



**NSW
Resources
Regulator**

COMPLIANCE AUDIT PROGRAM

EL7750 EXPLORATION DRILLING PROGRAM

Evolution Mining (Cowal) Pty Ltd



Document control

Published by NSW Resources Regulator

Title: Compliance audit program: EL7750 exploration drilling program – Evolution Mining (Cowal) Pty Ltd

First published: September 2021

Authorised by: Director Compliance

CM9 reference: DOC21/694084

AMENDMENT SCHEDULE

Date	Version	Amendment
September 2021	1	First published

© State of New South Wales through Regional NSW 2021. You may copy, distribute, display, download and otherwise freely deal with this publication for any purpose, provided that you attribute Regional NSW as the owner. However, you must obtain permission if you wish to charge others for access to the publication (other than at cost); include the publication in advertising or a product for sale; modify the publication; or republish the publication on a website. You may freely link to the publication on a departmental website.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (September 2021) and may not be accurate, current or complete. The State of New South Wales (including Regional NSW), the author and the publisher take no responsibility, and will accept no liability, for the accuracy, currency, reliability or correctness of any information included in the document (including material provided by third parties). Readers should make their own inquiries and rely on their own advice when making decisions related to material contained in this publication.

Contents

1. Introduction	5
1.1. Background	5
1.2. Audit objectives.....	6
1.3. Audit scope.....	6
1.4. Audit criteria	6
1.5. Publishing and disclosure of information	7
2. Audit methods	8
2.1. Opening meeting.....	8
2.2. Site interviews and inspections	8
2.2.1. Data collection and verification	8
2.2.2. Site inspections.....	8
2.3. Closing meeting.....	9
2.4. Compliance assessment definitions.....	9
2.5. Reporting.....	10
3. Audit findings.....	11
3.1. Work program	11
3.2. Access agreements.....	12
3.3. Native title and exempt areas.....	12
3.4. Community consultation.....	13
3.4.1. Risk assessment.....	13
3.4.2. Community consultation strategy.....	14
3.4.3. Implementation and reporting.....	15
3.5. Exploration activity approvals.....	16
3.6. Environmental management	17
3.6.1. Use of chemicals, fuels, and lubricants	17
3.6.2. Water.....	19
3.6.3. Noise and vibration	20

3.6.4. Air quality	20
3.6.5. Waste management	21
3.6.6. Vegetation clearance and surface disturbance.....	21
3.6.7. Roads and tracks	22
3.6.8. Weeds, pest animals and disease	23
3.6.9. Livestock protection	23
3.6.10. Cultural heritage.....	23
3.6.11. Fire prevention	24
3.6.12. Risk assessment.....	24
3.7. Security deposit.....	25
3.8. Rehabilitation.....	26
3.8.1. Risk assessment.....	26
3.8.2. Rehabilitation objectives and completion criteria.....	27
3.8.3. Rehabilitation program	27
3.9. Annual activity reporting	29
3.10. Core and sample storage	29
3.11. Record keeping	32
4. Compliance management.....	33
4.1. Identifying compliance obligations	33
4.2. Subcontractor management	33
4.3. Inspections, monitoring and evaluation	34
4.4. Title holder response to draft audit findings	35
5. Audit conclusions.....	36

1. Introduction

1.1. Background

Exploration licence 7750 (EL7750) was granted to Barrick (Cowal) Limited on 27 May 2011. The exploration area is within a pastoral area about 33 kilometres north east of West Wyalong in western NSW. Evolution Mining (Cowal) Pty Ltd (Evolution Mining) acquired Barrick (Cowal) Limited in August 2015. Evolution Mining is the owner and operator of the title.

There have been several exploration drilling programs approved and/or undertaken on EL7750 in the last two years. These are summarised in Table 1.

Table 1 Summary of recent exploration drilling programs on EL7750

PROGRAM	ACTIVITIES
December 2019 Cowal Lake Floor Drilling (MAAG0004804)	426 AC drill holes 30 DD holes
January 2020 Bruichladdich Project (MAAG0009452)	13 AC holes
March 2021 Project E39 (MAAG0009842)	16 RC holes
April 2021 E39 Priority Diamond Drilling (APO0001036)	5 DD holes 0.45 hectares of access tracks (1500 metres by 3 metres wide)

These programs were approved by the NSW Resources Regulator within the Department of Regional NSW between April 2019 and April 2021.

As part of the Regulator's compliance audit program, an audit of the exploration activities associated with the Cowal Lake Floor Drilling, Bruichladdich Project and E39 project within EL7750 was undertaken on 22 April 2021.

1.2. Audit objectives

The objectives of the audit were to:

- undertake a compliance audit of the Evolution Mining (Cowal) Pty Ltd exploration activities against the requirements of the *Mining Act 1992* and the conditions of the exploration licence and activity approvals issued pursuant to that Act
- assess the operational performance of the exploration activities and the ability of the title holder to implement management systems and controls to provide for sustainable management of the operations.

1.3. Audit scope

The scope of the audit included:

- the exploration activities associated with the Evolution Mining exploration project including:
 - exploration activities within EL7750 including a selected sample of exploration drillholes
 - borehole sealing and rehabilitation activities for selected drilling activities undertaken since April 2019.
- a review of documents and records pertaining to the exploration activities
- the assessment of compliance for the period commencing 22 April 2019 and ending 22 April 2021.

