1. INTRODUCTION

Kalgoorlie Consolidated Gold Mines Pty Ltd (KCGM) is a wholly owned subsidiary of Northern Star Resources Ltd and is responsible for operating the Fimiston Open Pit, Mt Charlotte Underground Mine and the Fimiston and Gidji Processing Plants.

The Fimiston Operations and Mt Charlotte Underground Mine are located adjacent to the City of Kalgoorlie-Boulder approximately 600 km east of Perth, Western Australia, whilst the Gidji Processing Plant is located approximately 17 km north of Kalgoorlie-Boulder.

Gold ore from KCGM's mining operations is processed at the Fimiston Processing Plant, which is located on the eastern side of the Fimiston Open Pit. Tailings produced from the Fimiston Processing Plant are deposited into three operational TSFs; the Fimiston I, Fimiston II (AB, C & D Cells), Fimiston II Extension (E & F Cells) and Kaltails Tailings Storage Facilities (TSFs).

In accordance with conditions of the Department of Water and Environmental Regulation (DWER) **Prescribed Premises Licence L6420/1988/14** (the Licence) issued to KCGM for the Fimiston Operations, KCGM has developed and implemented a Fimiston Seepage and Groundwater Management Plan for the Fimiston TSFs (**FSGMP**) and a Kaltails Seepage and Groundwater Management Plan for the Kaltails TSF (**KSGMP**). These plans incorporate practices to manage and control groundwater levels around the facilities, to prevent impact to vegetation as a consequence of rising groundwater levels, due to seepage from the TSFs. If groundwater is not appropriately managed it could rise into the root zone causing detrimental impacts to the surrounding vegetation.

The beneficial use of the groundwater in the Goldfields region is recognised by the DWER as being for the purpose of mining related activities including mineral processing, given its saline/hypersaline nature; as defined in the Goldfields Groundwater Area Management Plan (Water Authority, 1994). Based on this, potential impacts on groundwater usage are not considered to be significant.

The FSGMP is intended to be a live document which will evolve from the experience gained during operations, routine performance review and feedback from regulators and other stakeholders. This FSGMP represents KCGM's management strategy for the Fimiston I and Fimiston II TSFs incorporating requirements of the Licence. It also provides additional contextual information with regards to the target setting philosophy for the TSFs.

2. BACKGROUND

In 2003 KCGM submitted a Notice of Intent (NOI) to the then Department of Industry and Resources (DoIR) to increase the maximum height of the Fimiston I TSF from 30 m to 40 m. The proposal was subsequently referred to the Environmental Protection Authority (EPA). The EPA decided not to subject the proposal to the formal environmental impact assessment process on the basis that its impacts were not considered to be significant enough to warrant a formal level of assessment and could be managed under Part V of the *Environmental Protection Act 1986*. Thirteen appeals were received in relation to this decision.

During the appeals process, an independent technical review of the proposal was commissioned by the then Minister for State Development. The aim of the review was to investigate the geotechnical and hydrogeological performance of the existing Fimiston I TSF and the proposal to progressively increase the height of the facility from 30 m to 40 m.

The independent technical review process commenced in August 2004 and was undertaken by Thompson & Brett Consulting Engineers Pty Ltd. A report titled "*Independent Review of a Proposal to Raise the Fimiston I Tailings Dam at Kalgoorlie*" (the Thompson & Brett Report), was finalised in October 2004. The Minister for State Development released the Thompson & Brett Report for public comment. During the public comment period, a number of submissions were received by the Office of the Minister for State Development from members of the public.

On 12 January 2005, taking into account the findings of the Thompson & Brett Report, it was the Minister for the Environment's view that the proposal could be adequately managed without the need for a formal environmental assessment, provided that KCGM developed a long-term Seepage and Groundwater Management Plan.

Accordingly, in September 2005, the first FSGMP (previously known as the '*Fimiston Operations – Seepage and Groundwater Management Plan*') was developed. It incorporated existing KCGM practices and recommendations from the Thompson & Brett Report to manage and control groundwater around the Fimiston I and Fimiston II TSFs, and established performance targets for the long-term management of TSF seepage.

Over the years, the FSGMP has evolved to reflect present-day management practices as well as requirements associated with the Licence. This has involved removal of some management actions as they were completed, or results of monitoring deemed no longer relevant. A summary of closed management actions are outlined in Table 1 below.

