

Environmental Management System: POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

ADELONG GOLD MINE

Adelong, NSW

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Pollution Incident Response Management Plan

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2.0	14 February 2014	RWC	Reviewed Draft
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4.1	11 November 2016	Chrissie Eckersley	Revision of draft following CMPL review.
4.2	16 December 2016	Chrissie Eckersley	MINOR UPDATE. Updated title page, and Document number
4.3	18 February 2017	Chrissie Eckersley	MINOR UPDATES to reflect change of management responsibilities, document ownership and contact details

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5.0	21 November 2017	C. Vivian	UPDATES to reflect change of management contact details, inventory of potential pollutants and storage locations.
5.1	14/05/2018	C.Vivian	Minor update to reflect management changes

TESTING & REVIEW REGISTER

Please refer to **Appendix C - Testing and Review Register**

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REFERENCED DOCUMENTS

Document Title	Document ID	Last Updated
Emergency Management Control Plan		Feb 2016
Hazard Chemical Management Plan		29 Sept 2016
Cyanide Management Plan		08 Aug 2016
Health Control Plan		09 Aug 2016
Fire or Explosion Management Plan		Aug 2016
Mine Operations Plan		16 June 2016
Broad Brush Risk Assessments		July 2015
MSDS documents		Jan 2016

1 INTRODUCTION

1.1 Background and Scope

This Pollution Incident Response Management Plan (PIRMP or the Plan) was originally prepared by RW Corkery & Co Pty Limited on behalf of Challenger Mines Pty Ltd (CMPL or the Licensee) for the care and maintenance phase of Adelong Gold Mine (AGM or the premises) The Licensee's requirement to have a PIRMP was due to the changes made to the Protection of the Environment Operations Act 1997 (POEO Act) following the assent of the Protection of the Environment Legislation Amendment Act 2011 (POELA Act) on 16 November 2011. The objective of the POELA Act is to improve the way pollution incidents are managed and reported. As such all Environment Protection Licence (EPL) holders are now required to prepare, keep, test, and implement a PIRMP in accordance with Section 153A of the POEO Act.

As the holder of EPL 10265 (the Licence or EPL)¹ CMPL is required to comply with the POEO Act. In accordance with Part 5.7A of the POEO Act and Part 3A of the Protection of the Environment Operations (General) Regulation 2009 [POEO(G) Regulation or the Regulation] it is CMPL's responsibility to ensure that the PIRMP is regularly reviewed and updated so that its implementation is carried out in a workable and effective manner.

AGM is at the end of its construction phase and soon to be commencing its operational phase. This PIRMP has undergone a review and consequently updated to ensure its information is aligned with the current activities at the premises and satisfies the legal requirements set out by the abovementioned legislation.

This PIRMP forms part of AGM's Environment Management System. Procedures written in this PIRMP do not include specific treatment of injured personnel or specific action plans which may relate to remediation programs following an environmental pollution event.

The redevelopment of this PIRMP has been designed as a tool so that any CMPL staff can respond to a pollution incident immediately in a practised, planned manner. This PIRMP recommends that other CMPL management plans referenced in succeeding section should be read in conjunction with this Plan.

1.2 Relationship with other CMPL Plans

The following CMPL management plans below are required to be read in conjunction with this PIRMP to appropriately address pollution incident situations that may require specialised emergency management procedures and specific remediation programs:

- Emergency Management Control Plan
- Hazard Chemical Management Plan
- Cyanide Management Plan
- Health Control Plan
- Fire or Explosion Management Plan

CMPL ensures that the relevant plans used in conjunction with this PIRMP are not inconsistent with the requirements the POEO Act. As part of CMPL's continual improvement program these relevant documents are regularly reviewed and updated. Hard copies of these documents are readily available at the CMPL main site office, electronically accessible on

¹ Current version of the EPL 10265 is electronically available at the NSW EPA's Public Register website:
<http://epa.nsw.gov.au/prpocoapp/>

the CMPL internal document management system, and made publicly available on the company website www.challengermines.com.au at the discretion of the licensee.

1.3 Objectives and Outcomes

The table below presents the objectives and key performance outcomes nominated by the Licensee for the PIRMP.

Table 1: Objectives and Key Performance Outcomes

No.	OBJECTIVES	KEY PERFORMANCE OUTCOMES
1	To minimise and control the risk of a pollution incident at AGM by identifying hazards, calculating risks and the developing pre-emptive measures and action plans to minimise and manage those risks.	All identified preventative, management and mitigation measures implemented.
2	Identify roles and responsibilities to maintain competency and execute the plan when required.	All persons responsible for implementation of the PIRMP have been identified, understand relevant responsibilities and have been adequately trained to perform them.
3	To ensure that the PIRMP is regularly tested for accuracy, currency and suitability.	Arrangements for the review, testing, evaluation and maintenance of the Plan are developed and implemented.
4	To ensure comprehensive and timely communication about a pollution incident to staff at the facility, the EPA, other relevant authorities and people outside the Mine Site who may be affected by the impacts of the pollution incident.	All notifications and warning systems for people at the Premises, the relevant agencies and the public are implemented in the event of a pollution incident identified in this.

2 LEGAL REQUIREMENTS

The PIRMP has been prepared in accordance with the POEO Act and the POEO(G) Regulation. In summary, this provision requires following:

- All EPL licensees must prepare an PIRMP (section 153A, POEO Act);
- The PIRMP must include the information required by Section 153C of the POEO Act, the specific requirements of Clause 98C of the Regulation.
- The PIRMP must be kept at the premises to which EPL10265 relates (section 153 D, POEO Act), The Licensee must test this PIRMP in accordance with Clause 98E of the Regulation.
- The PIRMP must be immediately implemented should a pollution incident occur such that material harm to the environment is caused or threatened (section 153F, POEO Act).

The redevelopment of this PIRMP also considered the recommendations outlined in the 2012 NSW Environment Protection Authority (EPA) Guideline “Environmental Guidelines: Preparation of pollution incident response management plans”.

The tables below provide the specific requirements of the POEO Act, of the POEO(G) Regulation, and the corresponding PIRMP sections where these have been addressed.

Table 2: Legal Requirements of Part 5.7A of the POEO Act

Reference	Legal Requirements	Section in PIRMP
Part 5.7A - Protection of the Environment Operations (POEO) Act 1997		
section 153C	Information to be included in plan A pollution incident response management plan must be in the form required by the regulations and must include the following:	Whole document
	(a) the procedures to be followed by the holder of the relevant environment protection licence, or the occupier of the relevant premises, in notifying a pollution incident to:	Appendix E & Section 5.1
	(i) the owners or occupiers of premises in the vicinity of the premises to which the environment protection licence or the direction under section 153B relates, and	Section 6.5
	(ii) the local authority for the area in which the premises to which the environment protection licence or the direction under section 153B relates are located and any area affected, or potentially affected, by the pollution, and	Appendix E & Section 6.4
	(iii) any persons or authorities required to be notified by Part 5.7,	
	(b) a detailed description of the action to be taken, immediately after a pollution incident, by the holder of the relevant environment protection licence, or the occupier of the relevant premises, to reduce or control any pollution,	Section 5.1
	(c) the procedures to be followed for co-ordinating, with the authorities or persons that have been notified, any action taken in combating the pollution caused by the incident and, in particular, the persons through whom all communications are to be made,	Section 5

	(d) any other matter required by the regulations.	see POEO(G) Regulation requirements below
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Reference	Legal Requirements	Section in PIRMP
section 153D	<p>Keeping of the plan</p> <p>A person who is required to prepare a pollution incident response management plan under this Part must ensure that it is kept at the premises to which the relevant environment protection licence relates, or where the relevant activity takes place, and is made available in accordance with the regulations.</p> <p>Maximum penalty:</p> <p>(a) in the case of a corporation—\$1,000,000 and, in the case of a continuing offence, a further penalty of \$120,000 for each day the offence continues, or</p> <p>(b) in the case of an individual—\$250,000 and, in the case of a continuing offence, a further penalty of \$60,000 for each day the offence continues.</p> <p>Note. An offence against this section committed by a corporation is an executive liability offence attracting executive liability for a director or other person involved in the management of the corporation—see section 169A.</p>	Section 8.1
section 153E	<p>Testing of the plan</p> <p>A person who is required to prepare a pollution incident response management plan under this Part must ensure that it is tested in accordance with the regulations.</p> <p>Maximum penalty:</p> <p>(a) in the case of a corporation—\$1,000,000 and, in the case of a continuing offence, a further penalty of \$120,000 for each day the offence continues, or</p> <p>(b) in the case of an individual—\$250,000 and, in the case of a continuing offence, a further penalty of \$60,000 for each day the offence continues.</p> <p>Note. An offence against this section committed by a corporation is an executive liability offence attracting executive liability for a director or other person involved in the management of the corporation—see section 169A.</p>	Section 8.2 & Appendix C
section 153F	<p>Implementation of plan</p> <p>If a pollution incident occurs in the course of an activity so that material harm to the environment (within the meaning of section 147) is caused or threatened, the person carrying on the activity must immediately implement any pollution incident response management plan in relation to the activity required by this Part.</p> <p>Maximum penalty:</p> <p>(a) in the case of a corporation—\$1,000,000 and, in the case of a continuing offence, a further penalty of \$120,000 for each day the offence continues, or</p> <p>(b) in the case of an individual—\$250,000 and, in the case of a continuing offence, a further penalty of \$60,000 for each day the offence continues.</p> <p>Note. An offence against this section committed by a corporation is an executive liability offence attracting executive liability for a director or other person involved in the management of the corporation—see section 169A.</p>	Section 5