1.4. Audit criteria

The audit criteria against which compliance was assessed included:

- *Mining Act 1992*, specifically sections 5, 30, 140, 163C to 163E, 163G, 378D
- Mining Regulation 2016, specifically clauses 59 to 68
- conditions attached to EL7750 (granted 27 May 2011 and last renewed 7 March 2017)

- exploration activities application (ESF4) dated 16 October 2019 for Cowal Lake Floor drilling, and associated approval dated 4 December 2019 (MAAG0004804)
- commitments made in EL7750 Exploration Drilling program Review of Environmental Factors, prepared by EMM Consulting Newcastle, dated October 2019
- exploration activities application (ESF4) dated 30 November 2020 for Bruichladdich Project, 13 AC drill holes, and associated approval dated 29 January 2021 (MAAG0009452)
- exploration activities application (ESF4) dated 22 January 2021 for Project E39 – 16 RC drill holes, and associated approval dated 22 March 2021 (MAAG0009842)
- exploration activities application (APO) dated 14 April 2021 for Project E39 Priority Diamond Drilling – 5 DD holes, and associated approval dated 15 April 2021 (APO0001036)
- Exploration Code of Practice: Environmental Management (Version 3, September 2017)
- Exploration Code of Practice: Rehabilitation (Version 3, September 2017)
- Exploration Code of Practice: Community Consultation (Version 1.1, May 2016)
- Exploration Code of Practice: Produced Water Management, Storage and Transfer (Version 3, September 2017)
- Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales (Version 2, March 2016)
- Exploration Guideline: Annual activity reporting for prospecting titles (Version 3.0, December 2020) published by Department of Regional NSW
- ESG4: Guideline for preparing an environmental and rehabilitation compliance report (Version 2.3, March 2019) published by NSW Resources Regulator.

1.5. Publishing and disclosure of information

This audit report will be published on the Regulator’s website consistent with Section 365 of the *Mining Act 1992*.

This audit report may be publicly disclosed consistent with the *Government Information (Public Access) Act 2009*.

2. Audit methods

The audit process involved the interview of site personnel, a review of documentation and samples of records provided by the title holder and/or operator, and a site inspection of the operations to determine the level of compliance of the operations and assess the status of the operational performance. The audit process and methodology are described in more detail in the sections below.

2.1. Opening meeting

An opening meeting was held onsite on 22 April 2021. The audit team was introduced, and the scope of their responsibilities was conveyed to the auditees. The objectives and scope of the audit were outlined. The methods to be used by the team to conduct the audit were explained, including the interview of personnel, review of documentation, examination of records and a site inspection to assess specific compliance requirements.

2.2. Site interviews and inspections

2.2.1. Data collection and verification

Where possible, documents and data collected during the audit process were reviewed on site. Several documents were unable to be reviewed on site and were provided following the site visit.

All information obtained during the audit process was verified by the audit team, where possible. For example, statements made by site personnel were verified by viewing documentation and/or site inspections, where possible. Where suitable verification could not be provided, this has been identified in the audit findings as not determined.

2.2.2. Site inspections

A site inspection was undertaken of the following sites:

- access road to Cowal Lake Floor drilling (drillholes currently inundated)
- hole D131 in the E39 Diamond Drilling program – drilling commenced
- the geology compound including core and chip sample storage at the Cowal Gold Mine, NE of West Wyalong.

2.3. Closing meeting

A closing meeting was held onsite on 22 April 2021. The objectives of this meeting were to discuss any outstanding matters, present preliminary findings and outline the process for finalising the audit report.

2.4. Compliance assessment definitions

The reporting of results from the compliance audit was determined based on the definitions presented in Table 2.

Table 2 Audit assessment categories

ASSESSMENT	CRITERIA
Compliance	Sufficient and appropriate evidence is available to demonstrate the particular requirement has been complied with.
Non-compliance	<p>Clear evidence has been collected to demonstrate the particular requirement has not been complied with. There are three subcategories of non-compliance reflecting the severity and level of risk associated with the non-compliance:</p> <p>NC1 – the absence of planning or implementation of a required operational element which has the potential to result in a significant risk.</p> <p>NC2 – an isolated lapse or absence of control in the implementation of an operational element which is unlikely to result in a significant risk.</p> <p>NC3 – an administrative or reporting non-compliance which does not have a direct environmental or safety significance.</p> <p>Note: The identification of a non-compliance in this audit may or may not constitute a breach of, or offence under, the <i>Mining Act 1992</i>. Non-compliances identified in this audit report may be further investigated by the Regulator and regulatory actions may be undertaken.</p>
Observation of concern	<p>Where an auditee may be compliant at the time of the audit but there are issues that exist that could result in the potential for future non-compliance if not addressed.</p> <p>Observation of concern was also used where an issue may not have particular compliance requirements, but which was not conducive to good management or best practice.</p>
Suggestion for improvement	Where changes in processes or activities inspected or evaluated at the time of the audit could deliver improvement in relation to risk minimisation, sustainable outcomes and management practices.

ASSESSMENT	CRITERIA
Not determined	<p>The necessary evidence has not been collected to enable an assessment of compliance to be made within the scope of the audit.</p> <p>Reasons why the audit team could not collect the required information include:</p> <ul style="list-style-type: none"> ■ insufficient information on the file relating to the period covered by the audit or insufficient evidence collected to reach a conclusion ■ the wording on the criteria (approval condition) meant that no evidence could be gathered, or it was too difficult to gather the evidence. <p>A ‘not determined’ assessment was also made where the condition was outside the scope of the audit.</p>
Not applicable	<p>The circumstances of the authorisation or titleholder have changed and are no longer relevant (e.g. no longer mining, mining equipment and plant has been removed).</p> <p>An invoking element in the criteria was not activated within the scope of the audit.</p>

2.5. Reporting

Following completion of the site audit, the audit checklists were completed, and audit notes were reviewed to compile a list of outstanding matters to be noted in the audit report. This report was prepared to provide an overview of the operational performance of the site in relation to the exploration activities and identify any non-compliances or observations of concern noted by the auditors during the site inspections and interviews.

The draft audit findings were forwarded to Evolution Mining for comment. Consideration was given to the representations made during the finalisation of the audit report as discussed in the audit findings.

3. Audit findings

3.1. Work program

Condition 1 of EL7750 requires the licence holder to carry out the operations described in the approved work program. Work program OUT-WP-EL7750-2016-2022 was approved by the (then) Department of Industry, Division of Resources & Energy on 7 March 2017 as part of the renewal of EL7750.

Evolution Mining were in year five of the work program (2020-2021). Intended activities for the audit scope period (years four and five of the approved work program) are summarised in Table 3.

