

Federation Mining

Our Sustainability Journey

Resources 2022

Organisational Overview



- Federation is an Australian incorporated company established by Mark Le Messurier and Jim Askew to build a new gold mining company.
- Federation is privately held with primary investors Australian Super & Crown Holdings (NZ).
- Federation is developing the Snowy River Mine including the twin declines, drill platforms, completion of resource drilling and a feasibility study under a deed of agreement.
- Snowy River Mine employs 47 people and project to date over 5700 metres of declines have been developed.
- We plan to deliver a modern underground narrow vein gold operation that produces around 65-70koz/ annum for minimum 10-year mine life.
- Generate significant local employment over the next 10+ years.
- Minimal impact to land with small surface infrastructure footprint for processing plant on private land.
- We recognise that mining is a temporary land use and are committed to high standards of environmental stewardship for the full life cycle of our operation.
- We intend to operate beyond legal compliance to deliver against the obligations of our social license and help to shape industry leading environmental practises.



Sustainability



- The objective of our Sustainability efforts is to deliver value to our stakeholders over the long term through safe, environmentally responsible and socially respectful operations.
- Our approach to Sustainability is embedded in our decision making at all levels of the company and is underpinned by our Sustainability objectives.
- We will seek to partner with local business and prioritise the hiring of local people to support the regional economies in which we operate.
- FED has engaged over 200 New Zealand and spent more than \$27 million in the last 12 months.
- The workforce is made up of over 80% West Coasters with the remainder from across the South Island.
- We have contributed over \$1.5 million to Government through tax, levies and fees from all levels of Government

OUR SUSTAINABLE FUTURE



Demonstrate good corporate governance and comply with local laws and regulations



Engage and foster positive, constructive relationships with our stakeholders



Implement effective management systems and risk assurance processes



Foster a safe, diverse and inclusive workplace



Implement and maintain sound risk management processes



Identify and actively manage climate change impacts, both in terms of physical and transition risks present in our operations



Demonstrate high standards of environmental and resource stewardship



Foster positive partnerships with our local and regional communities and suppliers



Actively manage our supply chains and ethically procure all goods and services



Protect cultural heritage and actively engage with indigenous & traditional owner groups



