# Technical Report on the Definitive Study – Chapter 1

## Sydvaranger Mine Project, Norway

### Sydvaranger Drift AS

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Making Sustainability Happen

# Revision Record

| Revision | Date | Prepared By | Checked By | Authorised By |
|---|---|---|---|---|
| 0 | 29 August 2025 | SLR | SLR | Bryan Pullman |
| Click to enter a date. | Click to enter a date. | | | |

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# 1.0 Executive Summary

SLR Consulting Ltd (SLR) was retained to complete a Definitive Feasibility Study (DFS) for the Sydvaranger Mine Project (the Project), located in Kirkenes, the Finnmark county of northern Norway. The Project is owned by Grangex AB (Grangex) via its subsidiary Sydvaranger Drift AS (SYD or Sydvaranger). This Technical Report presents the results of the DFS completed to confirm the economic and technical viability of the Project. This report is presented in an NI 43-101 Technical Report format.

The Project is to be developed in two phases. During Phase 1, the milling area will be upgraded to enable an early restart of the processing plant (the Plant) at 805 tonnes per hour (tph) and further upgrades to the separation area to produce a direct reduced (DR) grade quality product. Phase 2 includes the installation of a new crushing circuit, enhancements to the cobbing area, and the addition of a new secondary mill, enabling the Plant to reach the full 850 tph target.

Ultimately, in Phase 2, the Project is expected to produce ore at a nominal rate of 7 million tonnes per annum (Mtpa) to 8 Mtpa, which equates to approximately 3 Mtpa to 3.5 Mtpa of direct reduction (DR)-grade iron ore concentrate. The concentrate will be shipped from the existing port at Kirkenes.

## 1.2 Key Project Highlights

### 1.2.1 Geology and Mineral Resources

SLR undertook a comprehensive scope of geology activities including an update to the Mineral Resource estimate (MRE) in support of the DFS. The DFS study builds upon SLR's Preliminary Economic Assessment (PEA) completed in January 2025 and integrates new geological and assay data from recent drilling resulting in changes to the overall resource base (tonnage), refinement of the Mine Indicated Sulphur (MIS) domains, addition of silica ($SiO_2$) domains, and changes to the Mineral Resource classification. Key geology changes following the DFS include:

- Twenty-three drill holes added since the previous 2019 MRE supporting model and classification changes for Pit 2, Pit 5, Pit 7, and Pit 8.
- The addition of Measured classification for Pit 7 and Pit 8 based on the results from the 2024–2025 drilling campaign. Additional classification changes include the upgrade of Inferred Resources to Indicated classification, and the downgrade of Indicated Resources to Inferred Resources for areas not well supported by data.
- Changes to the mineralisation models in areas with new drilling including Pit 2, Pit 5, Pit 7, and Pit 8. Additional remodelling in Pit 1, Pit 3, and Pit 7 to address observed model and data discrepancies. Removal of internal waste from classified resources in various areas of the Mine.
- Further sub-division and refinement of the MIS domains based on new 2025 Davis Tube Recovery (DTR) results, and the sulphide distinction studies completed by Sydvaranger in 2025.
- Addition of silica domains based on the contrast between $SiO_2$ grades observed for several pits.
- A block size change from 10 m x 25 m x 10 m to 5 m x 10 m x 5 m allowing for more selective mining.
- The metal price assumption used for Resource pit optimisation was United States dollars (USD) 140 per tonne (t) of iron (Fe) and based on the metal price, the

updated Mineral Resources are reported in optimised pit shells using various $Fe_{(mag)}$ cut-off grades as listed in Table 1-1. A MIS cut-off of 0.25% was also applied during Resource pit optimisation.

Overall conclusions are as follows:

- The Mineral Resources for the Project comprise a total of nine open pits: Pit 1 (Bjørnevatn) and satellite Pit 2, Pit 3.1, Pit 3.2, Pit 4, Pit 5, Pit 6, Pit 7 (7.1, 7.2, and 7.3), and Pit 8. The Hyttemalmen deposit is not included in the current Mineral Resources due to being sterilised.
- Sydvaranger is considered a typical Algoma-type banded iron deposit consisting of thinly banded to laminated quartz-magnetite iron formations. Comparable deposits include the Lake Superior-type iron formations.

The 2025 Mineral Resource estimate is summarised in Table 1-1.

**Table 1-1: Sydvaranger Mineral Resource Estimate Summary as of 15 August 2025**

| Class | Mass (Mt) | Grade | | | |
|---|---|---|---|---|---|
| | | $Fe_{(tot)}$ (%) | $Fe_{(mag)}$ (%) | $SiO_2$ (%) | S (%) |
| Measured | 63.9 | 33.0 | 30.0 | 44.9 | 0.052 |
| Indicated | 379.3 | 32.6 | 28.5 | 44.5 | 0.081 |
| **Measured + Indicated** | **443.2** | **32.7** | **28.7** | **44.5** | **0.077** |
| Inferred | 68.3 | 31.9 | 27.1 | 45.6 | 0.105 |

Notes:

1. Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (CIM (2014) definitions) were used for Mineral Resource classification.
2. Mineral Resources are reported within open pit (OP) shell volumes to demonstrate Reasonable Prospects for Eventual Economic Extraction (RPEEE), as required under NI 43-101; mineralisation outside of the OP shell is not reported as a Mineral Resource; note the OP shell volumes are used for Mineral Resource reporting purposes only and are not indicative of the proposed mining method.
3. Mineral Resources have been depleted using the topography and underground workings at Pit 1; backfill and waste dump volumes were added to the model near Pit 1 and Pit 7.
4. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
5. All quantities are rounded to the appropriate number of significant figures, consequently, sums may not add up due to rounding.
6. The densities for each pit area were estimated using collected density measurements. When density measurements were unavailable but analytical results were present, a regressions method was applied using the relationship between the $Fe_{(tot)}$ assays and bulk density measurements.
7. Open pit Mineral Resources are reported at pit wall angles listed in Section 15.3.1., a Revenue Factor of 1.0, a long-term concentrate price of USD 140/t, and $Fe_{(mag)}$ cut-off grades of 3.18% for Pit 1, 3.85% for Pit 2, 3.84% for Pit 3.1, 4.00% for Pit 3.2, 4.10% for Pit 4, 3.60% for Pit 5, 4.62% for Pit 6, 3.62% for Pit 7.1, 4.01% for Pit 7.2, 4.01% for Pit 7.3, and 3.69% for Pit 8.
8. $Fe_{(mag)}$ cut-off grades are based on a metal price of USD 140/t concentrate and a number of operating cost and recovery assumptions specific to each pit area.
9. The effective date of the Mineral Resource estimate is 15 August 2025, and the Mineral Resource estimate is based on all drilling data up to and including holes drilled in 2025.
10. The Inferred Mineral Resources in this estimate have a lower level of confidence than that applied to the Indicated Mineral Resources and must not be converted to Mineral Reserves. There is also no certainty that these Inferred Mineral Resources will be converted to Measured or Indicated through further drilling, or into Mineral Reserves once economic considerations are applied. It is reasonable to expect the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
11. Mineral Resources are reported inclusive of Mineral Reserves.
12. Mineral Resources have been estimated by Logan Behuniak, P.Geo., an independent Qualified Person (QP) as defined in NI 43-101.

The Qualified Person (QP) is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

### 1.2.2 Mining and Mineral Reserves

Mining engineering activities built on the work completed during the PEA, earlier engineering work, and the 2019 Feasibility Study (AMC 2019a). Work completed included the following:

- Updated dilution and loss modelling methods.
- Defined geotechnical and hydrogeological design criteria.
- Incorporated updates to process acceptance criteria.
- Defined mining methods and the operating model.
- Established DFS pit optimisation assumptions and updated cost estimates.
- Conducted pit optimisation for Pit 1 and each of the satellite pits.
- Produced practical pit designs guided by pit optimisation for each pit.
- Updated waste storage facility designs and ex-pit haul routes.
- Conducted strategic mine scheduling using MineMax software to optimise mining rates and pit sequencing.
- Developed a detailed tactical mining schedule constrained by appropriate, practical mining limits using MineSched software to an accuracy of monthly in the first four years, quarterly in year five, and annually thereafter.
- Conducted haulage simulation to develop the trucking fleet and ancillary equipment.
- Produced recommended drilling and blasting designs.
- Selected an appropriate mining fleet for the mining method and estimated fleet and labour requirements.
- Developed an Association for the Advancement of Cost Engineering (AACE) Class 3 DFS-level mining cost estimate from first principles, with all material cost items supported by 2025 supplier quotations.
- Supported, reviewed, and validated detailed financial modelling to ensure economic feasibility.
- Carried out detailed cross-discipline risk workshops, considering all relevant modifying factors and stakeholders, to ensure a robust and feasible project sufficient for reserves reporting.

The analyses incorporated all relevant modifying factors in the conversion of Mineral Resources to Mineral Reserves, ensuring technically robust outcomes in compliance with reporting standards. Key conclusions are as follows:

- The Mineral Reserves for the Project comprise nine open pits totalling 161.2 million tonnes (Mt) of clean ore at an iron in magnetite ($Fe_{(mag)}$) grade of 28.3%.
- Proven Reserves: 25.5 Mt at an average grade of 32.7% total iron ($Fe_{(tot)}$), 29.8% $Fe_{(mag)}$, 41.5% $SiO_2$, 0.051% sulphur (S), and 0.016% MIS.
- Probable Reserves: 135.7 Mt at an average grade of 31.6% $Fe_{(tot)}$, 28.0% $Fe_{(mag)}$, 41.8% $SiO_2$, 0.060% S, and 0.027% MIS.

- The current extraction permit limits waste rock mining to 400 Mt. To mine the reported Mineral Reserves an amendment to increase this limit is required. The mining of approximately 19.5 Mt of iron ore included in the Mineral Reserves is contingent on approval of this amendment by The Directorate of Mining. This material is scheduled to be mined and processed after the Project payback period. While not material to near-term economics, it has been incorporated into the life of mine (LOM) plan.
- Approximately 9.6 Mt of material with a MIS grade greater than 0.25% were excluded from the Mineral Reserve estimate; this represents a potential upside, as limited quantities could be processed if spare capacity allows, while still meeting product specifications.
- A practical LOM schedule has been established for Phase 1 (2026–2029) and Phase 2 (2030–2050), covering the entire mine life.

The Mineral Reserve estimate is summarised in Table 1-2.

**Table 1-2: Sydvaranger Mineral Reserve Estimate Summary as of 15 August 2025**

| Classification | Mass | Grade | | | | |
|---|---|---|---|---|---|---|
| | | $Fe_{(tot)}$ | $Fe_{(mag)}$ | $SiO_2$ | S | MIS |
| | (Mt) | Diluted (%) | Diluted (%) | (%) | (%) | (%) |
| Proven | 25.5 | 32.7 | 29.8 | 41.5 | 0.051 | 0.016 |
| Probable | 135.7 | 31.6 | 28.0 | 41.8 | 0.060 | 0.027 |
| **Proven + Probable** | **161.2** | **31.7** | **28.3** | **41.7** | **0.058** | **0.025** |

Notes:

1. The effective date of the Mineral Reserve estimate is 15 August 2025.
2. Mineral Reserves are reported in accordance with the CIM (2014) definitions, which are incorporated by reference in NI 43-101.
3. Reserves are classified as Proven and Probable in accordance with CIM (2014) definitions. Mineral Reserves are classified as Proven or Probable based on the level of confidence in the underlying geological model. Only Measured and Indicated Mineral Resources have been converted to Mineral Reserves.
4. The Mineral Reserve estimate is derived from the Mineral Resource Estimate effective as of 15 August 2025, prepared by SLR.
5. Mineral Reserves are reported as dry tonnes of run-of-mine (RoM) ore delivered to the primary crusher, after consideration of mining dilution and mining recovery.
6. Reserves are based on detailed mine designs, pit optimisation, and life-of-mine scheduling incorporating geotechnical, hydrological, mining, processing, infrastructure, environmental, permitting, and economic considerations.
7. $Fe_{(mag)}$ cut-off is based on a long-term price provided by Grangex of USD 114/t concentrate for a DR-grade iron ore product with a concentrate specification of:
   a. $Fe_{(tot)}$ 70.0%
   b. $Fe_{(mag)}$ 69.7%
   c. $SiO_2$ 2.6%
   d. $Al_2O_3$ 0.17%
   e. S 0.03%

   These parameters reflect industry-accepted DR pellet feed quality requirements and are consistent with test work performance reviewed by the QP.
8. The $Fe_{(mag)}$ cut-off varies by pit within the range of 4.79% to 6.97%.
9. The current extraction permit limits waste rock mining to 400 Mt. To mine the reported Mineral Reserve an amendment to increase this limit is required. The mining of approximately 19.5 Mt of iron ore included in the Mineral Reserve is contingent on approval of this amendment by The Directorate of Mining. This portion of the Mineral Reserve is scheduled for extraction at the end of the life of mine, after the project payback period, and does not have a material impact on the Project economic results.
10. An exchange rate of 10NOK/USD was used. NOK = Norwegian krone.
11. There are 9.6 Mt of material with an MIS grade >0.25% that have been excluded from the Mineral Reserve Estimate but show potential upside for future processing.

| Classification | Mass | Grade | | | | |
|---|---|---|---|---|---|---|
| | | $Fe_{(tot)}$ | $Fe_{(mag)}$ | $SiO_2$ | S | MIS |
| | (Mt) | Diluted (%) | Diluted (%) | (%) | (%) | (%) |
| 12. Rounding of some figures may lead to minor discrepancies in totals. | | | | | | |
| 13. Mineral Reserves have been estimated by Bryan Pullman, P.Eng., an independent Qualified Person (QP) as defined in NI 43-101. | | | | | | |

The QP is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

### 1.2.3 Mineral Processing

This DFS builds upon the PEA completed in January 2025, which consolidated extensive prior investigations and process development efforts. The DFS incorporates new work initiated in January 2025, focused on enhancing the process flowsheet to significantly improve primary ball mill capacity and optimise downstream processing stages, including the strategic placement of the silica reduction unit for producing the DR grade quality product.

The Project aims to increase throughput at the Sydvaranger Plant to 850 tph through a two-phase development strategy:

- Phase 1 focuses on upgrading the milling area to enable an early restart of the Plant at 805 tph and upgrading the separation area to producing a DR grade quality product.
- Phase 2 includes the installation of a new crushing circuit, enhancements to the cobbing area, and the addition of a new secondary mill, enabling the Plant to reach the full 850 tph target.

Key developments for Phase 1 include:

- Primary Ball Mill Circuit Upgrade: Replacement of hydrocyclones with ultra-fine screens is projected to reduce the circulating load by approximately 50% and sharpen particle size distribution, resulting in a 17.2% increase in processing capacity.
- DR Grade Concentrate Production: Installation of the Silica Reduction Unit, which using high frequency oscillating magnetic field, enabling freeing of unwanted minerals, is expected to consistently produce high-quality DR concentrate with the characteristics shown in Table 1-3, based on test work.

**Table 1-3: Sydvaranger Concentrate Specifications**

| $Fe_{(tot)}$% | $Fe_{(mag)}$% | $SiO_2$% | S% | P% | CaO% | MgO% | $Al_2O_3$% |
|---|---|---|---|---|---|---|---|
| 70 | 69.7 | 2.6 | 0.03 | 0.009 | 0.13 | 0.10 | 0.17 |

- Geometallurgical Data: Additional grindability and DTR data from new drill cores (late 2024–early 2025) support the power requirements calculation of the throughput.
- Key developments for Phase 2 include:
- New crusher station at mine site: Primary, secondary, and tertiary crushers in closed circuit with screens.
- Updated fine cobbing units: The replacement of existing cobbing units to better suit the finer product from the new crusher station.

These Phase 2 improvements will remove more waste from the mined material at the Bjørnevatn mine location prior to being transported to Kirkenes for the grinding and beneficiation process. This efficiency will further increase production, and the new equipment will improve overall availability.

Based on the historical operating data and the mineralogical and metallurgical test work completed for the Project, it can be concluded that a concentrate product with $Fe_{(tot)}$ grade of 70% can be produced, with an overall $Fe_{(mag)}$ recovery of 97%.

### 1.2.4 Infrastructure

The Sydvaranger mine site is well established supported by existing infrastructure. The DFS describes the existing Sydvaranger mine site and concentrator infrastructure including raw water supply, power distribution, services and utilities, workshops, warehouses, offices, site roads, railway, and concentrate handling facilities at Tschudi Bulk Terminal.

Condition reports, asset integrity assessments and operational readiness plans have been completed for all areas of infrastructure as well as some upgrades in Kirkenes concentrator, such as screens and filter upgrades. There are no significant infrastructure upgrades necessary to proceed with an early start scenario (Phase 1).

For Phase 2, there are planned upgrades to the Bjørnevatn crushing, cobbing, and screening facilities, which requires infrastructures updates.