Table 3 Summary of approved work program

YEAR 4	YEAR 5
Continue drill testing the Reflector area between GRE46 and Cowal Gold	Continue following gold corridor mineralisation south off ML1535 onto EL7750 between the E41 and the E40 prospects
Follow-up drilling within the Cowal Central area	Additional target generation and definition work is planned for the Mortons, Argyll, Billy's Lookout and Bruichladdich targets
Follow-up drilling within the E39-E40 area	Ongoing synthesis and interpretation of data is anticipated with work focussed on the EC1 target in the Reflector Corridor, the Decoy/E35 area, E46 North
Follow-up drilling within the E46 North area	
Follow-up drilling within Milly Milly and South Cowal region	

A review of the 2020 annual exploration report provided details of the exploration activities completed during the reporting period. The activities included:

- collection of 5,765 new ASD spectral readings from historical and recent drilling
- update of geology map as part of Cowal 4D research project with CODES at UTAS
- literature search for historic tenement reports from pre-cursor tenements

- reprocessing of historic IP lines from annual reports on pre-cursor tenements to EL7750
- target generation and evaluation
- land access negotiations with Land Access Agreements (LAA) reached, and
- commencement of the Reflector, Central Cowal and E46 North Prospects drilling programs.

Generally, evidence was available to confirm that the work program was progressing as planned. Diamond drilling was in progress at the time of the audit site inspection.

Exploration data is maintained by the Evolution Mining geologists and submitted to the department's Mining Exploration and Geoscience (MEG) with the annual activity reports as required. Evolution were advised that work programs are no longer required to be resubmitted annually.

3.2. Access agreements

Section 140 of the *Mining Act 1992* states, 'the holder of a prospecting title must not carry out prospecting operations on any particular area of land except in accordance with an access arrangement or arrangements applying to that area of land'. The access arrangement is required to be agreed in writing between the holder of the prospecting title and each landholder of that area of land.

Exploration activities are being largely undertaken on Evolution owned lots, some of which are currently tenanted for farming. Two lots are privately owned within the Lake Cowal exploration drilling program and Evolution Mining has negotiated land access agreements with each landowner. The agreements were current at the time of the drilling program, having been negotiated in September 2019 and October 2019, and expired March 2020 and June 2020, consecutively.

The agreements were noted to be standard land access agreements for mineral exploration, but one landowner had included some additional conditions in the agreement including ensuring all drillholes are fully grouted, access to be agreed by the landholder and leaving farm gates as found.

3.3. Native title and exempt areas

Condition 3 of EL7750 requires the licence holder to obtain the prior written consent of the Minister before carrying out any activities on land on which native title has not been extinguished. Similarly, Section 30 of the *Mining Act 1992* requires the consent of the Minister before a licence holder undertakes any activities within an exempted area.

Evolution Mining employ a tenement manager (Hetherington Pty Ltd) to determine areas of native title and/or exempted area within EL 7750. Evolution Mining also maintain a "Crown lands layer" within their GIS database and any areas within the tenement that are not freehold land have assumed native title,

exploration is therefore avoided in these areas. Exploration activities reviewed during the audit had not been carried out on any of the mapped Crown land areas. As such, no further approvals under Section 30 of the *Mining Act 1992* were required.

Ground disturbance permits are developed and approved by the Superintendent for Environment and include aspects of native title within the permit for the Cowal Mine tenements. Some parts of the permit are not relevant for the exploration licences but can be augmented.

Generally, drilling has been undertaken on land that comprises Evolution Mining owned land and two lots within privately owned land - over which native title would be generally extinguished. As such, further approvals under condition 2 of EL7750 were not required.

3.4. Community consultation

Condition 3 of EL7750 requires the licence holder to carry out community consultation in relation to the planning and conduct of exploration activities. Community consultation is required to be carried out in accordance with the requirements of *Exploration Code of Practice: Community Consultation*.

An assessment against the mandatory requirements of the code of practice was undertaken as documented in the following sections.

3.4.1. Risk assessment

Mandatory requirement 1 of the code of practice requires the title holder to conduct a risk assessment to identify and consider the range of opportunities and potential threats associated with community consultation and engagement.

Evolution Mining has undertaken a risk assessment, as outlined in the Cowal Gold Operations (CGO) Stakeholder Engagement Plan, updated annually. The stakeholder engagement mapping section of the plan details the opportunities and risks for each identified stakeholder group with regard to CGO mining and exploration activities and includes the engagement approach and communication approach for each stakeholder group in response to identified opportunities and risks.

Evolution Mining has also undertaken an assessment of community impacts as part of their Review of Environmental Factors for the Cowal Lake Floor air-core and diamond drilling program. The assessed activity impact level was low to negligible.

3.4.2. Community consultation strategy

Mandatory requirement 2 requires the preparation of a community consultation strategy to manage the risks identified in the risk assessment. Mandatory requirement 3 sets out the requirements for preparation of the community consultation strategy.

Evolution Mining has prepared the Cowal Gold Operations Community Strategic Plan, annual CGO Stakeholder Engagement Plan and an Environmental Communication and Consultation Procedure which also incorporates exploration programs. The strategic plan and stakeholder engagement plan include:

- community relations objectives including to “create strong partnerships with our stakeholders to enhance our ability to identify opportunities to work together to generate growth that delivers long term value for Evolution, our communities and our shareholders”
- how community consultation will be undertaken including advertising of programs in local newsletters and newspapers, and the Community Environment Monitoring and Consultative Committee
- the negotiated land access agreements as the primary controls for impacts to land holders – the standard agreement was noted to include controls for potential impacts and additional controls had been specified by one land holder to address his specific concerns.

The stakeholder engagement mapping section of the CGO Stakeholder Engagement Plan specifically addresses the following:

- potential risks, and opportunities to manage risks, related to consultation and engagement for each stakeholder group
- a detailed description and analysis of potential community stakeholders identifying:
 - the stakeholders likely to be impacted by proposed activities
 - the likely impact that activities will have on the potential community stakeholders
 - and the likely areas of concern of each potential community stakeholder group.
- the engagement approach and communication method for each stakeholder group – noting how community consultation will be undertaken to ensure that:
 - individuals, communities and stakeholder groups are provided with reasonable information to understand the nature of the activities, and the likely impacts and benefits that may be derived from the exploration

- how Evolution Mining recognises and addresses community concerns early
- how and when identified community stakeholders are informed of the proposed schedule for implementing the work program and commencement of relevant activities
- how community consultation feedback will be monitored and responded to.