Table 3: Legal Requirements of Part 3A of the POEO(G) Regulation 2009

Reference	Legal Requirements	Section in PIRMP
Part 3A - Protection of the Environment (General) Regulation 2009		
clause 98B (2)	A plan may form part of another document that is required to be prepared under or in accordance with any other law so long as the information required to be included in the plan is readily identifiable as such in that other document.	Section 1.2
clause 98C	Additional matters to be included in plan Note. See also section 153C (a)–(c) of the Act	see POEO Act requirements above
cl. 98C (1)	General The matters required under section 153C (d) of the Act to be included in a plan are as follows:	Section 3.3
	(a) description of the hazards to human health or the environment associated with the activity to which the licence relates (the relevant activity),	
	(b) the likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood,	Section 3.4
	(c) details of the pre-emptive action to be taken to minimise or prevent any risk of harm to human health or the environment arising out of the relevant activity,	Section 4
	(d) an inventory of potential pollutants on the premises or used in carrying out the relevant activity,	Section 3.5 & Appendix B
	(e) the maximum quantity of any pollutant that is likely to be stored or held at particular locations (including underground tanks) at or on the premises to which the licence relates,	
	(f) a description of the safety equipment or other devices that are used to minimise the risks to human health or the environment and to contain or control a pollution incident,	Section 4
	(g) the names, positions and 24-hour contact details of those key individuals who: (i) are responsible for activating the plan, and (ii) are authorised to notify relevant authorities under section 148 of the Act, and (iii) are responsible for managing the response to a pollution incident,	Section 6.3
	(h) the contact details of each relevant authority referred to in section 148 of the Act	Section 6.4
	(i) details of the mechanisms for providing early warnings and regular updates to the owners and occupiers of premises in the vicinity of the premises to which the licence relates or where the scheduled activity is carried on,	Section 5
	(j) the arrangements for minimising the risk of harm to any persons who are on the premises or who are present where the scheduled activity is being carried on,	Section 5
	(k) a detailed map (or set of maps) showing the location of the premises to which the licence relates, the surrounding area that is likely to be affected by a pollution incident, the location of potential pollutants on the premises and the location of any stormwater drains on the premises	Appendix A Appendix B

	(l) a detailed description of how any identified risk of harm to human health will be reduced, including (as a minimum) by means of early warnings, updates and the action to be taken during or immediately after a pollution incident to reduce that risk,	Section 4 Section 5
	(m) the nature and objectives of any staff training program in relation to the plan,	Section 7
	(n) the dates on which the plan has been tested and the name of the person who carried out the test,	Section 8.2 Appendix C
	(o) the dates on which the plan is updated,	Appendix C
	(p) the manner in which the plan is to be tested and maintained.	Section 8.2 & Appendix C
Reference	Legal Requirements	Section in PIRMP
clause 98D	Availability of plan (1) A plan is to be made readily available: (a) to an authorised officer on request, and (b) at the premises to which the relevant licence relates, or where the relevant activity takes place, to any person who is responsible for implementing the plan.	Section 8.1
	(2) A plan is also to be made publicly available in the following manner within 14 days after it is prepared: (a) in a prominent position on a publicly accessible website of the person who is required to prepare the plan, (b) if the person does not have such a website—by providing a copy of the plan, without charge, to any person who makes a written request for a copy.	Section 8.1
	(3) Subclause (2) applies only in relation to that part of a plan that includes the information required under: (a) section 153C (a) of the Act, and (b) clause 98C (1) (h) and (i) or (2) (b) and (c) (as the case requires).	Whole document
clause 98E	Testing of plan (1) The testing of a plan is to be carried out in such a manner as to ensure that the information included in the plan is accurate and up to date and the plan is capable of being implemented in a workable and effective manner. (2) Any such test is to be carried out: (a) routinely at least once every 12 months, and (b) within 1 month of any pollution incident occurring in the course of an activity to which the licence relates so as to assess, in the light of that incident, whether the information included in the plan is accurate and up to date and the plan is still capable of being implemented in a workable and effective manner.	Section 8.2 Appendix C

3 SITE DESCRIPTION AND LIKELIHOOD OF HAZARDS

3.1 Site Details

Adelong Mine is located at 65 Golden Gully Road, Adelong, within south-west NSW within the local government area of Tumut Shire. It is approximately 1.5 kms north-northwest of Adelong, 17 kms west of Tumut, and 25 km of Gundagai.

Figure 2 of Appendix A shows the location of Adelong Mine and its proximity to the townships of Adelong, Tumut and Gundagai while Figure 3 of Appendix A provides a topographical overview of the mine's location within the New South Wales and its relative proximity to Canberra, ACT. Figure 4 of Appendix A presents the approved layout of the Mine Site, including the underground mining portal, ROM pad, processing plant, stockpile area(s) and other related infrastructure.

CMPL currently hold Development Consent D1021-1991 issued by Tumut Shire Council under the Environmental Planning and Assessment Act 1979 (EP&A Act). This Consent permits the mining and processing of gold ore at the Adelong Mine. EPL 10265 allows operation of the following scheduled activities under the POEO Act be undertaken at the premises:

- crushing, grinding or separating works, up to 100,000 tonnes per annum (tpa) processing capacity
- land based extractive activity, up to 100,000 tpa capacity for extraction, processing, or storage
- mining for minerals, up to 100,000 tpa production capacity

3.2 Determination of Potential Hazards

The following definitions are key terms to assist all workers, occupiers, and management staff of Adelong Mine in understanding how to identify a pollution hazard.

A hazard is any source, situation or condition of potential damage, harm or adverse health effects on someone, something or the environment under certain conditions.

A Pollution Hazard relates to the source, situation, or condition, in which spillage, leakage or emission of a hazardous material causes harm or adverse effects (to individuals as health effects, to organizations as property or equipment losses, or to the environment).

3.3 Description of Hazards

The scheduled activities undertaken at Adelong Mine requires the use, storage, treatment and disposal of hydrocarbons, chemicals and reagents. Infrastructure where these are used, stored or treated include:

- Hazardous substance storage facilities
- Gold room
- Flotation tanks
- HIC Facility
- Process water storage tanks
- CIL tailings detoxification tanks
- Collection sumps
- Dry flotation storage area
- Explosives storage facility
- Sedimentation dam
- Storage dams

The main pollution hazards identified by CMPL include:

- Leaks, spills and storage ruptures (e.g. hydrocarbon, hazardous substances, etc.) resulting in land contamination;
- Leaks, spills and storage ruptures (e.g. hydrocarbon, hazardous substances, etc.) resulting in water contamination;
- Leaks, spills and storage ruptures (e.g. Hydrocarbon, hazardous substances, etc.) resulting in lethal and sub-lethal effects on biodiversity;
- Major water discharge (e.g. dam failure, pump failure, unauthorised discharge);
- Fire (e.g. spontaneous combustion of grass or bushfires, heat reaction caused by hazardous substances, arc flash)
- Unexpected explosions (e.g. blasting activities, explosives, incorrect hazardous substance storage resulting in chemical reactions, arc flash); □ Dust generation and fugitive dust emissions; and □ Fugitive fume emissions (eg. Gold room).

A Pollution Hazard Risk Assessment for the identified hazards above is found in Appendix D of this PIRMP.

3.4 Likelihood of Hazards

The likelihood of pollution hazards occurring at the Adelong Mine are captured in detail through the following CMPL risk management assessments:

- Environment Risk Identification Assessment undertaken as part of the CMPL Mine Operations Plan 2015-2017 (MOP)
- Broad Brush Risk Assessments conducted in accordance with the CMPL Safety Management System

The objectives of these assessments are to identify the risk of hazards, the relative sources, situations, or conditions that would result in pollution, and recommend the necessary controls to effectively manage them.

Management of impacts are prioritised according to the level of risk each aspect is assigned. Pre-emptive actions (see Section 4 below) are implemented and appropriate mitigation measures are put in place to address the levels of risk posed by these activities.

The Pollution Hazard Risk Assessment for this PIRMP used qualitative analysis ratings to categorise the likelihood of hazards resulting in a pollution incident. A copy of the PIRMP Hazard Risk Assessment and the CMPL Risk Matrix are provided in Appendix D. A copy of the qualitative risk analysis rating is presented in the Table 4 below.

Table 4: Qualitative Risk Analysis Rating: Likelihood of Incident Occurring

Level	Description	Description
A	Almost Certain	Is expected to occur in most circumstances
B	Likely	Will probably occur at some time
C	Possible	Might occur at some time
D	Unlikely	Could occur at some time
E	Rare	May occur only in exceptional circumstances

The results of CMPL's qualitative risk analysis indicate that with the implemented pre-emptive actions in place, majority of the identified pollution hazards likely to occur at the AGM is either Rare or Unlikely except for 2 pollution

hazards, i.e. hazardous substances, and contaminated water, where there is a possible likelihood an incident could occur.

It is recommended that as part of this PIRMP's review process CMPL regularly include pollution hazard risk assessments to ensure that the likelihood of incidents occurring is prevented and/or controlled.

3.5 Inventory of Potential Pollutants

Clause 98C(1)(d) and (e) of the Regulation requires that the PIRMP includes an inventory of potential pollutants held or likely to be stored at the premises. A copy of CMPL's inventory for potential pollutants, their locations, and maximum quantity stored onsite is found on Appendix A. A location map for these potential pollutants is also found in Appendix A of this PIRMP.

Detailed Information on these potential pollutants are available in CMPL's MOP, Hazardous Chemicals Management Plan, and Cyanide Management Plan.

4 PRE-EMPTIVE ACTIONS TO MINIMISE OR PREVENT RISK OF HARM

To prevent or minimise the likelihood of identified hazards from occurring, CMPL has prepared the preemptive actions discussed below.