Table 1: Summary of Closed Management Actions

Item	Management Action(s)	Summary
Historic Groundwater Level	Estimate the historic water levels Estimate a reasonable depth based on hydrogeological principles and practicality. Reach agreement on historical groundwater model.	The Thompson & Brett Report (2004) recommended that KCGM investigate and establish historic groundwater level distribution in the vicinity of the Fimiston I and Fimiston II TSFs. KCGM engaged Peter Clifton & Associated to undertake this investigation, which included a review of historical data including depth to groundwater in bores prior to the commencement of the Fimiston Open Pit and TSFs, more recent data from outlying bores in the area that appear to be fluctuating little in water levels, and modelling the aquifer from drill core records. The investigation shows that groundwater has historically been close to the surface in the southern areas near the Hannans Lake. However, the depth to groundwater increased upstream of the lake catchment so that the area now under the Fimiston TSFs was 15 to 25 mBGL which is similar to the area in the pit. However, the precise historical groundwater level distribution is difficult to determine given that there is limited information pre-dating the current mining activities. Also due to the modified topography in the catchment, some historical drainage patterns no longer exist, thus the future natural groundwater level distribution will differ from the past. A report titled 'Estimation of Groundwater Level Distribution Prior to the Commencement of the Fimiston Tailings Disposal Operations by KCGM' (May 2007), was approved by the then Department of Environment and Conservation (DEC) 9 April 2008. An overview of the investigation findings was also presented to the Community Reference Group (CRG) in April 2008. Subsequently this management action was removed from the FSGMP.
Semi-Continuous Monitoring of Groundwater Levels	Confirm if the 2004/5 Licence sampling frequency is adequate. Establish five semi-continuous monitoring bore depth loggers. Evaluate data from semi -continuous monitoring bore depth loggers.	To confirm that the 2004/05 Licence frequency of monitoring was sufficient to identify possible cyclic effects related to such aspects as the region of tailings deposition or rainfall events, five monitoring bores were equipped with groundwater level sensors in 2006 with the logic for selection being: - to identify the impact of the deposition cycle within 100 m of the TSF; and

Item	Management Action(s)	Summary
	Submit results to DEC via Quarterly Reports Analyse trends and consider moving semi -continuous monitoring bore depth loggers to different bores in Annual Review.	- to identify rainfall recharge rates near the floodway both between and upstream of the TSFs. The level sensors were programmed with a 10 minute logging interval. Data downloaded from the level sensors were presented in the Quarterly Groundwater Reports. In August 2008 KCGM submitted a written request to the DEC to remove the requirement for semi-continuous monitoring of groundwater levels on the basis that data collected to date has shown little to no trends being observed due to tails deposition or rainfall which are not already being identified by the monthly SWL measurements. In a letter dated 4 February 2009, the DEC approved the discontinuation of the semi-continuous monitoring of the standing water levels included as part of the seepage and groundwater management plans. The DEC has found that the semi-continuous monitoring has not added to the understanding of groundwater standing water levels beyond that already provided by the monitoring regime outlined by Licence conditions and further detailed in the Seepage and Groundwater Management Plan. Subsequently this management action was removed from the FSGMP.
Groundwater Quality Monitoring	Confirm if the 2004/5 Licence sampling frequency is adequate.	To confirm that the 2004/5 Licence sampling frequency was adequate (i.e. able to identify spikes during the discharge of tailings), KCGM implemented a modified monitoring schedule during the fourth quarter of 2005. The modified monitoring schedule required all monitor bores to be sampled quarterly for a suite of trace elements: (Arsenic, Copper, Iron, Mercury, and Zinc) and a subset of twenty bores was sampled monthly (previously sampled quarterly) for pH, Electrical Conductivity (EC), Cyanide (Total, WAD and Free). A review of the data surrounding the increased monitoring frequency and additional analytes is discussed in the 2006 Annual Review of Groundwater Data (Peter Clifton & Associates, 2007). Results of the trace element sampling indicated that the trace element concentrations do not correlate well with either the main indicator of TSF seepage in groundwater (TDS) or with Cyanide concentrations, and are therefore of no benefit to the groundwater quality monitoring programme.