### 1.2.5 Environmental and Social

The Project holds all permits required to restart mining and processing operations after several years in care and maintenance. The operation is supported by well-developed management plans and systems covering the key aspects of the health, safety, environment, and community (HSEC). Prior to restarting operations, Sydvaranger intends to update these management plans and system to ensure full alignment with Good International Industry Practice (GIIP).

The environmental and social risks associated with the Project are well understood, owing to its long operational history and numerous completed studies. Although not required under Norwegian legislation, since all permits are in place, Sydvaranger will prepare the first full Environmental and Social Impact Assessment (ESIA) for the operation in accordance with Norwegian legislation and applicable European Union (EU) regulations.

As part of the DFS, a review of historical studies and data has been completed, and additional studies have been undertaken to address identified gaps. The ESIA is scheduled for completion in Q4 2025.

In response to the stricter conditions in the revised environmental permit granted to the Project in 2022, tailings disposal alternatives have also been studied. Two key options being advanced include (i) utilising depleted pits for tailings storage, and (ii) transforming tailings into a marketable silica sand product. Further investigations are ongoing, and work will continue to develop these alternatives.

### 1.2.1 Market Studies and Contracts

The Project will significantly contribute to the Green Transition of the iron and steel industries as a result of the following:

- Product properties (ultra-high Fe, low levels of impurities, and particle size distribution) are well suited for pelletizing.

- Project location provides good access to European, North African, and the Middle Eastern markets. These markets are expected to have the most growth in DR pellets production and DRI production.
- The Project is well positioned on the cost-curve, with very low capital intensity.

Sydvaranger has committed its entire production of pellet feed in an off-take agreement.

### 1.2.2 Project Execution

Grangex has prepared a preliminary Project Execution Plan (PEP) to restart operations at the Project. The plan is assuming an owner-executed project for the first phase of the Project. The Project envisions two-phases to achieve the target production in 2030. The focus of the PEP is on Phase 1, starting in Q4 2025 and finishing in Q4 2026.

The PEP outlines the policies and procedures planned or already in place to undertake the restart. The PEP also describes the steps required for Operational Readiness and Commissioning and hand-over to operations.

The PEP is comprised of 12 Asset Integrity Plans (AIPs) which detail approximately 1,300 individual Work Packages (WP) developed for Phase 1. The key Area upgrading and rehabilitation scopes of work for Phase 1 are:

- Area 00 – Mining Equipment: Mobile equipment requires maintenance for dumpers, wheel loaders, dozers, graders, and drill rigs to operate in a continuous production.
- Area 03 – Buildings throughout Sydvaranger: Civil and electrical rehabilitation on most of Sydvaranger’s assets
- Area 10 – Primary Crushing: Outdated high voltage (HV) cables and programmable logic controllers (PLCs). Primary crushers require mechanical overhaul and automation upgrades.
- Area 20 – Rail: Requires new locomotive, rolling stock lease initiation, and reactivation of rail systems to restore pit-to-port haulage capacity.
- Area 30 – Secondary & Tertiary Crushing: Refurbishment needed for crushing units and associated electrical systems.
- Areas 40–47 – Milling: All ball mills require overhaul. Ball loading systems to be reinstated. PLC systems outdated or inoperative.
- Area 50 – Filtration: Component-level issues identified in agitators and filters. Requires targeted mechanical service.
- Area 60 – Tailings process: Mostly intact. Requires limited refurbishment of discharge line in specific areas.
- Area 70 – Utilities: Utility infrastructure requires service of air compressors, motor control centres (MCCs), transformers, and water systems.
- Area 80 – Quay and Shiploader: Issues in quay area require civil rehabilitation. Mechanical-electrical refurbishment needed on shiploader.
- Area 90 – Water Pump Station: Moderate wear only requires minor maintenance on pumps and control equipment.
- Area 100 – Digital Infrastructure: No systems currently in place. Requires full implementation of network/communication system and implementation of enterprise systems (IFS/Novacura).

The results of the asset integrity assessment define the detailed scope and sequence of work required for mechanical completion and operational recommissioning.

The key milestone dates in the schedule are:

- Pre-start works: Base design and procurement of long-lead items to be completed latest 12 December 2025.
- Project Start: 12 January 2026.
- Pioneer mining start: 02 May 2026
- Cold commissioning start: 14 September 2026
- Hot commissioning start: 04 October 2026
- Full production: 15 January 2027
- First ship loaded with concentrate: 31 January 2027

Commissioning and handover are planned with five key steps that lead to switching from construction-commissioning top operations:

- C0 – Detailed commissioning planning
- C1 – Construction completion – pre-commissioning
- C2 – Mechanical and EIC completion – cold commissioning
- C3 – Hot commissioning - water
- C4 – Hot commissioning – ore

The commissioning and handover plan provides guidance for executing the five steps. These include the documentation being prepared, steps C0 through C4 and the handover, procuring spares and the close out plan for the Project.

### 1.2.3 Capital and Operating Costs

#### 1.2.3.1 Initial Capital Cost

A capital cost estimate for the Project has been developed in accordance with the requirements of NI 43-101 for feasibility-level studies and conforms to the AACE International Cost Estimate Classification System, Class 3.

The estimated cost summary is as per Table 1-4 below:

**Table 1-4: Estimate Summary by WBS Level 1**

| WBS | Phase 1 (USD million) | Phase 2 (USD million) | LOM Total (USD million) |
|---|---|---|---|
| **Direct** | | | |
| Mining | 35.7 | 29.0 | 64.7 |
| Mine, Primary Crushing and Cobbing Area | 3.7 | 116.7 | 120.4 |
| Secondary and Tertiary Crushing | 8.0 | 0.9 | 8.9 |
| Process Plant | 31.6 | 16.5 | 48.1 |
| Balance of Plant | 11.9 | 0.1 | 12.0 |
| Logistics Infrastructure | 12.7 | 1.1 | 13.8 |

| WBS | Phase 1 (USD million) | Phase 2 (USD million) | LOM Total (USD million) |
|---|---|---|---|
| **Direct** | | | |
| **Subtotal - Direct** | **103.6** | **164.2** | **267.8** |
| **Indirect** | | | |
| Project Indirects | 14.0 | 22.8 | 36.8 |
| Owners' Costs | 9.8 | 5.6 | 15.4 |
| **Subtotal – Initial Capital Cost (Excl. Contingency)** | **127.4** | **192.6** | **320.1** |
| Contingency | 17.9 | 31.2 | 49.1 |
| **Total Initial Capital cost** | **145.3** | **223.8** | **369.1** |
| Contingency (% of Total Project Capital Expenditures [CapEx]) | 14.0% | 16.2% | 15.3% |
| **Capitalised Opex** | | | |
| Phase 1 Capitalised Operating Expenditures [OpEx] | 48.3 | | 48.3 |
| **Total (Incl. Capitalised Opex)** | **193.6** | **223.8** | **417.4** |

Excluding capitalised mining operating costs from the total initial capital expenditure, the Project contingency totals 15.33%. A schedule contingency allowance of 1 month for Phase 1 and 3 months for Phase 2 has been included.

#### 1.2.3.2 Sustaining Capital Cost

Sustaining Capital costs total USD 290.5 million over the LOM. This consists of the following:

- Process Sustaining – 1% of Phase 2 direct Project CapEx per year from 2029
- Mining Sustaining – mobile equipment purchases and replacement from 2029
- ESG and Other sustaining including permitting, monitoring and support equipment purchases.

#### 1.2.3.3 Closure Costs

The total closure costs are estimated at USD 3.54 million, which includes provision for the escrow closure account and post-closure monitoring.

#### 1.2.3.4 Operating Costs

An operating cost estimate for the Project has been developed in accordance with the requirements of NI 43-101 and the CIM Best Practice Guidelines (2019) for feasibility-level studies and conforms to the AACE International Cost Estimate Classification System, Class 3.

All operating cost estimates have been reviewed and validated by the QP. The QP has confirmed that:

- The operating cost assumptions are reasonable and appropriate for the level of project definition achieved at this DFS stage.
- The estimates are supported by a combination of vendor/contractor quotations, utility tariffs, existing labour agreements, historical site operating data, and industry benchmarks.

- The overall basis of estimate is consistent with AACE Class 3 standards, suitable for feasibility-level studies.

The average unit rate mining cost over the LOM is presented in Table 1-5 by activity.

The mining costs are presented in:

- USD per tonne mined from the pit.
- USD per tonne of run-of-mine (RoM) primary crusher ore feed.
- USD per tonne of concentrate produced.

**Table 1-5: LOM Mining Operating Cost by Activity**

| Cost Item | Cost Per Tonne Mined (USD/t) | Cost per Tonne RoM (USD/t) | Cost per Tonne Concentrate (USD/t) |
|---|---|---|---|
| Loading | 0.52 | 2.05 | 5.22 |
| Hauling | 1.34 | 5.28 | 13.45 |
| Ancillary | 0.62 | 2.43 | 6.19 |
| Drilling | 0.38 | 1.51 | 3.85 |
| Blasting | 0.45 | 1.78 | 4.54 |
| G&A | 0.54 | 2.11 | 5.38 |
| **Total** | **3.84** | **15.17** | **38.63** |

The annual costs of processing including maintenance, railways, port and site-wide General and Administrative (G&A) for Phase 1 and Phase 2 are summarised in Table 1-6 and Table 1-7 along with unit rate costs.

The processing and G&A costs are presented in the following ways:

- Total annual cost for a typical year of steady-state production
- USD per tonne of RoM primary crusher ore feed.
- USD per tonne of concentrate produced.

**Table 1-6: Phase 1 Processing Cost Summary**

| Cost Item | Cost per Annum (USD) | Cost per Tonne RoM (USD) | Cost per Tonne Concentrate (USD) |
|---|---|---|---|
| General & Administration | 4,122,610 | 0.66 | 1.51 |
| Consumables | 10,441,916 | 1.50 | 3.82 |
| Labour | 11,602,515 | 1.85 | 4.24 |
| Maintenance & Operating Spares | 6,665,294 | 1.05 | 2.44 |
| Mobile Equipment (inc. Tugboats) | 5,594,097 | 0.89 | 2.04 |
| Reagents | 242,841 | 0.04 | 0.09 |
| Utilities | 7,164,719 | 1.03 | 2.62 |
| Laboratory | 605,465 | 0.10 | 0.22 |
| **Grand Total** | **46,439,456** | **7.11** | **16.97** |

**Table 1-7: Phase 2 Process and Site-Wide G&A Summary by Cost Section**

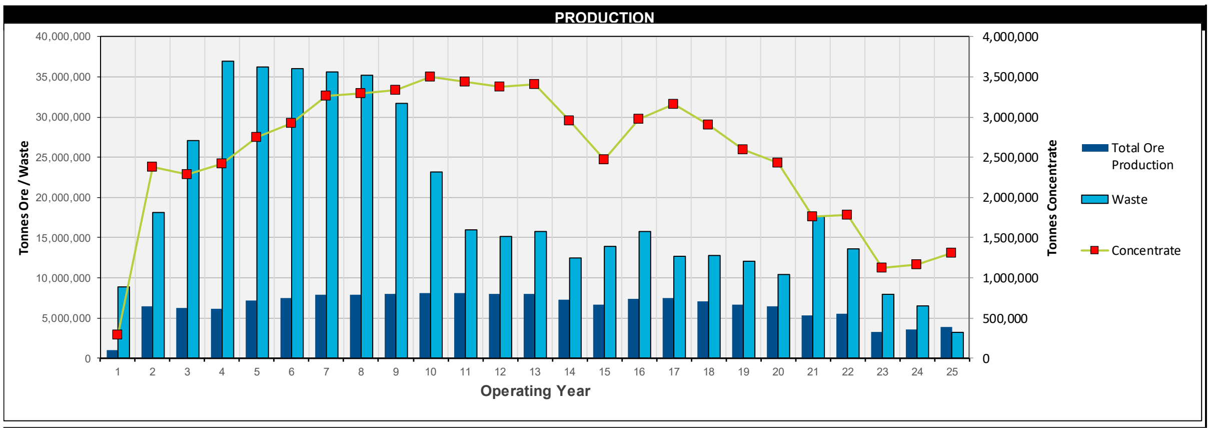
| Cost Item | Cost per Annum (USD) | Cost per Tonne RoM (USD) | Cost per Tonne Concentrate (USD) |
|---|---|---|---|
| General & Administration | 2,333,399 | 0.34 | 0.72 |
| Consumables | 11,479,599 | 1.27 | 3.55 |
| Labour | 11,989,132 | 1.77 | 3.71 |
| Maintenance & Operating Spares | 7,365,551 | 1.01 | 2.28 |
| Mobile Equipment (inc. Tugboats) | 5,593,736 | 0.83 | 1.73 |
| Reagents | 312,562 | 0.03 | 0.10 |
| Utilities | 7,549,556 | 0.83 | 2.34 |
| Laboratory | 595,930 | 0.09 | 0.18 |
| **Grand Total** | **47,219,465** | **6.17** | **14.61** |

### 1.2.4 Economic Analysis

The Sydvaranger DFS project cashflow models for the Project have been developed by SLR with inputs from the Sydvaranger operations team and Zenito. The mine physical inputs, mining fleet requirements, purchase costs and sustaining costs have been determined from the mine planning completed by SLR. Zenito provided the cost inputs on both phases for the process plant, and infrastructure capital cost estimates.

The tonnes per operating year are illustrated in Figure 1-1.

**Figure 1-1: Production Profile**




The mine is proposed to start production in November 2026 with 290 kt of concentrate produced in the two months of 2026.

In 2027 the concentrate production ramps up to 2.3 Mtpa where it remains until a short stoppage at the plant in Q3 2029 to tie in the upgraded crushing circuit, following which, the production ramps up to approximately 3.3 Mtpa of concentrate by 2030.

From 2039 the introduction of the central satellite pits in the RoM feed reduce the average feed grade and ultimately the concentrate produced. An average of approximately 2.8 Mt of concentrate is produced between 2039 and 2045.

From 2045 average concentrate production drops to approximately 1.4 Mt due to low grade material mined from the remaining satellite pits.

A detailed cashflow model has been produced for the LOM, incorporating all relevant capital and operating expenditures, taxes, marketing fees, working capital requirements and revenues.

A per tonne concentrate FOB (free on board) Kirkenes price has been used for the economic analysis. Two scenarios have been produced for the economic analysis: the variable price based on the FastMarket report, which varies from USD 111/t concentrate to USD 150/t concentrate (the Fastmarkets Scenario), and a reserve case with flat USD 114/t concentrate pricing (Reserve Case Scenario).

Capital expenditure has been split into two phases. Phase 1 covers the early-start of operations including refurbishment of the existing infrastructure, process plant and mobile equipment. Phase 2 includes additional mining equipment alongside crushing, cobbing and plant upgrades.

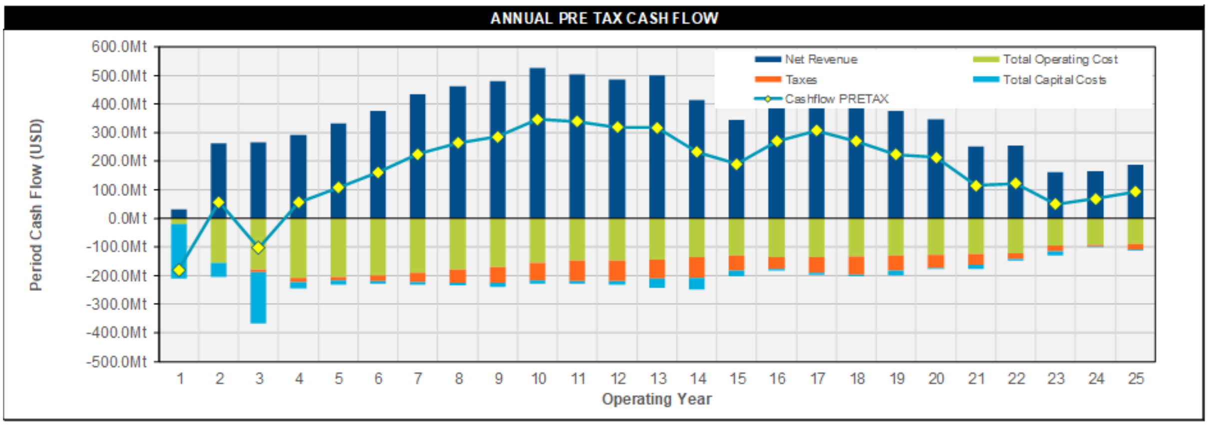
- Initial Capex totals USD 420.2 million over the first three years:
    - Year 1 CapEx totals USD 190.1 million
    - Year 2 CapEx totals USD 48.3 million
    - Year 3 CapEx totals USD 181.8 million

Operating expenditure has been driven by inputs from SLR and Zenito with the physical driving variable costs over the life of mine. Operating costs include mining, processing, G&A, and equipment leasing costs.

- The life of mine operating expenditure totals USD 3,552 million for an average unit cost of USD 56.10 per tonne concentrate.

The annual pre-tax cashflow for the Fastmarkets pricing scenario is shown in Figure 1-2.

