LTD ((02) 8014 4558; 1800 141 474)				
	Yes	No	-	-	-	None	Yes	-	02-Nov-2020
2403	KOMATSU POWERTRAIN OIL 30				KOMATSU AUSTRALIA (+61 13 11 26)				
	No	No	-	-	-	None	Yes	-	01-Nov-2019
1997	KOMATSU POWERTRAIN OIL TO-10				CASTROL AUSTRALIA PTY LTD ((02) 8014 4558; 1800 141 474)				
	No	No	-	-	-	None	Yes	-	29-Jan-2021
1206	KOMATSU POWERTRAIN OIL TO-30				BP AUSTRALIA PTY LTD (1800 14 14 74 within Australia or +61 2 8014 4558)				
	No	No	-	-	-	None	Yes	Available	02-Nov-2020
2690	LAUNDRY LIQUID CLASSIC				CLEAN PLUS CHEMICALS PTY LTD (1800 201 700)				
	No	No	-	-	-	None	Yes	-	21-Jan-2021
2718	LONOX CORROSION LUBRICANT - INOX MX4				INOX NEW ZEALAND LTD (0800 000 685)				
	Not specified	No	-	-	-	Approved	Yes	-	01-Nov-2021
2382	LUDOWICI EZITROWEL PART A				FLSMIDTH (1800 039 008)				
	Yes	DG 6.1	UN 2206	PG III	2X	None	Yes	-	20-Nov-2013
2383	LUDOWICI EZITROWEL PART B				FLSMIDTH (1800 039 008)				
	Yes	No	-	-	-	None	Yes	-	20-Nov-2013
2417	MEGAPOXY 108 - PART A				VIVACITY ENGINEERING PTY LTD ((02) 9875 3044)				
	Yes	DG 9	UN 3082	PG III	•3Z	None	Yes	-	02-Sep-2022
2418	MEGAPOXY 108 - PART B				VIVACITY ENGINEERING PTY LTD ((02) 9875 3044)				
	Yes	DG 8	UN 2289	PG III	2X	None	Yes	-	02-Sep-2022
2717	METHYLATED SPIRITS (DIGGERS)				RECOCHEM INC ((07) 3308 5200; 1300 131 001 (After hours)/ 0800 764 766)				
	Not specified	No	-	-	-	Approved	Yes	-	31-Jan-2022

Stock Register

(Location Name: CONCRETE & AGGREGATES/ NEW SOUTH WALES/ HY-TEC/ AUSTEN QUARRY, Child Locations Included)

(Sort By: Product Name, Filter By: None)

Stock Number	Product Name				Supplier (Emergency Contact)				
	Hazardous	Dangerous Good	UN number	Packing Group	Hazchem Code	Status	In Stock Inventory	Risk Assessment	SDS Date
1213	MOBILGREASE XHP 221				EXXONMOBIL CORPORATION (+1 800 424 9300/ +1 703 527 3887/ +1 609 737 4411)				
	No	No	-	-	-	None	Yes	Available	19-Jun-2020
2124	MOLYTEC COBRA COTE				MOLYTEC AUSTRALIA P/L (1300 452 355)				
	Yes	DG 2.1	UN 1950	-	2YE	None	Yes	-	15-Nov-2022
2694	MORNING FRESH DISHWASHING LIQUID - PEACH & TANGERINE				PZ CUSSONS PTY LTD (13 11 26)				
	Yes	No	-	-	-	None	Yes	-	01-Aug-2020
1226	MORTEIN FAST KNOCKDOWN MULTI INSECT KILLER AEROSOL				RB (HYGIENE HOME) AUSTRALIA PTY LTD (13 11 26 (PIC))				
	Yes	DG 2.1	UN 1950	-	-	None	Yes	Available	26-May-2023
2688	NORTHFORK ANTIBACTERIAL LIQUID HAND WASH				ACCO BRANDS AUSTRALIA PTY LTD (13 11 26 (Poisons Information Centre))				
	Yes	No	-	-	-	None	Yes	-	20-Apr-2021
2483	NORTHFORK CREAM CLEANSER				ACCO BRANDS AUSTRALIA PTY LTD (13 11 26 (Poisons Information Centre))				
	Yes	No	-	-	-	None	Yes	-	15-Apr-2021
2687	NORTHFORK GECA CONCENTRATED DEGREASER CLEANER				ACCO BRANDS AUSTRALIA PTY LTD (13 11 26 (Poisons Information Centre))				
	No	No	-	-	-	None	Yes	-	19-Apr-2021
2697	NORTHFORK GECA SPRAY ON WIPE OFF				ACCO BRANDS AUSTRALIA PTY LTD (13 11 26 (Poisons Information Centre))				
	No	No	-	-	-	None	Yes	-	19-Apr-2021
2622	NORTHFORK GECA WINDOW AND GLASS CLEANER				ACCO BRANDS AUSTRALIA PTY LTD (13 11 26 (Poisons Information Centre))				
	No	No	-	-	-	None	Yes	-	19-Apr-2021
2689	NORTHFORK LEMON DISINFECTANT				ACCO BRANDS AUSTRALIA PTY LTD (13 11 26 (Poisons Information Centre))				
	No	No	-	-	-	None	Yes	-	15-Apr-2021
2424	NORTHFORK TOILET CLEANER				ACCO BRANDS AUSTRALIA PTY LTD (13 11 26 (Poisons Information Centre))				
	Yes	No	-	-	-	None	Yes	-	23-Apr-2021
2362	NORTHFORK TOILET RIM FRESHENER				ACCO BRANDS AUSTRALIA PTY LTD (13 11 26 (Poisons Information Centre))				
	No	No	-	-	-	None	Yes	-	02-Dec-2022
2396	OSI VP275 MULTIPURPOSE SILICONE SEALANT				HENKEL AUSTRALIA PTY LTD (1800 032 379)				
	Yes	No	-	-	-	None	Yes	-	09-Sep-2021
2365	OUST 3IN1 FROM GLADE HOSPITAL GRADE DISINFECTANT AEROSOL - OUTDOOR SCENT				S.C. JOHNSON & SON PTY. LTD. (AU) (13 11 26 (Poisons Information Centre)/ (02) 9428 9111)				
	Yes	DG 2.1	UN 1950	-	2YE	None	Yes	-	09-Nov-2021
570	OXYGEN, ALIGAL 3, LASAL 2003				AIR LIQUIDE AUSTRALIA LIMITED (1800 800 055, 1800 812 588)				
	Yes	DG 2.2 / 5.1	UN 1072	-	2S	None	Yes	-	21-Oct-2021

Stock Register

(Location Name: CONCRETE & AGGREGATES/ NEW SOUTH WALES/ HY-TEC/ AUSTEN QUARRY, Child Locations Included)

(Sort By: Product Name, Filter By: None)