The biannual Evolution Mining stakeholder perception survey was also provided following the audit of EL7750 and was noted as a mechanism for evaluating the success of Evolution Mining's community consultation strategy and approach to ensure it continues to meet the requirements of this code.

The results of the survey are fed into annual updates of the CGO Stakeholder Engagement Plan and Evolution's general approach to stakeholder engagement, ensuring that the overall strategy:

- continues to meet the objectives of the code
- includes any additional stakeholders identified during the process of consultation
- maintains a process of consultation that is adequate, inclusive, and appropriate
- responds to issues raised through the development and submission of the annual community consultation report.

3.4.3. Implementation and reporting

Mandatory requirement 4 requires the title holder to implement, monitor and report annually on the community consultation strategy.

Evidence was available to demonstrate that Evolution Mining has generally implemented the community strategic plan. For example:

- Evolution's community department undertake stakeholder engagement including:
 - notifications to relevant stakeholders
 - an active community hotline
 - an office in the town of West Wyalong is manned four days per week by Evolution personnel, with information regarding underground mining available in the window of the office.
- stakeholder engagement records maintained including:

- dealings with landholders, leaseholders, and neighbouring landholders
 - community consultation records
 - complaints and inquiries database.
- land access agreements and lease agreements.

Community consultation reports for the 2018-2019 and 2019-2020 reporting years were submitted as part of the annual activity reporting required by condition 8 of EL7750. The 2020-2021 annual activity reports are not due until end May 2021. Departmental records showed that the 2018-2019 report was reviewed by MEG and the content was found to be satisfactory. The 2019-2020 report was reviewed by the auditor and found to be generally consistent with the reporting guidance provided in Appendix 2 of the code of practice. However, consideration of compliance with the Community Consultation Strategy and any applicable community consultation plan was not addressed. As suggestion for improvement no. 1, Evolution Mining should consider including a discussion in the report which details how the community consultation undertaken is consistent with the community consultation strategy.

Evolution also maintain map layers outlining landholders surrounding the mine, which are used in exploration planning.

3.5. Exploration activity approvals

Section 23A of the *Mining Act 1992* requires the holder of an exploration licence to obtain an activity approval prior to carrying out assessable prospecting operations.

Applications for activity approval have been made and granted for each drilling program. The audit focussed on the most recent exploration activity approval as follows:

- exploration activities application (ESF4) dated 16 October 2019 for Cowal Lake Floor drilling, and associated approval dated 4 December 2019 (MAAG0004804)
- commitments made in EL7750 Exploration Drilling program Review of Environmental Factors, prepared by EMM Consulting Newcastle, dated October 2019
- exploration activities application (APO) dated 14 April 2021 for Project E39 Priority Diamond Drilling – 5 DD holes, and associated approval dated 15 April 2021 (APO0001036).

Generally, evidence was available to confirm that activities are being carried out in accordance with the exploration activity approvals and the codes of practice, as documented in the following sections.

3.6. Environmental management

Condition 4 of EL7750 requires the licence holder to prevent, or minimise, so far as is reasonably practicable, any harm to the environment arising from the activities carried out under the licence. Condition 2 of the exploration activity approval requires the licence holder to carry out the activity in compliance with Part B of the *Exploration Code of Practice: Environmental Management*.

No evidence of environmental harm beyond that approved in the exploration activity approvals was observed at the sites visited during the site inspection. A DDH1 Drilling rig was set up at the E39 Priority Diamond Drilling area at the time of the audit (Figure 1). The exploration drilling was observed to be generally undertaken in accordance with the *Exploration Code of Practice: Environmental Management* as documented in the following sections.

Figure 1. DDH1 Drilling rig set up at site E39D131



3.6.1. Use of chemicals, fuels, and lubricants

Mandatory requirements 1.1 to 1.4 identify the requirements for the management of chemicals, fuels and lubricants used during exploration activities.

The DDH1 Drilling supervisor advised that fuel, chemicals, and oils were stored at the drill site (E39D131) and that a fuel pump is available on the support truck for refuelling at the site. Appropriate labelling and storage of the fuels, chemicals and oils were observed during the audit, including bunding and rig nappies, with additional tarps underneath to contain larger spills (Figure 2). Two spill kits were observed

at the site (Figure 3) and the DDH1 Drilling supervisor advised that DDH1 staff were trained in the use of spill kits.

Additional controls including burst protection on all at-risk devices, bunding under mobile plant such as pumps and lighting tower (Figure 4), and a platform and drilling trough over the drillhole (Figure 5), to minimise ground disturbance and capture any spills, were also observed.

As part of contract management processes, Evolution Mining also require any chemicals, fuels and lubricants used as part of the drilling programs to be approved through the ChemAlert database prior to coming on site. These are also checked, together with the required MSDS's as part of the daily rig checks (undertaken by DDH1) and monthly planned general inspections undertaken by Evolution. All spills of 500 millilitres or more are reported via InControl and any corrective or preventative actions are tracked within this database.

No evidence of hydrocarbon contamination was observed on any of the sites inspected.

Figure 2. Drilling chemicals, fuels and oils on bund over tarp



Figure 4. Spill containment under lighting tower



Figure 3. Spill kits x 2 (yellow bins)



Figure 5. Drilling platform and trough



3.6.2. Water

Mandatory requirements 2.1 and 2.2 require the licence holder to implement all measures to prevent, so far as reasonably practicable, causing adverse impacts on water quality and quantity, including groundwater levels and pressure.

Drilling was being undertaken using a Diamond drill rig. Two fully bunded, above ground sumps (Figure 6) were observed during the audit. The DDH1 drilling supervisor advised that the captured water is recirculated for use in diamond drilling and a sucker truck removes excess wastewater contained in the sumps when they reach 100 millimetres below the rim. A drilling trough was also observed directly below the drill rig to capture drill muds (Figure 5). At the time of the audit, the diamond hole was at 77 metres depth, expecting to reach a final depth of 200 metres. No groundwater was being generated, nor was it expected to be. Despite this, Evolution Mining ensure all drillholes (diamond or otherwise) are fully grouted, with the use of a cement truck, at completion, to minimise cross contamination between aquifers, given the Cowra aquifer in the area of drilling contains saline groundwater. It was also advised that drillholes within the Lake Cowal program were grouted to the surface of the Lake, while drillholes within paddocks are grouted to approximately one metre below surface and then backfilled with topsoil.