**Figure 1-2: FastMarkets Scenario Annual Pre-Tax Cashflow**




The financial highlights for the FastMarkets case are summarised below:

- Total production revenue is USD 8,759 million over the LOM.
- This producing an EBITDA of USD 5,197 million.
- This provides a post-tax:
    - NPV [8] of USD 1,179 million
    - IRR 33.8%
- A Pre-tax:
    - NPV [8] of USD 1,522 million

  - IRR 37.7%.
- The LOM is 25 years with a payback period of 5.7 years from start of production

The Mineral Reserve case scenario using the conservative concentrate price of $114 per tonne concentrate also provides robust results with a pre-tax NPV [8] of USD 976 million, an IRR of 31.8%, and payback period of 6.1 years, indicating that the Mineral Reserves reported are economically viable.

## 1.3 Technical Summary

The Project is owned by SYD, a subsidiary of Grangex, which is listed on NASDAQ under the symbol GRANGX.

The Project has a long history: iron mineralisation was first discovered in 1866, the first mine permit was granted in 1906, and iron ore was first produced in 1910. There have been four phases of mining activity: 1910 to 1939, 1952 to 1969, 1969 to 1997, and most recently 2010 to 2015. The mine produced iron ore lump, magnetite concentrate (68% Fe, 5% $SiO_2$), super high-grade magnetite concentrate (72% Fe), and iron pellets for the European Market.

The focus of the DFS for Sydvaranger was progress work completed for the recent PEA (January 2025) and combined advanced design and costing inputs to create a Feasibility Report.

This DFS follows on from the PEA process; SLR developed two key options in the PEA:

- **Option A**: Is the As-Is option utilising the existing infrastructure with minor upgrades to enhance mill throughputs. Process will be upgraded to produce DR-grade pellet feed. The concept is an early ore, low capital cost; and
- **Option B**: The first three years will be the same as Option A, thereafter, Pit 1 ore will be accessed at earliest scheduled opportunity and the moving of the crusher to facilitate this option.

These options were considered thoroughly from a geological, geotechnical, mine design and scheduling, mineral processing, and economic analysis perspective.

The PEA evaluated Project risks and identified areas requiring mitigation in preparation for the DFS. Building on the PEA analysis and the outcomes of the Risk Review Workshop, the key activities required to advance the Project to a DFS under the Option B development scenario included:

- Completing all associated test work from recent drilling programs;
- Advancing geometallurgical modelling to enable more accurate reporting of MIS by domains;
- Conducting further metallurgical test work for verifying the DR product assumptions with samples from the satellite pits;
- Conducting detailed studies on tailings management options ;
- Undertaking market studies to validate product strategy;
- Conducting detailed mine scheduling and update pit optimisation to align with DR product specifications.

The perceived advantages of Option B, relative to Option A, are summarised below:

- Optimised Mineral Resource utilisation
- Reduced operating costs
- Lower tailings generation per tonne of concentrate

- Reduced water consumption per tonne of concentrate produced
- Reduced energy consumption per tonne of concentrate produced
- Increased production of DR grade concentrate.

The DFS has determined the technical, financial, and operational viability for the implementation of the Project. It valuated factors such as the resource quality, extraction methods, infrastructure needs, environmental impacts, market dynamics process solutions and financial feasibility. The DFS serves as the basis for deciding whether to proceed further with Project implementation.

The DFS analysed the Project based on two distinct phases:

**Phase 1:** Year 1 – Year 4 - Early restart using existing infrastructure to deliver the 2.5 Mt DR grade iron concentrate.

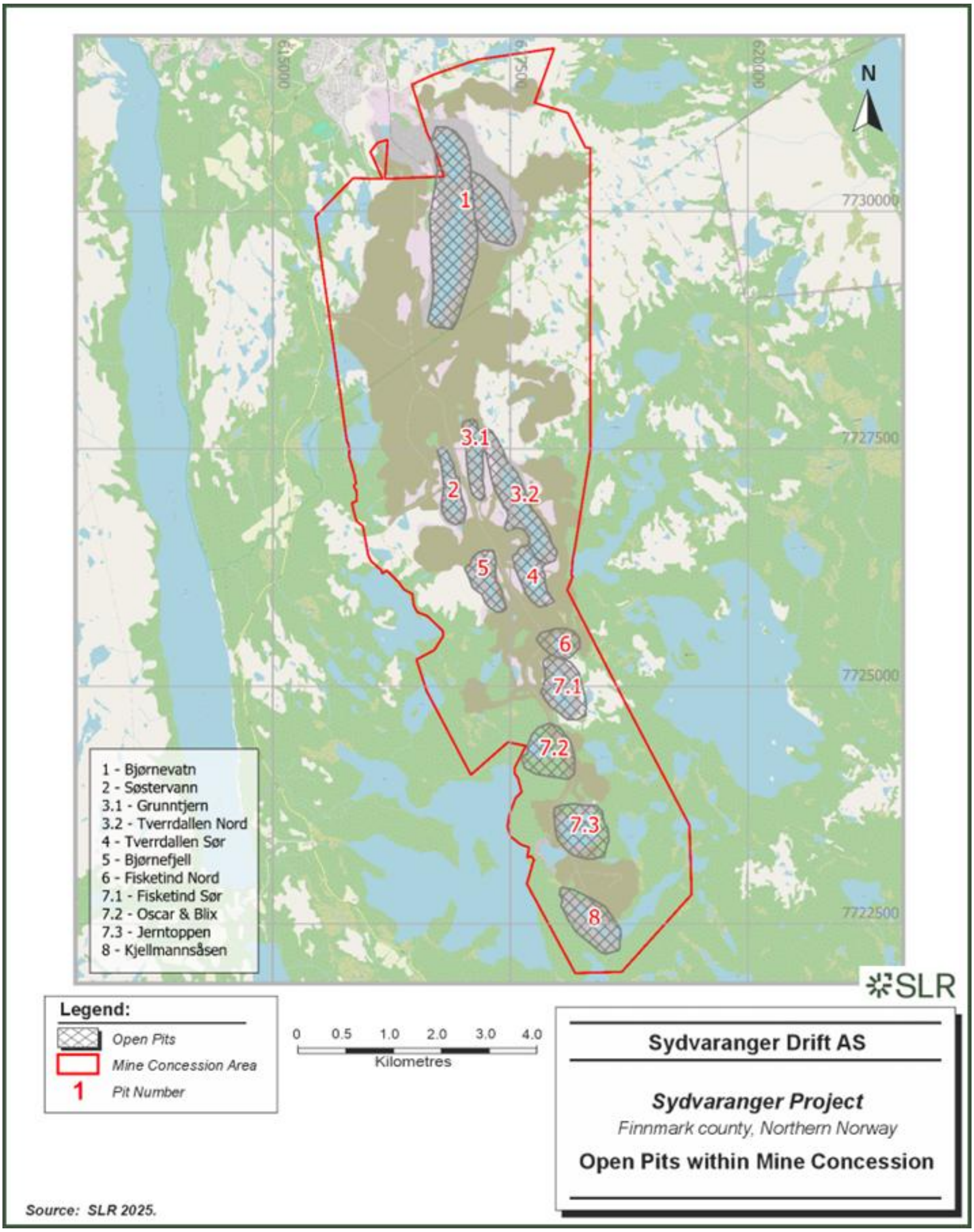
**Phase 2:** Year 4 onward – Replace and relocate the primary crusher from Pit 1 to new location to deliver the 3.0 Mt to 3.5 Mt DR grade iron concentrate.

The pit naming conventions used in this report are outlined in Table 1-8 and the pits are shown in Figure 1-3.

**Table 1-8: Pit Names and Numbers**

| Pit Number | Pit Name | Location | Groupings |
|---|---|---|---|
| Pit 1 | Bjørnevatn | North | Northern Pit |
| Pit 2 | Søstervann | Central | Southern satellite pits |
| Pit 3.1 | Grundtjern | Central | Southern satellite pits |
| Pit 3.2 | Tverrdalen North | Central | Southern satellite pits |
| Pit 4 | Tverrdalen South | Central | Southern satellite pits |
| Pit 5 | Bjørnefjell | Central | Southern satellite pits |
| Pit 6 | Fisketind North | South | Southern satellite pits |
| Pit 7.1 | Fisketind South | South | Southern satellite pits |
| Pit 7.2 | Oscarsmalmen & Blixmalmen | South | Southern satellite pits |
| Pit 7.3 | Jerntoppen | South | Southern satellite pits |
| Pit 8 | Kjellmansåsen | South | Southern satellite pits |

**Figure 1-3: Open Pits within Mine Concession**




### 1.3.1 Property Description and Location

The Sydvaranger iron ore mine, established in 1906, has over 100 years of mining history, ending with the previous operator's bankruptcy in 2015. This long history of extraction has left a substantial industrial footprint, shaping the topography significantly. Reopening plans include expansion into an undeveloped greenfield area within the existing mining permit boundary (also referred to as the mine concession area).

The Project is situated in northern Norway in the Sør-Varanger municipality of Finnmark county, at 70°N latitude and 30°E longitude. The Project mine site is located near Bjørnevatn, a small village with 2,574 inhabitants approximately seven kilometres (km) from Kirkenes, within Sør-Varanger Municipality, Finnmark County. The Plant and ship loader facilities are located in Kirkenes, the municipality centre with 3,535 inhabitants as of 2024. The Project is also two kilometres west of the Norway-Russia border and 30 km north of the Norway-Finland border.

The mine straddles a river catchment boundary, with the eastern section draining towards the Pasvik River and the Russian border, and the western section to the brackish fjord Langfjorden. Several lakes and streams are situated within and around the Mine concession area. There are five permitted waste rock dumps within the Mine concession area designed to store waste material generated by the mine operations.

The areas surrounding the mine support various land uses, including recreational activities, holiday cottages owned and used by the local population, natural resource harvesting, and reindeer husbandry managed by a Sámi organisation (Indigenous Peoples). A reindeer migratory route passes through the mine concession area and has been managed throughout the operational history of the Mine.

Access to the mine is via E6 and 8850 roads, with an eight kilometre railway connecting it to the processing plant in Kirkenes. Raw water for the processing plant is sourced from the nearby Kirkenes Lakes. Tailings separated at the processing plant are transported via pipeline to a submarine tailings deposit in Bøkfjorden, where tailings have been deposited since 1972.

### 1.3.2 Land Tenure

Comprising 11 main deposits and several smaller mineralization occurrences, the Project mine site covers a strike length of approximately 10 km, with the combined Project licences covering 16 square kilometres ($km^2$). This includes seven exploration and 14 extraction rights, held by Sydvaranger. Sydvaranger owns all land within the Mine concession area.

### 1.3.3 Existing Infrastructure

The municipality of Sør-Varanger has a well-developed infrastructure, transportation, and digital network including roads, ports, and airports; and is able to readily supply both water and power to the Mine and Plant sites.

The Project workforce will be a combination of residents and fly-in fly-out and drive-in and drive-out employees.

Site infrastructure constructed and maintained by previous and current operators remains available for continued use.

### 1.3.4 History

Low-grade mineralization was initially discovered in the region around 1865 with more extensive exploration activities commencing in 1902. In 1906, the company Sydvaranger AS was founded which led to the first iron ore lump from the Bjørnevatn mine being produced in 1910.

Mining activity at Bjørnevatn has taken place over four periods, with interruptions due to the two World Wars. The four periods of previous mining activity are 1910-1939, 1952-1969, 1969-1997, and 2009-2015.

- Post World War II, the process plant was rebuilt, and the Mine operated under state ownership, with the Government of Norway.
- 1969, Sydvaranger AS produced a higher value iron pellet product for use in steel mills.
- 1989, produced high-grade magnetite concentrate.
- 1994, produced hard ferrite product.
- 1995, produced a pigment product.
- 1997, the mine operations were closed.
- 1999, the government sold its 63% stake in the mine to Varanger Kraft, the remaining 37% were held by the Sør-Varanger municipality. Arctic Bulk Minerals AS (ABM) purchased equipment and attempted to re-open the mine; however, this proved unsuccessful.
- 2006, the Tschudi Group acquired rights to the Project and formed a joint venture (Sydvaranger Gruve AS) with Northern Iron Limited (NIL).
- 2007-2008, Project development and exploration took place.
- 2009, production restarted.
- 2015, due to the decline in iron ore prices, Sydvaranger Gruve AS filed for bankruptcy.
- 2016, Tschudi Group reacquired the project and commenced activities to restart operations under the subsidiary Sydvaranger Drift AS (SYD). A test production campaign was initiated for 100 days, which produced 100,000 t of ore.
- 2017, Tschudi Group involved Orion Mine Finance Inc. (Orion), as lender to complete the FS.
- 2019, AMC Consultants (UK) Ltd. completed a FS (AMC 2019b).
- 2020, Tacora Resources Inc. acquired Sydvaranger Mining AS through an agreement with ORION to facilitate the restart of operations. Ausenco completed a FS in 2019-2020 (Ausenco 2019b).
- 2023, Orion exercised its rights to reacquire Sydvaranger Mining and put it up for sale and subsequently sold it on the open market to the Swedish company Grangex AB in May 2024.
- 2024, an internal option study into project restart scenarios was carried out by the Grangex team supported by engineering works carried out by SLR.
- 2024-2025, a PEA study was completed by SLR resulting in a preferred restart scenario.

### 1.3.5 Geology and Mineralization

The bedrock geology of eastern Finnmark and the western Kola Peninsula is composed of Archaean to Early Proterozoic gneisses and volcano-sedimentary supracrustal rocks overlain by Late Proterozoic to Palaeozoic sedimentary rocks.

The Kola and Karelian cratons display a long evolutionary history from 2.8 billion years ago (Ga, Pre-Samides) to 1.8 Ga (Carelides). It starts with rocks formed in an intracratonic rift environment at 2.5-2.4 Ga, including the iron ore formations at Sydvaranger, and culminates in the collision of the Kola craton with the Karelian craton around 1.9 Ga, followed by orogenic collapse and crustal thinning.

All of the iron deposits that comprise the Project are situated in the metamorphosed sedimentary iron formations of the Fisketind Formation. The iron formations are structurally deformed and moderately to strongly metamorphosed and have been defined over a 12 km strike length from Bjørnevatn in the north to Kjellmansåsen in the south. More than 23 separate iron deposits have been identified in the region to date.

The stratigraphic rock units relevant to the iron ore deposits are the Fisketind and Bjørnefjell Formations of the Bjørnevatn Group. The Fisketind Formation contains all the economically important iron formations, whereas most of the waste that has to be mined comprises the Bjørnefjell Formation. The principal and best-known parts of the Fisketind iron formations are the Bjørnevatn West and East deposits located in the northern portion of the syncline within the central part of the Sydvaranger mining area.

Throughout the Sydvaranger deposit, the magnetite occurs in thin bands up to several millimetres in thickness laminated together with quartz and amphiboles. The amount of magnetite and gangue minerals is variable in different layers of the deposit. The amount of sulphides present in the mineralisation is generally very low with only occasional thin veins and disseminations of pyrite and pyrrhotite. Sulphides generally occur in shear zones, mylonite, and brecciation structures.

### 1.3.6 Exploration

Banded iron ore formations (BIFs) were first discovered in the Bjørnevatn area by the Commissioner of Mines, Tellef Dahll in 1865. The first significant period of exploration of the iron ore potential of the area commenced in 1906 and subsequently led to the establishment of Sydvaranger AS and production of the first concentrate in 1910.

Drilling has been the predominant exploration method, with drilling undertaken from surface, and to a lesser extent from underground at Bjørnevatn. The current database provides details for 882 diamond drill holes, totalling 142,280 metres (m), drilled between 1906 and 1985, and 127 drill holes, totalling 24,747 m, drilled between 2007 and 2012. A total of 17,590m of reverse circulation (RC) drilling was undertaken from 2009 to 2015. The total metres drilled from 1906 to 2015, including diamond and RC drilling, is 184,617 m.

Golder Associates (UK) Ltd (Golder) was commissioned by SYD to undertake a hydrogeological and geotechnical study to FS standards. A total of 33 boreholes (19 geotechnical and 14 hydrogeological) were drilled in 2018 totalling 6,880 m.

In 2025, SYD completed a drilling campaign to target the Søstervann, Bjørnefjell, Oskarmalmen, and Kjellmansåsen deposits (Pit 2, Pit 5, Pit 7, and Pit 8). This drilling campaign totalled 4,108 m in 23 drill holes with the objective to collect additional geometallurgical data, confirm sulphur distribution, validate historical data, and to upgrade existing Mineral Resources. The results from this drilling campaign are used for the Mineral Resources declared in this Technical Report.

In 2008, Geotech Airborne Limited conducted a versatile time domain electromagnetic (VTEM) survey over the licence area. Three additional magnetic anomalies, referred to as Boris-Gelb, Bjørnefjell South and an unnamed anomaly to the southeast of Bjørnevatn, were identified. The Boris-Gelb and the Bjørnefjell South anomalies have been drilled (10 drill holes for Boris-Gelb and one drill hole for Bjørnefjell South), however, no drilling was conducted at the Bjørnevatn southeast anomaly.