Operate at the highest standards of financial and ethical behaviour

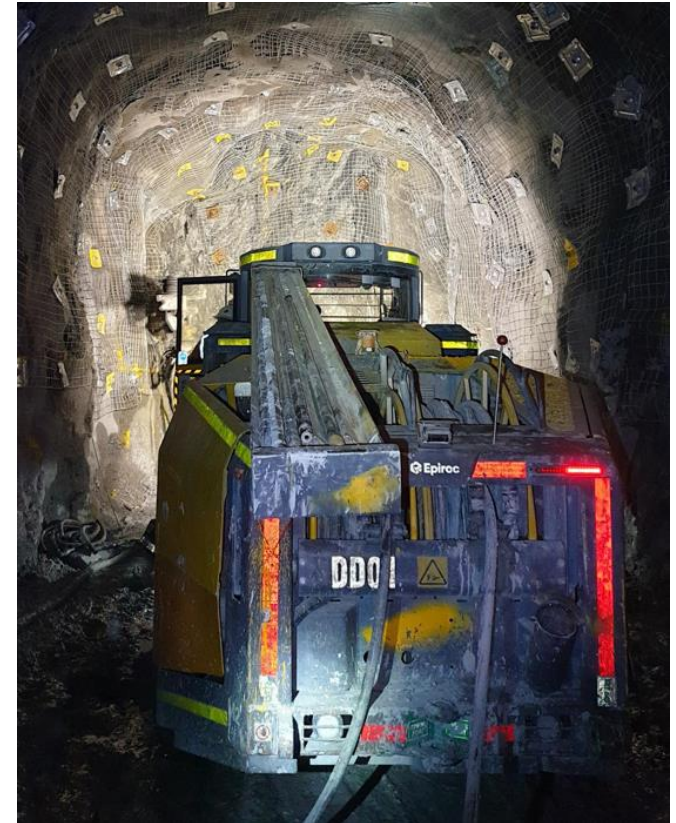


Respect the human rights of all our stakeholders

Mine Safety & Health



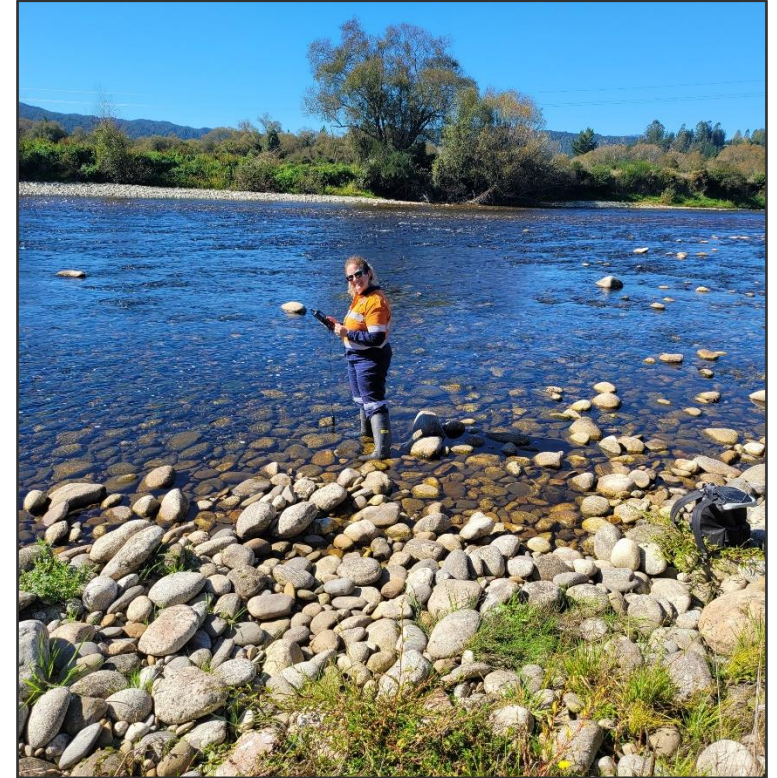
- Federation Mining has developed a comprehensive approach to ESG, the objective of our Sustainability efforts is to deliver value to our stakeholders over the long term through safe, environmentally responsible and socially respectful operations
- We have developed a detailed integrated management system to assist in the management of risk, safety, health, environment, community and stakeholder engagement in consultation with our workforce.
- Focus on mine & tunnel supervision.
- First Aid and basic emergency response training.
- Mine emergency preparedness drills and exercises with external agencies.
- Plans being refined to complete the dewatering of the Blackwater Mine.
- Safety committee established.
- Health and hygiene monitoring undertaken.
- Audit and inspection program.



Environment



- We have committed to undertake performance monitoring in addition to regulatory environmental monitoring to allow us to maximise our ability to protect the environment.
- Federation has developed a position on Climate Change which has been shared with stakeholders
 - We acknowledge that climate related risk has the potential to impact our business and communities we operate within.
 - We will work to identify and actively manage climate change impacts, both in terms of physical and transition risks present in our operations.
 - We commit to report emissions and energy consumption performance and disclose material climate related risks to our stakeholders. Federation reported Scope 1 and 2 emissions in our Sustainability report.
 - Federation is currently undertaking an options study on an emissions offsets program to support our emissions reduction strategy to meet our commitment to Net Zero emissions by 2050.
 - The project is expected to have a low emissions intensity given our underground mining method, mobile fleet configuration and use of hydro power. The Company expects the emissions per ounce of gold produced will sit in the lowest industry quartile.
- Snowy River manages waste streams with a program in place to recycle cardboard and metals.