Stock Number	Product Name				Supplier (Emergency Contact)				
	Hazardous	Dangerous Good	UN number	Packing Group	Hazchem Code	Status	In Stock Inventory	Risk Assessment	SDS Date
2363	PALMOLIVE ANTIBACTERIAL DISHWASHING LIQUID LEMON				COLGATE-PALMOLIVE PTY LTD ((02) 9037 2994)				
	Yes	No	-	-	-	None	Yes	-	PRODUCT OBSOLETE
2698	PALMOLIVE ANTIBACTERIAL LIQUID HAND WASH SEA MINERALS				COLGATE-PALMOLIVE PTY LTD ((02) 9037 2994)				
	Yes	No	-	-	-	None	Yes	-	19-Sep-2022
1186	PENTEX BOOSTERS				ORICA AUSTRALIA PTY LTD (1800 033 111)				
	Yes	DG 1.1D	UN 0042	-	E	None	Yes	-	20-Apr-2022
2485	POWER FRESH CREAMY ANTIBACTERIAL HAND WASH				COMPLETE OFFICE SUPPLIES (COS) (1300 882 244/ 13 11 26 (Poisons Information Centre))				
	Yes	No	-	-	-	None	Yes	-	15-Sep-2022
2693	POWER FRESH DISHWASHING LIQUID				COMPLETE OFFICE SUPPLIES (COS) (1300 882 244/ 13 11 26 (Poisons Information Centre))				
	Yes	No	-	-	-	None	Yes	-	01-Jun-2021
2482	POWER FRESH HAND SANITISER, 50ML, 500ML, 1L				COMPLETE OFFICE SUPPLIES (COS) (1300 882 244/ 13 11 26 (Poisons Information Centre))				
	Yes	DG 3	UN 1170	PG II	•2YE	None	Yes	-	19-Mar-2020
2487	POWER FRESH LEMON DISINFECTANT				COMPLETE OFFICE SUPPLIES (COS) (1300 882 244/ 13 11 26 (Poisons Information Centre))				
	Yes	No	-	-	-	None	Yes	-	01-Jun-2021
2486	POWER FRESH MULTI PURPOSE CLEANER - HOSPITAL GRADE				COMPLETE OFFICE SUPPLIES (COS) (1300 882 244/ 13 11 26 (Poisons Information Centre))				
	Yes	No	-	-	-	None	Yes	-	01-Jun-2021
2519	POWER FRESH WINDOW & GLASS CLEANER				COMPLETE OFFICE SUPPLIES (COS) (1300 882 244/ 13 11 26 (Poisons Information Centre))				
	Yes	No	-	-	-	None	Yes	-	01-Jun-2021
2715	PREWASH STAIN REMOVER				CLEAN PLUS CHEMICALS PTY LTD (1800 201 700)				
	Not specified	No	-	-	-	Approved	Yes	-	21-Jan-2021
2710	REPELEC CABLE LUBE				RLA POLYMERS PTY LTD ((03) 9728 1644/ 132 766 (Security))				
	Yes	No	-	-	-	None	Yes	-	19-Jul-2022
1007	SEPTONE PROTECTA GRIT				ITW AAMTECH AUSTRALIA (1800 039 008)				
	Yes	No	-	-	-	None	Yes	-	23-Dec-2022
2708	SEPTONE ULTRASAND BODY FILLER				ITW POLYMERS & FLUIDS PTY LTD ((03) 9573 3188 (Chemwatch Emergency Response 24/7)/ 1800 951 288 (Chemwatch Emergency Response 24/7)/ (02) 9186 1132 (Chemwatch))				
	Yes	DG 3	UN 3269	PG III	•2YE	None	Yes	-	20-Aug-2021
205	SHELL BRAKE AND CLUTCH FLUID DOT 4 SUPER				VIVA ENERGY AUSTRALIA LTD (1800 651 818/ 13 11 26)				
	No	No	-	-	-	Approved	Yes	-	PRODUCT OBSOLETE
2404	SHELL OMALA OIL F 460 (USA)				VIVA ENERGY AUSTRALIA LTD (1800 651 818/ 13 11 26)				
	No	No	-	-	-	None	Yes	-	20-Mar-2020

Stock Register

(Location Name: CONCRETE & AGGREGATES/ NEW SOUTH WALES/ HY-TEC/ AUSTEN QUARRY, Child Locations Included)

(Sort By: Product Name, Filter By: None)

Stock Number	Product Name				Supplier (Emergency Contact)				
	Hazardous	Dangerous Good	UN number	Packing Group	Hazchem Code	Status	In Stock Inventory	Risk Assessment	SDS Date
1629	SUPERDRAULIC HVI 68				GULF WESTERN OIL ((02) 9673 9600/ 13 11 26)				
	No	No	-	-	-	None	Yes	-	30-Apr-2023
2390	ULTRA CLEAR COMPRESSOR 46				GULF WESTERN OIL ((02) 9673 9600/ 13 11 26)				
	No	No	-	-	-	None	Yes	-	30-Apr-2023
2398	ULTRION 8187				NALCO WATER, AN ECOLAB COMPANY (AUST: 1800 205 506; NZ: 0800 734 607)				
	Yes	DG 8	UN 3264	PG III	2X	None	Yes	-	14-Sep-2022
2692	WHITE KING POWERCLEAN TOILET GEL				PENTAL PRODUCTS PTY LTD ((03) 5820 5200/ 13 11 26)				
	Yes	No	-	-	-	None	Yes	-	17-Jun-2024
2709	WHITE KNIGHT RUST GUARD EPOXY ENAMEL FLAME RED (375553/180K)				PPG ARCHITECTURAL COATINGS (1800 883 254/ 0800 000 096)				
	Yes	DG 3	UN 1263	PG III	•3Y	None	Yes	-	09-Jan-2024
1259	WINDEX GLASS & MORE MULTI-SURFACE				S.C. JOHNSON & SON, INC. (+1 866 231 5406)				
	No	No	-	-	-	None	Yes	Available	20-Jun-2019