### 1.3.7 Mineral Resources

The current MRE for the Project is supported by a comprehensive set of data inputs, including drilling data, assay results, bulk density measurements, geological modelling, and estimation parameters.

The MRE, with an effective date of 15 August 2025, is shown in Table 1-1.

The MRE for Sydvaranger was completed by Logan Behuniak, P.Geo. Logan Behuniak is a Senior Resource Geologist with SLR and a QP for the reporting of Mineral Resources as defined by NI 43-101.

CIM (2014) definitions were used for Mineral Resource classification.

The reported Mineral Resources use a long-term iron metal price of USD 140/t and open pit $Fe_{(mag)}$ cut-off grades of 3.18% for Pit 1, 3.85% for Pit 2, 3.84% for Pit 3.1, 4.00% for Pit 3.2, 4.10% for Pit 4, 3.60% for Pit 5, 4.62% for Pit 6, 3.62% for Pit 7.1, 4.01% for Pit 7.2, 4.01% for Pit 7.3, and 3.69% for Pit 8.

### 1.3.8 Mining

SLR has undertaken a comprehensive scope of mining activities in support of the DFS. The resultant analysis incorporates all relevant modifying factors in the conversion of Mineral Resources to Mineral Reserves, ensuring the outcomes are technically robust and compliant with reporting standards.

The Sydvaranger iron ore mine will be a conventional open-pit hard rock mining operation. A detailed mining schedule involves mining in nine individual pits. Ore will be mined from nine separate pit locations to a single centralised crushing location. The crushing location is currently situated to the northwest of Pit 1, a new primary crusher situated to the northwest of Pit 2 along with an upgraded cobbing circuit is planned to be commissioned in November 2029. The ore is crushed on-site and undergoes cobbing with the product being transported by rail to the Kirkenes processing plant. Waste material mined from the pits will be deposited on one of five waste dumps while the cobbing reject will largely be used for aggregate production by a 3rd party and removed from site.

The total Sydvaranger Mineral Reserves as of 25 August 2025 total 161.2 Mt of clean ore at an $Fe_{(mag)}$ grade of 28.3% across nine open pits. Waste material totals 475 Mt giving a strip ratio of 2.95. The waste material includes 9.6 Mt of high-MIS mineralised waste.

The mainstays of production over the life of mine is provided by the Pit 1, which has been scheduled in six pushback phases, and Pit 7, which is split into three separate mining areas. These two pits are supported by seven satellite pits, which are largely mined towards the end of the mine life with the exception of Pit 8 which provides early access to ore.

Phase 1 ore feed is largely provided by Pit 8, 7.1, and 7.3. In Phase 2, following plant upgrades Pit 1 feed is introduced, supported by Pit 3.1 in from 2038 and Pit 7.2 from 2039. The remaining satellite pits are mined from 2042 onwards.

Loading and Hauling will be carried out by an owner-operated fleet of hydraulic excavators, front-end loaders, and rigid dump trucks. In the ramp-up period, mining is planned to be carried out using a CAT 395 and CAT 6020 excavators supported by a fleet of ten CAT 777 rigid dump trucks, eight of which are available on-site and planned to undergo refurbishment. A CAT 992 front-end loader is also on-site and will support mining, rehandle and construction efforts during ramp-up. By 2027, a CAT 6030 will be commissioned supported by a fleet of CAT 785 haul trucks. The larger load and haul fleet grows during the life of mine while the 777 fleet is largely phased out of production mining and used for rehandling.

Primary crusher feed will be supported by a rehandle fleet from the RoM pad. The stockpile balance is scheduled to reach a maximum of approximately 1 Mt of ore in October 2027. A 40% minimum rehandle has been costed with rehandle duties to be carried out by a CAT 992 front-end loader supported by the refurbished CAT 777 fleet.

Pits have been designed to 20 m bench intervals with drilling and blasting carried out in 10 m flitches. The drilling is to be carried out by an owner-operated fleet of boom-mounted rigs (Epiroc L8s and D65s) and platform-style rigs (Epiroc DML). Three Epiroc L8 rigs are available on-site requiring refurbishment and will be used for ramp-up before being replaced by D65 later in the mine life.

Blasting will be managed by the owner team while a supplier will provide explosives charging services with a down-the-hole bulk explosives contract. The supplier is expected to provide the mobile mixing units supported by a tool handler for loading of stemming.

A full complement of support equipment includes smaller excavators, dozers, motor graders, water trucks, low loaders and tool handlers. The graders and water trucks will be fitted out for dual purpose usage in the winter months with graders prepared for management of snow and water trucks converted to rock spreading units. A CAT D10 dozer and 16M grader are available on-site and will undergo refurbishment. A suitable low-loader and pair of Sleipner™ dollies will allow flexibility to relocate tracked equipment across the site.

#### 1.3.8.1 Geotechnical

The geotechnical analysis for the Sydvaranger iron ore mine DFS encompasses stability analyses across all planned pits, incorporating detailed rock mass and structural characterisation. The Sydvaranger deposit comprises primarily BIF orebody hosted within waste lithologies including gneiss, diabase, meta-vulcanite, and meta-rhyolite lithologies.

The analysis utilised historical geotechnical data from Golder's combined geotechnical and hydrogeological site investigation conducted between July 2018 and January 2019. Rock mass characterisation employed Bieniawski's Rock Mass Rating (RMR) and Laubscher's Mining Rock Mass Rating (MRMR) systems, with data from over 12 km of core logging. Five major structural sets were identified globally through drone surveys and acoustic televiewer logging.

The geotechnical domaining approach subdivided the mine into discrete domains across the pits, with domains typically split by wall orientation to account for varying structural orientations and rock mass characteristics. The geotechnical model incorporates the five primary lithological units, with domains defined by lithology, structure and strength parameters.

The primary objective of the analysis carried out during the DFS was to provide geotechnical slope design parameters for mine design. The following geotechnical analyses were performed:

- Small scale kinematic analyses for 20 m bench heights for each domain.
- Check for formation of large-scale fault blocks for all pits using the planned mine design.
- Large scale kinematic analyses of potential large scale features identified that may affect inter-ramp and/or overall slope stability.
- Verification of 30 m geotechnical berms using rock fall analyses.
- The large-scale overall slope stability for critical pits/domains.
- Assessment of the West Wall Failure buttress stability.

Inputs for the mine design (per domain) are provided including bench face angles, bench widths and inter-ramp angles. Bench heights are driven by equipment selection. Maximum inter-ramp stack heights and overall slope angles are also provided. Slope design parameters were established for each domain including:

- Bench face angles ranging from 70° to 80°
- Design berm widths from 7 m to 15 m
- Inter-ramp angles from 44.5° to 58.3°

The overall strength reduction factor (SRF, similar to the FOS) value produced by the overall slope and buttress stability analyses is high (2.97) and meets design criteria thresholds. Despite this, it has been SLR recommends that slope monitoring be implemented, specifically, automated prism tracking and slope radar due to the potential localised deformation along large-scale structures.

The following geotechnical controls were integrated into the mine schedule and costs for this DFS:

- Pre-split drilling/blasting
- Geotechnical berms
- Monitoring equipment and practices

#### 1.3.8.2 Hydrogeology

The hydrogeological analysis for the Project DFS includes hydrological and hydrogeological analyses across the mine area. Hydrogeological analysis utilised historical data obtained as part of the 2019 Feasibility Study (AMC 2019a), including Golder's site investigation and interpretation conducted in 2018 and 2019. The DFS analyses, required for mine infrastructure planning and design, were based on the available information, with the main objective being to develop the water management strategy to achieve and maintain dewatering for mining and maintain correct discharge routing in line with permitted locations.

A review of existing data, analysis and characterisation, and existing conceptual model(s) was undertaken, and recommendations made for areas and aspects requiring further work and these elements were progressed for the DFS analyses. This included analysis of climate and streamflow data. The mine area water balance was undertaken and included development of meteorological, evaporation and runoff inputs, and climate change projections. The balance incorporated the catchment areas and pit lake dewatering and was the basis for the design of water controls infrastructure, including mine water and runoff management. To allow dry mining and keep discharge to prescribed bodies, the water management plan and strategy was produced, and this included cut-off ditches and sump, pump and pond systems and collection of other runoff and seepage.

Groundwater management and monitoring measures were developed including draining of workings, drain holes and monitoring piezometers. Calculation of inflows was undertaken for updated mine designs.

Analyses included identification of assumptions, limitations, risks, opportunities, and recommendations and was also used to input to capital costs, sustaining capital, and operational costs against the mine schedule via quantity and rate estimation for the mine area water infrastructure. The analyses were documented technically and incorporated into the required reporting content of the final DFS report.

### 1.3.9 Mineral Processing and Metallurgical Testing

The Project aims to enhance the final concentrate grade and increase throughput at the currently non-operational Sydvaranger Plant to 850 tph through a two-phase development strategy:

- Phase 1 focuses on upgrading the milling area to enable an early restart of the Plant at 805 tph and upgrading the separation area to produce a DR grade quality product.
- Phase 2 includes the installation of a new crushing circuit, enhancements to the cobbing area, and the addition of a new secondary mill, enabling the Plant to reach the full 850 tph target.

The current design builds upon earlier work by Ausenco, with refinements introduced during the DFS. Background and development efforts from the PEA (Chapter 17) and the 2019 FS (AMC 2019a) have been incorporated, with key engineering reviews conducted through 2023 and early 2024.

The Plant will consist of the existing equipment, as per the historical flowsheet, with modifications described in Sections 1.3.9.1 through 1.3.9.4.

#### 1.3.9.1 Primary Grinding Classification

The primary grinding hydrocyclones will be replaced by ultra-fine particle size screens. The upgraded primary grinding circuit concept was simulated by Metso and peer reviewed by Dr. Mike Daniel, CMD Consulting. The throughput targets were simulated and verified and showed a reduction of the circulating load by approximately 50%. The resulting projection of a superior particle size distribution for rougher magnetic separation, regrinding to target $P_{80}$ 53 µm and the beneficiation stages, formed the basis for updated downstream processing design.

#### 1.3.9.2 Tertiary Magnet Separating Update

The existing flowsheet will be upgraded with proven Silica Reduction technology, enabling Sydvaranger to deliver DR-grade pellet feed with substantially lower silica content. This well-established technology is already in use at operations worldwide. Several test programs confirmed both its performance and integration in the process. Two options were evaluated—upgrading the final magnetic separation concentrate or replacing the tertiary low-intensity magnetic separation (LIMS) stage. Test results demonstrated that replacement of the tertiary LIMS stage delivers the greatest benefit, supporting its inclusion in the revised flowsheet.

#### 1.3.9.3 Increased Capacity Updates

The current range for throughput capacity of 805 tph (Phase 1) to 850 tph (Phase 2) requires additional concentrate filtration equipment and increased secondary magnet separation capacity. For Phase 2, an additional secondary ball mill is anticipated to give the process sufficient secondary milling capacity for the higher throughput.

#### 1.3.9.4 New Crusher Station and Cobbing Upgrades, Phase 2

The current crusher system located at the Plant in Kirkenes is unable to provide feed to the primary ball mill at the design specifications. The primary reason for sub-optimal performance is that due to space limitation a choke feeding system cannot be installed. Another issue is that the hydraulic reset system is slow, which causes occasional extended spikes in oversize ore feeding the ball mill, in addition the space limitation for closing the circuit with screens.

A new crusher station will incorporate the required design for achieving the design performance of $P_{80}$ 12.5 mm product. Additionally, new magnetic cobbing separators, which are better suited for the finer crushed product from the new crusher station, will be installed. The new crushing and cobbing upgrades will increase the cobbing reject from 10% to 17.5%.

#### 1.3.9.5 Concentrate Quality

Projected concentrate specifications, based on average assay values of samples from the Sydvaranger mines, indicate a high-grade product suitable for DRI applications(Table 1-98). Other elements that may be of concern, such as mercury (Hg), thorium (Th), and uranium (U) are below detection level with standard analytical methods. The concentrate particle size is close to $P_{80}$ <50 µm.

**Table 1-9: Sydvaranger Concentrate Specifications**

| $Fe_{(tot)}$ % | $Fe_{(mag)}$ % | $SiO_2$% | S% | P% | CaO% | MgO% | $Al_2O_3$% |
|---|---|---|---|---|---|---|---|
| 70 | 69.7 | 2.6 | 0.03 | 0.009 | 0.13 | 0.10 | 0.17 |

The Phase 1 and Phase 2 planned upgrades position the Sydvaranger Plant for a high-efficiency restart and long-term production of premium-grade iron ore concentrate.

### 1.3.10 Environmental and Social

The Project is fully permitted to restart mining and processing operations after several years in care and maintenance. Supported by a long operating history, past production periods, and recent studies, the Project is well defined and underpinned by a substantial body of environmental and social (E&S) information. The permits include specific conditions, including the requirement to establish approved monitoring programmes, before operations can commence.

Further, the operation is supported by well-developed management plans and systems covering the key aspects of the health, safety, environment, and community (HSEC). Prior to re-starting operations, Sydvaranger will update these management plans and systems to ensure full alignment with GIIP.

Although not required under Norwegian legislation, since an environmental permit has already been granted, Sydvaranger will prepare the first full ESIA for the operation, with both Norwegian and EU regulation. This is one of the most important HSEC priorities. A review of existing data, assessments, and studies has already been completed, and several of these were found to be sufficient as a basis for the ESIA and to meet Grangex's sustainability expectations. However, some earlier work requires updating in order to align with current national and international ESIA standards. The additional studies are being conducted between Q1 to Q3 2025, with the ESIA scheduled for completion in Q4 2025.

Sydvaranger has all the permits in place to restart operations, however, a few secondary permits will be required later in the mine plan. These include building permits for a new pump line between two of the Kirkenes lakes to supply raw water to the process plant, as well as the new crusher station. In addition, permits from the Norwegian Water Resources and Energy Directorate Authorities will be required for the backfilling of a few small lakes within the Mine concession area as waste rock dumps and also for the development of one of the pits. These permits are expected to be granted but may be subject to conditions.

The Mine is situated in a region where reindeer herding is practiced, requiring passage through the Mine concession area. Agreements are in place, supported by a good relationship and ongoing dialogue with the herding community. An independent consultant study confirms that the principle of Free, Prior, and Informed Consent (FPIC) is being met.

Several studies have been completed on the existing submarine tailings disposal in the fjord, including a marine impact assessment and modelling of the discharge point and spread. An ongoing monitoring programme will evaluate whether an extension of the pipeline is necessary.

Alternative tailings solutions have also been studied. The two main options are (i) utilising depleted pits for tailings storage, and (ii) transforming tailings into a marketable silica sand product. Pre-feasibility studies of both alternatives are underway and will continue following the publication of the DFS. The development of a marketable silica sand product is a potential opportunity to align with Grangex's strategic goal to advance resource efficiency and circularity.

In line with Grangex's sustainability ambitions, a life cycle analysis (LCA) of the operations has been completed. The LCA highlights clear opportunities to reduce the climate impact by transitioning away from a fossil diesel-driven mining fleet. Various options are being evaluated, with the long-term goal of fully electrifying the Mine. The LCA will be updated with downstream scenarios following the publication of the DFS.

A number of preliminary environmental and social risks and potential impacts have already been identified and are summarised herein. These include the current submarine tailings disposal method, water quality impact related to pit dewatering, and future permitting risks for the expansion of the waste rock dumps. As the ESIA progresses, the list of potential impacts will be updated and appropriate management, monitoring, and mitigation measures will be developed to avoid or reduce risks.

Upon closure, several permanent landforms will remain, including pit voids, waste rock dumps (WRDs), and the submarine tailings disposal. Careful planning is required to ensure these features remain stable over time and to minimise long-term risks to both the environment and surrounding communities. A closure plan has already been developed as part of the mining permit, approved by the authorities, and will also serve as a framework for engagement with the local community regarding post-mining land use.

Mine closure costs, calculated in line with regulations from the Directorate of Mining, amounts to a total of NOK 29,373,610 (approximately USD 2.9 million). Of this amount, NOK 6,424,833 have already been placed in escrow. An additional NOK 8,360,000 will be deposited at the start of operations, followed by NOK 1 per tonne of ore until the full amount is secured.

### 1.3.11 Marketing

#### 1.3.11.1 Iron Ore and Its Market

World crude steel production is forecast to grow at a compound annual growth rate (CAGR) of 1.8% between 2024 and 2045, reaching approximately 2.8 billion tonnes (Bt) by 2045.

The share of electric arc furnace (EAF) in the overall crude steel production will grow from 31% to 54% between 2023 and 2045. The decarbonisation efforts are driving the phase-out of old and less efficient production facilities in favour of newer EAFs and thus driving the demand for metals including scrap and DRI-HBI (DRI – hot-briquetted iron).

Direct reduction (DR) high grade pellet demand remains concentrated in the Middle East and North Africa (MENA). The expansion of DRI capacity in MENA and the shift from BF-BOF to DRI-EAF in the European Union (EU) are expected to further boost DR pellet consumption.