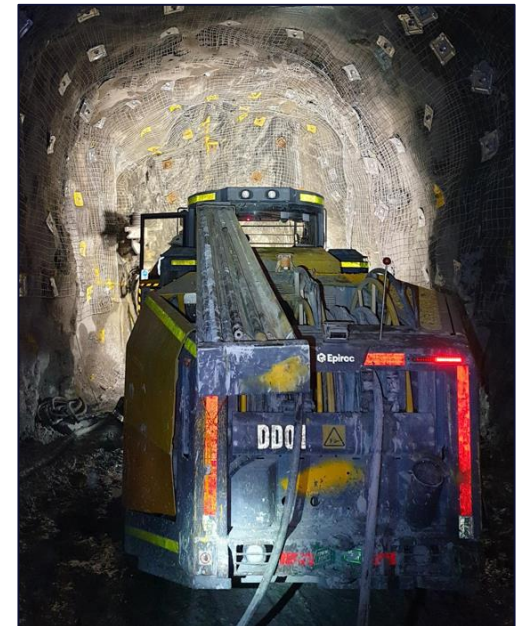
Green House Gas Emission Profile FY22



- Australian based Environmental accounting firm Greenbase commissioned to review and calculate emission profile for Snowy River during financial year 21/22 using New Zealand emission factors.
- Total Emissions = **1,179** Tonnes of Carbon Dioxide emitted (TCO₂e)
 - Scope 1 (S1) Emissions = 1,107 TCO₂e (Direct emissions - fuels)
 - Scope 2 (S2) Emission = 72 TCO₂e (Indirect emissions - electricity)
 - Scope 3 (S3) Emission – Not assessed
- Key consumable emission inputs
 - S1 - Diesel fuel 411,000 litres creating 1,103 TCO₂e
 - S1 – Oil, grease, LPG & SF6 use creating 4 TCO₂e
 - S2 – 3017 MWh of Hydro electricity power creating 72 TCO₂e
 - 11,538 GJ of energy consumed overall

Emissions intensity

0.32 TCO₂e per metre developed



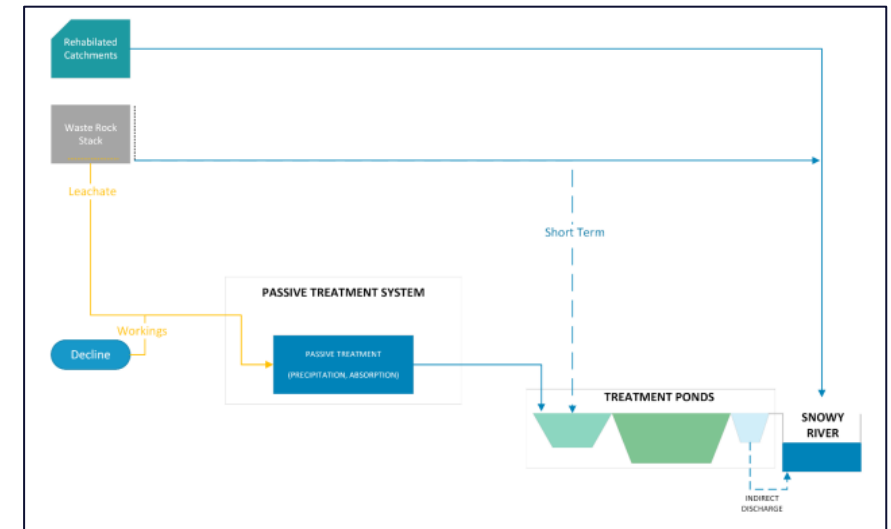
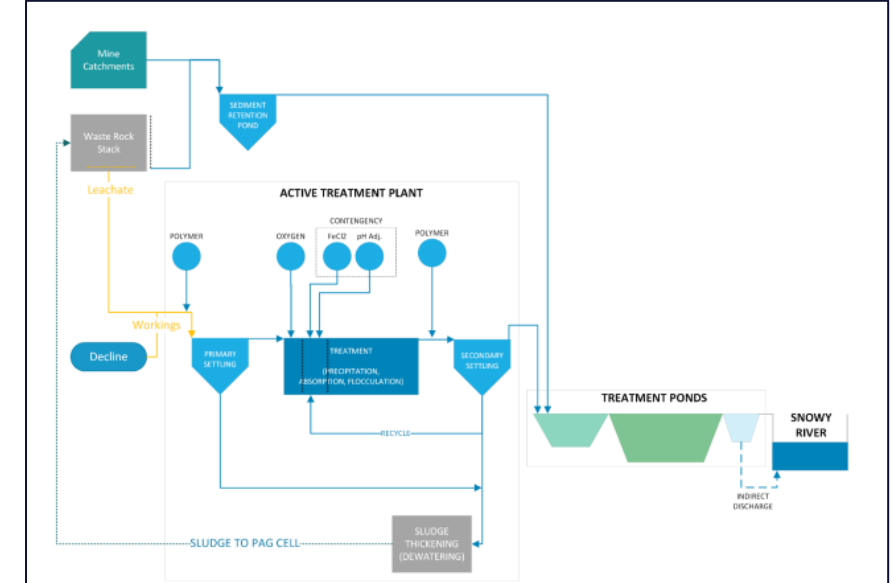
Carbon Offset Arrangements