SAFETY MANAGEMENT SYSTEM

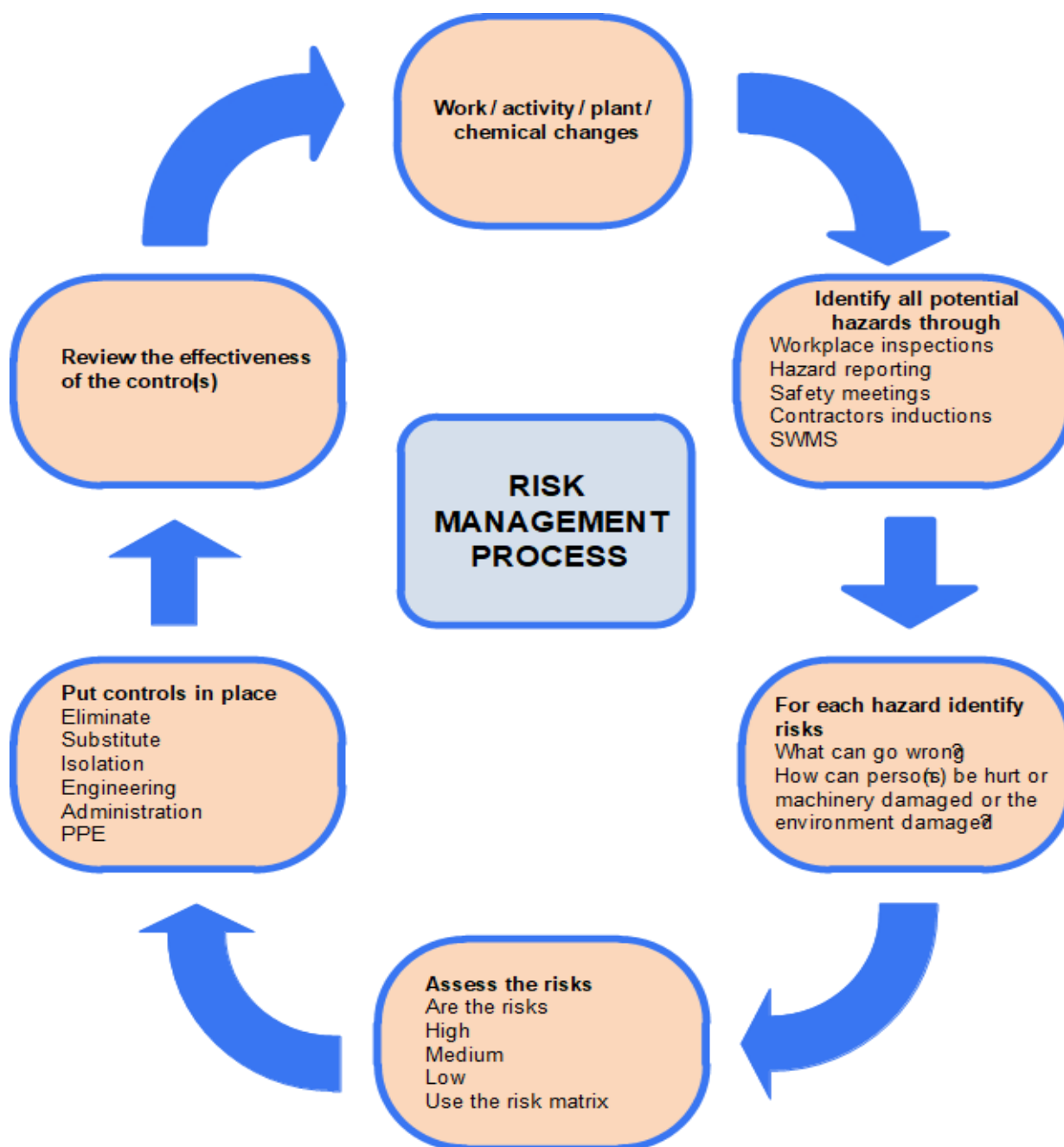
HTA-P-FC-005

Adbri Quarries – Austen Quarry

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Appendix 7K

Risk Management Process



Status: APPROVED	Owner: Adbri Quarries	Doc: HTA-P-FC-005	Rev: 11	Issued: 23/08/2024	Page 1 of 1
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	Negligible	Minor	Serious	Significant	Catastrophic
Health & Safety	Minor Injuries requiring First aid Treatment. No ongoing health effects. Near Miss with the potential consequence for the injuries above	Single or multiple injuries requiring medical treatment No ongoing health effects. Near Miss with the potential consequence for the injuries above.	Single or multiple injuries requiring hospitalisation and incurred a loss of more than one full shift. Near Miss with the potential consequence for the injuries above.	Single severe injury causing irreversible permanent disability or impairment or single fatality. Near Miss with the potential consequence for the injuries above.	Incident with short or long term effects causing multiple fatalities. Near Miss with the potential consequence for the injuries above.
Environmental Impact	Minor incident with minimal or no lasting effects. Onsite uncontrolled release immediately contained. Clean-up completed within 12 hours. Less than 5 litre spill	Incident with minor effects on the environment. Onsite uncontrolled release not immediately contained or minor off site release. Clean-up completed within 72 hours. 10 to 20 litre spill.	Incident with medium term effects on the environment. Offsite uncontrolled release with an effect on the environment for one year.	Incident with serious environmental effects. Offsite uncontrolled release not contained causing of up to 10 years impact duration.	Catastrophic incident with impairment of the ecosystem function. Significant and identifiable risk to humans, animals and plant species.
Community	Low level incident Public concern restricted to one local complaint	Minor- medium impact issue Public concern with a small local group Potential for local media attentions	Medium impact issue Ongoing public concern with a local group or community Involvement of non-government organisation - Local media	Serious social incident Ongoing local and/or state issue. Involvement of government department/s and non-government organisations. National Media	Very Serious Incident Ongoing state or national issue. Involvement of federal government department/s and non-government organisations. National media
Cost or Damages	< \$10K	\$10K - \$50K	\$50K - \$150K	\$150K - \$1M	> \$1M
Investigation Team	Local Supervisor or Manager OHS representative or member of the OHS committee	Plant Manager Team Leader / Supervisor OHS Representative or Member of the OHS committee	Plant Manager (Investigation leader) HSE Manager Manager external to site OHS Representative or member of the OHS committee	Manager External to site or discipline (Investigation Manager) HSE Manager Site Manager OHS Representative External resources or assistance as required	Manager External to site or discipline (Investigation Manager) HSE Manager Site Manager OHS Representative External resources or assistance as required
Investigation Outcomes	Completion of incident report form including: Brief report covering: <ul style="list-style-type: none"> Description of incident Contributing factors Prevention Measures 	Completion of incident form: Brief report covering the following: <ul style="list-style-type: none"> Brief statement from person's involved and witnesses Description of incident Contributing factors Prevention measures 	Completion of incident form: Investigator Terms of Reference. Incident timeline. Detailed report covering the following: <ul style="list-style-type: none"> Detailed statement for person's involved and witnesses Description of incident Contributing factors Recommendations and prevention measures 	Completion of incident form: Investigator Terms of Reference. Incident timeline. Detailed report covering the following: <ul style="list-style-type: none"> Detailed statement for person's involved and witnesses Description of incident Contributing factors Recommendations and prevention measures 	Completion of incident form: Investigator Terms of Reference. Incident timeline. Detailed report covering the following: <ul style="list-style-type: none"> Detailed statement for person's involved and witnesses Description of incident Contributing factors Recommendations and prevention measures

ABL-HSE-GSS-07-01

RISK ASSESSMENT TOOL

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Risk Assessment Guidance

Refer to consequence table in “ABL-HSE-GSS-07-04 HSE Risk Assessment Process”. Only Safety examples are provided below.

CONSEQUENCE (the extent of the harm or damage with current controls in place)					
Negligible	- Minor Injuries requiring First aid Treatment.				
Minor	- Single or multiple injuries requiring medical treatment.				
Serious	- Single or multiple injuries requiring hospitalisation and incurred a loss of more than one full shift.				
Significant	- Single severe injury causing irreversible permanent disability or impairment or single fatality.				
Catastrophic	- Incident with short- or long-term effects causing multiple fatalities.				
LIKELIHOOD (the chance of the situation occurring with current controls in place)					
Rare	- The consequence may only occur in exceptional circumstances or ‘the probability is close to zero’.				
Unlikely	- The consequence is not likely to occur. There is confidence that it will not occur although it is conceivable.				
Possible	- The consequence could occur sometime or ‘I’ve heard of it happening’.				
Probable	- The consequence is likely to occur. It is known to occur, or not surprised as it has happened’ several times.				
Very Likely	- It is almost certain that the consequence will occur. Common or frequent occurrence.				
LIKELIHOOD					
CONSEQUENCE	Rare	Unlikely	Possible	Probable	Very Likely
Negligible	1	2	4	7	11
Minor	3	5	8	12	16
Serious	6	9	13	17	20
Significant	10	14	18	21	23
Catastrophic	15	19	22	24	25



HTQY-S-HSE-084

Adbri Quarries - Austen Quarry

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HAZARD	SOURCE	HEALTH EFFECTS	INFO	MEASUREMENT	ASSESS RISK	CONTROLS	REVIEW	RESPONSIBLE
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Appendix 8G

Environmental Hazard Management Matrix

Dust	Traffic	<p>Worker Health Issues;</p> <p>Eye injuries/infections due to airborne dust.</p> <p>Respiratory problems due to inhalation.</p>	<p>Monthly dust monitoring results are consistently below the required concentrations.</p> <p>Annual report states effectiveness of SWMP in detaining dust on site.</p>	<p>Worker Health Measurement;</p> <p>Dust survey carried out around plant to determine employee exposure levels.</p> <p>Workers Health examinations conducted.</p>	<p>Worker 13</p> <p>Environment 17</p>	<p>Site Soil and Water Management Plan (SWMP) developed for dust management. (Landscape & Rehabilitation Management Plan)</p> <p>Water truck used on a regular basis during operating hours to minimise dust production from haul road traffic.</p> <p>Quarry main access road sealed to minimise dust production.</p> <p>Sprinklers system installed to assist with dust minimisation on roadways.</p>	<p>Worker 9</p> <p>Environment 13</p>	<p>All</p>
	Plant	<p>Skin allergic reactions due to contaminated dust.</p> <p>Environmental Issues;</p> <p>Downpour of rain-washing silt and contaminants into waterways.</p>	<p>Worker exposure and protection provided proved acceptable.</p>	<p>Environmental Measurement;</p> <p>Dams tested for quality of water.</p> <p>Annual Ecology survey.</p> <p>Monthly and annual water and dust collection samples analysed.</p> <p>Heavy Rain Event Site Inspection.</p>		<p>Dust suppression installed on plant equipment to reduce plant produced airborne dust.</p> <p>Dust suppression system continually improved, and more effective methods sourced.</p> <p>Work area kept clean and tidy to prevent build-up of dust/debris.</p> <p>Suitable PPE (Personal Protective Equipment) i.e. respirator or dust mask available and used when & where necessary, employees trained in the effective use of PPE.</p> <p>Policies in place regarding mandatory use of eye protection i.e.</p>		