Figure 6 Above ground sumps



3.6.3. Noise and vibration

Mandatory requirement 3.1 requires the licence holder to implement all practicable noise management measures to ensure that noise levels meet acceptable noise criteria for sensitive receivers.

The drilling program was being undertaken in generally remote locations on land owned by Evolution Mining. No sensitive receptors were observed within one kilometre of any of the sites inspected and Evolution Mining staff advised that the nearest residence was approximately 4.5 kilometres from the drill site. It was observed during the audit that a map layer is maintained by Evolution, highlighting the location of sensitive receivers. The drilling rig was not operational during the site inspection, but it was noted that dust and noise monitoring were undertaken as part of the mining lease (ML 1535) requirements with respect to sensitive receivers and no adverse results had been found.

3.6.4. Air quality

Mandatory requirement 4.1 requires the title holder to implement all measures to prevent, so far as practicable, pollution caused by dust and other air pollutants.

Diamond drilling was not in progress at the time of the site inspection. Given the location of the drill site is remote from any residences, poor air quality was a low risk. Evolution representatives noted that during the aircore drilling, a small amount of groundwater was intercepted which aided in dust suppression. Vehicles are also required to drive slowly to reduce dust generation. No air quality issues were observed at any of the sites inspected during the audit site inspection.

3.6.5. Waste management

Mandatory requirement 5.1 requires the title holder to manage all waste in a manner which does not, as far as practicable, cause harm to the environment.

Waste from the drilling program was observed to be generally minimal. DDH1 Drilling staff advised that waste is segregated into two bins at the drill site:

- domestic waste (e.g. green bin for lunch wrappings, drink containers)
- hydrocarbon waste (e.g. red bin for rig service oils, waste drums) (Figure 3).

Evolution Mining have a contract in place with JR Richards to collect all waste (general and hydrocarbons) from the Cowal Mine site and dispose at a licenced waste facility. The waste bins from the exploration programs are returned to the mine site for co-disposal with the mine site waste on a daily basis. As suggestion for improvement no. 2, Evolution Mining should consider keeping records of the type and volumes of waste associated with exploration drilling programs. There was generally no evidence of littering at the sites inspected.

3.6.6. Vegetation clearance and surface disturbance

Mandatory requirements 6.1 to 6.4 require the title holder to:

- minimise the extent of any vegetation clearing and surface disturbance, to as low as practicable
- implement all measures to prevent, so far as practicable:
 - adverse impacts to fauna caused by vegetation clearing or surface disturbance
 - causing any land degradation or pollution of land and water
 - harm to the environment when disturbing land in areas of potential or actual acid sulfate soils.

Generally, clearing of vegetation was not required for any of the drill sites inspected. The drill rig and other vehicles were driven over slashed and recently cropped paddocks to each site, with no formal access track construction required. The drill holes were planned to avoid trees and other vegetation (Figure 7). Ground disturbance permits (GDP) are approved by Evolution Mining (and stored electronically) for each drilling program and stipulate no vegetation clearing. The GDPs also outline known Aboriginal heritage items (such as scar trees) and require no vegetation clearing – specifically where drilling is proposed around the lake foreshore.

Generally, most drill hole locations inspected were low risk for erosion and sedimentation due to the flat nature of the topography. No specific erosion and sediment controls were required for any of the sites inspected, and no evidence of erosion or sedimentation was observed during the site inspection.

Figure 7. Drill site E39D131 – slashed prior to drilling



3.6.7. Roads and tracks

Mandatory requirements 7.1 to 7.5 require the title holder to:

- consult with relevant landholders prior to establishing any new roads or tracks
- plan, design, construct and use roads and tracks in a manner which minimises the area and duration of disturbance
- construct any crossing of rivers, permanent and intermittent water lands and wetlands to prevent impacts on fish habitats
- refrain from using any unsealed road or track during wet conditions to prevent damage to that road or track
- repair all damage to existing roads and tracks resulting from exploration activities.

Generally, tracks used to access drill sites during the audit site inspection were existing farm tracks. There was no requirement for the construction of new formed access tracks, with access to drill sites being drive-over existing vegetation.

The tracks used during the audit site inspection were generally observed to be well maintained and trafficable, despite recent rain. It was noted that at least one of the land access agreements had a specific requirement for access to be agreed by the landholder and all vehicle access to be rehabilitated to pre use conditions.

Evolution Mining staff advised that drilling sites were shut down in periods of wet weather and no trucks were moved during rain events. Generally, Evolution Mining staff liaise with landholders to ascertain the condition of the property and access tracks after rainfall and confirm when access may be permitted.

3.6.8. Weeds, pest animals and disease

Mandatory requirement 8.1 requires the title holder to implement all practicable measures to prevent the introduction and spread of weeds, pest animals and animal and plant diseases.

Evolution Mining has implemented a vehicle hygiene procedure. Drill rigs and support vehicles are inspected daily as part of a prestart check with rigs washed down between properties and/or where required to minimise the spread of weeds before commencing a drilling program, as per the environmental management plan. Records of daily rig inspections are maintained by DDH1.

3.6.9. Livestock protection

Mandatory requirement 9.1 requires the title holder to implement all measures to prevent, as far as practicable, causing adverse impacts to livestock.

During the audit site inspection, no livestock was observed in the paddocks where drilling had taken place. The Evolution Mining geologist advised that, generally, the landholders will move livestock to other paddocks during drilling. Sumps were not being used for the drilling program and no specific controls were required.

3.6.10. Cultural heritage

Mandatory requirement 10.1 requires the title holder to implement all measures to prevent, so far as practicable, harm to Aboriginal cultural heritage and non-indigenous cultural heritage.

Evolution Mining undertook searches through the AHIMS web service as part of its application for exploration activity approval. Evolution also engaged an independent archaeologist and local cultural heritage monitors to inspect/survey the planned drill sites to confirm the absence of any cultural heritage objects/areas prior to the commencement of the exploration drilling program. No known aboriginal artefact sites have been recorded in, or near, the search areas for the E39 drilling program.

There are known artefacts around the lake foreshore which are recorded on ground disturbance permits and details of which were provided to the drilling contractor.