4.1 Management Plans and Standards

CMPL implements appropriate management and mitigation measures to limit so far as reasonably practicable, the risk of pollution which may result from the scheduled activities being undertaken at the premises. These specific measures are outlined in detail in the following CMPL documents below. It should be noted that these documents must be read in conjunction with this PIRMP for the successful implementation of CMPL's pre-emptive actions:

- Emergency Management Control Plan
- Hazard Chemical Management Plan
- Cyanide Management Plan
- Health Control Plan
- Fire or Explosion Management Plan
- MSDS protocol
- Storage requirements in accordance with Australian Standard 1940:1993

These relevant documents are consistent with the requirements the POEO Act. As part of CMPL's continual improvement program these documents are regularly reviewed and updated. Hard copies of all plans including this PIRMP are readily available at the CMPL main site office, electronically accessible on the CMPL internal document management system, and made publicly available on the company website www.challengermines.com.au.

As part of CMPL's commitment to its continual improvement program, CMPL management has an evolving Environmental Management System. As this is currently an ongoing management commitment this PIRMP will be regularly updated as new pre-emptive actions are determined.

4.2 Safety Management System and Safety Equipment

The Safety Management System (SMS) and plant equipment are designed to put in place a comprehensive set of pre-emptive actions to prevent the occurrence of pollution incidents and ensure the necessary training and awareness are in place to manage them safely should they occur.

The following list identifies the safety equipment and other management measures available onsite for use to minimise the risks to human health or the environment and to contain or control a pollution incident is required.

- Diesel Storage: constructed and maintained in accordance with Australian Standards 1940 - 1993.
- Spill kits: containing spill socks, pads and pillows (for perimeter containment); coveralls, gloves, safety goggles and glasses (for safe work); and disposable bags (for removing waste). All personnel are provided with training in the correct use of these items.

-
- Personal Protective Equipment: requirements are enforced and include the following standard Mine Site PPE:
 - o Eyewear (safety glasses).
 - o Gloves
 - o Shoes (Steel-capped and sturdy)
 - Training: pollution incident response management training and drills in addition to existing site competency framework
 - Inductions: are held for new employees or persons entering the Mine Site and includes instructions as to safe work practices when using or managing hazardous chemicals and potential pollutants.
 - Material Safety Data Sheets (MSDS): are placed as laminated copies at chemical receipt, storage, consumption, and disposal locations.

5 POLLUTION INCIDENT MANAGEMENT AND RESPONSE

Table 5 presents the general responsibilities and actions of the key workforce personnel prior to any incident occurring. Section 6.3 provides information regarding incident notification following a pollution incident.

Table 5: CMPL General Responsibilities and Actions

Position	Description
Chief Financial Officer Barry Neal	<ul style="list-style-type: none"> • Ensure adequate resources are available to enable implementation of the Plan. • Ensure Plan evaluation and continual improvement is implemented*. • Ensure appropriate personnel training and awareness programs are implemented*. • Ensure that the Plan is reviewed and tested every 12 months*. • Ensure a hard copy of the Plan is retained on-site.
Administration Officer Rose Woodland	<ul style="list-style-type: none"> • In the absence of the Chief Financial Officer assume or delegate responsibilities. • Ensure visitors and contractors are inducted and aware of emergency management procedures. • Ensure that all accidents, incidents and potential incidents are appropriately investigated.
All other personnel All Contractors and Subcontractors	<ul style="list-style-type: none"> <input type="checkbox"/> Ensure incident training is undertaken and responsibilities understood.

5.1 Actions to be Taken During and After a Pollution Incident

All possible actions should be taken to control the pollution incident in order to minimise health, safety and environmental consequences. These actions, to the maximum extent possible, aim to:

- provide for the safety of people at and within the vicinity of the site, and
- contain the pollution incident.

As an overview the following actions (but may not be limited to) will be implemented at the AGM when an incident occurs:

1. Secure the scene and contain the incident.
2. Immediately notify the relevant CMPL Management as per the incident notification protocol and implement external notifications as appropriate and defined in this PIRMP
3. Gather information (i.e. environmental monitoring).
4. Determine the investigation level.

5. Commence an Incident Cause Analysis Method (ICAM) Investigation.
6. Review and classify information and determine actions.
7. Complete actions, and initial clean up and recovery following the incident.
8. Complete Incident report.
9. Review PIRMP

Table 6 below presents the responsibilities and actions of the key workforce personnel in response to an incident. Section 6 provides information regarding incident notification protocol following a pollution incident.

Table 6: Key Management Responsibilities During and After a Pollution Incident

Position	Responsibilities and Actions
Chief Financial Officer Barry Neal	<ul style="list-style-type: none"> • Ensure available resources are available to implement the Plan as required, e.g. mobile equipment, spill kits, water supply, personnel. • Alert the EPA or relevant authority immediately of the pollution incident if there is a risk of material harm to the environment • Maintain communication with the Mill Manager and coordinate activities and resources. • Approve the implementation of additional or escalated response measures on advisement from the Mill Manager. • Ensure adequate resources are available to the Mill Manager to undertake clean-up. • Provide owners and occupiers of land updates of any incidents affecting their land as required (see Section 6.5). • Ensure an Incident Report Form completed and actioned. • Give direction for a de-briefing and review of the notification, response management and evacuation procedures of the Plan.
Administration Officer Rose Woodland	<ul style="list-style-type: none"> • As soon as aware, assess hazards generated by incident and respond accordingly i.e. remove plant and machinery if safe to do so. • Inspect incident site of potential pollution incident. • Alert the EPA or relevant authority immediately of the pollution incident if there is a risk of material harm to the environment • If not initiated by mobile plant operators, initiate spill response, e.g. use of spill containment materials from spill kit, turn-off source of leak. • Advise appropriate personnel of the incident (or ensure notification is undertaken by delegated personnel). • Ensure that perimeters are established and access to the incident site is controlled. • Determine the priority of actions of employees until agencies and emergency services arrive.

	<ul style="list-style-type: none"> • Monitor the identified incident. • Maintain communication with the delegated supervisor of incident management to ensure progression from identification, action, notification and clean-up is appropriate. • Complete the appropriate notification (of emergency services, regulatory authority, other relevant authorities, and land owners) (see Section 6.3). • Direct the incident clean-up of the incident and assess and identify when the affected area(s) is/are safe. • Review the Incident Report Form and ensure completed correctly. • Coordinate and manage de-briefing and review as directed by the Chief Financial Officer
<p>All other personnel</p> <p>All Contractors and Subcontractors</p>	<ul style="list-style-type: none"> • Ensure incident training is undertaken and responsibilities understood. • Notify CMPL management staff of any pollution incident or hazard immediately as soon as it becomes known • Follow CMPL Notification Guide and/or Pollution Incident Notification Flow Chart.

Detailed emergency management, arrangements, including description and location of safety equipment, for minimising risk of harm to people and the environment as result of a pollution incident, and for containing or controlling a pollution incident, are included in the following documentation:

- Emergency Management Control Plan□
- Hazardous Chemicals Management Plan□
- Cyanide Management Plan□
- Mine Operation Plan□

Each management plan documents the defined roles and accountabilities of key personnel at each operation in the event of an emergency and the contact details for appropriate emergency services. The plans also provide designated evacuation points and procedures in the event of an emergency. Any changes to emergency procedures are documented and communicated to all personnel.

6 INCIDENT NOTIFICATION PROTOCOL

This section details the procedures to be followed for co-ordinating, with the authorities or persons that have been notified, any action taken in combating the pollution caused by the incident and the persons through whom all communications are to be made.

6.1 Legal Duty to Notify

Section 148 of the POEO Act outlines the notification responsibilities of all persons carrying on an activity (i.e. employer, employees, contractors, principals, and agents) at, as well as occupiers of the premises. In summary, any person carrying on an activity must, after becoming aware of any potential incident, immediately notify relevant management staff of the incident and provide all relevant information about it. Management, employer or occupier of the premises who is notified of (or becomes aware of) an incident must immediately notify the relevant authorities if the pollution incident causes or threatens material harm regardless of its nature, scale or location.

As the licence holder of EPL 10265, CMPL is required to report pollution incidents immediately (i.e. to report without delay) to any of the following relevant authorities: NSW Environment Protection Authority (NSW EPA), Ministry of Health, WorkCover NSW, Tumut Shire Council, and Fire & Rescue NSW.

It is important to note that failure to notify the relevant authorities is considered an offence under Part 5.7 of the POEO Act and carries a maximum penalty of \$2,000,000 for corporations and a maximum penalty of \$500,000 for individuals.

Notification protocols of this PIRMP are discussed in Section 6.3 Section 6.4, and Section 6.5 further below.

6.2 Determination of Material Harm

A pollution incident is required to be notified if there is a risk of “material harm to the environment”. The definitions below are the key terms taken from the POEO Act to assist all workers, occupiers and management staff of Adelong Mine in understanding how to identify a pollution incident causing or threatening material harm.

6.2.1 Pollution incident

“...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.”

6.2.2 Harm to the environment

“includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution.”

6.2.3 Material harm to the environment

Harm to the environment becomes “material” if:

- “it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
- it results in actual or potential loss or property damage of an amount, or amounts in aggregate (total), exceeding \$10,000 (or such other amount as is prescribed by the regulations), and
- 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.”

6.3 24-Hour Notification Protocol – Challenger Mines

The table below identifies the names, position titles and 24-hour contact details of those key individuals who are responsible for activating the plans and managing the response, authorising the notification of relevant authorities, and managing the response to a pollution incident.

Table 7: Key CMPL Management Contact Details and Responsibilities

NAME	POSITION	24 HOUR CONTACT DETAILS	ROLE / RESPONSIBILITY
Barry Neal	Chief Financial Officer	0418 294 263	Responsible for alerting the relevant authorities and adjoining landholders.
Rose Woodland	Administration Officer	0400 660 292	Responsible for alerting CMPL Top Management, for activating emergency plans and contacting relevant authorities

All personnel at the premises, (i.e. all CMPL staff, contractors, subcontractors, and occupiers of Adelong Mine) have a duty to notify CMPL management staff of any pollution incident or hazard immediately as soon as it becomes known.