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Adbri Quarries - Austen Quarry

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HAZARD	SOURCE	HEALTH EFFECTS	INFO	MEASUREMENT	ASSESS RISK	CONTROLS	REVIEW	RESPONSIBLE
	Cleaning	Dust contamination affecting local ecosystem biodiversity. Airborne dust carried off site.				double eye protection when grinding. Workers trained in the selection and use off appropriate eye and respiratory protection. Confined space to be cleared of all atmospheric hazards and air quality monitored by competent person before and during confined activities. Ensure sufficient ventilation is available before entry proceeds. (Extraction fans must be used if welding is being carried out) Test results to return readings within allocated concentrations, if pollutant concentrations exceeded, contingency plans implemented. If accidental water discharge occurs emergency response plans ready to contain TSS, involving spill stations and CAR systems in QMS. If wet weather discharge occurs daily water samples to be taken to monitor PH, TSS & Oil & Grease. Continuous sampling apparatus in place for airborne dust monitoring. Blasting carried out by competent external contractors with the minimizing of dust and fly-rock production considered.		
	Blasting							



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HAZARD	SOURCE	HEALTH EFFECTS	INFO	MEASUREMENT	ASSESS RISK	CONTROLS	REVIEW	RESPONSIBLE
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Waste Material	Production	Environmental Issues; General waste disposal.	The regulator limits production to 1.1Mt per annum extracted from the premises.	Environmental Measures;	Worker 1 Environment 8	Quarry produced overburden is reused in rehabilitation program	Worker 1 Environment 5	LA/RW
	Office	Site Waste leaving quarry site into local catchments.	Approximately 60,000 Tonnes of overburden produced, stockpiled, and rehabilitated annually.	Production and subsequent waste quantities recorded.		Office produced recyclable material is stored in skip bin and periodically collected to be treated off site.		

Heat	Sun	Worker Health Issues; Dehydration. Exhaustion.		Worker Health Measures; Incident and near miss reports. Worker Health Examinations	Worker 13 Environment 1	Sunscreen and drinking water are located in crib rooms, plant operation rooms and offices. Employees partake in safe work methods with regard to heat, including adequate PPE. Employees educated on the dangers of heat stress and methods	Worker 9 Environment 1	All
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HAZARD	SOURCE	HEALTH EFFECTS	INFO	MEASUREMENT	ASSESS RISK	CONTROLS	REVIEW	RESPONSIBLE
	Plant/Machinery	Skin Damage.		Employee Communications – Toolbox Talks, Safety Alerts.		to combat the problem.		
	Hot Work					Working in heat and dehydration educational signs displayed in crib rooms.		
	Tools					First aid officer on site during working hours.		
						Adequate first aid equipment available. Drinking Water to be supplied to all Visitors, Contractors & Employees.		
						Long sleeves and trousers to be worn during work activities and a hat to be worn when working outdoors.		
						Ensure compliance with work/rest requirements as outlined in ABL-HSE GOS-29-02 Fatigue Management Requirements.		
						Drivers to be instructed in Fatigue Management requirements.		
						Mobile equipment to have functioning air conditioning system installed, when necessary, windows tinted to protect drivers from sun exposure.		
						Screens in place to segregate work area. Hot work signs erected.		
						On site meteorological station to survey daily temperatures.		
						Only competent/trained personnel to carry out hot work.		
						Ensure hot work is conducted in a designated hot work area with a Hot Work Permit/JSA/SWMS to be completed and filed.		



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HAZARD	SOURCE	HEALTH EFFECTS	INFO	MEASUREMENT	ASSESS RISK	CONTROLS	REVIEW	RESPONSIBLE
Noise	Traffic	Worker Health Issues; Industrial deafness.	Quarry worker level of noise protection deemed effective. Quarry boundary noise below requirements. PPV and air blast overpressure readings are below limits.	Worker Health Measurements; Worker Health Examinations. Worker Noise Exposure survey undertaken by external company.	Worker 21 Environment 1	Hours of work restricted. 5:00-22:00 Monday-Thursday, 05:00-20:00 Friday, 5:00-15:00 Saturday Blasting restricted between 10:00 – 15:00 Monday to Friday. Blast noise monitoring conducted at each blast by external contractors carrying out blasts.	Worker 14 Environment 1	All
	Plant			Worker noise PPE and knowledge examined to determine adequacy. Quarry boundary monitored to determine level of quarry produced noise.		Monitoring conducted on air blast overpressure (limit 115dBL) and ground vibration peak particle velocity (limit 5mm/s) at location deemed closest sensitive location not under control of the Quarry, (Hartley Village). Regular maintenance carried out on equipment to minimise noise production. Sound proofing on generators and generator sheds. Sound proofing on mobile plant engine compartments.		
	Blasting			Blast ground vibration peak particle velocity and air blast overpressure monitored at each blast by acting company. Survey undertaken to determine noise levels in proximity to plant machinery.		Instruction on selection and use of suitable hearing protection. Hearing protection worn as required. PPE signage displayed in appropriate locations. Noise exposure level map displayed in crib room depicting noise levels in proximity to plant. Noise limits <35dB(A) for 15minute intervals.		



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HAZARD	SOURCE	HEALTH EFFECTS	INFO	MEASUREMENT	ASSESS RISK	CONTROLS	REVIEW	RESPONSIBLE	
Hazardous Substances	Chemicals	Worker Health Issues; Chemical burns. Fume inhalation.	Monthly Coxs River monitoring has remained below required limits.	Worker Health Monitoring; Incident and Near miss reports. Worker's health examination conducted.	Worker 13 Environment 21	SDS (Safety Data Sheets) register kept and maintained on site. Suitable storage facilities/bunded area available. Suitable PPE available and used as required. Safer substances sourced and used where possible. Personnel suitably trained/informed in the process of refuelling plant, generators, and handling of hazardous substances. Maintenance to be carried out in designated area. Danger signage in place (Corrosive Substance, etc). Procedures in place for major environmental incidents.	Worker 9 Environment 14	All	
	Fuels	Poisoning. Flammable substances. Environmental Issues;				Environmental Measures; Catchment water quality monitoring monthly and annually.			Spillages cleaned up immediately using spill kits available. All spill kit stocks maintained; correct spill kit procedure form located with each spill kit. <u>Fuel - Large Spill</u> 1) In the case of large spills contact relevant personnel 2) Stop leaking without risk. 3) Move containers from spill area. 4) Approach the release from upwind 5) Prevent entry into water courses, basements, or confined areas. 6) Wash spillages into an effluent treatment plant or proceed as follows. 7) Contain and collect spillage with non- combustible, absorbent material e.g., sand, earth, vermiculite or diatomaceous earth and place into a container according to local legislation. 8) Determine flammability and if required use spark-proof tools and explosive proof equipment. Dispose of via a licensed waste disposal contractor
	Waste Oil (plant/machinery)	Hazardous substances leeching into groundwater/waterways.							