- We seek to minimise our impact on the environment through use of low emission machines, prioritising the use of renewable energy, recycling and reusing water, progressive rehabilitation of our operations and returning land to natural state at the conclusion of mining operations.
- Partnership with Trees That Count to plant 700 native trees (offsite) on the West Coast which will assist in removing 136 tonnes of CO₂, trees are planted at two locations.
 - Aturau Sanctuary – home of a Kiwi breeding program near Greymouth, 49 roroa chicks bred since the facility opened
 - Clean Streams Karamaea – part of a river bank rehabilitation program near Westport
- At Snowy River, we have planted over 10,750 native plants as part of progressive rehabilitation program and will assist with erosion control and screening.
 - Over LOM these plants would offset 150 tonnes of CO₂
 - Assumes a 90% survival rate and 30/70 tree to shrub plant mix
 - Across approx. 4 hectares of passive water treatment ponds
- Active dialogue with Iwi and DoC in relation to potential forestry offset partnerships.
- Budget allocation for high level hydro study in the Snowy River (FY23).
- Registered carbon offset forestry land block purchases investigated on the North Island.



Water Management

- A series of technical reports completed for the processing phase of the mine considering onsite and offsite impacts
 - PDP – Long term water strategy and treatment, ground water modelling, water balance
 - Mine Waste management – Geochemistry, mine affected water modelling, ARD risk assessment
 - 4Sight Consulting (Ryder) – Aquatic effects and target water quality parameters
- Federation has elected to apply a best practise approach by:
 - Installation of an active water treatment plant during production phase
 - Installation of a liner on the Waste Rock Stack
- Treated and captured water will be recycled for operational use
- Additional range of water monitoring onsite and offsite in the Snowy River
- Clean water diversion of water courses on the eastern side of WRS installed
- Transition to indirect discharge of water to river
- Water draw remains at 20 litres per second
- Water from historical Blackwater mine to be campaign treated using temporary containerised WTP



