



Drilling Management Procedure

Environment

1 Purpose and Scope

This procedure specifies the operational environmental requirements relating to drilling management at the Roy Hill Project. This procedure applies to all personnel involved in activities at the Mine, Rail and Port operations that affect drilling management.

2 Procedure

2.1 Management Actions


2.1.1 Clearing and Earth Works

1. Conduct all clearing and earthworks for drilling in accordance with the 'Clearing and Soil Management Procedure' (OP-PRO-00187).
2. Use machinery that complies with the Programme of Works (POW) requirements where clearing is required for exploration activities.
3. Construct sumps of an appropriate size that will contain all of the water and sediment encountered during drilling.
4. Locate the sump away from significant vegetation and water courses where possible and within GDP boundaries.
5. Fence the sumps to restrict access by fauna, and construct a shallow incline (maximum 1V:4H) on at least one side to allow for fauna escape.

2.1.2 Specific Drilling Activities

1. Construct wells intersecting water using a driller having a current Class 1 water well driller's certificate issued by Western Australian branch of the Australian Drilling Industry Association or other certification approved by the Department of Water as equivalent.
2. Carry out refuelling and lubricant changes only in locations and using procedures approved by the Roy Hill Environment Team.
3. Ensure that no hydro-test water or drilling liquids are discharged outside of cleared areas, outside of the GDP or into areas of conservation value or areas supporting priority flora.
4. Plug drill holes securely below ground at minimum depth of 400 mm within 6 months of drilling unless approved by the Roy Hill Environment Team, or they are being used as monitoring or production bores.
5. Cap, plug or otherwise make safe drill holes or surface holes immediately after completion.
6. Maintain a drill log to record the location of drill holes and capping of holes.

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7. Remove all rubbish from site (including any hydrocarbon contaminated soil).
8. Cover any drill muds on the drill pad surface or within the sump with dry soil to prevent any potential hazards to wildlife as soon as drilling of that hole is completed.
9. Remove sample bags within 6 months of drilling.
10. Recycle drilling muds and fluid where possible, and dispose of within sumps.

2.1.3 Rehabilitation of Cleared Areas

1. Rip compacted areas to a depth of 1 metre where possible along the contour.
2. Backfill and rehabilitate all disturbances to the surface of the land made as a result of drilling activities including costeans, drill pads, grid lines and access tracks, to the Roy Hill Environment Team.
3. Complete backfilling and rehabilitation no later than 6 months after excavation, unless otherwise approved by the Roy Hill Environment Team.
4. Block access to tracks following rehabilitation, or signpost advising that it is a rehabilitation area and that unauthorised access is not permitted.

2.2 Training and Awareness

1. Familiarise all personnel associated with drilling management activities with the requirements of this procedure.
2. Include information on drilling management requirements (e.g. land disturbance, GDP procedures) in site inductions or site communications where relevant.
3. Conduct toolbox talks and develop environmental site notices and environmental awareness posters periodically highlighting drilling management requirements – this is the responsibility of the Superintendent Environment Mine or Port and Rail (or delegate where required).
4. Display relevant environmental site notices and environmental awareness posters at prominent workplace locations.
5. Update the training records of personnel in the Learning Management System once registered training has been completed (with the exception of toolbox talks).
6. Maintain records of toolbox training attendance onsite for audit and inspection purposes.
7. Ensure that supervisors and other relevant personnel complete GDP training.

2.3 Monitoring Actions

1. Undertake monitoring in accordance with approval conditions and commitments, and ensure that all data required for regulatory reporting is captured.
2. Store all monitoring records within the Roy Hill Document Management System.

2.4 Incidents, Audits and Inspections

1. Undertake regular inspections of the active work area against the requirements of this procedure.
2. Undertake regular compliance audits against the requirements of this procedure in accordance with the 'Environmental Audit Procedure' (OP-PRO-00018).
3. Schedule inspections and audits against the requirements of this procedure in accordance with the approved HSE Integrated Inspection and Audit Schedule.

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4. Store copies of all audits and inspections within the Roy Hill Document Management System.
5. Undertake an investigation into the cause(s) of incidents reportable to regulators in accordance with the 'Incident Investigation Specification' (OP-SPC-00156) and develop actions to prevent recurrence of the incident.
6. Enter corrective and preventative actions from incidents, audits and inspections into the Roy Hill Incident Management System.
7. Inspect drill pads and sumps the following day after drill muds have been covered with dry soil, to ensure no sticky substance has seeped through the dry soil to the ground surface.

2.5 Contingency Actions

1. Implement contingency actions in accordance with this procedure where deficiencies are identified during inspections, audits and incident reporting.
2. Implement the 'Management of External Complaints Procedure' (EA-PRO-00002), where relevant.
3. Conduct a risk assessment to determine the most effective mitigation measures should additional contingency actions be required, and follow the change management process.
4. Contact the GDP Coordinator to apply for an additional clearing allowance if additional clearing is required for works – this is the responsibility of the GDP applicant.
5. Use existing cleared tracks within the GDP rather than undertaking clearing, where possible.
6. Contact the Roy Hill Environmental Department where rehabilitation of the drill holes and pads is unable to be achieved within the specified timeframe.

2.6 Reporting Requirements

1. Report all non-compliances with this procedure, all regulatory exceedances and all community complaints as an incident in the Roy Hill Incident Management System.
2. Close out all incidents and corrective actions in accordance with the 'Incident, Non-Conformance and Action Management Procedure' (OP-PRO-00702).
3. Complete all reporting required within the relevant EnviroSys data entry forms or in the 'Contractor Environmental Report' (CER) (OP-FRM-00305).

3 Accountabilities

Unless otherwise specified, the following roles are accountable or responsible for the activities outlined in this procedure.

Role	Responsibility
General Managers	Accountable for ensuring that resources are available to support the implementation of this procedure where it is relevant to their area of responsibility
Managers	Accountable for the implementation of this procedure where it is relevant to their area of responsibility
Superintendents	Responsible for the implementation of this procedure where it is relevant to their area of responsibility
Environment Team	Responsible for review and update of this procedure

Table 1: Accountabilities

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4 Abbreviations

Term	Definition
GDP	Ground Disturbance Permit
mm	Millimetres
POW	Programme of Works

Table 2: Abbreviations

5 Definitions

Term	Definition
Sump	A lower excavation to contain drill muds and water.
Costean	Small sink pits used to find metallic iodes.
Operational Environmental Requirements	A plan, procedure or work instruction that must be complied with.
Seep	Liquid infiltrating through soil.

Table 3: Definitions

6 References

Document number	Title
OP-PRO-00702	Incident, Non-conformance and Action Management Procedure
OP-PRO-00187	Clearing and Soil Management Procedure
OP-PRO-00289	Hazardous Materials Management Procedure
OP-PRO-00180	Dust Management Procedure
OP-PRO-00275	Spill Response and Management Procedure
OP-SPC-00156	Incident Investigation Specification

Table 4: References

Note that up-to-date environmental documents should be accessed from the e-Care Roy Hill intranet portal to ensure that the current version is being used.

7 Review

This Procedure is to be reviewed as follows:

- Following the grant of or modification to relevant approvals;
- Annually; or
- As a result of findings or actions identified through inspections, audits and incident reporting.

Reviews are to examine the appropriateness of this Procedure, taking into consideration corporate, system and compliance requirement changes since the last review was undertaken.

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