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HAZARD	SOURCE	HEALTH EFFECTS	INFO	MEASUREMENT	ASSESS RISK	CONTROLS	REVIEW	RESPONSIBLE
						<p>9) Contaminated absorbent material may pose the same hazard as the spilt product</p> <p>10) In the case of spillage on water, prevent the spread of product by the use of suitable barrier equipment.</p> <p>11) Recover product from the surface</p> <p>12) Dispose of via an appropriately licensed waste disposal</p> <p>Small Spill</p> <p>1) Stop leaking without risk.</p> <p>2) Move containers from spill area</p> <p>3) Absorb with an inert material and place in appropriate waste disposal container.</p> <p>4) Determine flammability and if required use spark-proof tools and explosion-proof equipment.</p> <p>5) Dispose of via an appropriately licensed waste disposal</p> <p>Contents of spill kits to be inspected quarterly & restocked after use.</p> <p>Oils and hydraulic fluids to be disposed of in accordance with Environmental legislation.</p> <p>First aid officer on site during working hours.</p> <p>Adequate first aid equipment available.</p> <p>If soil contamination is discovered water management to be constrained by guidelines prepared by the DEC.</p>		



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HAZARD	SOURCE	HEALTH EFFECTS	INFO	MEASUREMENT	ASSESS RISK	CONTROLS	REVIEW	RESPONSIBLE
Water	Dams	<p>Environmental Issues;</p> <p>Coxs River water contamination.</p> <p>Coxs River Ecology.</p>	<p>Ecology study found no significant changes had occurred to flora and fauna.</p> <p>Macroinvertebrates survey results determined 'not possible to attribute any macroinvertebrates changes to quarry activities.</p> <p>Quarry effects on groundwater levels negligible.</p>	<p>Environmental Measures;</p> <p>Coxs River water samples tested monthly both upstream and downstream.</p> <p>Annual monitoring of Coxs river macroinvertebrates.</p> <p>Additional annual testing carried out on quarry catchments.</p> <p>Discharge Requirements.</p> <p>-pH; 6.5-8.5</p> <p>-Oil/Grease; 10mg/L</p> <p>-Electrical Conductivity; <1500us/cm</p> <p>-Total Suspended Solids; <30 mg/L</p> <p>-Biochemical Oxygen Demand; 20</p> <p>Heavy Rain Event Site Inspection.</p>	<p>Worker 1 Environment 21</p>	<p>Site Soil and Water Management Plan developed for water management. (Water Management Plan, WMP & Landscape & Rehabilitation Management Plan)</p> <p>Individual catchment management Plan developed to dust management. Catchments analyzed for best fit water management plan, developed for capacity up to a 20 day 95th percentile rain event.</p> <p>Site soil analysis carried out to determine soil characteristics including erodibility.</p> <p>Ground disturbance activities (clearing through to development) scheduled for completion within 6 months.</p> <p>Inspections were carried out after heavy rainfall events to examine the soundness of water management systems.</p> <p>Diversion drains constructed around the quarry, diverting clean runoff from upslope catchments around the quarry.</p> <p>In the case of water breach a Contingency Plan to be implemented, involving spill stations and CAR system in QMS.</p> <p>All external batters of dams to be grassed with a slope no steeper than 1V:3H.</p> <p>Continual monitoring and maintenance of sedimentation dams.</p>	<p>Worker 1 Environment 18</p>	<p>ALL/RW</p>
	River System							



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HAZARD	SOURCE	HEALTH EFFECTS	INFO	MEASUREMENT	ASSESS RISK	CONTROLS	REVIEW	RESPONSIBLE
	Rainfall					<p>Periodic removal of consolidated sediment from the Quarry Access Road sediment basins.</p> <p>Water management systems will employ regular maintenance to ensure effectiveness. Including regular inspections and cleaning of under road storm water pipes.</p> <p>Runoff from all disturbance areas is directed to silt dams and sedimentation dams.</p> <p>Water levels monitored and pumped from sediment dams to storage dams to ensure sufficient capacity in the event of significant rain event.</p> <p>Sediment dam water tested and treated prior to discharge at licensed discharge points, to ensure released water meets EPA (Environment Protection Authority) requirements.</p> <p>Samples to be taken and tested daily during discharge events.</p> <p>Annual Report submitted to Council with a summary of water monitoring results, as well as diversion drain and quarry water management condition.</p> <p>Macroinvertebrates monitored upstream and downstream quarry activities.</p> <p>Sediment dams regularly emptied to maintain the required capacity for 5 days 95th percentile rain event (44mm of rain in any consecutive 5-day period).</p> <p>Prior to ground disturbance activities upslope diversion banks and downstream sediment retention were implemented.</p>		
	Groundwater							



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Fire	Plant/Mobile Plant.	Worker Health Issues; Burns to employees. Smoke inhalation Environmental Issues; Flora and Fauna destruction. Bushfire.		Worker Health Measurement; Incident and Near Miss reports. Environmental Measures; WCC fire department fire hazard monitoring.	Worker 22 Environment 22	Ensure hot work is conducted in a designated hot work area and Hot Work Permit/JSA/SWMS to be completed and filed. Only competent/trained personnel to carry out hot work. Screens in place to segregate work area. Equipment to be in good condition and suitable for the task. Electrical equipment must be tested and tagged in accordance with AS3760. Firefighting equipment fitted to all mobile plant. Employees trained in first attack firefighting. Use of flame-retardant material to cover susceptible equipment. Adequate fire extinguishers located throughout site. Use of correct PPE for the task/job. Periodic testing of Fire extinguishers is conducted by an external service provider. First aid officer on site during working hours.	Worker 15 Environment 22	All Fire Wardens; RW; CM; KK
	Bushfires.							
	Electrical Fires.							
	Power Tools							



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HAZARD	SOURCE	HEALTH EFFECTS	INFO	MEASUREMENT	ASSESS RISK	CONTROLS	REVIEW	RESPONSIBLE
	Hot Work					Fire warden present on site during work hours. Adequate first aid equipment available. Bush fire emergency procedure in place.		



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HAZARD	SOURCE	HEALTH EFFECTS	INFO	MEASUREMENT	ASSESS RISK	CONTROLS	REVIEW	RESPONSIBLE
Biodiversity Destruction	Land clearance	Environmental Issues; Loss of local flora and fauna.	The annual ecology survey has discovered an increase in wildlife diversity within the local catchment.	Environmental Measures; Annual 3-day ecology survey carried out by external company. Monitoring of Aquatic Macroinvertebrates.	Worker 1 Environment 23	Vegetation Management Plan in place with both immediate and long-term plans. Local native plant seeds collected and raised in nursery to be re-introduced into previously cleared areas. All bund wall areas are rehabilitated with native flora. Long term objectives include post quarry life plans to ensure after life quarry footprint is minimal.	Worker 1 Environment 18	RW/CM
	Ecosystem Contamination					Overburden pile continually rehabilitated in accordance with pile growth. Weed control plans are in place to monitor weed development and when required sprays are used to remove weeds. Flora and Fauna surveys were conducted across all parts of the quarry lease area. Flora and Fauna species catalogued annually to determine biodiversity fluctuation. Any threatened species identified, and plans put in place for protection.		