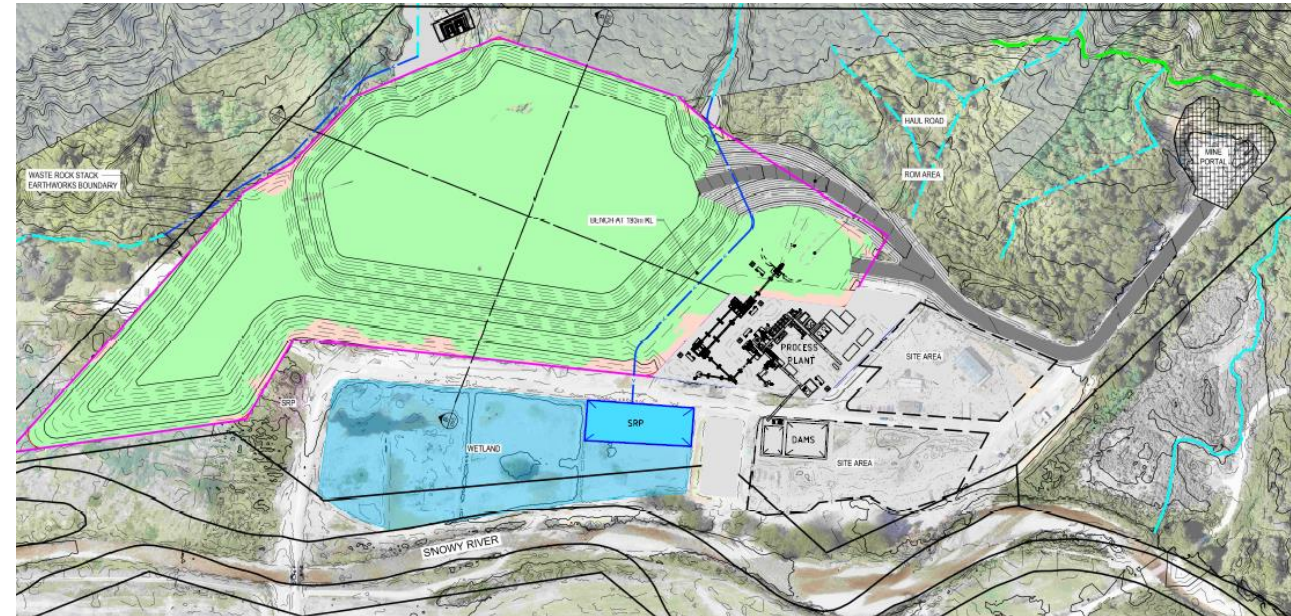
Water Treatment Ponds



Resource Consent

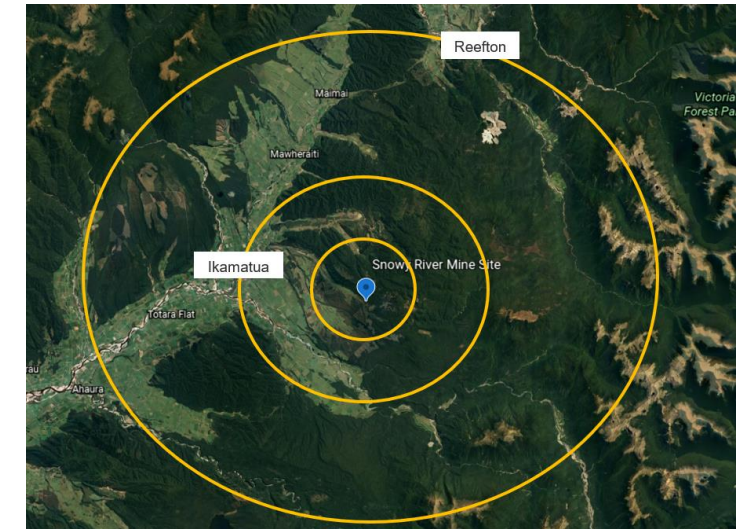
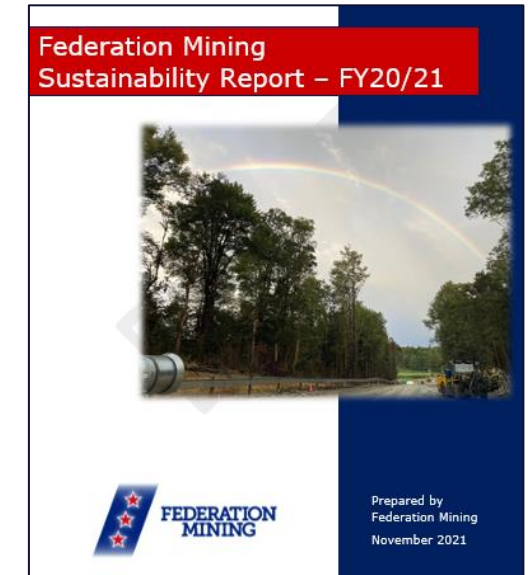


- We have submitted a Resource Consent Application to build and operate a processing plant onsite at Snowy River.
- Federation understands the importance of being a responsible sustainable mining company in New Zealand and we have been actively engaging with the community and our stakeholders on our plans for the future of the project over the past year.
- We engaged New Zealand based environmental and technical specialists to assist in preparing our Resource Consent Application to minimise our impacts on the environment while ensuring we maximise the economic opportunity for the West Coast.
- Technical reports were prepared on Waste Rock Stack design, landscape, geo chemistry, water management, noise & vibration, dust and emissions, traffic, heritage, aquatic ecology effects & terrestrial ecology.
- The Snowy River workforce is expected to grow from 50 to 140 personnel during production which will also bring greater opportunities for partnerships with local New Zealand businesses.
- The application has now been submitted following extensive consultation with the Community, Neighbours, Government Agencies and other interested parties.