Table 8 provides is a step-by-step guide for all staff to follow in the event of any pollution incident. A Pollution Incident Notification Flow Chart in Appendix E also provides this process and should be made available and be easily accessible to all personnel. It is recommended to have the Flow Chart posted at the notice boards onsite and in the main site office.

It should be noted that complying with these notification requirements does not remove the need to comply with any other obligations for incident notification, for example, those that apply under other environment protection legislation or legislation administered by WorkCover.

Table 8: Onsite Personnel Notification Guide

STEP	GUIDE QUESTIONS	WHAT TO DO and WHO TO CONTACT	
1	Is there a threat to human health or property?	YES - Dial 000 FIRST, then alert CMPL Management. Go to Step 2.	NO - Alert CMPL Management. Go to Step 2.
2	Were you able to contact any CMPL Management Staff?	YES – Follow instructions provided by CMPL Management.	NO - Go to Step 3
3	Have you notified the Environment Line?	Dial 131 555 and Press 1, record reference number and report information required. Then go to Step 4.	
4	Have you notified the Other Relevant Authorities?	Notify Relevant Authorities in Table 8 and report all information required.	

6.4 External Notification Contact Details - Relevant Authorities

Relevant authority under Section 148 of the POEO Act means any of the authorities identified the table below. All information required must be provided. Where information is unknown, this must be notified as soon as it becomes known.

Table 9: Relevant Government Authorities

RELEVANT GOVERNMENT AUTHORITY	CONTACT DETAILS	INFORMATION TO BE REPORTED
APPROPRIATE REGULATORY AUTHORITY		<input type="checkbox"/> Time, date, nature, duration and location of the incident <input type="checkbox"/> Location where pollution is, has or is likely to occur <input type="checkbox"/> Nature, quantity / volume and concentration of pollutants involved <input type="checkbox"/> Cause and circumstances of the incident <input type="checkbox"/> Action taken or proposed action to be taken to respond to pollution incident (as per the PIRMP) <input type="checkbox"/> MINE ADDRESS: 65 Golden Gully Road, Adelong NSW <input type="checkbox"/> ABN: 85 090 166 528
NSW EPA – Albury Unit	Ph: (02) 6022 0600	
OTHER LOCAL AUTHORITIES		
Local (Consent) Authority: Tumut Shire Council	(02) 6941 2555	
The Ministry of Health (NSW Health) Southern NSW Local Health District	1300 066 055 or 0418 866 397 (after hrs) (02) 6213 8336	
The WorkCover Authority	13 10 50	
Fire and Rescue NSW	000	
Local Fire and Rescue NSW: Tumut	(02) 6947 1202	

6.5 Notification to Local Landholders and Community

6.5.1 Local Landholder Notification Protocol

This section lists the neighbouring land holders and provides notification protocol to be followed in the event of a notifiable pollution incident occurring. The landowners identified in Table 11: Relevant Landholder Contact Details have been chosen as they own land within the Mine Site or share an adjacent boundary to the Mine Site or Mine Site entrance.

It is noted that the land within the Mine Site is either owned by CMPL or leased from Crown Lands and Mr A. Kell (as identified on Figure 3 in Appendix A) owned privately by Mr A. Kell and Crown Land, with both parcels of land leased to Challenger Mines Pty Ltd.

The Chief Financial Officer is responsible for communication with the relevant landholders.

Table 10: Local Landholder Notification Guide

STEP	GUIDE QUESTIONS	WHAT TO DO and WHO TO CONTACT	
1	Will the pollution incident impact the water table (i.e. surface or ground / bore water) or is restricted to adjacent properties?	YES - Notify A Kell and Crown Lands only – see Table 10 below.	NO - Go to Step 2.
2	For all other pollution incidents – will they impact neighbouring land owners?	YES - Notify all land owners in Table 10 below	NO – No notification required

Table 11: Relevant Landholder Contact Details

LANDHOLDER	CONTACT DETAILS	INFORMATION TO BE COMMUNICATED
Mr. A. Kell	0427 694 657	<p>DURING A POLLUTION INCIDENT:</p> <ul style="list-style-type: none"> If pollutant has, or has the potential to impact either directly or indirectly on property, call to advise of incident and alert as to any potential hazards or impacts on livestock. Nominate incident response in place and any associated hazards. Nominate schedule for implementation of incident response and clean-up. <p>AFTER A POLLUTION INCIDENT:</p> <ul style="list-style-type: none"> Following completion of incident clean up and stand down phases, contact the land owner to confirm incident over. Request feedback on incident management. Provide advice on request as to any procedural improvements relevant to the incident.
Crown Lands		
N. Cribb	0407 068 603	
T. & K. Gallard	0407 607 846	
N. Carter	Door knock	
T McDonald	6946 2504	
R. & B. Lucas		

6.5.2 Community Notification Protocol

In the event of a notifiable pollution incident, i.e. significant discharge to properties immediately downstream along Adelong Creek, the community will be alerted, and appropriate warning will be provided. A letter box drop will be performed to the properties illustrated Figure 1.

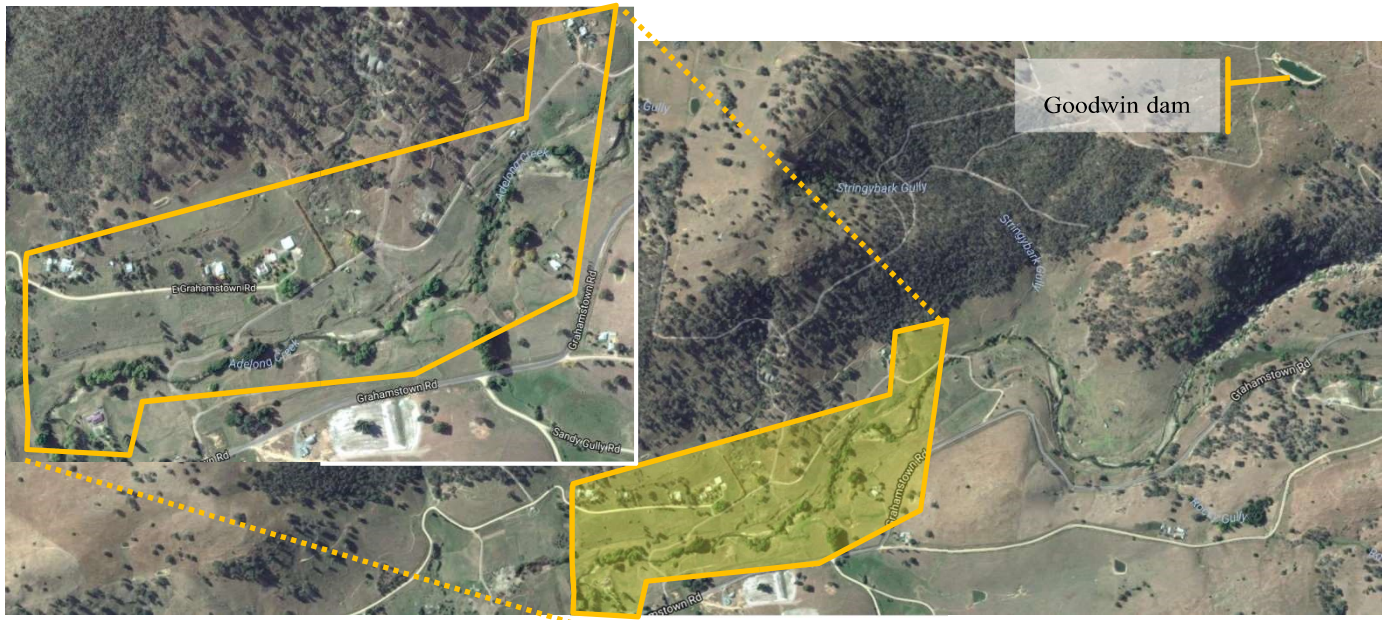


Figure 1: Community downstream along Adelong Creek (images sourced from Google Maps)

7 STAFF TRAINING

Training of staff in regard to pollution incident management as outlined in this PIRMP, will be undertaken (as required) to during the induction process.

- Awareness of hydrocarbons and other contaminants used on the site and how they impact the environment.
- Correct storage and handling of hydrocarbons and chemicals.
- Refuelling procedures.
- Pollution incident management, in particular spill response, including roles and responsibilities when responding to an incident.
- Incident reporting requirements.
- Evacuation procedures.

The Chief Financial Officer will be responsible for ensuring the appropriate training is included in the induction and revised every 12 months to ensure skills are updated.

7.1 Competency Training

All personnel undertaking activities at the Mine Site will undergo pollution incident response management awareness training (as required) part of the site induction program. The following areas will be covered in the induction.

- Awareness of hydrocarbons, and how they impact the environment.
- Correct storage and handling of hydrocarbons.
- Refuelling procedures.
- Pollution incident management, including roles and responsibilities when responding to an incident.
- Evacuation procedures.
- Incident reporting requirements.

The Administration Officer is responsible for ensuring the appropriate training is included in the induction and revised every 12 months to ensure skills are updated.

All personnel will be required to complete a refresher training on an annual basis via a toolbox meeting.

8 PIRMP CONTINUAL IMPROVEMENT PROGRAM

8.1 Availability of the PIRMP

The completed copy of this PIRMP will be internally available to all AGM staff in the following forms:

- As a hard copy available on the site's notice boards;
- As a hard copy available at the site's main office
- As an electronic copy available on the site's internal network
- procedures followed by the CMPL in notifying:
 - o Local Government Authority, i.e. Tumut Shire Council;
 - o State Government Authorities required to be notified by Part 5.7 of the POEO Act; o
Owners and occupiers of land located within the immediate vicinity of the premises; o Any
other persons who may be required to be notified.
- contact details of the relevant authorities, and
- details of the mechanisms for providing early warnings and regular updates to the owners and occupiers of premises in the vicinity of the premises.