DR pellet feed is characterised by higher Fe content and lower gangue content to enable the production of high quality DRI with desired metallisation levels. As such, DR pellet producers face significant challenges in securing high Fe, low gangue feed material. Significant growth in pellet feed demand is forecast primarily in the MENA region.

As DRI gains market share, the need for DR-grade pellet feed is increasing, leading to an anticipated supply deficit in the pellet feed market. While the demand growth is primarily in the MENA region the supply will come from existing suppliers like Vale, Anglo American and IOC (Iron Ore Company of Canada) and new producers of DR grade pellet feed such as Champion Iron (Canada), CMP (Chile) and Sydvaranger (Norway). By 2028 a shortage of 15 million tonnes globally is forecasted.

#### 1.3.11.2 Sydvaranger High Grade Concentrate

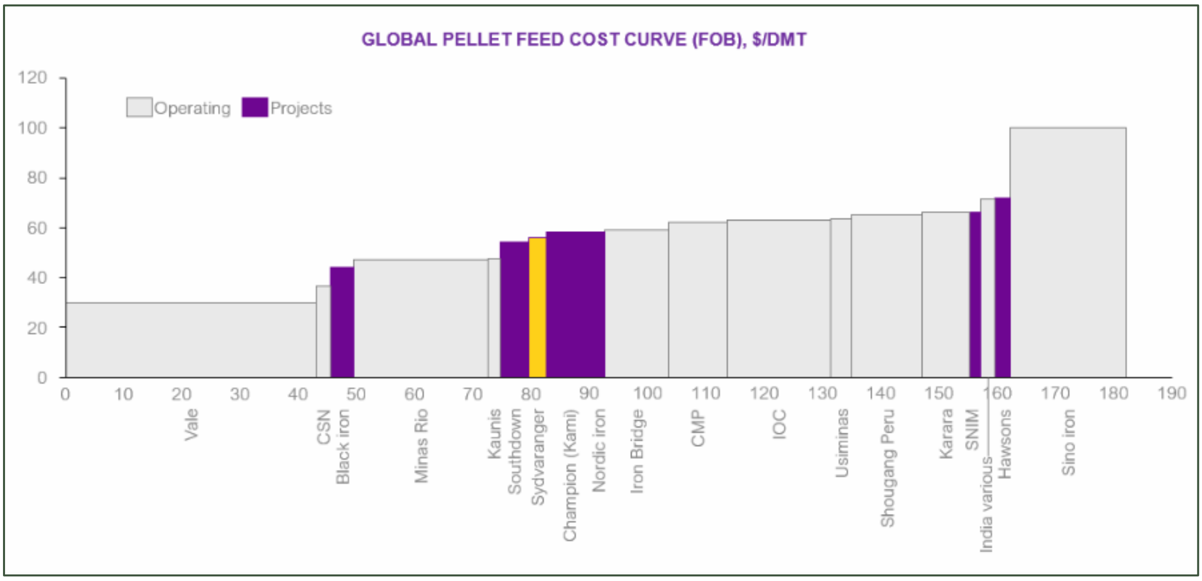
Sydvaranger's product offers a higher Fe content than most pellet feed producers. Amongst existing mines and competitive projects, Sydvaranger is notable for having one of the highest Fe contents globally, along with low gangue levels, making its product highly suitable for the production of DR pellets used in Direct Reduced Iron (DRI) production.

The DR pellet price at destination is typically calculated as: Fe-65% CFR China + VIU + freight netback + DR pellet premium. To better reflect demand for higher-grade feedstock, Fastmarkets introduced Fe-67.5% pellet feed pricing in 2023. Fe-67.5% specifically for DR pellet production. EU steelmakers, in particular, are shifting from BF-BOF to EAF-DRI systems as part of their decarbonisation strategies, with hydrogen-based DRI at the centre. Securing DR-grade pellet supply, requiring high Fe and low gangue content, will be increasingly difficult, presenting a structural challenge for the industry. As a result, prices for Fe-65% and Fe-67.5% pellet feed products are expected to remain resilient, underpinned by strong demand and limited availability. The long-term price for Sydvaranger's DR pellet feed (Fe 67.5%) is forecast to be $148/t (real 2024, CFR China).

Sydvaranger has committed its entire production of pellet feed in an off-take agreement with Anglo American whose end customers are, due to Its strategic location, anticipated to be primarily DR grade pellet producers in Middle east, N. Africa and Western Europe. Shipments will be in Panamax and Post Panamax vessels from the Port of Kirkenes.

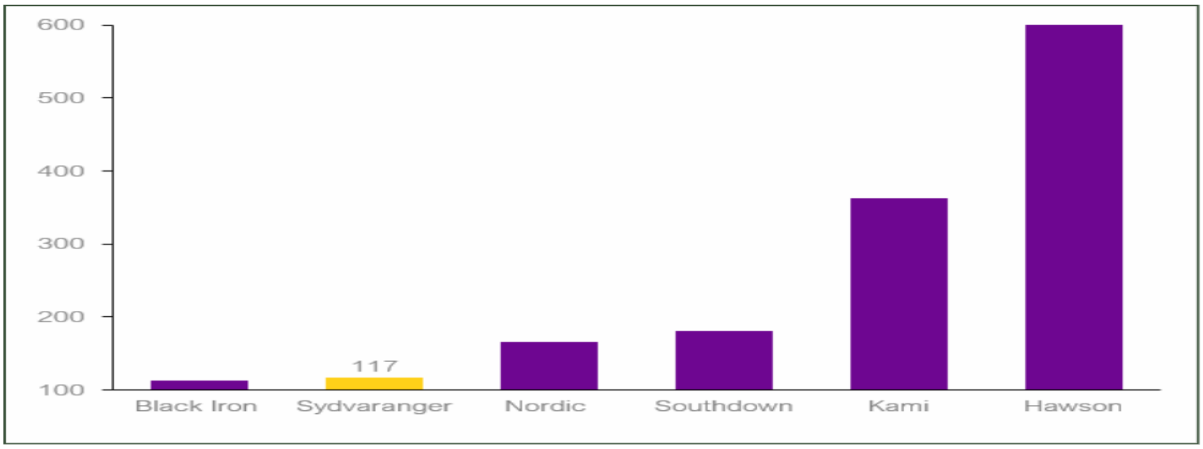
A great advantage of the Sydvaranger high grade concentrate is its favourable cash cost, placing it in the middle of the global pellet feed cost curve at USD 56:64 per tonne of concentrate FOB Kirkenes.

**Figure 1-4: Global Pellet Feed Cost Curve (FOB), $/DMT**




An analysis of capital intensity and production start-up indicates that Sydvaranger is competitively positioned among its peers. Alongside the Black Iron magnetite project in Ukraine, Sydvaranger stands out as one of the most cost-effective developments expected to come online during the forecast period.

**Figure 1-5: Pellet Feed Capital Intensity $/t**




# 1.4 Risks

During the DFS study for Sydvaranger, several risks and opportunities have been identified and added to the Sydvaranger Risk Register (Appendix 01-01).

## 1.4.0 Geology and Mineral Resources

### 1.4.0.1 Resource Classification

Only 13% of the total Mineral Resources are classified as Measured. The remainder of the Mineral Resources are classified as Indicated (74%) and Inferred (13%), demonstrating uncertainty for future mining plans.

### 1.4.0.2 Historical Data

There is still historical data supporting the current Mineral Resource estimate. The Room 400 re-assay programme and the 2024-2025 drilling campaign and resampling programme have helped validate historical data for several pits (Pit 2, Pit 5, Pit 7.1, and Pit 8), however, other areas of the mine are still supported by historical data. Historical drill holes require new drilling or resurveying for true spatial validation.

### 1.4.0.3 QA/QC

Quality assurance/quality control (QA/QC) from the 2024-2025 drilling campaign and resampling programme has helped validate historical QA/QC and increased the confidence for Pit 2, Pit 5, Pit 7.1, and Pit 8, however, other areas of the mine have lower confidence where previous QA/QC analyses contain erroneous results and strong biases (i.e., external certified reference materials (CRM) GIOP-31 and GIOP-93). These historical analyses were performed by the Sydvaranger in-house laboratory, leading to doubt around the accuracy of the current assay database for some areas of the mine.

### 1.4.0.4 MIS Domaining

The 2024-2025 drilling campaign and the compilation of historical sulphide data performed by Sydvaranger in 2025 has helped refine the MIS domains throughout the Mine, however, several areas require additional data collection (i.e., drilling or resampling) to further define the MIS domains. This is especially key for areas of the mine that contain the higher sulphur content (i.e., Pit 6 and Pit 7.3). These additional details may be required to help inform future mining schedules.

#### 1.4.0.5 S/MIS Sampling

The estimation of S and MIS grades in the block models is based on a limited data set due to the under sampling of these analytes throughout the mine. This results in a potential bias in the grade estimates for S and MIS that may cause impacts to the mine schedule on a bench scale.

#### 1.4.0.6 Structural Nature of Sulphides

The structural nature of the sulphides is not well understood due to a lack of structural data and structural studies performed on the structures hosting the sulphide mineralisation (i.e., hydrothermal quartz veins).

### 1.4.1 Mining

#### 1.4.1.1 Pit 1 West Wall

The most significant geotechnical risk involves a pre-existing large-scale wedge failure in Pit 1, with three potentially unstable blocks identified (North_1, North_2, and Central_1). The North_2 wedge represents the highest risk with a volume of 288,980 m³ and a FOS of 0.2 under wet conditions. As such, it is planned to mine through and remove these blocks.

#### 1.4.1.2 Pit 1 West Wall Failure Buttress

SLR undertook a trade-off to determine whether the West Wall and associated buttress should be mined. The analysis indicates positive economic outcomes and a significant reduction in geotechnical risk, concluding that the West Wall should be mined out as part of the Pit 1 phasing. The West Wall failure in its current state is stabilised by the buttress in front of the wall failure. The buttress can only be mined once the West Wall is mined down 70 m vertical, which then unlocks ore currently sterilised by the buttress. Any delay in the mining of this West Wall phase will ultimately delay the subsequent phases in Pit 1. A more detailed excavation plan and method statement will be required to confirm the quantities and equipment required to adhere to the mining schedule.

#### 1.4.1.3 Slope Monitoring and Instrumentation

The Project faces high inherent risk from the current absence of continuous slope monitoring systems. Without automated real-time monitoring, there is potential for delayed detection of wall movement leading to unsafe conditions. Mitigation requires deployment of automated total-station hubs reading prisms at 15-minute intervals (USD 450,000) and two long-range radar systems on critical walls (USD 1.2 million). Robust Trigger Action Response Plans (TARPs) must be implemented for each geotechnical domain.

#### 1.4.1.4 Rock Fall and Berm Capacity

Whilst considered unlikely, catch-berms may be overloaded by blocks if they exceed 250 m³, potentially causing passage to lower benches. The designed 30 m geotechnical berms every 140 m of lift height is currently planned to mitigate for this. Mitigation requires the deployment of a Doppler radar in localised problematic areas at a cost of USD 400,000.

#### 1.4.1.5 Groundwater and Pore Pressure

Excess toe pore pressure in deeper pits could reduce factors of safety on toe berms, though analysis indicates this risk is localised. While no drainage systems are currently planned, horizontal drains can be installed if experience from operations and monitoring indicate elevated pore pressures.

#### 1.4.1.6 Climate Change Sensitivity

Increased precipitation and freeze-thaw cycles associated with climate change may elevate pore pressures and weaken joint systems, potentially reducing slope stability factors of safety. Predictive transient hydrogeological modelling and updated drainage designs may be required during execution engineering.

#### 1.4.1.7 Design Verification

Final execution pit designs will require geotechnical verification once available at the detailed engineering phase. Any significant deviations from the feasibility study designs could necessitate additional large-scale kinematic analyses to identify potential adverse wedge formations.

#### 1.4.1.8 Delayed Start-up

The envisaged restart date for mining is April 2026. The startup process will require the recruitment and allocation of key mine management, technical services, and operational personnel to ensure successful execution of the start-up process. It is likely that additional personnel or consulting services will be required to support the current team in preparing detailed mine plans, developing procedures, and method statements.

#### 1.4.1.9 Minimum Mining Width / Narrow Benches

Most of the planned pits are located around existing excavations. As a result, SLR has incorporated a minimum mining width requirement of 40 m from existing bench faces to avoid any narrow benches that ultimately would reduce productivity. This minimum distance allows for reasonable space for drill and blast operations and bench access. There are a few localised areas where the minimum mining width is reduced to 35 m to 40 m over a limited distance on the bench. The application of this width standard resulted in notable deviations from the original pit shells, particularly in Pits 2, 3.1, 3.2, 4, and 5 and as a result has increased the amount of waste in these associated pits.

SLR notes that all these pits (Pits 2, 3.1, 3.2, 4 and 5) are relatively small in nature and are mined from year 11 onwards; the additional waste mined does not pose significant risk to the overall Project economics.

#### 1.4.1.10 Pit Designs Affecting Lakes

The current Pit 8 is adjacent to the Langvatnet lake and is one of the first pits to be mined in the LOM schedule. To avoid impacting the Langvatnet lake, the current Pit 8 design avoids this area. Whilst there is an opportunity to expand Pit 8 into the lake, this would require permitting for dewatering or any water retaining structures. The current approach delays the need for this expansion.

#### 1.4.1.11 Plant Upgrades Tie-in

To minimise disruption to the operation during commissioning of the crusher and fine cobbing in 2029, a carefully sequenced implementation plan will be required. SLR has considered a three-month cobbing stoppage and one-month processing stoppage for modelling purposes; however, further detailed engineering will be required to ensure further delay is not realised.

#### 1.4.1.12 Mining Through UG Voids

Underground mining has been carried out historically at Pit 1. There are dual declines to the southwest with a test stope in the southern central area of the pit. A detailed method statement will need to be developed with a specific geotechnical assessment carried out where voids daylight through pit designs.

### 1.4.2 Mineral Processing

#### 1.4.2.1 Coarse Particles in Feed to Primary Mill Screens

The presence of coarse particles in the primary mill screens is a potential risk. As a mitigation measure, the Metso ultra-fine screens feeding system is being redesigned to accommodate primary ball mill trommel discharge particle size distribution. Furthermore, feed simulation tests will be conducted and the mill trommel will be changed to have smaller size openings compared to the current design. There will still be a fraction of relatively coarse particles, and it is anticipated that such material may cause high wear of the screen cloth. This may impact the process operating cost, but the cost impact is minimised by the mitigation measures stated above.

#### 1.4.2.2 Scats

One of the known risks that may cause a reduction in overall process plant capacity is the amount of scats generation in the primary ball mill circuit from the mill's trommel screen. Scats is a term used for coarse material from the trommel screen. It consists of grinding ball fragments and coarse ore pieces. The presence of ore in this product is usually a result of poor crushing, i.e., mill feed is larger than the design criterion of $F_{80}$ 12.5 millimetres (mm) as well as very hard ore, as discussed in Section 13.0. Scats are normally recycled to the primary ball mill feed, which adds to the circulating load and the total weight of the mill. As the mill bearings have a load limitation, the scats load reduces the amount of fresh feed that can be processed.

This issue will be substantially reduced when the new crushing station is operational in Phase 2. The mill feed should then meet specifications with regards to the rock particle size distribution. See Section 17.0 for more discussion on this subject.

#### 1.4.2.3 Winter Conditions

Low temperatures and periods with thawing and freezing will cause issues with stockpiling and transport of ores and supplies. Low temperatures in the process plant may cause delays in restarting mills. The filtration capacity could also be reduced during winter months.

### 1.4.3 Infrastructure

The Sydvaranger mine site is well established and supported by existing infrastructure. The plant upgrades proposed as part of the Phase 2 are supported by feasibility study level engineering. Up-to-date condition studies have confirmed that no significant infrastructure upgrades are required in order to proceed with Phase 1.

#### 1.4.3.1 Power Supply

The Electrify Networks study identified potential shortfalls in power supply for Phases 1 and 2 of 0.3 megawatts (MW) and 5.5 MW, respectively.

While the Electrify Networks report indicates a shortfall in available capacity in Phase 1, it has been noted that the report makes use of fixed load factors without considerations for the process logic in-place on-site. Further analysis is ongoing to better understand the load factor simulations.

For Phase 2 Sydvaranger has an existing application for an additional 4.99MW to the grid owner and are in an ongoing discussions with the grid owner and state grid to ensure that the required load capacity will be met.

#### 1.4.3.2 Buildings with Historical Significance

The Rørbua bathhouse and nearby Bjørnevatn tunellen located approximately 50 m from Rørbua are both of sites of historical significance. During pit design work the location of these sites have been preserved but are close to the ultimate limits of Pit 1. There is no public access to the sites.

#### 1.4.3.3 Railway Infrastructure

The current railway infrastructure is sufficient for Phase 1; however, during Phase 2, the pit rim of Pit 1 will mine through the current rail loading tunnel at the Mine Site. This will reduce the overall length and require new rolling stock to accommodate the shortened length whilst maintaining material movement capacity. The shortened tunnel may limit the ultimate pit of Pit 1 during detailed design.