Risk Identification			Risk Score Without Controls (Inherent Risk)			Control			Risk Score with Controls (Residual Risk)		
Work Activity	Risk relating to activity	Causes (What can cause the hazard to occur)	Consequence (Catastrophic = Principal Hazard)	Likelihood	Inherent Risk Score	Principal Hazard (If Applicable) Control / Management Plan	Control Description	Highest Control Level Achieved (Hierarchy of Controls)	Consequence (Catastrophic = Principal Hazard)	Likelihood	Residual Risk Score
Electrical - Component Lifecycle Management	> Electrical equipment develop risk which can caused hazard to workers.	> Electrical components can fail due to the amount of use and age.	Catastrophic (Principal Hazard)	Possible	22	Electrical Engineering Control Plan	> Electrical component to be replaced as per OEM, Australian Standards or Mine Design Guidelines recommendations. > Schedule for replacement to be managed via gearbox. > Repaired or replaced as per safety alerts or information from industry or regulator. > Electrical installation locations are to be determined in consultation with an electrical engineer or nominated qualified electrical tradesperson.	Engineering / Redesign	Significant	Rare	10
Electrical - Contractor Management	> Competence of contractors completing work at quarry.	> Electrical work / engineering work is outsourced to a contractor(s).	Catastrophic (Principal Hazard)	Possible	22	Electrical Engineering Control Plan	> All plant and equipment to be designed and maintained to the appropriate Australian standards. > All electrical contractors are to have applicable trade certificates or appropriate engineering documentation. > Electrical tradesperson is nominated to NSW regulator. > All contractors must have appropriate insurances managed by site pass. > Quarry Manager shall check and maintain a records for the competency of all contractors who complete maintenance works. > Electrical engineer required when total connected power exceeds 1,000 kilowatts or if high voltage is utilised. > Electrical Engineer must hold an electrical engineer manager practicing certificate > Site must maintain an electrical tradesperson register	Engineering / Redesign	Significant	Unlikely	14
Electrical - Equipment to test electrical equipment.	Electric shock from using electrical test equipment.	> Failure of equipment. > Incorrect equipment used. > Exposed live electrical points.	Significant	Possible	18	Electrical Engineering Control Plan	> All electrical test equipment must be designed for testing the level of voltage anticipated. > Voltage tester must not expose workers to the risk of electric shock. > Test leads and testing devices should be provided with over current protection. > Be free from damage and cracks in insulation. > Also electrical testing screw drivers are not permitted. > Safe Work Procedure Use of Electrical Test Equipment (EECP SWP 2) developed by qualified electrical engineer.	Isolation	Serious	Unlikely	9
Electrical - General Electrical Risks	> Electric shock / electrocution to workers.	> Workers touching electrical components they do not understand. > Poor or dangerous wiring.	Catastrophic (Principal Hazard)	Possible	22	Electrical Engineering Control Plan	> Only trained and competent workers are to touch electrical components, people approved to work on electrical components must be authorised by the Quarry Manager. > Isolation points to great physical breaks in power to complete tasks, lock out tagged out. > Inspection and testing of electrical equipment. > Inspections and testing completed on electrical components. > Electrical components shall be fitted with residual current devices. > Drawing of electrical systems. > Electrical systems within protected areas (washdown areas) will be minimum IP55, electrical systems which are outside shall be a minimum of IP56. All other work areas should be accessed.	Engineering / Redesign	Significant	Rare	10
Electrical - High Voltage work	Electrocution	> High voltage	Catastrophic (Principal Hazard)	Possible	22	Electrical Engineering Control Plan	> Site does not have high voltage electrical.	Elimination	Negligible	Rare	1

Electrical - Low Voltage	Electric shock, burns, heart attacks/arrhythmia	> Low Voltage			13	Electrical Engineering Control Plan	<ul style="list-style-type: none"> > Low Voltage Electrical Installations standard (STD 2) developed by qualified Electrical Engineer. > All electrical works carried out by a qualified trades person. > All electrical installations installed to comply with relevant Australian Standards (AS/NZS 3000-2020, AS3007, AS1769 & AS4024). > Ground mounted switchboards installed in outdoor areas at suitable height to prevent corrosion and have weatherproof covers > Safe access required for any electrical installation more than 1.8m off the ground that requires a person to work on it. > Electrical installations requiring work must be in compliance with AS3007.2 for protection against direct contact. > Electrical installations must comply with AS1768 Lightning protection. > Cables to comply with relevant requirements and AS3008 for applicable installations. > Switchgear to be built to comply with AS3439 Low Voltage Switch Gear and Control Gear Assemblies. > All components to be rated to withstand the fault level at the point of distribution network where they are installed. > Indoor electrical installation must be rated to IP23 > Outdoor electrical installations must be rated to IP56 > All electrical breakers and isolators should have a means to lock them in the off position, no person can be exposed to live wires when locking breakers/isolators. > Type 2 coordination required in selection of contactors/overloads/fused circuits breaker combinations to ensure proper operation at the specified fault level. > VOLT and Amp meters need an associated phase selector switch. ? Labelling in accordance with Australian Standards > Operating devices, test buttons, resets & meters accessible without removing covers > control/protection circuit fuses, links, wiring, protection relays, control relays, contactors and resistors/current transformers requiring cleaning and maintenance only accessible by authorised persons > Access to exposed conductors must be interlocked with main circuit breaker or 	Isolation	Negligible	Rare	1
Electrical - Maintenance	> Electrical equipment development risk which can cause hazard to workers.	> Electrical components can fail due to the amount of use and age.	Catastrophic (Principal Hazard)	Possible	22	Electrical Engineering Control Plan	<ul style="list-style-type: none"> Regular maintenance shall be completed ensuring: <ul style="list-style-type: none"> > Operation of electrical installation and not impaired by interference, damage or wear. > Live parts are insulated and workers are protected from inadvertent contact. > Earth leakage systems operate effectively. > Not exceeding operating limits. > The installation does not have the potential to start a fire. > Safety integrity limits (SIL) are maintained. 	Isolation	Significant	Rare	10
Electrical - Isolation, Dissipation and Control of all electrical energy sources from electrical plant or installation.	> Inadequate isolation resulting in unplanned movement and or electrocution	> Equipment not isolated adequately due to lack of understanding, improper installation procedure or maintenance.	Catastrophic (Principal Hazard)	Possible	22	Electrical Engineering Control Plan	<ul style="list-style-type: none"> Provisions for isolation and control of electrical energy are detailed in, Electrical Test Equipment (SWP 2); Removal and Restoration of Power (SWP4); Low voltage electrical installation standards (STD 2); Site Generator Installation Standards (STD 1); Portable Electrical Equipment Standard (STD 4); Overhead Powerline Standard (STD 5) & Site Isolation Maps. 	Administrative	Significant	Rare	10
Electrical - New electrical installations to site.	> New plant / structures can bring new hazards to site.	> Unknown / unforeseen risks / processes -Life Cycle -Electrical Fault Levels -Electrical Load -Operating Frequency -Operating Voltages -Arc Fault Control	Catastrophic (Principal Hazard)	Possible	22	Electrical Engineering Control Plan	<ul style="list-style-type: none"> > All new electrical components brought onto the quarry to have design risk review completed, prior to construction. > All new electrical systems brought onto site to have commissioning plan developed and tested for continuity of earth, insulation resistance, polarity, correct circuit connections, earth fault-loop impedance and RCD operation. > All new electrical components to have a management of change completed, reviewed by either the OEM or qualified engineer. > A operational risk assessment (pre start up safety review) to be completed on all new electrical components to look for new introduced risks. > All new electrical components to be designed and built as per Australian standards. > Electrical installation locations are to be determined in consultation with an electrical engineer or nominated qualified electrical tradesperson. > All buried services will be surveyed and recorded in quarry plans. > New generators to be installed in line with Generator Installation Standard (STD 1) 	Engineering / Redesign	Significant	Rare	10