8.2 Testing of PIRMP

The PIRMP will be routinely tested:

- at least once every twelve (12) months, and
- within one (1) month of any pollution incident occurring in the course of an activity to which the EPL relates,

to determine whether the information in the PIRMP is accurate and up-to-date, and whether it is capable of being implemented in a workable and effective manner.

Two testing methods will be used in testing the PIRMP:

1. as part of an emergency drill procedure or as a practical exercise, and
2. as a desktop simulation of a pollution event within a tool box meeting. The desktop simulation will involve all personnel and require identification of appropriate spill response materials, notification requirements and accuracy of information related to surrounding land owners and contacts.

The date and attendance during the testing will be confirmed by way of an attendance log.

A Confirmation of Plan Testing will be included in the Annual Return submitted to the EPA annually. PIRMP testing information will be kept and maintained in accordance with Section 8.3 of this document.

The Chief Financial Officer is accountable for ensuring the PIRMP is routinely tested and responsible for the correct execution of the test.

8.3 Records Keeping and Review Register

The PIRMP will be reviewed:

- within one month from the date of any pollution incident
- following the resumption of mining or mining-related activities;
- after each test;
- in the event that deficiencies are identified;
- as roles and responsibilities of personnel change;
- in the event of legislative changes; and/or
- within five (5) years following the issue date.

Testing and Review information will be logged in the Review Register (see Appendix B). All relevant details are to be documented include (but may not be limited to):

- date, time and location of testing
- names of staff who carried out the testing
- Method of Testing (drill, exercise, desktop review, etc)
- summary of the testing
- Details of the changes made to the PIRMP
- Date of PIRMP update
- Revised version number

The Chief Financial Officer is accountable for ensuring the PIRMP is regularly reviewed and the Review Register updated, and is responsible for the appropriate delegation of these tasks

8.4 Continual Improvement

Within 14 days of the pollution incident response (including testing of this PIRMP) a debriefing of all relevant personnel will be undertaken to determine the lessons learned from the operation.

- The debriefing will include a meeting with the relevant personnel involved in the incident to collate any comments, issues and views on any changes that could be implemented to improve the procedures within the Plan.
- The Chief Financial Officer will be responsible for the co-ordination of any debriefing following a pollution response incidence.

All information and comments compiled from the debriefing will be assessed and reviewed to determine the areas of improvement and the updating and implementation of new procedures to improve the outcomes of any pollution incident response at AGM.

- All personnel will be responsible for recommending improvement to the Chief Financial Officer who will discuss this with CMPL Management.
- The Chief Financial Officer will be responsible for the approval of the recommended improvements.
- All personnel will be responsible for the implementation of the recommended improvement and continual improvement in performance at the AGM.

APPENDIX A – LIST OF FIGURES

Figure 2: Location Map showing proximity of Adelong Mine to neighbouring towns.

Figure 3: Location Map showing location of Adelong Gold Mine within New South Wales.

Figure 4: Mine Site layout

Figure 5: Land Ownership Map with the nearest potentially affected residences.

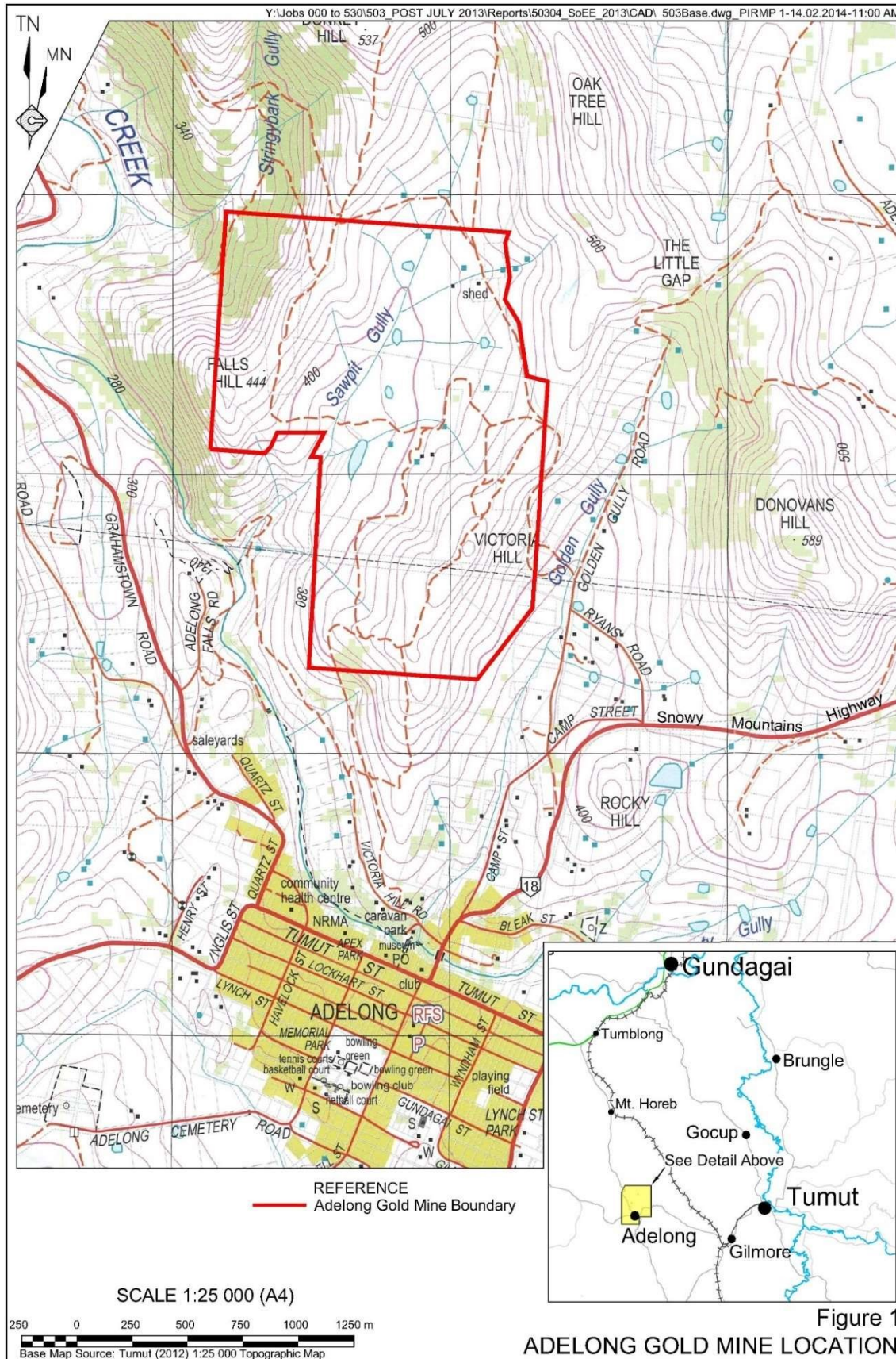


Figure 2: Location Map showing proximity of Adelong Mine to neighbouring towns.

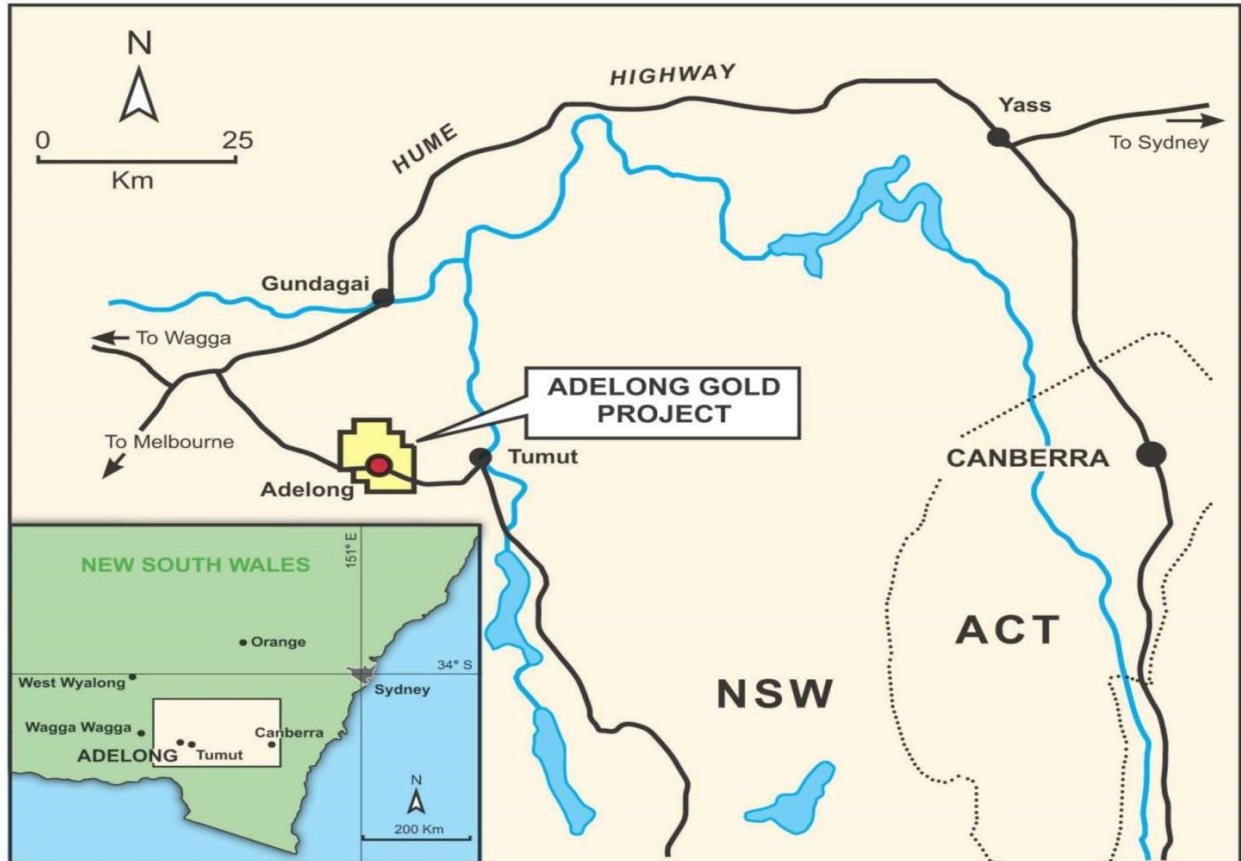


Figure 3: Location Map showing location of Adelong Gold Mine within New South Wales.

