

Drilling Activity Fact Sheet

The Julimar Nickel-Copper-PGE Project

Western Australia

Updated December 2020

Key Information

The following suite of fact sheets can be found at the Chalice website:

<https://chalicemining.com/community-julimar-project>

- Community Fact Sheet
- Drilling Activity Fact Sheet
- Exploration Licence Fact Sheet
- Environment Fact Sheet



1. Approval to Explore - Exploration Licence

- Before exploring and drilling on land, all companies must get an exploration licence.
- Chalice has acquired the necessary permissions from the Department of Mines, Industry Regulation and Safety (DMIRS) to conduct the exploration and drilling works within its granted exploration licences.
- These exploration licences contain detailed conditions to protect the environment.
- An exploration licence does not allow an operator to conduct mining activities. A mining lease must be granted for this to occur.
- If your property falls within the area of an exploration licence application, it does not automatically follow that Chalice will seek access to your land.
- For more information, please refer to the 'Chalice Exploration Licence Fact Sheet' at <https://chalicemining.com/community-julimar-project>.

2. Location

- **All exploration activities to date have taken place on private farmland within granted tenement areas.**
- **Chalice currently does not have approval to explore within the Julimar State Forest area.**
- **Chalice is now seeking approval to conduct low impact, non-ground disturbing exploration activities on granted tenements located within the State Forest area.**
- For more information, please refer to the 'Chalice Environmental Fact Sheet' at <https://chalicemining.com/community-julimar-project>.
- Landowners have been approached for all current activity planned on private land with Land Access Agreements executed where necessary.

3. Exploration Activities

- Chalice commenced a greenfield exploration program in mid-2019. This included non-ground disturbing Moving Loop Electromagnetic (MLEM).
- An initial **Reverse Circulation** drill program commenced in Q1 2020, followed soon after by a maiden **diamond drill** program.
- When drilling occurs, drill rigs, support vehicles, personnel and equipment are organised at each drilling location to ensure there is no impediment to local traffic and to cause minimal disruption to the local community.
- Drill operations are planned and undertaken in line with the conditions of the exploration licence including environmental requirements.
- Drill operations are planned and communicated with affected landholders.

4. Reverse Circulation Drilling

- A Reverse Circulation (RC) drilling set up will comprise the drill rig, an auxiliary booster truck and a support truck - which provides water, fuel, spare parts, etc. to the rig (Figure 2).
- RC drilling operates by a rotating pneumatic hammer to penetrate through the ground. Material is brought to the surface by volumes of air travelling down an outer tube in the drill rod which then blows the material up an inner tube to be collected from a discharge point at the surface.
- Water and excess drill cuttings are captured in a sump (Figure 2), which is filled-in and rehabilitated after the drill program is finished.
- Each metre of material is individually captured as a record of the subsurface, logged by the geologist, and then sampled for laboratory analysis.
- Bulk samples are collected in plastic bags and then transported from the drill site (Figure 3).



Figure 2. Chalice RC drilling activity in progress at the Julimar Project



Figure 3. Removal of collected water and waste material

5. Diamond Drilling

- A diamond drilling set up will comprise the drill rig, a support truck - which provides water, fuel, spare parts, etc. to the rig (Figure 4), plus a support light vehicle.
- Diamond drilling is a form of core drilling which uses a diamond drill bit to penetrate through the ground.
- Diamond drilling extracts a continuous cylindrical core of rock. Water is used to lubricate and cool the diamond-tipped drill equipment in the hole.
- Each metre of material is individually captured as a record of the subsurface, logged by the geologist, and then sampled for laboratory analysis.
- Diamond drilling can deliver rock sample from over 1,000m below surface but is one of the most expensive and time-consuming drilling techniques available.
- Drill cuttings and excess water is captured in a sump which is filled-in and rehabilitated after the drill program is finished.
- No other waste is produced from core drilling.



Figure 4. Chalice diamond drilling activity in progress at the Julimar Project

6. Rehabilitation

- Chalice is committed to ensuring all aspects of its exploration program cause minimal disturbance to the environment.
- All material extracted by the drill rig is collected either into plastic bags in the case of RC or core trays for diamond drilling for analysis and sampling. Excess waste, drill cuttings and water are captured in sumps dug next to the drill hole. This ensures that any saline water or rocks containing deleterious minerals do not contaminate the surface.
- Following the completion of the hole, all waste material is subsequently removed from site and appropriately disposed of and sumps are backfilled and rehabilitated.
- Drill holes are then plugged to prevent any risk of the hole slumping over time.
- For more information, please refer to the 'Chalice Environmental Fact Sheet' at <https://chalicemining.com/community-julimar-project>.

7. Contact Us

Below are the contact details for the Julimar Project:

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