Electrical - Generator Installation	> New plant / structures can bring new hazards to site.	> Equipment not fit for purpose. > Unsafe installation	Catastrophic (Principal Hazard)	Possible	22	Electrical Engineering Control Plan	> Generator Installation Standard (STD 1) developed by qualified electrical engineer, taking into consideration installation requirements for Standalone Generators upto 25kW, Standalone Generators Larger than 25kW, 3 Phase Generators integrated into Power Systems & Generators for welding purposes. > Requirements of WHS Regs must be adhered to including; -Electrical protection fitted to all circuits, designated to interrupt the supply when a fault occurs. -Protection devices designed to an appropriate standard -Suitable switchgear provided and provisions are made for the safe removal and restoration of power. -Effective earthing provided so risk from touch, transfer and step potential is minimised. -Appropriate signage, notice, plans and electrical diagrams are placed at electrical switchgear and other positions to warn of presence of electricity and advice on what to do in emergency situations. > Unsafe electrical installations are to be disconnected from electricity supply by a qualified electrical tradesperson and secured. > All generator shutdown devices are to have access considered during installation and to remain unimpeded. >No fuses or circuit breakers are permitted in earth to neutral connection circuit. >All generators are to have ingress protection rated for the environment and all outlets IP rating 56. >Earth leakage sensitivities and delays; earthing requirements, generator switchgear, labels & signage; security; testing interval requirements; generators connected to mains apparatus; commissioning and testing; inspection & maintenance' non compliance and decommissioning explained in STD 1 Generator Installation Standard.	Engineering / Redesign	Significant	Rare	10
Electrical - Portable electrical equipment	Electric shock from using tool	> Poorly maintained tool. > Tool being used beyond its capacity.	Significant	Possible	18	Electrical Engineering Control Plan	> Use battery powered tools as oppose to electrical tools. > All electrical tools must be tagged and tested and inspected by a competent person. > Electric power tools must be inspected prior to use. > All electrical tools must have an RCD fitted for use. > Standard for Portable Electrical Equipment (STD4) developed by Qualified Electrical Engineer > Electrical leads and tools are not to be used in wet or damp conditions unless designed for those conditions. > If RCDs, circuit breakers or other over current protective devices including fuses are triggered, ensure circuits are not re-energised until cause is determined by Qualified Electrical Tradesperson > RCDs to be regularly tested > Extension leads must have min IP56 rating with screwed plugs and sockets, lock rings tensioned to ensure rating is maintained, extension leads checked and to AS/NZS3012, max length 30ms, run off ground using suitable stands/hangers. > Power boards must have individual switches, when possible be mounted off the floor, IP56 or greater to be used outdoors or in dusty environments, must not be setup in cascading sequence, double adapters not permitted onsite, not used in wet areas, regularly checked. > Maintenance and testing requirements stipulated in STD 4	Substitution	Serious	Unlikely	9
Electrical - Power Distribution	Electrocution from powerlines	> In ground powerlines > Over head powerlines	Significant	Possible	18	Electrical Engineering Control Plan	> Austen quarry has no overhead powerlines. > Clearance work permit to be completed if working near overhead power lines or excavating near powerlines on site. > Powerlines onsite shall be known and clearly identified. > Signage in place to indicate high of powerlines, vehicle clearance > Prestart inspection to be completed prior to starting generator for the day. > Procedure and training for starting of generator. > Generated started with out people working within vicinity. > Reset of power to be completed by an electrician after, fault is identified and repaired. > further tests also carried out to determine it is safe to start-up. > Started with out people working within vicinity. > Provisions for restoration of electrical energy are detailed in, Removal and Restoration of Power (SWP4)	Elimination	Significant	Rare	10
Electrical - Restoration of Power	Electrocution from restoration of power	> Daily starting of generator	Significant	Possible	18	Electrical Engineering Control Plan	> Prestart inspection to be completed prior to starting generator for the day. > Procedure and training for starting of generator. > Generated started with out people working within vicinity.	Engineering / Redesign	Serious	Unlikely	9
Electrical - Restoration of Power	Electrocution from restoration of power	> Overload trip > Short Circuit trip	Catastrophic (Principal Hazard)	Possible	22	Electrical Engineering Control Plan	> Reset of power to be completed by an electrician after, fault is identified and repaired. > further tests also carried out to determine it is safe to start-up. > Started with out people working within vicinity. > Provisions for restoration of electrical energy are detailed in, Removal and Restoration of Power (SWP4)	Engineering / Redesign	Serious	Unlikely	9
Electrical - Restoration of Power	Electrocution from restoration of power	> Circuit breaker reset > Blown fuse	Significant	Possible	18	Electrical Engineering Control Plan	> Reset only complete if the fault is known, if fault is unknown then electrician shall complete reset. > If trip occurs second time electrician shall investigate trip. > Lock Out / Tag Out shall be used for replacement of fuses. > If fuse switch is to be replaced electric power is to be removed upstream from the fuse switch prior to operating the fuse switch or replacement of fuse. > If upstream electric power cannot be removed, PPE as per Arc Flash Label associated with the fuse switch MUST be used. > Provisions for restoration of electrical energy are detailed in, Removal and	Engineering / Redesign	Serious	Unlikely	9

Electrical - Restoration of Power	Electrocution or burns from restoration of power	> Arc Flash > multi-meter not rated for system voltage > multi-meter on wrong setting > dropped or misplaced tools > Drilling into busbar > Pimproper maintenance > Moisutre or vermin > Corrosion or Dust Mechanical or insulation failure	Significant	Possible	18	Electrical Engineering Control Plan	> Arc Flash Study conducted by qualified electrical engineer. > Circuit breakers considered low risk when, equipment is installed, used and maintained to OEM and applicable industry codes/standards. Equipment Doors are closed and secured. Equipment covers are in place and secured. No evidence of impending failure such as arcing, overheating, loose or bound equipment parts, visible damage or deterioration. > Provisions for restoration of electrical energy are detailed in, Removal and Resotration of Power (SWP4) > Heirarchy of cotnrols to protect against Arc Event in STD 9 Arc Flash Management	Engineering / Redesign	Serious	Unlikely	9
Electrical - Switchboards and Distribution Boards	> Worker entering switchboard or distribution board in which they are not permitted to access.	> Workers are unaware they are not to access board. > Signage and notices inadequate to identify risks.	Catastrophic (Principal Hazard)	Possible	22	Electrical Engineering Control Plan	> All boards must be locked preventing worker access. > Only authorised persons are to able to access boards. > Access to cables behind boards are only permitted when competent and with a clearance to work permit. > Signage in place to warn of electrical installations and access is restricted. > Signs relating to risks of electrical plant and installtions are managed by Electrical	Isolation	Significant	Rare	10
Electrical - Switchboards and Distribution Boards	Fire on switchboard / distribution board.	> Dust and heat causing over heating of distribution boards. > Not fit for purpose equipment and maintenance.	Significant	Possible	18	Electrical Engineering Control Plan	> Boards are contained in sealed room free from dust and contaminates. > Power distribution rooms are also air condition. > Multiple exit points from power distribution rooms, and easy to get away from boards. > No combustibile material stored in distribution rooms > Signage indicating controls.	Engineering / Redesign	Minor	Unlikely	5
Electrical - Use of Lasers and Fibre Optic Equipment at the Quarry	Installation of required equioment not to relevant standard	> Inccorect standard/procedure follwed for installation. > Unqualified person installing and or maintaining laser or optic equipment	Serious	Possible	13	Electrical Engineering Control Plan	Use of lasers and optic fibre is managed by the Laser Management Standard (STD 10).	Engineering / Redesign	Minor	Unlikely	5
Electrical - Construction installation and maintenance of battery powered vehicles and	Installation of required equioment not to relevant standard	> Inccorect standard/procedure follwed for installation. > Unqualified person installing and or maintaining lbattery powere	Serious	Possible	13	Electrical Engineering Control Plan	Not applicable at Austen Quarry	Elimination	Negligible	Rare	1
Electrical - Supply of electricity in Hazardous Atmospheres	Fire or Explosion	> Inccorect standard/procedure follwed for installation. > Unqualified person installing and or maintaining areas with dangerous atmospheric conditions	Serious	Possible	13	Electrical Engineering Control Plan	Not applicable at Austen Quarry	Elimination	Negligible	Rare	1
Electrical - Site Requirements for electrical planning, designing, constructing, commissioning, operation, maintenance and decommissioning of electrical equipment	> Injury caused by direct/indirect contact with electricity > Unintended initiation of gas or dust explosions > Unintended or unsafe use of equipment	> The lifecycle management aspects for electrical plant and installations > The reliability of electrical equipment that protect people	Catastrophic (Principal Hazard)	Possible	22	Electrical Engineering Control Plan	> Electrical Engineering Control Plan prepared by a qualified and experienced electrical engineer. > Only competent people to perform electrical works > Fit for purpose equipment used > Safe work practices used on site	Administrative	Significant	Unlikely	14
Electrical - Work on live electrical circuits	Electrocution	> Live electrical work	Catastrophic (Principal Hazard)	Possible	22	Electrical Engineering Control Plan	> ABL employees and contractor are not permitted to work on live circuits.	Elimination	Negligible	Rare	1
Explosives - Air quality / contaminates post blast	> Workers / community exposed to dangerous levels of airborne contaminates.	> Wind speed / direction. > Poor blast design.	Catastrophic (Principal Hazard)	Possible	22	Explosives Control Plan	> Controls as per risk (Air Quality & Dust - Workers exposed to dust working onsite (Crystalline Silica)). > Onsite monitors to determine is blast dust is exiting site. > Exclusion zones for workers. > Notification to public and workers on blasting days. > Blasting to be postponed is weather conditions not suitable. > EPA licencing regarding dust generated effecting off site.	Isolation	Catastrophic (Principal Hazard)	Rare	15
Explosives - Airblast Overpressure & Ground Vibration.	> Overpressure & Ground Vibration causing injuries to workers / community	> Poor design and plan for blast	Catastrophic (Principal Hazard)	Possible	22	Explosives Control Plan	> Blasts are designed for each specific location, developed by quarry manager in consultation with the shot firer. > Exclusion zones to be in place for when blast occurs, including safety margin for expected Overpressure / Vibration. > Notification to public (neighbours 48 hours prior) and workers on blasting days. > Monitors in place for Overpressure and Vibration, these are to be reviewed in post blast review.	Engineering / Redesign	Catastrophic (Principal Hazard)	Rare	15
Explosives - Generation of fly rock	> Fly rock causing injuries to workers / community	> Drill hole stem lengths incorrect, generating face burst and fly rock.	Catastrophic (Principal Hazard)	Possible	22	Explosives Control Plan	> Shot firer to plan blast hole depth during planning phase. > Exclusion zones to be in place for when blast occurs, including safety margin for expected fly rock distances. > Notification to public (neighbours 48 hours prior) and workers on blasting days. > Post blast review to verify hole depths and exclusion zones are sufficient, for fly rock.	Engineering / Redesign	Catastrophic (Principal Hazard)	Rare	15
Explosives - Misfire during blasting.	> Injury to worker, worker being too close to misfire shot.	> Unfired blast holes, Unfired detonator and/or Unfired product, identified post blast	Catastrophic (Principal Hazard)	Possible	22	Explosives Control Plan	> Exclusion zone established when if unfired explosive found. > Shot firer shall manage the misfire, and potentially attempt to refire the shot. > If the shot can not be refired it shall be extracted with a vacuum truck and diluted with water.	Isolation	Catastrophic (Principal Hazard)	Rare	15