#### 1.4.3.4 Security

Fencing has been installed around the Kirkenes site and to the northwest boundary of the Mine Site near local residential areas to ensure safety and controlled access. Other areas of the perimeter remain unfenced to respect and accommodate local reindeer herding practices. This could allow determined trespassers to access the Mine Site.

### 1.4.4 Environmental and Social

The E&S risks associated with the Project are well understood, owing to its long operational history and numerous studies completed. The Mine is fully permitted to re-start operations with only a limited number of secondary approvals required for specific facilities (such as building permits). Changes to design and layout of the Project, as described herein, may require updates to existing permits. For example, modifications to WRDs could trigger a requirement to amend the mining permit, while additional water permits may be needed for the backfilling of small lakes within the concession area.

The primary ongoing E&S tasks are baseline studies and impact assessments, which will feed into a full ESIA, scheduled for completion in Q4 2025.

Key risks are summarised in the following subsections.

#### 1.4.4.1 Lack of Existing ESIA

No ESIA has yet been completed for the Project. While this is in line with regulatory requirements, a comprehensive ESIA is being developed to meet stakeholder expectations. It is planned to be completed in Q4 2025.

#### 1.4.4.2 Backfilling of Lakes

Extending the WRDs will require backfilling of small lakes within the Mine concession area. A permit from the Norwegian Water Resources and Energy Directorate will be necessary. Although approval is expected, as this has been previously granted, it may be subject to conditions and stakeholder consultation, with a risk of opposition.

#### 1.4.4.3 Reindeer Husbandry

Reindeer herding takes place around and requires passage through the Mine concession area. Agreements are in place; however, ongoing dialogue will be essential to maintain the Project's social licence to operate.

#### 1.4.4.4 Holiday Cabins

A small number of holiday cabins are located close to the Mine concession area in the southwest. These cabins may be affected when the adjacent area is scheduled to be mined in the later stages of the mine life. Maintaining continuous engagement with the cabin owners will be important, and acquisition of the cabins may eventually be required.

#### 1.4.4.5 Water Quality

Elevated nitrogen levels in pit water may necessitate mitigation measures, such as treatment or adjusted pump rates.

#### 1.4.4.6 Tailings Management

The current submarine tailings disposal method is fully permitted; however, it is subject to conditions and ongoing monitoring.  Should these conditions not be met, adjustments such as an extension of the pipeline may be required. The current disposal method could also face stakeholder opposition, highlighting the importance of the comprehensive EIA already completed.

#### 1.4.4.7 Occupational Health and Safety

Respirable silica dust in the fine crusher building was a health and safety concern in previous operations, with levels potentially exceeding the updated threshold limits. Dust extraction systems are installed, however, a monitoring programme for both the fine crusher buildings and other operational areas must be established at start-up, and additional measures may be required.

#### 1.4.4.8 Construction Safety

The Project’s compressed start-up schedule and reliance on multiple contractors pose risks of serious accidents. To prevent fatalities during and other incidents, a detailed execution plan must place health and safety at the highest priority and foster a strong safety culture.

### 1.4.5 Market

#### 1.4.5.1 Product Price Sensitivity

The Project is sensitive to variations in product pricing, and any failure to realise the expected FOB Kirkenes selling price could materially impact project economics and margins. However, long-term Offtake Agreements are in place, providing sales security, with potential upside from DR premiums.

#### 1.4.5.2 Market Risks

Demand for specific products, such as DR-grade concentrate, may fluctuate, and associated price volatility could impact revenues and sales volumes. Long-term Offtake Agreements with Anglo American provide sales security, while potential DRI premiums offer additional upside.

### 1.4.6 Project Execution

#### 1.4.6.1 Brownfield Site

The Phase 1 project is reliant on the use of the existing mining, processing and infrastructure equipment, which, while under care and maintenance, has not operated for several years. While asset integrity investigations have been carried out; there is an inherent risk of unforeseen material or key issues which could lead to schedule overruns, significant use of contingency funds or increase the initial capital costs.

#### 1.4.6.2 Availability of Suitable Qualified Construction Contractors

The project is in a remote site location with shortage of contractors in the local area that are familiar with mining construction projects. This could lead to delay to the project schedule, cost overruns, incorrect construction or rework. Enough time to appropriately tender for the work packages, along with a rigorous assessment of potential contractors will be required to mitigate this risk.

#### 1.4.6.3 Health and Safety during Project Construction

Health and Safety risks during project construction are particularly high. Health and Safety incidents can be due to many reasons such as lack of skills, supervision, procedures, trainings, poorly maintained equipment or unsafe work practices. A serious incident could cause delay to the project schedule, personal injury or property damage. The correct procedures, training, inspections, supervision, intervention, equipment testing, first aid facilities, local emergency services and provision of personal protective equipment (PPE) must be in place to mitigate this risk.

## 1.5 Opportunities

### 1.5.0 Geology and Mineral Resources

#### 1.5.0.1 Resource Classification Conversion

It may be possible to upgrade the current Mineral Resources from Indicated to Measured through additional exploration and grade-control drilling, resampling, and further test work. Additional exploration drilling at depth can also result in upgrading the current Inferred classification to Indicated.

#### 1.5.0.2 Mineralisation Extension Potential

Drilling at depth can be used to potentially extend the current known mineralisation (i.e. Pit 2) or to better define the geological interpretation at depth.

#### 1.5.0.3 Pit Sterilisation

Additional drilling at depth or drilling outside of the current mineralisation can be used to help sterilise existing pits or to test for in-pit tailings disposal options.

#### 1.5.0.4 Historical Data Validation

Further drilling can be used to spatially validate historical drill holes, or resampling of existing drill core can be used to validate historical assays for additional areas of the mine. New drilling can also replace historical assays where appropriate. Further drilling or resampling of existing drill core can also be used to help validate previous questionable QA/QC analyses.

#### 1.5.0.5 Refinement of MIS Domains

Additional data can be collected to further refine the MIS domains using more geological data and interpretation. These inputs can include more widespread sulphide phase distinction or the addition of sulphur controlling structures.

#### 1.5.0.6 MIS Estimation

New drilling or resampling of existing drill core can be used to collect additional reliable sulphur data to fill in the sulphur data gaps. This is especially key for the estimation of S/MIS on a local bench scale.

#### 1.5.0.7 Sulphur Structural Study

Structural studies can be conducted on the structures hosting the sulphide mineralisation to better understand or define the nature of the sulphide mineralisation.

#### 1.5.0.8 Alteration Modelling

Alteration modelling (i.e., phyllic and silica) can be used as a vector for determining areas of higher sulphur content or areas containing problematic sulphides.

#### 1.5.0.9 Boris Gleb Potential

The Boris Gleb zone to the east of the concession could provide additional resources with continued exploration.

### 1.5.1 Mining

#### 1.5.1.1 Ore Stockpiling Strategy

An ore stockpiling strategy that makes use of various grade bins may smooth out the expected RoM feed grade to the process plant.

#### 1.5.1.2 Minimum Mining Width on Final Pit Shells

There is potential to use the new Geovia's Pit Optimiser in early 2026 to do pit optimisation including a minimum mining width on the final pit shell. This has been a limitation in the current Whittle software.

#### 1.5.1.3 Resource Conversion

The majority of the deposit remains in the Indicated category; additional drilling to bring Indicated Resources into Measured Resources would be of benefit to increase the certainty of Resources grades and downstream RoM grades. The additional drilling may also result in Mineral Resource expansions as well as converting Resources to Mineral Reserves, including upgrading Inferred Resources.

#### 1.5.1.4 Waste Management Strategy for Haul Road Construction

In the short term, mining will be carried out by a fleet of CAT 777 haul trucks for which existing haul routes and dumping areas will be suitable. Once the larger production fleet of 785s are commissioned the haulage routes will need to be upgraded to a wider operating width along with construction of Pit 7 bypass routes. Using waste rock to widen the roads provides opportunity for shorter dumping distances during the ramp-up phases.

#### 1.5.1.5 Backfilling Mined-Out Pits

The current DFS study assumes all waste rock is sent to external waste dump locations. Further assessment of the feasibility of backfilling the mined-out pits should be undertaken, as this approach could lower both site closure costs while also reducing mining operating expenses during the LOM.

#### 1.5.1.6 Waste Dump Optimisation

The current approach uses five waste dump locations for the haulage analysis with optimisation on some of the routes within the waste dumps. There is potential to optimise the haulage routes and associated trucks hours by incorporating detailed phased designs for the waste dumps.

#### 1.5.1.7 Pit 8 Expansion

Currently Pit 8 mine design is restricted to not encroach on the Langvatnet lake and restricts the pit optimisation. Any mining operations that fall within the Langvatnet lake will require permitting for dewatering. The current LOM has the majority of Pit 8 mined out in the first phase of operations. There is potential to increase the Reserves in this area once permitting for the dewatering of Langvatnet lake is approved.

#### 1.5.1.8 Buttress Top-Cut Optimisation

A geotechnical related opportunity involves refining the top cut for the Pit 1 West Wall buttress to a reduced height configuration. The original buttress, left by previous operators to stabilise the large-scale wedge failure along the Storslaeppa Fault, can be safely mined out when taking a 70 m top cut; the resulting Strength Reduction Factor (akin to the Factor of Safety) obtained by 3D modelling is 2.97. By employing detailed stability analyses and updated rock mass characterisations specific to the failure area and material, it may be possible to:

- Decrease the cut height below 70 m while maintaining a global factor of safety greater than 1.30.
- Access and mine ore in front of the buttress earlier in the mine life, accelerating production and revenue.

This optimisation could improve the stripping ratio by reducing the requirement for waste removal and accelerating cash flow by bringing high-grade material into the schedule sooner.

#### 1.5.1.9 Slope Design Parameter Optimisation

There is an opportunity to remove or reduce the use of the 30 m geotechnical berms every 140 m. This is considered a potential because the rock mass is exceptionally strong, slope design parameters are tailored to the local structural fabric, and the rock-fall analyses show that most blocks are arrested on the first or second benches. Eliminating or narrowing these wide berms could reduce waste stripping without compromising overall wall stability. Knowledge and confidence of the rock response to mining gained during early operations could be used to motivate for the reduction in the use of the 30 m geotechnical berms.

#### 1.5.1.10 High MIS Concentrate Production

A total of 9.6 Mt of categorised BIF is above the MIS cut-off and therefore treated as waste for scheduling purposes. There is a potential upside for future processing of this material in small quantities if there is spare capacity to process this material but remain within the MIS limit constraints and the overall product specification.

#### 1.5.1.11 Optimisation of the Overall Mining Plan

Considering the opportunities listed above for geotechnical slope design optimisation and associated impact on mine design, waste dump optimisation, backfill opportunities, and ore stockpiling strategies there is potential to further improve the overall mine plan and project economics.

#### 1.5.1.12 Open Pit / Underground Hybrid Potential

The mineralisation below Pit 1 is extensive, with a fairly continuous orebody of substantial strike length and width that may support underground mining methods. When Pit 1 is further established at depth, there may be an opportunity to exploit the deposit under the final pit by establishing an in-pit access and the associated infrastructure to support an underground mine. An initial study at scoping level looking at a hybrid option using the current DFS as the basis for the open pit could be investigated.

### 1.5.2 Mineral Processing

#### 1.5.2.1 Primary Ball Mill Capacity

**Cobbing Effect**

In the cobbing process, the rejection of the nonmagnetic waste product will have an additional benefit besides the resulting upgrade of the $Fe_{(mag)}$ content. The magnetic preconcentrate silica content (mainly quartz) will be reduced. The quartz is very hard to grind, so less of this mineral in the plant feed will effectively reduce the grinding hardness, lowering the operative Bond Ball Mill index. In Phase 1, the average cobbing rejection rate is estimated to 10%, whilst in Phase 2, the fine cobbing rejection rate is estimated to 17.5% or higher. The more efficient cobbing process combined with a better mill product size distribution is expected to enhance the mill capacity.

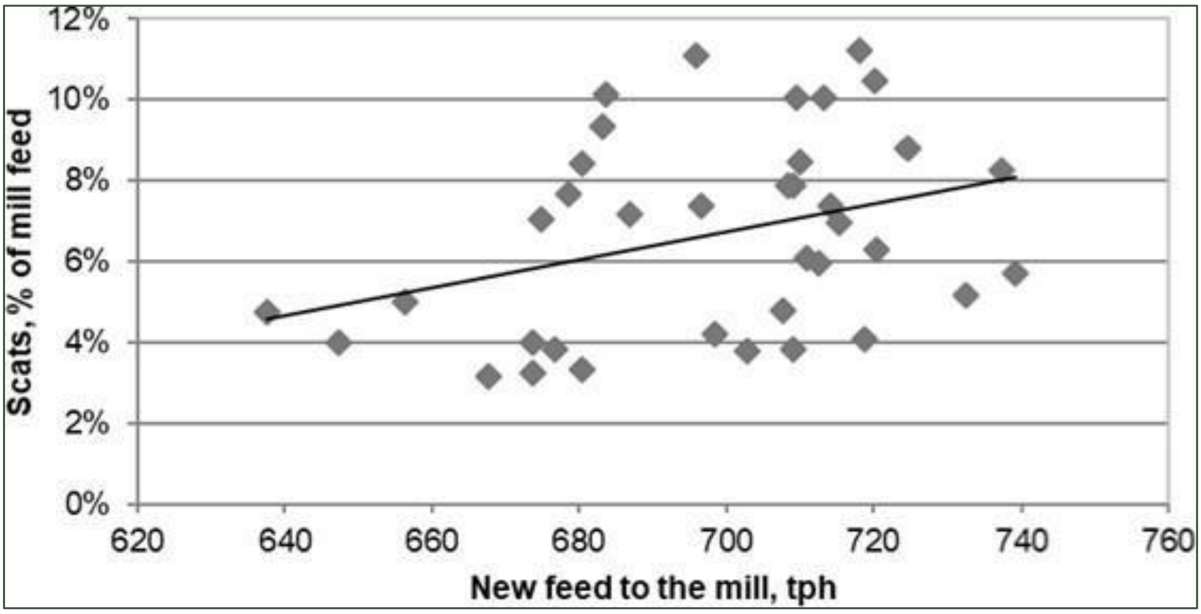
**Diversion of Primary Ball Mill Feed**

After start-up, once the updated primary mill circuit performance is evaluated, an option for increasing the primary milling capacity can be investigated. There is potential to divert a portion of the primary ball mill circuit screen overflow to a secondary mill, similar to the previously studied option of diverting a partial flow from the primary screen oversize.

**Reduction of Scats**

Sydvaranger production reports show varying amounts of scats in the primary ball mill circuit. A review of scats production was completed in 2024; the details can be found in the PEA. A summary is illustrated in Figure 1-6.

**Figure 1-6: Record of Scats Proportion Relative to Mill Feed Having Benevolent RoM Blend (High Content of Soft Ore)**

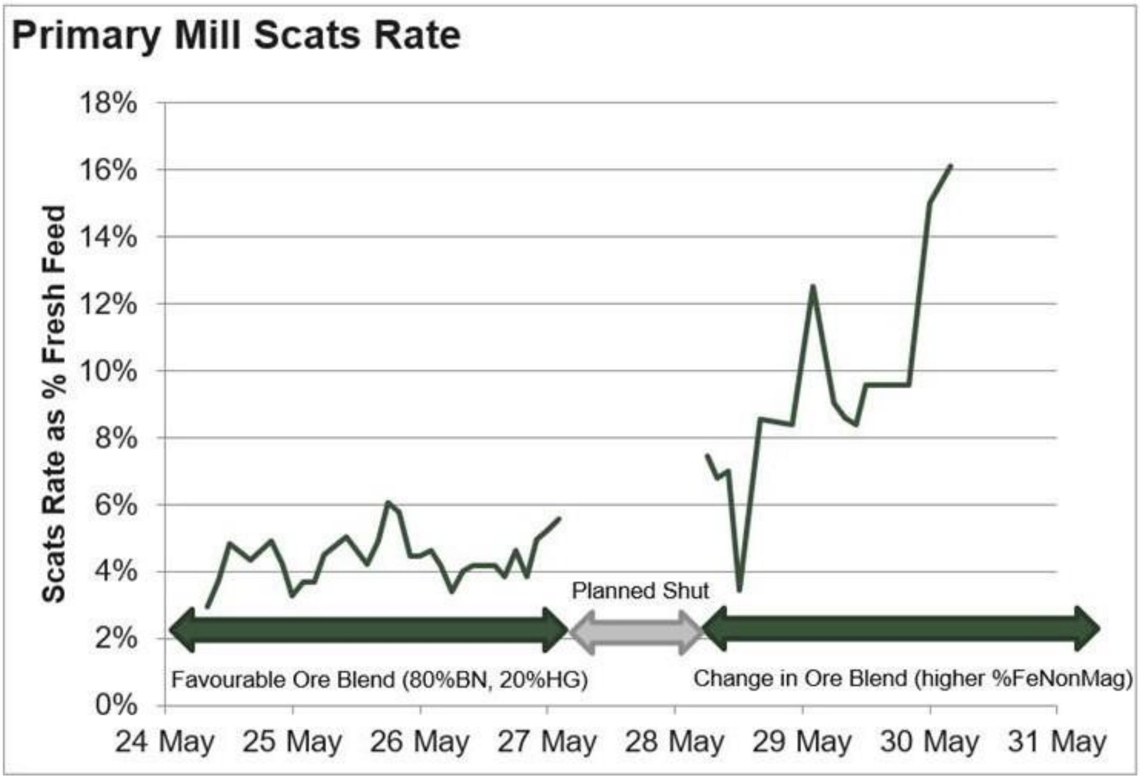



The results indicate that, on average, the portion of scats relative to fresh feed is 10%. There is a tendency for this value to increase when the plant feed consists of a large portion of the known hard ores (Figure 1-7).