Social Performance

- We value our social license to operate and understand the importance of working closely with our stakeholders and the communities which we operate within.
 - FED prepared a stakeholder heat map identifying over 1000 stakeholders within a 30 kilometre radius and applicable Government and non Government organisations
 - We use a multi channel communication method to engage with our stakeholder group
- We seek to engage and foster positive, constructive relationships with our stakeholders through regular engagement and sharing of information.
 - FED engage with the local community through regular community meetings, monthly newsletters, social media, Sustainability Reporting and face to face meetings
 - We have a strong working relationship with Iwi who have been involved in shaping the approach to environmental management and monitoring
 - Regular engagement with the Regional and District Council
 - Release of our Sustainability Reports in 2021 and 2022
 - Over 100 stakeholder meetings in last 12 months

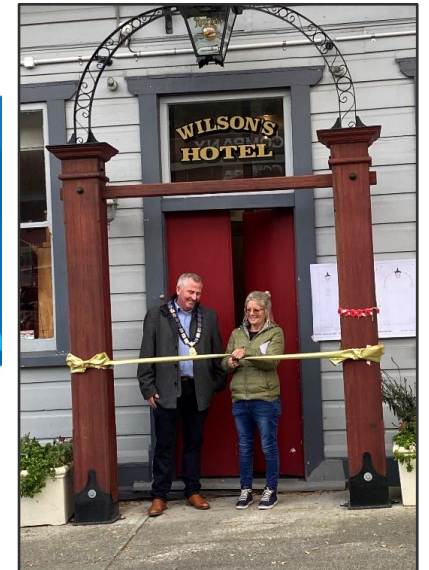


Social Performance



Federation values the important role community organisations play in the towns and villages near our operations, during the year we have proud to support the following

- Inangahua A&P Show
- Reefton Search & Rescue
- Reefton Golf Club
- Reefton Rugby
- Reefton Fire Brigade
- Friends of Waiuta (Top photo)
- Reefton Powerhouse Restoration
- Reefton Netball (Mid right)
- Heritage Pub Light, Reefton (Bottom right photo)
- Trees That Count – Te Rahi O Tane
- Reefton Jockey Club
- St John Ambulance – Community AED program
- Buller Rugby
- Reefton riverside walk repairs following flooding
- Reefton Area School – Supporting the Duffy books in homes program
- Inangahua Community Arts Council