3.6.11. Fire prevention

Mandatory requirement 11.1 requires the title holder to implement all measures to prevent, as far as practicable, the ignition and spread of fire.

Slashing of grass within the drill site area at E39D131 (Figure 7) was undertaken to reduce fire hazard. Fire extinguishers and emergency response equipment were observed to be located on the DDH1 drill rig and associated trucks and caravan (Figure 8). All staff were reported to be trained in the use of this equipment. A water cart was also observed at the drill site. Fire weather forecasts are monitored, and drilling is ceased when fire dangers are at catastrophic level or a total fire ban is declared.

Figure 8. Fire extinguisher on water cart



3.6.12. Risk assessment

Mandatory requirement 12.1 requires the title holder to monitor the risks associated with activities and, if the risk associated with an activity changes, implement revised environmental management controls.

Evolution Mining has undertaken an assessment of environmental impacts as part of their review of environmental factors for the Cowal Lake floor air-core and diamond drilling program, the assessed activity impact level was low, to negligible. Generally, evidence was available to confirm that the recommended controls were implemented. For example:

- vehicle speed restrictions (approximately 20 kilometres per hour) on all access tracks to reduce dust
- use of water carts as required
- grass removal was restricted to the areas immediately surrounding the drill site
- fuel, chemical storage and transfer areas will be bunded in accordance with EPA guidelines and fluid containment, collection and disposal systems were operated during drilling activities, and
- keeping spill kits on-site as a contingency measure.

These identified risks and controls are then fed into Evolution Mining's range of compliance management tools to ensure risks are identified and controls are implemented. These include Contractor Management Plans, toolbox meetings and inductions and drilling instructions provided to the drilling contractor. They are also fed into the ground disturbance permit approval process and regular planned general inspections.

While the Regulator observed the review of environmental factors for the Cowal Lake floor air-core and diamond drilling program, there were no similar assessments undertaken for the E39 Prospect exploration program. As observation of concern no. 1, Evolution Mining is currently operating exploration drilling under a general risk assessment for air core and diamond drill programs that considers environmental factors associated with the Lake Cowal location. Evolution Mining should either:

- develop a risk assessment for each drilling program or
- develop one risk assessment that covers the different drilling programs (e.g. air-core, reverse circulation, diamond drilling, IP surveys).

If one general risk assessment is developed for use by all programs, then a review process should be included for each program to determine any specific risks for that program that may need additional controls.

3.7. Security deposit

Condition 5 of EL7750 requires the licence holder to provide a security deposit to secure funding for the fulfilment of obligations under the licence.

Departmental records confirmed that the current security held was \$552,000. The current security required is \$603,000, as a result of the recent E39 prospect activity approval. The gap payment hadn't become due at the time of the audit.

3.8. Rehabilitation

Condition 6 of EL7750 requires the title holder to carry out rehabilitation of all disturbance caused by activities carried out under the licence in accordance with the requirements of the *Exploration Code of Practice: Rehabilitation*.

The rehabilitated holes drilled in 2020 as part of the Cowal Lake Floor Drilling were unable to be inspected during the audit due to inundation of the lake.

An assessment against the mandatory requirements of the code of practice was undertaken for the 2020 drilling program as documented in the following sections.

3.8.1. Risk assessment

Mandatory requirement 1 requires the title holder to conduct a risk assessment to evaluate the range of potential threats and opportunities associated with rehabilitating disturbed areas to a condition that could support the intended final land use.

Evolution Mining prepares a rehabilitation management plan as part of each drilling program application. The plans identify potential risks and controls associated with rehabilitation for each drilling program which are fed into Evolution Mining (Cowal) range of compliance management tools to ensure risks are identified and controls are implemented. These include contractor management plans, toolbox meetings and inductions and drilling instructions provided to the drilling contractor. They are also fed into the ground disturbance permit approval process and regular planned general inspections. Evolution also advised that the rehabilitation risk assessment will be updated in accordance with changes to the mining operations plan and final landform, in line with the upcoming rehabilitation reforms.

Generally, evidence was available to confirm that the recommended controls were implemented. For example:

- use of drill collar trough, drill rig nappies and above ground sumps of suitable capacity
- use of appropriate equipment with trained operators
- drilling contractors to manage rubbish while drilling and all rubbish removed to the Cowal Mine Site on ML1535.

3.8.2. Rehabilitation objectives and completion criteria

Mandatory requirement 2 requires the title holder, no later than 14 days prior to the commencement of surface disturbing activities, to provide to the Secretary a copy of specific, measurable, achievable, realistic and time-bound rehabilitation objectives and completion criteria. For higher risk prospecting operations, a rehabilitation management plan is required to be prepared and submitted with the rehabilitation objectives and completion criteria.

The exploration activity approval application and Review of Environmental Factors for the Lake Cowal drilling program lodged by Evolution Mining indicated that the total surface disturbance area was approximately 34.65 hectares, including areas of grassland vegetation. This drilling program fell within the definition of a higher risk activity under the code of practice and a rehabilitation management plan was required to be developed.

The exploration activity approval application for the E39 Prospect lodged by Evolution Mining in 2021 indicated that the total surface disturbance area was approximately 2.165 hectares and required rehabilitation objectives and completion criteria to be developed for the program.

A review of the Regulator's records confirmed that a rehabilitation management plan and/or rehabilitation objectives and completion criteria were developed and submitted for each exploration activity approval. The rehabilitation objectives and completion criteria were noted to be based on the template in Appendix 2 of the Exploration Code of Practice: Rehabilitation. These were reviewed by the auditor during the audit and found to be appropriate for the drilling program in progress.

3.8.3. Rehabilitation program

Mandatory requirement 3 requires that the title holder develop, implement and complete a rehabilitation program (which includes a monitoring program) to rehabilitate disturbed areas to a condition that can support the intended final land use. Mandatory requirement 4 requires that the title holder commence rehabilitation of a site as soon as reasonably practicable following the completion of activities on that site.

At the time of the audit inspection, the area of approved drilling within the Cowal Lake Floor drilling program had been inundated and it was not possible to observe the status of rehabilitation for the drillholes.