For Phase 2, the improved crushing performance and the more suitable RoM compositions are projected to result in less scats generation. Phase 2 scats generation is forecasted to be between 2.5% and 5% of fresh feed.

Consequently, there is a possibility of increasing the ball mill production rate if less scats are present in the circuit.

**Figure 1-7: Scats Rate for Different Ore Blends**




### 1.5.3 Infrastructure

#### 1.5.3.1 Power Supply

While the Electrify Networks report indicates a shortfall in available capacity in Phase 1, it has been noted that the report makes use of fixed load factors without considerations for the process logic in-place on-site. Further analysis is ongoing to better understand the load factor simulations.

Replacement of T5 and T6 transformers at the Kirkenes Processing Plant for new, higher capacity units is an opportunity. Upgraded units would be less prone to failure and could fulfil N-1 criterion. Barents Nett AS have provided confirmation that there is a spare transformer available, and that T5, T6, and T8 transformer bars could be interconnected to cover any redundancy demands during maintenance or changeouts

#### 1.5.3.2 Railway Infrastructure

There is an opportunity to redesign and realign the rail loading tunnel to curve away from Pit 1, thereby removing potential limitations to detailed design of the ultimate pit shell. A high-level trade off study would be required to analyse construction costs against increases to the project economics by potentially increasing the size of the Pit 1 shell.

### 1.5.4 Environmental and Social

Environmental and social opportunities associated with the Project have been carefully assessed. The location of Sør-Varanger municipality in Norway gives the Mine a unique geopolitical significance, and the re-start of operations will create substantial opportunities for continued local development. The re-opening will provide economic benefits to the region, diversify employment opportunities, and contribute nationally through the Mine's strategic importance

From an environmental perspective, there Project offers several opportunities to adopt more sustainable practices. A Life Cycle Assessment (LCA) of the operations has already been completed and will be updated in Q3 2025 to include downstream use scenarios, providing an important decision-making tool for Grangex and Sydvaranger. The LCA has shown that diesel-based mining equipment is currently the largest contributor to carbon emissions. To address this, Sydvaranger is evaluating decarbonisation strategies such as converting the vehicle fleet to hydrotreated vegetable oil (HVO), with the long-term ambition of full electrification.

There are also considerable opportunities linked to tailings management. Work is already underway begun onto establishing a silica sand sales project, which will be further developed and accelerated following the publication of the DFS. This initiative has the potential to generate social, environmental, and economic value.

Finally, the railway system will be modernised with new wagons that generate significantly less noise than in previous operations, improving conditions for those living close to the railway.

### 1.5.5 Project Execution

Compiling the various documents that comprise the Asset Integrity studies into a single document will ensure greater consistency as the 1,300 or so work packages are developed. This would form the basis of the Project Execution Plan documentation and would provide opportunity to rationalise some of the work packages and further optimise the re-start plans for Phase 1.

Sydvaranger and Grangex should give some consideration to engaging a third-party project or construction management firm to assist with implementing Phase 1. There is a compelling argument to self-perform the re-start however there is an opportunity to better ensure the delivery of the Project using some external resources.

Phase 1 construction and commissioning activities need to be carefully documented to facilitate a lessons-learned workshop at the conclusion of the project phase. As the older equipment is repaired and infrastructure reconditioned actual versus planned work is documented. This information can be used to better inform the planning and cost estimating for Phase 2.

## 1.6 Conclusions

### 1.6.0 Geology and Mineral Resources

- Mineral Resources for Sydvaranger comprise a total of nine open pits: Pit 1, Pit 2, Pit 3.1, Pit 3.2, Pit 4, Pit 5, Pit 6, Pit 7 (7.1, 7.2, and 7.3), and Pit 8. The Hyttemalmen deposit is not included in the current Mineral Resources due to being sterilised.
- Sydvaranger is considered a typical Algoma-type banded iron deposit consisting of thinly banded to laminated quartz-magnetite iron formations. Comparable deposits include the Lake Superior-type iron formations.
- SLR is satisfied that the adequacy of sample preparation, analysis and QAQC procedures, and sample data is suitable to allow the estimation of Mineral Resources.
- The total combined Mineral Resources for Sydvaranger are estimated to total 63.9 Mt, at an average grade of 33.0% $Fe_{(tot)}$, 30.0% $Fe_{(mag)}$, 44.9% $SiO_2$, and 0.052% S in the Measured category, 379.3 Mt, at an average grade of 32.6% $Fe_{(tot)}$, 28.5% $Fe_{(mag)}$, 44.5% $SiO_2$, and 0.081% S in the Indicated category, and 68.3 Mt, at an average

grade of 31.9% $Fe_{(tot)}$, 27.1% $Fe_{(mag)}$, 45.6% $SIO_2$, and 0.105% S in the Inferred category.

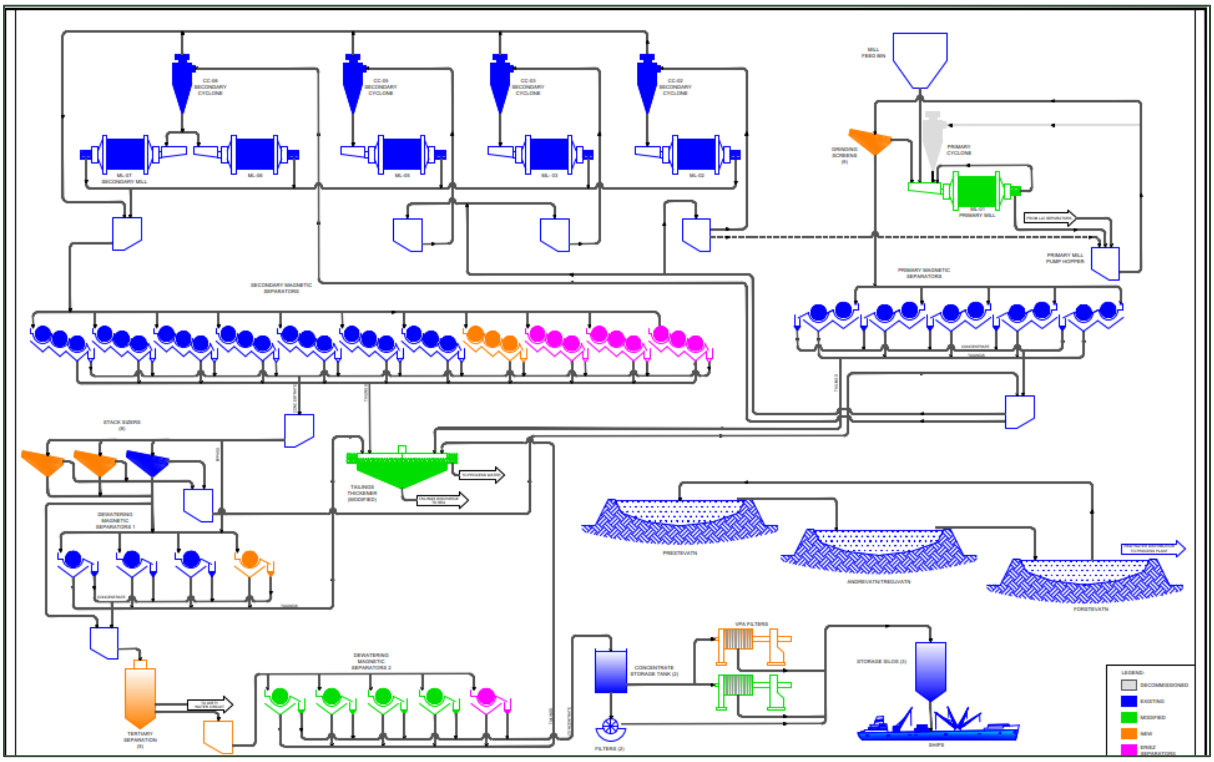
### 1.6.1 Mining

- The DFS geotechnical study integrates detailed rock mass characterisation based on 12 km of core logging and material testing and identifies five major structural sets via drone and televiewer surveys.
- The mine is divided into discrete geotechnical domains by pit and wall orientation, incorporating five primary lithologies (BIF, gneiss, diabase, meta-vulcanite, meta-rhyolite) and structural/strength parameters.
- Key stability analyses include 20 m bench kinematics, large-scale fault block assessment, inter-ramp and overall slope kinematics, 30 m berm rock-fall verification, buttress stability (notably the Pit 1 West Wall), and critical pit slope stability analyses.
- Design inputs per domain specify bench face angles of 70° to 80°, berm widths of 7 m to 15 m, inter-ramp angles of 44.5° to 58.3°.
- Overall stability meets required strength reduction factor (SRF)/factor of safety (FOS) targets, but localised stability risk from large structures warrants automated prism monitoring and slope radar installation. Mineral Reserves for Sydvaranger comprise a total of 9 open pits totalling 161.2 Mt of clean ore at an $Fe_{(mag)}$ grade of 28.3%. The Mineral Reserves contains 25.5 Mt at an average grade of 32.7% $Fe_{(tot)}$, 29.8% $Fe_{(mag)}$, 41.5% $SiO_2$, 0.051% S, and 0.016% MIS in the Proven category, 135.7 Mt, at an average grade of 31.6% $Fe_{(tot)}$, 28.0% $Fe_{(mag)}$, 41.8% $SiO_2$, 0.060% S, and 0.027% MIS in the Probable category.
- The current extraction permit limits waste rock mining to 400 Mt. To mine the reported Mineral Reserve an amendment to increase this limit is required. The mining of approximately 19.5 Mt of iron ore included in the Mineral Reserve is contingent on approval of this amendment by The Directorate of Mining. This portion of the Mineral Reserve is scheduled for extraction at the end of the LOM, after the project payback period, and does not have a material impact on the Project economic results.
- There are 9.6 Mt of material with an MIS grade >0.25% that have been excluded from the Mineral Reserve Estimate; however, there is a potential upside for future processing of this material in small quantities if there is spare capacity to process this material while maintaining feed grades within the product specification requirements.
- A practical LOM schedule has been established for both Phase 1 (2026 to 2029) and Phase 2 (2030 to 2050) covering the entire mine life.
- The mine planning, cost estimating and economic analyses are of sufficient detail for the Sydvaranger Project to report Mineral Reserves. The Mineral Resource estimate is an appropriate basis for engineering studies. The history of field investigations, sampling and test work, mining studies, and asset integrity analyses, and cost estimates underpin the disclosure of Mineral Reserves for the Project.

### 1.6.2 Mineral Processing

Testing conducted in 2024 using Sydvaranger samples demonstrated promising results for upgrading intermediate LIMS concentrates to final product quality. Despite the composite sample not fully representing initial feed conditions, it provided valuable insights into tertiary magnetic separation performance. The integration of the Silica Reduction Unit into the flowsheet showed potential for further upgrading and sulphur reduction. Recovery estimations have improved significantly with the adoption of $Fe_{(mag)}$ assays, supporting a conservative recovery rate of 97% across RoM blends, with potential increases as higher-quality ore becomes available. Overall, the flowsheet (Figure 1-8), which incorporates comminution, magnetic separation, and Silica Reduction, is expected to yield high-grade, low-sulphur iron ore concentrates.

**Figure 1-8: Scats Rate for Different Ore Blends**



The following conclusions can be made from the completed test work:

- Concentrate Upgrade Potential: Intermediate LIMS concentrate can be upgraded to match final product quality using Silica Reduction Units as tertiary magnetic separation.
- Sample Relevance: Although not representative of initial feed, the composite sample remains useful for evaluating flowsheet performance.
- Particle Size Distribution: Fine fraction from GTK pilot plant was finer than targeted but consistent with historical operations.
- Regrind Performance: SGS regrind achieved target $P_{80}$ of 53 µm, enabling suitable samples for Silica Reduction testing.
- Concentrate Quality Sample for Silica Reduction Test Work: Tertiary magnetic separation yielded approximately 68.0% $Fe_{(mag)}$ and 5% $SiO_2$.
- Secondary LIMS Concentrate for Silica Reduction Test Work: Blended samples achieved $Fe_{(mag)}$ grades of 62% to 63%, simulating low feed conditions for the test work.
- Silica Reduction testing confirmed upgrading to 70% $Fe_{(tot)}$ and reduces silica to 2.6%. A slightly reduction of $Al_2O_3$ and sulphur could also be seen.
- Based on the test work results and the historical production recovery - consistently reaching approximately 99%- following recovery rates are recommended:
  - 98% for all RoM blends.
  - Approximately 99% for Silica Reduction Unit if tailings are recycled.

    - Overall Recovery: Projected at approximately 97% across all process streams.
    - Final Product Quality: $Fe_{(tot)}$ >70%, sulphur at approximately 0.03%.
- Flowsheet Viability: Comminution and magnetic separation are effective for producing saleable iron ore products.

### 1.6.3 Environmental and Social

The Project holds all permits required to restart mining and processing operations after several years in care and maintenance. The operation is supported by well-developed management plans and systems covering the key aspects of health, safety, and environment. Prior to re-starting operations, Sydvaranger intends to update these management plans and system to ensure full alignment with GIIP. Although not required under Norwegian legislation, since all permits are in place, Sydvaranger will prepare the first full ESIA for the operation, with both Norwegian and EU legislation.

A number of preliminary environmental and social risks and potential impacts have already been identified and are summarised herein. These include the current tailings disposal method (submarine tailings disposal in the fjord), water quality impact related to pit dewatering, and future permitting risks for the expansion of the WRDs. As the ESIA progresses, the list of potential impacts will be updated and appropriate management, monitoring, and mitigation measures will be developed to avoid or reduce risks.

As outlined above, one of the most important priorities is the completion of the ESIA. A review of existing data, assessments, and studies has been completed. Several of these were deemed sufficient to be used as a basis for the ESIA and to meet Grangex's sustainability expectations. However, some earlier work requires updating in order to align with current national and international ESIA standards. The additional studies are being conducted between Q1 to Q3 2025, with completion of the ESIA expected in Q4 2025.

Upon closure, several permanent landforms will remain, including pit voids, WRDs, and the submarine tailings. Careful planning is required to ensure these features remain stable over time and to minimise long-term risks to both the environment and surrounding communities. A closure plan has already been developed as part of the mining permit, approved by the authorities, and will also serve as a framework for engagement with the local community regarding post-mining land use.

Mine closure costs, calculated in line with regulations from the Directorate of Mining, amounts to a total of NOK 29,373,610 (approximately USD 2.9 million). Of this amount, NOK 6,424,833 have already been placed in escrow. An additional NOK 8,360,000 will be deposited at the start of operations, followed by NOK 1 per tonne of ore until the full amount is secured.

### 1.6.4 Infrastructure

The Sydvaranger mine site is well established and supported by existing infrastructure. Condition reports, asset integrity assessments, and operational readiness plans have been completed for all areas of infrastructure as well as some upgrades in the Kirkenes concentrator, such as screens and filter upgrades. There are no significant infrastructure upgrades necessary to proceed with an early start scenario (Phase 1). For Phase 2, there are planned upgrades to the Mine Site crushing, cobbing, and screening facilities, which requires infrastructures updates.

Water management requirements for the mine area have been considered, and it has been determined that a system of sumps, channels, culverts and pumps and pipelines are required to meet the objectives of dry mining and the constraints of water management in line with the conditions of the mining concession permits. An infrastructure plan has been developed using the mine area water balance, and a corresponding quantities list is available.

Discussions are ongoing to confirm adequate power supplies for the Phase 2 expansion. Barents Nett AS have confirmed a spare replacement transformer is available and that the Kirkenes transformers can be interconnected to cover any redundancy demands during maintenance or changeouts. An agreement is in place for uninterrupted power supply.

### 1.6.5 Capital and Operating Costs

#### 1.6.5.1 Capital Cost

A capital cost estimate for the Project has been developed in accordance with the requirements of NI 43-101 for feasibility-level studies and conforms to the AACE International Cost Estimate Classification System, Class 3.

All capital cost estimates have been reviewed and validated by the QP

#### 1.6.5.2 Operating Costs

An operating cost estimate for the Project has been developed in accordance with the requirements of NI 43-101 and the CIM Best Practice Guidelines (2019) for feasibility-level studies and conforms to the AACE International Cost Estimate Classification System, Class 3.