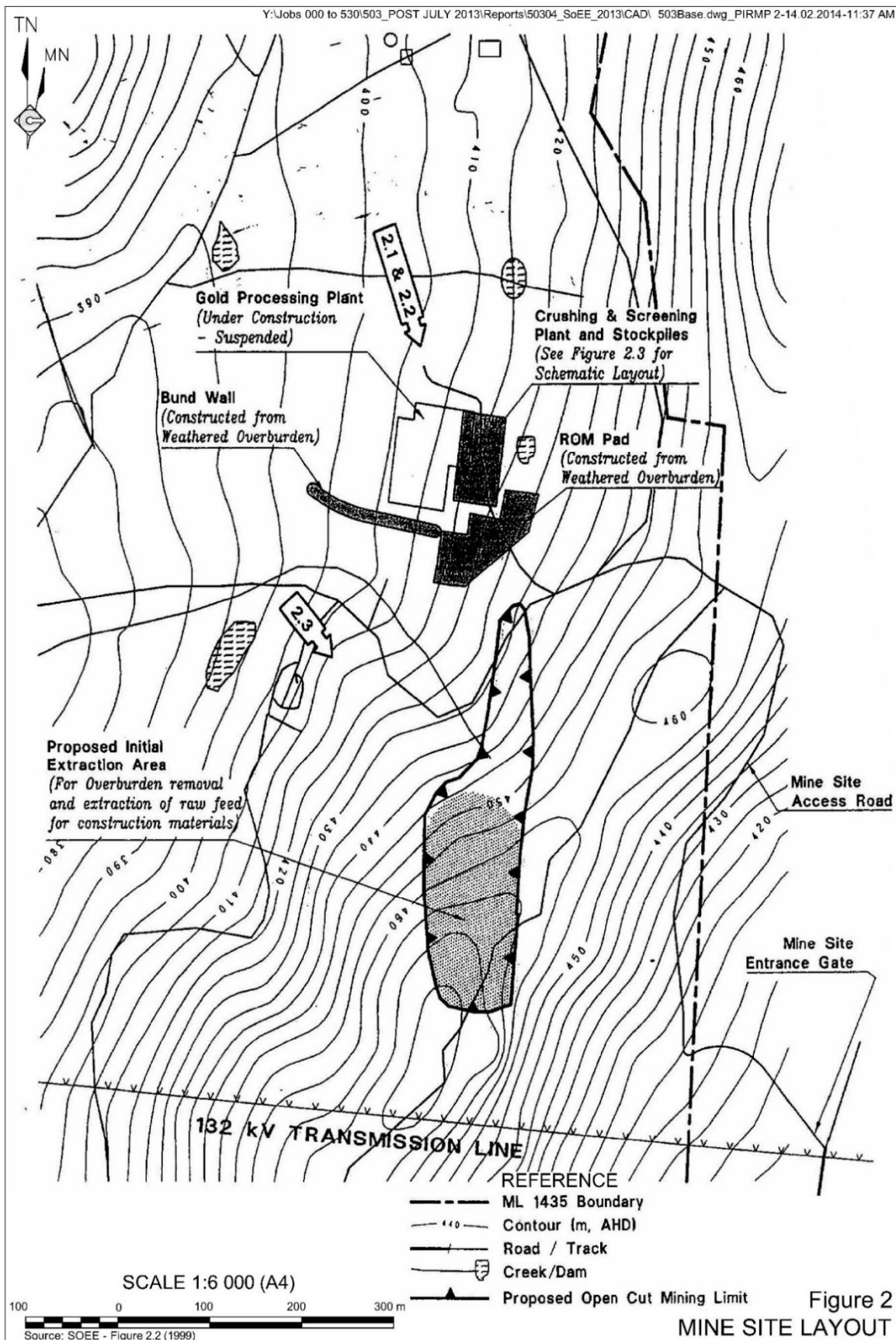


Figure 4: Mine Site layout

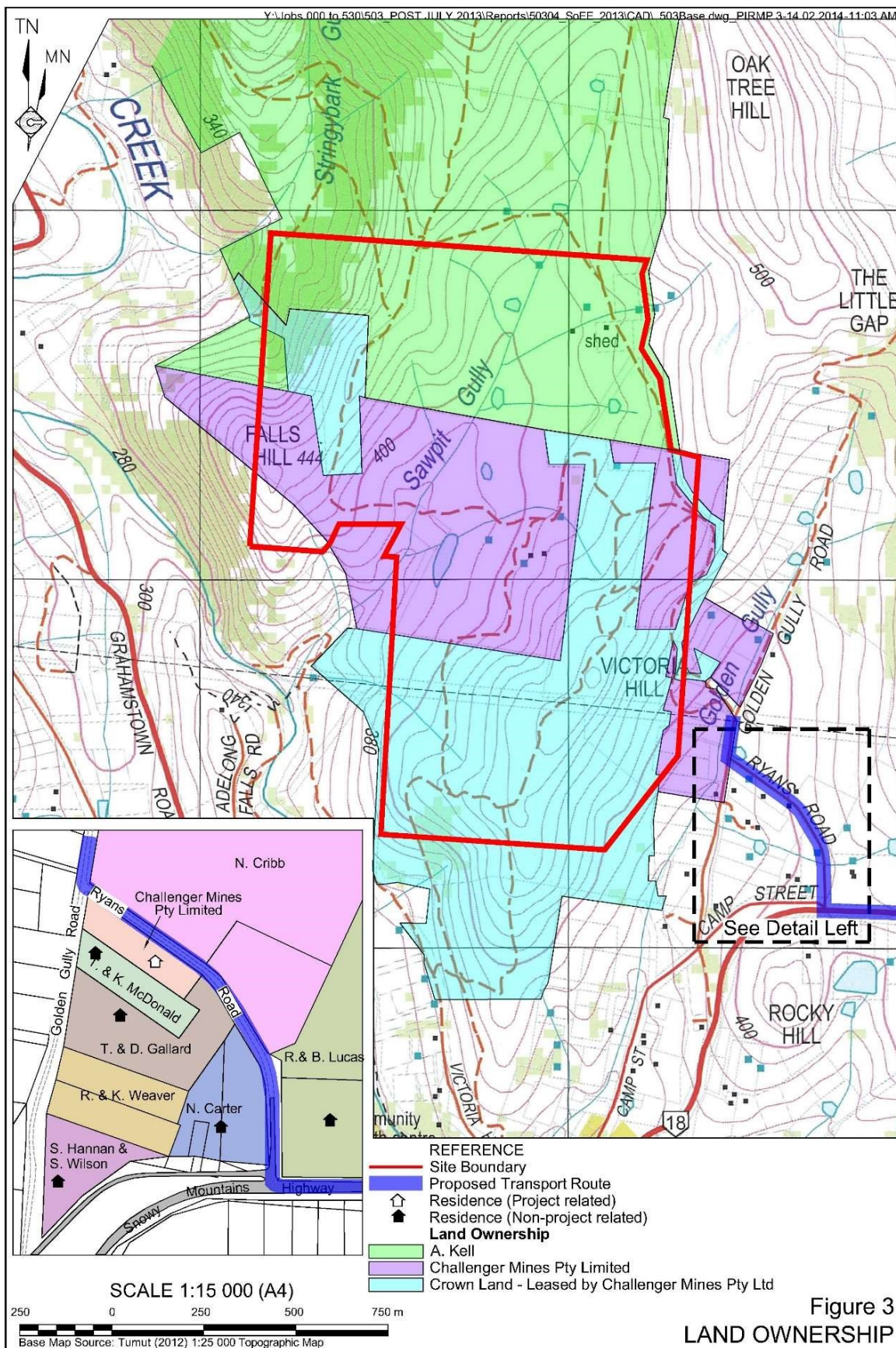


Figure 5: Land Ownership Map with the nearest potentially affected residences.