Explosives - Misfire during blasting.	> Injury to worker, worker being too close to misfire shot.	> Unfired detonator / explosive found during excavation.	Catastrophic (Principal Hazard)	Possible	22	Explosives Control Plan	> Exclusion zone established when if unfired explosive found. > Competent shot firer to return to site to manage un detonated explosive. > Investigation to be completed on incident.	Isolation	Catastrophic (Principal Hazard)	Rare	15
Explosives - Preparing for blast.	> Injuries to workers and/or local community. > Damaged to culturally significant sites and other community infrastructure.	> Poor design of blast. > Blasting outside of licenced / approved times.	Catastrophic (Principal Hazard)	Possible	22	Explosives Control Plan	> Blasts are designed for each specific location, developed by quarry manager in consultation with the shot firer. > Blast design shall include, drilling plan, blast hole size / load and address other hazards and misfires. > Shot firing is out sourced to a competent company, contracts and shot firers companies are managed through site pass. > Shot firers / company shall provide safe systems of work for Hy-Tec review. > Buffers to be established for indigenous heritage / culturally significant sites. > All blasting must comply with site licences and restrictions.	Engineering / Redesign	Catastrophic (Principal Hazard)	Rare	15
Explosives - Transport , use and handling of explosives on site	Injuries or death from unsuitable transport or handling or use or theft	Misuse or handling of explosives	Catastrophic (Principal Hazard)	Possible	22	Explosives Control Plan	Only authorized and licenced contractor to transport use or handle on site. Storage offsite to ensure no theft of dangerous explosives.	Elimination	Catastrophic (Principal Hazard)	Rare	15
Explosives - Storage of explosives	> Detonation / theft of explosives	> Blast cancelled, unplanned event keeping explosives on site.	Catastrophic (Principal Hazard)	Possible	22	Explosives Control Plan	> Explosives are not to be stored on site, shot firer contractors shall only bring explosives onsite when they are needed. > In an unforeseen event requires the explosives to be stored on site the Shot Firer must work with the site to develop a plan, ensuring they are compliant with the Explosives Act 2003 and appropriate Australian Standards. > Site has copies of chemical safety data sheets. > Site does not store explosives.	Isolation	Catastrophic (Principal Hazard)	Rare	15



SAFETY MANAGEMENT SYSTEM

HTA-S-HSE-057

Adbri Quarries- Austen Quarry


Appendix 19B PPE Matrix

PERSONAL PROTECTIVE EQUIPMENT

Note: PPE use is a “minimum” risk control measure, however it can be used in conjunction with other safety controls.

LEGEND- M= Mandatory R = Recommended if required

SITE SPECIFIC RULES WILL DETERMINE WHAT PERSONAL PROTECTIVE EQUIPMENT (PPE) MUST BE WORN

Hazard/Activity \ PPE Type	 Safety Helmet <small>HEAD PROTECTION MUST BE WORN</small>	 Hearing Protection <small>HEARING PROTECTION MUST BE WORN</small>	 Eye Protection <small>EYE PROTECTION MUST BE WORN</small>	 Safety Boots <small>FOOT PROTECTION MUST BE WORN</small>	 Long Clothing <small>PROTECTIVE CLOTHING MUST BE WORN</small>	 Hand Protection <small>HAND PROTECTION MUST BE WORN</small>	 Hi-Vis Clothing <small>SAFETY VEST MUST BE WORN</small>	 Respiratory Equipment <small>HALF FACE MASK RESPIRATOR MUST BE WORN</small>	 Face Shield <small>FACE SHIELD MUST BE WORN</small>	 Welding Mask <small>WELDING MASK MUST BE WORN</small>	 Safety Harness <small>SAFETY HARNESS MUST BE WORN</small>
Employees/visitors	M	R	M	M	M		M				
Plant Operation	M	M	M	M	M	R	M	R	R		
Mechanical Maintenance	M	R	M	M	M	R	M	R	R		R
Fabrication Work	M	M	M	M	M	M	M	R	R	R	R
Hazardous Substances	M	R	M	M	M	M	M	R	R		
Workshop Activities	M	M	M	M	M	R	M	R	R	R	
Office Work				M	M		M				
Working at Heights	M	R	M	M	M	R	M	R	R	R	M
Confined Spaces	M	M	M	M	M	R	M	R	R	R	R
Cleaning Activities	M	R	M	M	M	R	M	R	R		R

Pollution Incident Response Management Plan Review Sheet

Plan	Revision No	Date	Review	Approved by (Planning and Development)
PIRMP	1.0	08.03.2013	Reviewed – no changes	D.Thiedeke
PIRMP	1.0	15.05.2014	Reviewed – minor changes made	D.Thiedeke
PIRMP	2.0	04.05.2015	Reviewed – update contacts	D.Thiedeke
PIRMP	3.0	12.05.2016	Reviewed – no changes	D.Thiedeke
PIRMP	4.0	09.05.2017	Reviewed – update contacts	D.Thiedeke
PIRMP	5.0	11.05.2018	Reviewed – no updates	D.Thiedeke
PIRMP	6.0	08.03.2019	Alterations to numerous sections	D.Thiedeke
PIRMP	7.0	27.08.2019	Format changes	D.Thiedeke
PIRMP	8.0	21.08.2020	Format changes – PIRMP review	D.Thiedeke
PIRMP	9.0	16.06.2021	Format changes / S21.2 update / Hazard Register update / Management structure update	D.Thiedeke
PIRMP	10.0	06.02.2023	Alterations to numerous sections	D.Thiedeke
PIRMP	11.0	23.08.2024	Updated Register of Persons, Mine Plan, Risk Register	Jilu John