All operating cost estimates have been reviewed and validated by the QP. The QP has confirmed that:

- The operating cost assumptions are reasonable and appropriate for the level of project definition achieved at this FS stage.
- The estimates are supported by a combination of vendor/contractor quotations, utility tariffs, existing labour agreements, historical site operating data, and industry benchmarks.
- The overall basis of estimate is consistent with AACE Class 3 standards, suitable for feasibility-level studies.

### 1.6.6 Project Execution

Grangex has prepared a preliminary Project Execution Plan (PEP) to re-start operations at Sydvaranger. The plan is assuming an Owner-executed project for the first phase of the Project. The Project envisions two-phases to achieve the target production in 2030. The focus of the PEP is on Phase 1, starting in Q4 2025 and finishing in Q4 2026.

The PEP outlines the policies and procedures planned or already in place to undertake the re-start. The PEP also describes the steps required for Operational Readiness and Commissioning and hand-over to operations.

The PEP is comprised of 12 Asset Integrity Plans (AIPs) which detail approximately 1,300 individual Work Packages (WP) developed for Phase 1. The key Area upgrading and rehabilitation scope of works for Phase 1 are:

- Area 00 – Mining Equipment: Mobile equipment requires maintenance for dumpers, wheel loaders, dozers, graders, and drill rigs to operate in a continuous production.
- Area 03 – Buildings throughout Sydvaranger: Civil and electrical rehabilitation on most of SYDs assets
- Area 10 – Primary Crushing: Outdated HV cables and PLCs. Primary crushers require mechanical overhaul and automation upgrades.

- Area 20 – Rail: Requires new locomotive, rolling stock lease initiation, and reactivation of rail systems to restore pit-to-port haulage capacity.
- Area 30 – Secondary & Tertiary Crushing: Refurbishment needed for crushing units and associated electrical systems.
- Areas 40–47 – Milling: All ball mills require overhaul. Ball loading systems to be reinstated. PLC systems outdated or inoperative.
- Area 50 – Filtration: Component-level issues identified in agitators and filters. Requires targeted mechanical service.
- Area 60 – Tailings process: Mostly intact. Requires limited refurbishment of discharge line in specific areas.
- Area 70 – Utilities: Utility infrastructure requires service of air compressors, MCCs, transformers, and water systems.
- Area 80 – Quay and Shiploader: Issues in quay area require civil rehabilitation. Mechanical-electrical refurbishment needed on shiploader.
- Area 90 – Water Pump Station: Moderate wear only requires minor maintenance on pumps and control equipment.
- Area 100 – Digital Infrastructure: No systems currently in place. Requires full implementation of network/communication system and implementation of enterprise systems (IFS/Novacura).

The results of the asset integrity assessment define the detailed scope and sequence of work required for mechanical completion and operational recommissioning.

The OR milestones represent the planned completion of refurbishment and repair works, making each area mechanically complete and ready for commissioning or handover, as shown in Table 1-10.

**Table 1-10: Operational Readiness Milestones per WBS Area**

| Area | Description | Finish Date |
|---|---|---|
| 00 | Mine | 27/05/2026 |
| 03 | Buildings across all of Sydvaranger | 07/08/2026 |
| 05 | Maintenance Department General | 09/02/2026 |
| 10 | Bjørnevatn Fixed Assets | 08/07/2026 |
| 11 | Primary Crusher nr.1 | 05/05/2026 |
| 12 | Primary Crusher nr.2 | 05/05/2026 |
| 20 | Rail System | 07/09/2026 |
| 30 | Kirkenes Fine Crusher | 03/07/2026 |
| 33 | Secondary Crusher | 10/02/2026 |
| 35 | Tertiary Crusher nr.1 | 19/02/2026 |
| 36 | Tertiary Crusher nr.2 | 04/03/2026 |

| Area | Description | Finish Date |
|---|---|---|
| 40 | Milling, Classification, and Magnetic Separation | 23/07/2026 |
| 41 | Primary Mill | 18/03/2026 |
| 42 | Secondary Mill nr.1 | 26/03/2026 |
| 43 | Secondary Mill nr.2 | 02/04/2026 |
| 45 | Secondary Mill nr.3 | 13/03/2026 |
| 46 | Secondary Mill nr.4 | 27/03/2026 |
| 47 | Secondary Mill nr.5 | 03/04/2026 |
| 50 | Filtration Area | 01/06/2026 |
| 60 | Tailing and Thickening | 20/04/2026 |
| 70 | Utilities – Water, Air, Electrical, Power | 21/04/2026 |
| 80 | Concentrate Storage, Quay and Shiploader | 07/07/2026 |
| 90 | Process Water Pump Station | 15/04/2026 |

Commissioning and handover are planned with five key steps that lead to switching from construction-commissioning top operations:

- C0 – Detailed commissioning planning
- C1 – Construction completion – pre-commissioning
- C2 – Mechanical and EIC completion – cold commissioning
- C3 – Hot commissioning - water
- C4 – Hot commissioning – ore

The commissioning and handover plan provides guidance for executing the five steps. These include the documentation being prepared, steps C0 through C4 and the handover, procuring spares and the close out plan for the Project.

The PEP as presented in the DFS is of sufficient detail to proceed with detailed engineering and initial procurement for Phase 1. The Project Plan, summarised in the DFS, requires further detail in some minor respects to inform Phase 1 construction and commissioning tasks. Information gaps in the Project Plan can be drawn from the Asset Integrity studies and other work undertaken by Sydvaranger and the DFS to further complete the PEP.

## 1.7 Recommendations

### 1.7.1 Geology and Mineral Resources

- Consider conducting additional drilling in areas containing higher sulphur content. This includes areas that were not drilled in 2024-2025, i.e., Pit 3, Pit 4, Pit 6, and Pit 7.3. This drilling will be used to better understand the sulphur distribution and to help further refine existing sulphur domains in these areas.
- Consider additional drilling or resampling of existing drill core to continue to validate historical assays and to spatially validate the data in pits that are mostly supported by historical drill holes (i.e. Pit 7.2). Any remaining historical pulps from Room 400 should also be a consideration for this. Additionally, new sampling can be used to validate areas where previous in-house QA/QC results were poor. This data collection can be used to upgrade existing Indicated resources.
- Consider conducting a grade control drilling campaign from within the open pits to target lower benches before mining progresses. This drilling should also be used to fill in sulphur data gaps, collect additional geometallurgical data, and to upgrade existing Indicated Resources. A grade control drilling campaign can also be used to define the blending options and to better refine the short-term mining schedule.
- If drilling or resampling is not feasible, consider a machine learning study to drill in sulphur data gaps and to better define the sulphur distribution on a bench scale.
- Future exploration drilling programme to target areas at depth to convert Inferred classification to Indicated classification or to test the extension of current mineralisation.
- Future exploration or grade control samples should only be analysed using third party laboratories. If Sydvaranger decides to re-commission their in-house laboratory, a thorough laboratory audit is required prior to any analyses.
- The block models would greatly benefit from the addition of additional deleterious elements (i.e., $Al_2O_3$, MgO, etc). This would align with the expected contents in the sellable product.
- Consider implementing a robust database other than excel (i.e., MX Deposit or acQuire). This would significantly de-risk the human error factor associated with use of MS Excel. A database manager should also be hired to manage all data.
- Consider pit sterilisation drilling to assess areas that can be used for in-pit tailings disposal.
- Consider collecting additional sulphur data through new drilling, resampling of existing drill core, detailed pit mapping, or further compilation of historical sulphide data. This work would include additional mineralogical studies or sulphide phase mapping to better define the sulphide distribution across the mine.
- Consider engaging a structural geologist to perform a detailed structural study on the structures hosting the sulphide mineralisation. This would include additional data collection, such as mapping, to define the different types of sulphide zones (i.e. hydrothermal).
- Consider alteration modelling (i.e., silica and phyllic) as these are important indicators for types of sulphide mineralisation.
- Consider taking new density measurements from historical drill core from various areas of the mine to confirm that recorded historical density values can be relied upon.

- Continuously review open pit slope angles as new data is collected to ensure that parameters reflect any changes in geological and geotechnical conditions.
- Continue performing monthly reconciliation using newly acquired production or concentrate data on a pit-by-pit basis. This can also be used to assess whether a MIS factor should be applied in future model updates.
- Implement a stockpile sampling procedure/strategy to use as a predictor for sulphur content or other penalty elements expected in the plant.

### 1.7.2 Mining and Mineral Reserves

#### 1.7.2.1 Geotechnical

1 Update the site investigation, data collection, and monitoring.

a) Ready the project for routine operational geotechnical data capture, expanding the core logging and structural mapping beyond that collected in 2018–2019.

b) Complete additional acoustic televiewer and drone-based mapping in critical pit areas (e.g., Pit 1.1 and 1.2).

c) Establish data integration protocols to feed monitoring outputs (displacements, pore pressures) and collected geotechnical data into a digital twin framework. Define performance indicators and automated alerts within the digital twin to trigger engineering reviews when threshold deviations occur.

2 Conduct detailed buttress excavation planning.

**a)** Develop a phased excavation plan for the Pit 1 West Wall buttress, including:

i. Bench sequencing and equipment selection to achieve a controlled top-cut.

ii. Quantity take-off and cycle time analysis to integrate with the mine schedule.

b) Perform refined kinematic and overall slope stability analyses on each excavation stage to confirm acceptability thresholds are met.

3 Establish slope monitoring and TARPs.

a) Specify automated prism monitoring network layout, communications architecture, and data-processing protocols for four total-station hubs reading prisms at 15-minute intervals.

b) Design the placement and specifications for two long-range slope-stability radar units on critical high-risk walls (Pit 1.1 and Pit 1.2), particularly when mining the West Wall Failure material.

c) Develop detailed, wall-specific TARPs including alarm thresholds, monitoring frequencies, and mitigation workflows for each geotechnical domain.

4 Conduct climate-driven sensitivity studies.

a) Execute predictive transient hydrogeological modelling incorporating extreme precipitation and freeze-thaw scenarios to evaluate pore-pressure buildup and drainage efficacy, to judge effect on pit stability

5 Evaluate opportunity to optimise berm and buttress designs.

a) Perform sensitivity analyses on buttress top-cut height to identify the minimum safe removal depth while adhering to acceptability criteria and minimising waste volumes.

b) Use understanding gained from early-operation monitoring feedback to assess opportunities to narrow or reduce the number of 30 m wide geotechnical berms in domains where local rock mass strength and arrest distances exceed design assumptions, targeting a reduction in waste stripping.

6 Develop reporting and design verification protocols.

a) Develop a design verification checklist for detailed (execution) pit geometries, so that all stability analyses and monitoring requirements are reconciled with the DFS baseline.

b) Update large-scale wedge and fault block assessments using the final detailed pit designs from front-end engineering design ( FEED), ensuring any deviations from the DFS geometry are evaluated.

c) Schedule peer reviews at critical project milestones (e.g., FEED completion, pre-stripping design approval) to confirm that geotechnical recommendations have been implemented and validated.

#### 1.7.2.2 Mining

1 Undertake a detailed mine plan for the West Wall buttress excavation (Pit 1.2 in the LOM schedule), including short-term mine planning to detail the necessary resources to excavate the buttress. The plan will require extensive input from the geotechnical team at each step of the excavation process.

2 Undertake a detailed short- to medium-term schedule as part of the start-up. Plans will show the detailed development of the pits on a bench by bench basis.

3 Hire the key personnel to assist in the start-up of the mine, including technical services, management and operational personnel. This may require additional contractors or consultants to assist in the short-term until permanent staff are employed full-time.

4 Undertake a dewatering plan for start-up with an emphasis on the dewatering of the pits in the early stages of the LOM.

5 Undertake a waste management plan for both haul road construction and RoM pad construction. The plan will link to the short- to medium-term schedule mentioned above.

6 Investigate options for backfilling of pits, e.g., the south side of Pit 1 is already mined out and will not have any mining activities in this area; there is potential for backfilling in this area that should be evaluated.

7 As part of the short- to medium-term scheduling, optimise the initial waste dump locations by way of phased waste dumps as well shortening haulage routes where possible, e.g., routes to RoM pad construction and backfill locations such Hyttemalmen and the south side of Pit 1.

8 Introduce a stockpiling strategy in the short- to medium-term schedule to smooth out the RoM feed grades as well as the planning of the location for each stockpile.

9 Continuously review open pit slope angles as new data is collected from early-operations with an opportunity to possible narrow geotechnical berms in some areas of Pit 1, which ultimately could reduce waste stripping.

### 1.7.3 Mineral Processing

The test work and process design data available is appropriate for a feasibility study. However, the following recommendations are made to further support the process optimisation and guide future operational planning:

- Bulk Sampling and Metallurgical Testing: Collect additional bulk samples to capture the variability of RoM material. Where appropriate, existing spring/summer samples may be utilised. These samples will undergo cobbing and downstream testing to produce intermediate concentrates for Silica Reduction evaluation.
- Silica Reduction Testing: Conduct larger-scale concentrate testing to further validate process performance and scalability under operational conditions.
- RoM Composition Campaigns: Conduct targeted campaigns to test projected RoM variants and confirm their compatibility with Silica Reduction as tertiary magnetic separators. Each campaign is expected to cost USD 35,000 and span three months to four months.
- Benchmarking and Site Visits: Complete a review of comparable operations, including site visits where feasible, to assess the effectiveness of screen installations in primary ball milling circuits and their impact on classification efficiency.
- Laboratory Testing: Perform additional Bond Work Index and Davis Tube tests on samples representative of future mining zones to refine process design parameters.
- Phase 1 Plant Survey: Following the commissioning of Phase 1, undertake a comprehensive plant survey to validate operational performance and inform projections for Phase 2 development.
- Consider implementing sensor-based sorting or optical separation technology for mineral processing.

### 1.7.4 Infrastructure

With respect to infrastructure SLR recommends the following work:

1 Further analyse power demand and load factor simulations to better understand power demand and how this relates to the available power supply.

2 Continue working with Barents Nett AS to secure an increase in capacity for Phase 2 and to replace aging transformers at the Kirkenes site.

3 Investigate realigning the rail loading tunnel and whether this could further optimise the ultimate pit shell of Pit 1 and the project economics.

### 1.7.5 Environmental and Social

- Complete a full ESIA in line with Norwegian and European standards by Q4 2025.
- Finalize all environmental and social baseline studies, including impact assessments in line with ESIA completion.
- Continue the fjord baseline monitoring programme and maintain monitoring after start of operations to update the assessment for the tailings discharge and evaluate the potential need for pipeline extension.
- Continue the water monitoring programme, and implement monitoring programmes for air quality, noise, and vibrations both before and after start of operations.
- Implement mitigation measures identified in the ESIA and those arising from the ongoing monitoring programmes.

- Review and update the health, safety and environmental management system to ensure it is fully adequate for both the construction and operational phases.
- Apply for all required secondary permits (e.g., workers' camps, train locomotives, water permits for lake backfilling and adjustments to the mining permit for waste rock dump expansion) well in advance of planned activities to avoid delays and ensure uninterrupted operations as presented in Section 20.
- Maintain continuous and transparent stakeholder engagement throughout the life of the Mine. This include keeping stakeholders informed about design planning and operational changes compared to previous operations, acknowledging and addressing concerns raised, and regularly reviewing and updating the grievance mechanism.
- Continue to evaluate and implement sustainable alternatives in operations and the supply chain to minimise climate impact and other environmental effects.
- Complete a self-assessment against Towards Sustainable Mining (TSM) standard, as required by the Norwegian Mining Association (Norsk Bergindustri) prior to start of operations
- Complete planned studies for tailings alternatives to at least pre-feasibility level. These studies will include both in-pit disposal and sales options, and will assess technical feasibility, permitting requirements, and market potentials (sales option). The tailings pre-feasibility studies will commence H2 2025.

### 1.7.6 Project Execution

- Add more project-specific detail to the Project Plan and ensure that the details included in the plan are current
- Continue to develop the Operational Readiness programme based on additional information and the outcomes of the DFS.

Finalise the Project Plan and integrate it into a Project Execution Plan document prior to starting Phase 1.

## 1.8 Final Recommendations

Based on the findings of the 2025 Sydvaranger Definitive Feasibility Study, SLR recommends that the Project proceed to the funding phase, with the expectation of commencing Phase 1 in Q1 2026.

- The Project as described is economically viable, having achieved consistent profitability in the third year of operation (2029).
- The Project is technically viable, employing widely used technologies and processes for iron ore production. Mining methods and equipment are conventional and widely used in the mining industry.
- There are no significant environmental issues or permits required that could materially hinder development of the Project.
- The product is marketable and within acceptable specifications for direct reduction smelters. There is an offtake agreement in place for 100% of the production and the concentrates are marketable.
- Sydvaranger and Grangex have invested in an Asset Integrity study and developed an achievable plan to construct, commission, and operate the Project for Phase 1 and through to the second phase.

## 1.9 Date and Signature Date

This report titled “Sydvaranger Drift AS_DFS_413.057921.0001” with an effective date of 15 August 2025 15 August 2025was prepared and signed by the following authors:

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Making Sustainability Happen