Snowy River Mine Timeline



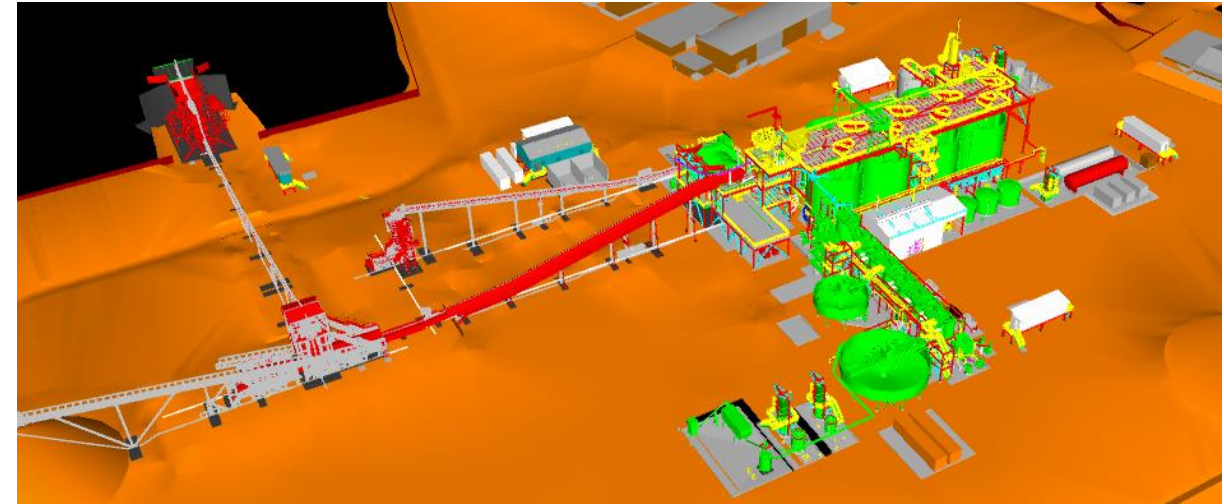
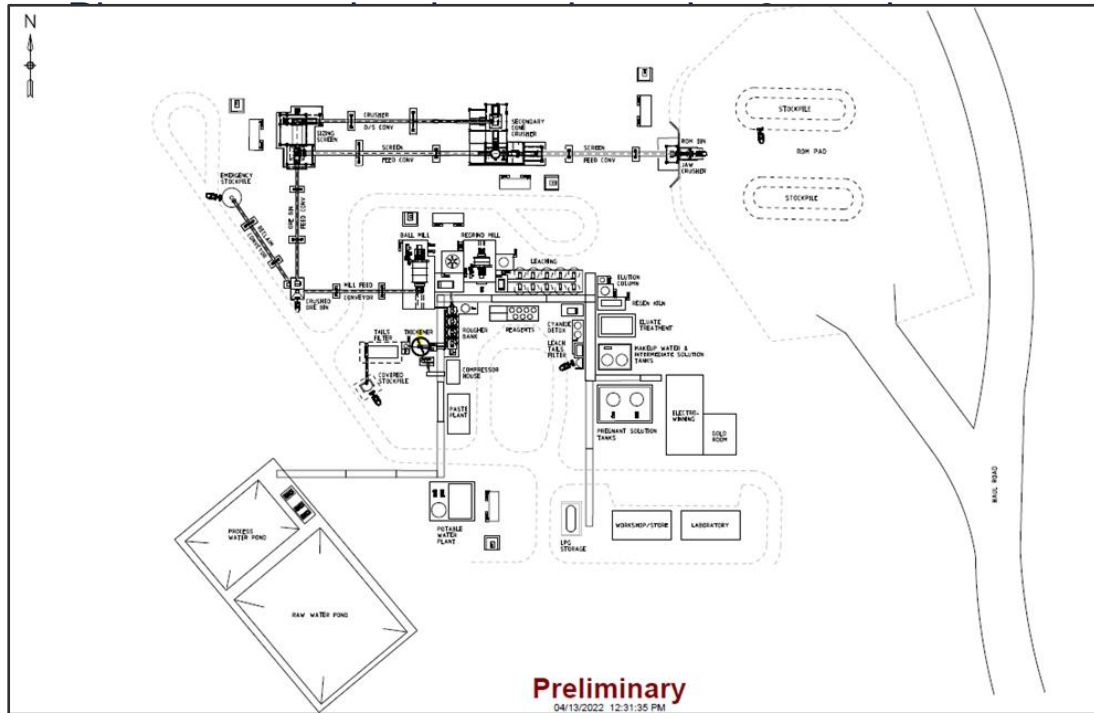
- During 2020 we completed surface construction on the Snowy River Site, building roads, a bridge, a workshop, offices, mains power distribution systems, site infrastructure, water treatment ponds and excavations for a twin portal area.
- The local workforce of 47 was recruited and trained, 80% reside on the West Coast.
- Works commenced on the Main Decline in December of 2020 and the North Decline commenced in February 2021.
- To date, over 5700m of decline development have been completed across the twin declines.
- Application for new or varied Resource Consent submitted in June 2022.
- Extensive drill program planned for early 2023.
- Decision to mine late 2023.
- Subject to Resource Consent commence processing in late 2024.



Snowy River Mine Process Plant



- Modern gold processing plant including crush, grind and floatation circuits
- Throughput 300,000 tonnes per year with 95% recovery
- Modular plant will occupy 10,000 m2 of disturbed land



- Plant commissioning in late 2024
- Waste to be placed on surface waste rock stack and underground in form of paste fill
- All water runoff from surface waste rock stack to be captured and treated
- Production mobile fleet to be electric or low emission engine

Stay in touch



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Sustainability Report



Our 2022 Sustainability Report is available online and can be accessed by using the QR code.



Thank you for your interest in Federation Mining