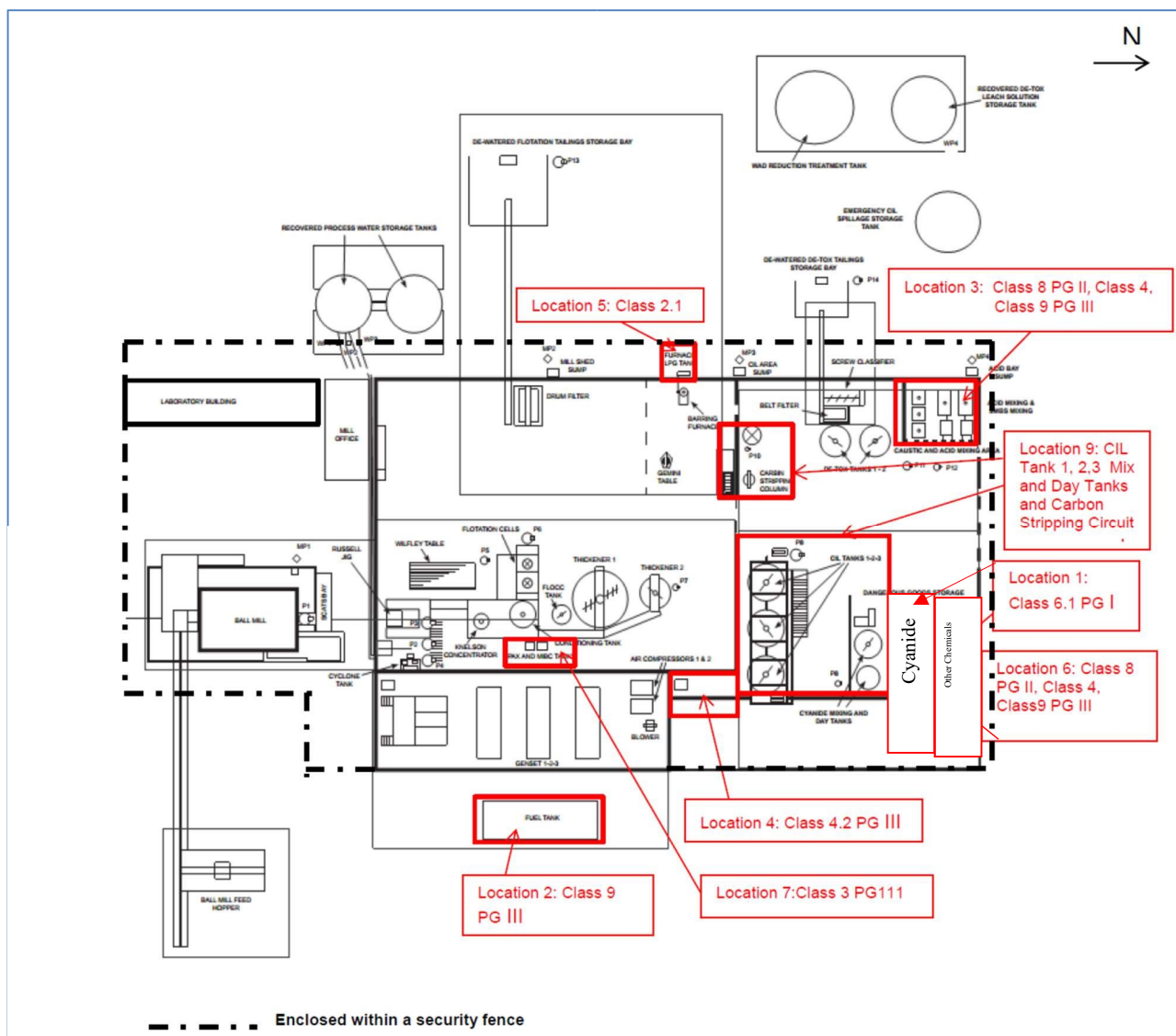
APPENDIX B- INVENTORY OF POTENTIAL POLLUTANTS

Source: Appendix 1 of the CMPL Hazardous Chemicals Management Plan

Inventory of Potential Pollutants

Material	Hazardous Chemical	Dangerous goods			Largest quantity on site	Storage Location
		Class	Sub risk/s	PG		
Sodium Cyanide	Yes	6.1	N/A	I	4000 kg	Container 1, Chemical Storage Container, Location 1
Potassium Amyl Xanthate	Yes	4.2	N/A	III	900 kg	Mill Chemical Storage Area, Location 4
Hydrochloric Acid 35%	Yes	8	N/A	II	2000 L	Mill Acid Store, Location 3
Copper Sulphate Pentahydrate	Yes	9	N/A	III	2000 kg	Container 2 - Mill Chemical Storage Container, Location 6
Caustic Soda	Yes	8	N/A	II	4000 L	Mill Acid Store, Location 3
Sodium Metabisulphite 40% solution	Yes	N/A	N/A	N/A	6000 L	Mill Chemical Store, Location 3
Unleaded Petrol	Yeso	3	N/A	II	20L	Goodwin Dam Process Water Pump
Diesel	No	N/A	N/A	III	30,000 L	Primary Power Plant Diesel Storage Tank, Location 2
Diesel	No	N/A	N/A	III	13,000 L	Mine Decline Diesel Storage Tank, Location 10
LPG	No	2.1	N/A	N/A	90kg	Mill Shed Western Wall, Location 5
Nitrogen	No	N/A	N/A	N/A		Mill Shed Western Wall, Location 5
Magna Floc	No	N/A	N/A	N/A	500 kg	Mill Chemical Storage Area Location 4
Soda Ash	No	N/A	N/A?	N/A	125 kg	Mill Chemical Storage Area Location 4
Magna Floc	No	N/A	N/A	N/A	25kg	Mill Chemical Storage Area Location 4
Borax	No	N/A	N/A	N/A	125 kg	Mill Chemical Storage Area Location 4
Starplex Delo EP2 Complex	No	N/A	N/A	N/A	205L drum	Ball Mill Grease Bund

Grease						
SL OGL 250 NC Open Grease Gear	No	N/A	N/A	N/A	205 L drum	Ball Mill Grease Bund
Delogold Ultra SAE 15w-40	No	N/A	N/A	N/A	205 L drum	Workshop, Location 8
Delo Torq Force SAE 30	No	N/A	N/A	N/A	205 L drum	Workshop, Location 8
Delo SA 50	No	N/A	N/A	II	205 L drum	Workshop, Location 8
Rando HD 68 Hydraulic Fluid	No	N/A	N/A	N/A	205 L drum	Workshop, Location 8
Agri AS Transplus 20w-30	No	N/A	N/A	N/A	205 L drum	Workshop, Location 8
Delo XLC Antifreeze	No	N/A	N/A	N/A	205 L drum	Workshop, Location 8
Rust Converter	No	N/A	N/A	N/A	5 L container	Workshop, Location 8
Texmatic 1888 Transmission fluid	No	N/A	N/A	N/A	20 L	Workshop, Location 8



(Map source: Hazardous Chemicals Management Plan)

Figure 6: Location Map of potential pollutants stored at the Adelong Gold Mine

APPENDIX C - TESTING AND REVIEW REGISTER

Testing and Review Requirements:	<input type="checkbox"/> Routine testing at least once every 12 months <input type="checkbox"/> To be tested within one month of any pollution incident occurring. <input type="checkbox"/> To be reviewed within five (5) years following the issue date.
Next Testing Due	Before 18 February 2018 <input type="checkbox"/>
Next Review Due	<input type="checkbox"/> By 31 October 2022

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Table 12: PIRMP Test and Review Register

Date of Test or Review	Name of Personnel who carried out Test or Review	Method & Summary of Testing (e.g. drill, exercise, review following incident, etc.)	Summary of Changes (include brief details and section number)	Date of Update	PIRMP Revised Version No.
29 July 2016	Ramon Atayde (CMPL) Jim Tyrrell (CMPL) John Lean (CMPL)	Desktop Drill (Toolbox talk) with CMPL workers to discuss an Oil Spill Scenario Ground worked through the response, by containing the spill using earth bunds and shovels. Using large absorbent pads site already has onsite, and reporting the spill to their supervisor.	No change in PRIMP but identified Action items to be addressed with target dates.	Nil	
11 Nov 2016	Chrissie Eckersley; Ramon Atayde (CMPL)	Desktop review. PIRMP updated to align with the commencement and operational phase at AGM.	Content change in most sections. Format changes and rebranding. Relevant Authorities & CMPL Contact details updated. Appendix of old EPL removed, addition of CMPL Risk Matrix and Hazard Risk Assessment, Notification Protocol Flow Chart, and Hazardous Chemicals Manifest including Map locating potential pollutants	11 Nov 2016	Draft v4.0 Final v4.1
16 Dec 2016	Chrissie Eckersley	Desktop review following the updates of documents numbers of other management plans	Formatting changes Change of document number to reflect consistency with other CMPL EMS documents.	16 Dec 2016	v4.2
15 Feb 2017	Chrissie Eckersley	Minor updates due to change of management staff	New contact details and position titles replaced.	18 Feb 2017	v.4.3
21 November	C. Vivian R. Woodland	Inventory of DGs location and quantity	Review to update new management and to update Potential Pollutant List following a site audit of chemicals and DG's. Updated the DG map	21 Nov 2018	V5.0
14/05/2018	C. Vivian	Minor update due management change	New contact details and position titles replaced.	14/05/2018	V5.1

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Version: EMS-04-PLN-001 v4.3

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Printed on: 18 February 2017
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APPENDIX D– PIRMP POLLUTION HAZARD RISK ASSESSMENT

Table 13: CMPL Risk Matrix and Qualitative (Likelihood) Risk Analysis Rating

Table 14: PIRMP Potential Pollutants Hazard Risk Assessment

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Table 13: CMPL Risk Matrix and Qualitative (Likelihood) Risk Analysis Rating

				CONSEQUENCE					
				1	2	3	4	5	
				Insignificant	Minor	Moderate	Major	Catastrophic	
				People	No Injury	First aid treatment required	Medical treatment required	Single death, Extensive injuries/health risk	Multiple Deaths
				Environmental	No Environmental concern	On site environmental incident immediately contained	On site environmental incident contained with outside assistance	Off site environmental incident with no detrimental effects	Environmental incident off-site with detrimental effect
				Financial	Low financial loss	medium financial loss.	high financial loss.	major financial loss.	Huge financial loss
Likelihood of Incident occurring				Insignificant	Minor	Moderate	Major	Catastrophic	
				1	2	3	4	5	
Level	Descriptor	Description	LIKELIHOOD						
A	Certain	Is expected to occur in most circumstances	A (Certain)	H	H	E	E	E	
B	Likely	Will probably occur at some time	B (Likely)	M	H	H	E	E	
C	Possible	Might occur at some time	C (Possible)	L	M	H	E	E	