While on site, Evolution Mining staff explained that decommissioning of each drill hole site involved removal of all equipment and grouting each drill hole from the end of hole to approximately 0.7 metres below the surface, with the remainder covered with soil to surface.

Rehabilitation of the aircore drilling on the lake was being undertaken progressively, with rehabilitation prioritised for drillholes located on privately owned land. The representatives noted that to date 241 (6

x DD, 235 x AC) of the proposed 456 drill holes (30 x DD, 426 x AC) have been completed. Initial rehabilitation has been completed for 150 of the 241 drill holes. A further 76 holes have been fully grouted and are awaiting final rehabilitation. Thirteen AC drill holes are not yet grouted, as rapidly deteriorating conditions prevented this work being completed prior to Lake Cowal flooding. Access has not been re-established since the flooding in late March 2020 and rehabilitation on the outstanding drill holes will be completed as soon as conditions permit.

The inundated areas of Lake Cowal are shown in Figure 9 and Figure 10.

Figure 9. View of Lake Cowal facing EastSouthEast from ML 1535 towards drilling on EL 7750



Figure 10. View of Lake Cowal facing East from ML 1535 towards drilling on EL 7750



3.9. Annual activity reporting

Section 163C of the *Mining Act 1992*, clause 59 of the Mining Regulation and condition 8 of EL7750 require the licence holder to submit an activity report annually within one calendar month following the grant anniversary date. Annual activity reports are required to be prepared in accordance with the *Exploration guideline: Annual activity reporting for prospecting titles*.

During the audit scope period, Evolution Mining had been submitting annual activity reports comprising:

- annual geological report
- revised work program
- environmental rehabilitation and compliance report
- community consultation report.

Reports for the 2019 to 2020 reporting year were reviewed during the audit:

- Evolution Mining (Cowal) Pty Ltd – Project 2800- Cowal Project, EL7750, Annual report, 27 May 2019 to 26 May 2020
- EL7750 Prospecting Title Work Program, year 5 submission 2020
- Evolution Mining (Cowal) Pty Ltd, Annual Community Consultation Report – EL7750, 27 May 2019 to 26 May 2020
- Evolution Mining (Cowal) Pty Ltd, Environmental and Rehabilitation Compliance Report for EL 7750– submission date 25 June 2020.

Generally, reports were found to be in accordance with the MEG and/or Regulator templates and guidance material.

3.10. Core and sample storage

Clause 65 of the Mining Regulation requires the holder of an authority to, so far as is reasonably practicable, collect, retain and preserve:

- all drill cores remaining after sampling
- characteristic samples of the rock or strata encountered in any drill holes.

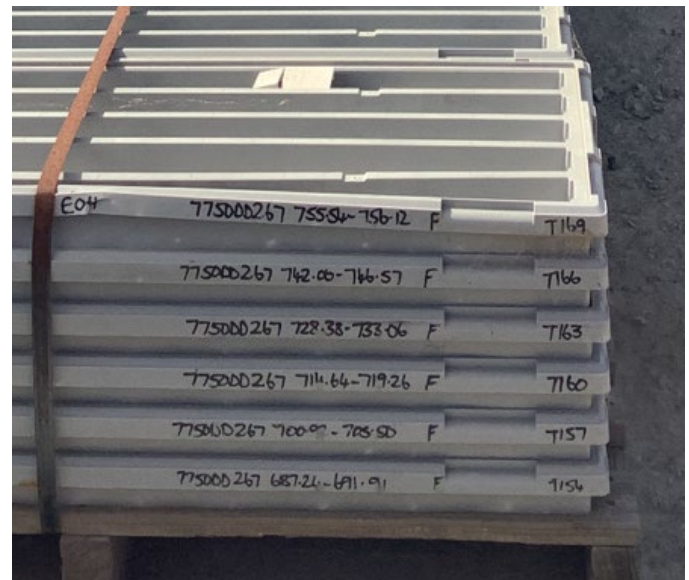
All core and samples collected are required to be labelled, stored and managed in a manner that preserves the integrity of the core or samples.

Chip samples and core have been collected from the drilling programs on EL7750, with all chip samples and core stored at the geology compound at Evolution's Cowal Gold Mine (Figure 11). Core was observed to be stored in the open, in both modular plastic and metal core trays (Figure 12) with no lids. The trays were labelled with hole number, tray number, start and finish depths, and indicators of downhole direction.

Figure 11. Core storage at the Geology Compound



Figure 12. Example of core tray labelling and storage



Chip samples were observed to be stored within a shipping container, in modular plastic chip trays with each tray labelled with hole number and depth (Figure 13 and Figure 14).

Figure 13. Chip tray storage container



Figure 14. Example of chip tray labelling



3.11. Record keeping

Sections 163D and 163E of the *Mining Act 1992* relates to the creation and maintenance of records required under the Act, the regulations, or a condition of title. Records must be kept in a legible form for production to any inspector and must be maintained for a period of four years after the expiry or cancellation of the title. Specific requirements for the types of records to be maintained for exploration activities are detailed in the mandatory requirements of the exploration codes of practice as follows:

- mandatory requirement 6 of the rehabilitation code of practice
- mandatory requirement 13.1 of the environmental management code of practice
- mandatory requirement 5 of the community consultation code of practice.

Records reviewed during the audit demonstrated that Evolution Mining has generally maintained records as required by the licence conditions and the exploration codes of practice. Examples of records reviewed included:

- review of environmental factors and Sandy Creek rehabilitation management plan
- community strategic plan, CGO Stakeholder Engagement Plans and environmental communication and consultation
- annual activity reports and rehabilitation reports for the 2019-2020 reporting year
- land access agreements
- land tenure mapping
- community consultation log (excel spreadsheet)
- register of vehicle access to properties
- rehabilitation management plan and rehabilitation objectives and completion criteria
- ground disturbance permits and surface drilling request form
- register of drill collars (excel spreadsheet) and activity approvals
- photographic records of drill sites with appropriate labelling
- induction materials
- daily drill rig inspection sheets and planned general inspections (drill rig inspection)
- material safety data sheets for fuels, chemicals and oils at the drill site.