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D	Unlikely	Could occur at some time	D (Unlikely)	L	L	M	H	E
E	Rare	May occur only in exceptional circumstances	E (Rare)	L	L	M	M	H

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Table 14: PIRMP Potential Pollutants Hazard Risk Assessment

	Hazard	Source or Site Location Situation or Condition Resulting in Pollution	Potential Impacts	Pre-Emptive Controls and Safety Equipment	WITH CONTROLS		
					Consequence & Likelihood Rating	Residual Risk Ranking	
1	Diesel	Mine Decline Diesel Storage Tank, Location 10	Land contamination Water contamination Lethal and sublethal effects on biodiversity Fire	Hazardous Chemicals Management Plan Emergency Management Control Plan Environmental Management as per MOP Specialised self-bunded storage tank Appropriate signage and ventilation Spill kit and fire extinguishers Trained and qualified staff to oversee transfer operations at all times PPE provided as per MSDS requirements Regular vehicle maintenance/inspections Vehicle refuelling confined to designated locations only. First Aid Kits PIRMP Training and Toolbox talks	Minor (2)	Unlikely (D)	Low
		Primary Power Plant Diesel Storage Tank, Location 2					
		Leaks, spills and storage ruptures					
		Transport from Supplier to Storage			Major (4)	Unlikely (D)	Medium
		Transport from Storage to Vehicles			Minor (2)	Unlikely (D)	Low
	Transport from Storage to Plant	Minor (2)	Unlikely (D)	Low			

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			Australian Standards requirements			
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	Hazard	Source or Site Location Situation or Condition Resulting in Pollution	Potential Impacts	Pre-Emptive Controls and Safety Equipment	WITH CONTROLS	
					Consequence & Likelihood Rating	Residual Risk Ranking
2	Hydrocarbons,	Workshop, Location 8	Land contamination Water	Hazardous Chemicals Management Plan	Minor (2)	Unlikely (D) Low

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	<p>Oil & Grease, Lubricants</p>	<p>Incorrect storage Leaks, spills, and storage ruptures</p>	<p>contamination Lethal and sublethal effects on biodiversity</p>	<p>Emergency Management Control Plan Environmental Management as per MOP Storage of unopened containers within a roofed facility opened drum containers stored in bunded areas. Have dedicated cabinets and storage containers Appropriate signage and ventilation Spill kit and fire extinguishers PPE provided as per MSDS requirements Training and Toolbox talks Australian Standards requirements Emergency Management Control Plan</p>			
--	---	--	--	---	--	--	--

					WITH CONTROLS		
Hazard	Source or Site Location Situation or Condition Resulting in Pollution	Potential Impacts	Pre-Emptive Controls and Safety Equipment		Consequence & Likelihood Rating	Residual Risk Ranking	

EMS Pollution Incident Response Management Plan

ADELONG GOLD MINE



3	Hazardous substances	<p>Chemical Storage Container, Locations 1 & 6</p> <p>Mill Chemical Store, Location 3</p> <p>Mill Chemical Storage Areas, Locations 4 & 7</p> <p>Tank IDs MIX, DAY, IBC1, IBC2, IBC 3,</p> <p>Leaks, spills and storage ruptures</p> <p>Incorrect storage of chemicals</p> <p>Expired hazardous substances</p> <p>Transport of dry tailings</p>	<p>Land contamination</p> <p>Water contamination</p> <p>Lethal and sublethal effects on biodiversity</p> <p>Fire or explosion</p> <p>Human Health problems</p>	<p>PIRMP</p> <p>Australian Standards requirements</p> <p>Environmental Management as per MOP</p> <p>Cyanide Management Plan</p> <p>Hazardous Chemicals Management Plan</p> <p>First Aid Kits</p> <p>Spill Kits</p> <p>PPE provided as per MSDS requirements</p> <p>Training and Toolbox talks</p> <p>Fire extinguishers</p> <p>Infrastructure Bunding</p>	Moderate (3)	Possible (C)	High
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Hazard	Source or Site Location	Potential Impacts	Pre-Emptive Controls and Safety	WITH CONTROLS	

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		Situation or Condition Resulting in Pollution		Equipment	Consequence & Likelihood Rating		Residual Risk Ranking
4	Contaminated water	<p>Sedimentation dam</p> <p>Storage dams</p> <p>Surface water run-off</p> <p>Groundwater</p> <hr/> <p>Leaks and spills from hazardous chemicals, hydrocarbons</p> <p>Poor infrastructure maintenance, crack or holes in bunds, storage tank corrosion</p> <p>Failure to monitor as per EPL requirements</p> <p>Major discharge to nearby creek</p> <p>Pump failure</p> <p>Dam wall breach or storage ruptures</p>	<p>Land contamination surface, stormwater, ground water contamination</p> <p>Lethal and sublethal effects on biodiversity</p> <p>Contamination of town water supply resulting to human health problems</p>	<p>Infrastructure designed and maintained as per Australian Standards</p> <p>Environmental Management as per MOP</p> <p>Compliance of EPL 10265 requirements</p> <p>Hazardous Chemical Management Plan</p> <p>Emergency Management Control Plan</p> <p>Spill kits</p> <p>Emergency shut off valve</p> <p>Training and Toolbox talks</p> <p>Regular inspections</p> <p>Stormwater event contingency plans</p>	Moderate (3)	Possible (C)	High

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	Hazard	Source or Site Location Situation or Condition Resulting in Pollution	Potential Impacts	Pre-Emptive Controls and Safety Equipment	WITH CONTROLS		
					Consequence & Likelihood Rating	Residual Risk Ranking	
5	Dust	Crushing Plants	Dust generation and air	Use of water cart and/or water sprays	Major (4)	Rare (E)	Medium

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	Fume	<p>Gold Room</p> <p>Failure to monitor as per EPL requirements</p> <p>High vehicle movement onsite</p> <p>Land preparation and earthworks, top soil stripping during windy days</p> <p>Lack of maintenance or faulty engineering controls during gold ore stockpiling and processing</p>	<p>pollution non-compliance of EPL fugitive fume emissions</p> <p>Human Health problems, i.e.. smoke inhalation, etc</p>	<p>Environmental Management as per MOP</p> <p>Dust monitoring stations fume hood and crushing plant regularly inspected and maintained</p> <p>Compliance of EPL 10265 requirements</p> <p>Training and Toolbox talks</p> <p>Regular inspections</p> <p>Australian Standards requirements</p> <p>PIRMP</p> <p>Emergency Management Control Plan</p>		
	Hazard	Source or Site Location Situation or Condition Resulting in Pollution	Potential Impacts	Pre-Emptive Controls and Safety Equipment	<p>WITH CONTROLS</p> <p>Consequence & Likelihood Rating</p> <p>Residual Risk Ranking</p>	

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6	<p>Fire</p> <p>Bushfire</p>	<p>Chemical Storage Facilities</p> <p>Generators</p> <p>Plant equipment</p> <p>Overheating of plant and equipment</p> <p>Incorrect storage of chemicals causing chemical reactions in storage facilities</p> <p>heat reaction of some hazardous chemicals</p> <p>Faulty electrical equipment</p> <p>spontaneous combustion of grass and/or nearby vegetation</p> <p>Poor housekeeping practices (i.e. smoking onsite near high risk areas)</p>	<p>Explosion</p> <p>Air pollution and human health problems from smoke inhalation</p> <p>Arc flashing</p> <p>Shut down of operations</p>	<p>Use of water cart and/or water sprays</p> <p>First aid kits</p> <p>Review of MSDS and appropriate design and layout of chemical storage facilities.</p> <p>Fire or Explosion Management Plan</p>	Major	Rare (E)	Medium
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APPENDIX E – POLLUTION INCIDENT NOTIFICATION FLOW CHART

**YOU BECOME AWARE OF A POLLUTION INCIDENT
WHICH HAS OR MAY CAUSE MATERIAL HARM**

(to ECOSYSTEMS, HUMAN HEALTH AND SAFETY, or OVER
\$10,000 damage or clean-up costs)



**IF EMERGENCY SERVICES ARE REQUIRED DIAL 000
NOTIFY MANAGEMENT IMMEDIATELY TO MANAGE RESPONSE**

CHIEF FINANCIAL OFFICER – **BARRY NEAL** 0418 294 263

ADMINISTRATION OFFICER – **ROSE WOODLAND** 0400 660 292

IF NO MEMBER OF MANAGEMENT CAN BE CONTACTED YOU MUST CONTINUE



FIRST NOTIFY ENVIRONMENTAL LINE (NSW EPA) IMMEDIATELY

131 555 and press 1: record reference number

THEN NOTIFY OTHER AUTHORITIES IMMEDIATELY

Fire and Rescue NSW Tumut (02) 6947 1202 -note down reference number

Ministry of Health 1300 066 055 or after hours 0418 866 397

WorkCover Authority 131 050, press 2 and quote: Mine address and ABN

(65 Golden Gully Road, Adelong, NSW) (ABN 85 090 166 528)

Tumut Shire Council (02) 6941 2555

FAILURE TO NOTIFY AUTHORITIES CAN RESULT IN OVER \$2,000,000 IN PENALTIES



REPORT THE FOLLOWING INFORMATION

Time, date, nature, duration and location of the incident

Location where pollution is, has or is likely to occur

IF KNOWN

Nature, quantity/volume and concentration of pollutants involved

Cause and circumstances of the incident

Action taken or proposed action to be taken to respond to pollution incident (as per the PIRMP)

UNKNOWN INFORMATION MUST BE NOTIFIED AS SOON AS IT BECOMES KNOWN

POLLUTION INCIDENT NOTIFICATION FLOW CHART