4. Compliance management

4.1. Identifying compliance obligations

Identifying compliance obligations is a critical step in the development of an effective compliance management system. Compliance obligations for an exploration project can include:

- regulatory requirements (for example, the Mining Act 1992)
- conditions imposed on the grant, renewal, or transfer of exploration licences
- exploration activity approvals
- exploration codes of practice
- specific commitments made by the organisation (for example, commitments made in the approved exploration activity application).

Once identified, compliance obligations should be reviewed periodically to identify any changes in those obligations (e.g. changes in legislation).

Discussions with Evolution Mining staff showed that they had a reasonable understanding of the requirements under the *Mining Act 1992*, the conditions of title, the exploration activity approvals, and the exploration codes of practice. It was noted that compliance management databases and processes have generally been developed to address the compliance requirements and provide evidence through the maintenance of mandatory records. This included a ground disturbance permit process to highlight compliance requirements for each exploration program according to the activity approval, land access agreements and other issues such as exempted areas and native title, where relevant.

4.2. Subcontractor management

Contractors are often used to undertake specialist tasks (e.g. exploration drilling). Whilst the responsibility for compliance or the implementation of environmental controls is often passed to the contractor, the licence holder will retain accountability for compliance with its licence conditions and other compliance obligations. It is important that the licence holder exercises management control of its contractors by specifying contract requirements, providing oversight of contracted works, and evaluating the performance of the contractor during the contracted works.

Evolution Mining were using a contract driller to complete the drilling program at E39 (DDH1). It was noted that Evolution Mining contractors (including drilling crews) undertake a one day onboarding process involving an induction at the start of the drilling program to identify key issues and hazards and establish controls for the general site, compliance management, incident reporting and environmental management, as required. Induction records are maintained electronically by Evolution. Supervision of the drilling operations was undertaken by the Evolution Mining geologists with AC drilling programs having a geologist at the drill rig full time. For diamond drilling, Evolution geologists visit the drill site every one to two days and raise any issues of concern directly with the driller for corrective action. The drilling contractors undertake drill plods daily and a weekly tool-box meeting is undertaken, and any issues are raised at the meeting, including any hazards identified by the contractor. Evolution noted that the contractor management plan had been recently updated and drilling instructions are provided to the contractor. The drilling instruction includes the activity approval to ensure work is completed in accordance with the approval.

The DDH1 drilling supervisor had a good understanding of the environmental controls required and had implemented the water management controls and chemical management controls at the drill site.

4.3. Inspections, monitoring and evaluation

An effective inspection, monitoring and evaluation process is required to:

- monitor the implementation of the risk controls
- evaluate the effectiveness of those controls based on an assessment of inspection and monitoring data
- implement an adaptive management approach if monitoring shows that controls may be ineffective.

Evolution Mining has developed an inspection and monitoring program to monitor drilling programs and the rehabilitation of the sites.

Rehabilitation monitoring is generally undertaken visually, with the geology foreman and environment team inspecting the rehabilitation and taking a series of photos prior to drilling and post rehabilitation, which are maintained electronically and appropriately labelled with the drillhole ID. On private land, the landholders also inspect the rehabilitation and can discuss any issues as part of the inspection process.

Evolution advised that progress against agreed rehabilitation objectives and completion criteria is checked as part of the inspections, however this is currently not documented. As suggestion for improvement no. 3, Evolution Mining should consider documenting the rehabilitation site inspections, developing a rehabilitation monitoring or inspection checklist (or including in the ground disturbance

permits) based on the rehabilitation objectives and completion criteria that have been developed and approved for the drilling programs. This would assist to provide evidence that the objectives and completion criteria have been achieved.

During the audit, a register of drillholes undertaken and their relevant approval reference was observed. As suggestion for improvement no. 4, Evolution Mining should consider including a column in the register to identify whether the drillhole has had satisfactory rehabilitation sign-off from the Regulator and a reference number for the approved rehabilitation.

Rehabilitation progress is reviewed at six months after completion of rehabilitation and any further works required are documented and actioned. The rehabilitation re-assessment was observed to be documented on a rehabilitation re-assessment tab in the rehabilitation risk assessment spreadsheet.

4.4. Title holder response to draft audit findings

Evolution Mining was provided with a copy of the draft audit report and invited to submit a response to the draft audit findings.

The response provided by Evolution Mining did not dispute the audit findings. Evolution suggested some minor wording changes to clarify the findings. The response also provided an action plan for addressing the issues raised by the audit.

5. Audit conclusions

From the evidence gathered during the audit, and observations made on site during the audit site inspections, it was concluded that Evolution Mining has achieved a satisfactory level of compliance with the requirements of the exploration licence, exploration activity approval and the exploration codes of practice.

Evolution Mining staff and the contract driller had a good knowledge of the environmental issues and controls associated with the drilling activities. Evidence was generally available to confirm implementation of the controls.

One observation of concern and four suggestions for improvement were identified as documented in Table 4 and Table 5.

Table 4. Summary observations of concern

OBSERVATION OF CONCERN	DESCRIPTION OF ISSUE
1	<p>Evolution Mining is currently operating exploration drilling under a general risk assessment for air core and diamond drill programs that considers environmental factors associated with the Lake Cowal location. Evolution Mining should either:</p> <ul style="list-style-type: none">■ develop a risk assessment for each drilling program, or■ develop one risk assessment that covers the different drilling programs (e.g. air-core, reverse circulation, diamond drilling, IP surveys). <p>If one general risk assessment is developed for use by all programs, then a review process should be included for each program to determine any specific risks for that program that may need additional controls.</p>

Table 5. Summary of suggestions for improvement

SUGGESTIONS FOR IMPROVEMENT	DESCRIPTION OF ISSUE
1	Evolution Mining should consider including a discussion in the report which details how the community consultation undertaken is consistent with the community consultation strategy
2	Evolution Mining should consider keeping records of the type and volumes of waste associated with exploration drilling programs
3	Evolution Mining should consider documenting the rehabilitation site inspections, developing a rehabilitation monitoring or inspection checklist (or including in the ground disturbance permits) based on the rehabilitation objectives and completion criteria that have been developed and approved for the drilling programs
4	Evolution Mining should consider including a column in the register to identify whether the drillhole has had satisfactory sign-off of rehabilitation from the Regulator and a reference number for the approved rehabilitation.