Item	Management Action(s)	Summary
		With regards to the increased sampling frequency, no significant new trends were identified to indicate that the 2004/5 Licence frequency was inadequate. In fact, it was recommended that the frequency of sampling to be reduced from quarterly to six-monthly. Subsequently changes were made to the Licence issued 26 September 2008, whereby the requirement to analyse for trace elements in the monitoring bores was removed although the sampling frequency remained as monthly and the requirement to analyse for trace elements was added to the production bores. Changes were also made to the FSGMP, issued 26 September 2008, whereby the monitoring with regards to groundwater quality management referred to the Licence.
	Annual Audit recommendation to remove groundwater quality monitoring from the FSGMP.	In the 2018 and 2019 Annual Audits of the FSGMP (Big Dog Hydrogeology), it was recommended that aspects pertaining to groundwater quality monitoring be removed from the FSGMP as groundwater quality is of limited importance to managing impacts to vegetation, the primary objective of the FSGMP. In response to this recommendation, KCGM removed the Groundwater Quality Management section from the April 2020 version of the FSGMP. Note: Groundwater quality monitoring continues to be undertaken in accordance with Licence requirements and reported to the DWER in Quarterly Groundwater Monitoring Reports.
Investigate Cyanide Species	Define the species of Cyanide that are present in the groundwater. Analyse a representative selection of monitoring bores for Cyanide species.	The Thompson & Brett Report (2004) recommended that further analysis of Cyanide be undertaken to define the species of Cyanide that are present in the groundwater as existing low levels of Cyanide made it difficult to determine contamination and movement of other seepage products. KCGM undertook Cyanide speciation test work on 10 groundwater bores within the Eastern Borefield. These bores were chosen as they had a total Cyanide concentration in the upper bound of the range of values throughout the Borefield. This approach was taken to target groundwater which might have detectable concentrations of the Cyanide species. The results were reported to the then Department of Environment (DoE) in December 2005 and indicated that while there was a range of Cyanide species in the groundwater, the majority are in a stable form and do not pose a threat to the environment.

Item	Management Action(s)	Summary
		It was reasoned that unless an unusual trend developed in the routine Cyanide analysis (free, WAD and total), no further cyanide speciation work was warranted. Subsequently this management action was removed from the FSGMP.
Additional Monitoring Bores	Increase monitoring coverage. Install 15 monitoring bores.	The Thompson & Brett Report (2004) recommended the installation of monitoring bores to the north of the Fimiston I TSF. Accordingly, KCGM installed 16 monitoring bores around the Fimiston TSFs, eight of which were to the north of Fimiston I TSF in order to characterise the broad groundwater conditions beyond the 2004/5 DoE Licence network of monitoring bores. The sampling of these monitoring bores was incorporated into the revised schedule for monitoring both groundwater level and quality in the Licence issued 29 September 2006. The Thompson & Brett Report also recommended the installation of monitoring bores to the south of the Fimiston I TSF within the footprint of the adjacent waste dump. KCGM considered this to be impractical and of limited benefit as the groundwater would be up to 70 m beneath the surface of the adjacent waste rock dump. Additionally, there are groundwater bores are already installed to the south of this waste dump where natural ground levels occur. The current schedule of monitoring bores is stipulated in the Licence.
Vegetation Monitoring	Confirm that the SGMP is protecting the environmental value of the area. Professionally photograph transects and photo points. Review of scope of monitoring is adequate.	Vegetation monitoring in the vicinity of the Fimiston TSFs commenced in 2000 in accordance with Licence requirements, the results of which were reported to the DWER as part of the Annual Environmental Report. In December 2005 a review of the vegetation monitoring programme was undertaken and a number of recommended changes, including additional monitoring sites, were made to ensure the monitoring programme adequately represents vegetation surrounding the Fimiston TSFs. These changes were implemented in February 2007 following agreement with the DEC). The vegetation monitoring component of the FSGMP was removed in 2016 following removal of vegetation monitoring conditions from the Licence in November 2015. It was deemed that over 10 years of photographic monitoring had shown there was no effect to vegetation health and that the depth to groundwater limits imposed by the Licence are

Item	Management Action(s)	Summary
		sufficient to prevent groundwater levels rising into the root zone and causing detrimental impacts to the surrounding vegetation.
Vegetation Monitoring	Confirm that the SGMP is protecting the environmental value of the area. Professionally photograph transects and photo points. Review of scope of monitoring is adequate.	Vegetation monitoring in the vicinity of the Fimiston TSFs commenced in 2000 in accordance with Licence requirements, the results of which were reported to the DWER as part of the Annual Environmental Report. In December 2005 a review of the vegetation monitoring programme was undertaken and a number of recommended changes, including additional monitoring sites, were made to ensure the monitoring programme adequately represents vegetation surrounding the Fimiston TSFs. These changes were implemented in February 2007 following agreement with the DEC). The vegetation monitoring component of the FSGMP was removed in 2016 following removal of vegetation monitoring conditions from the Licence in November 2015. It was deemed that over 10 years of photographic monitoring had shown there was no effect to vegetation health and that the depth to groundwater limits imposed by the Licence are sufficient to prevent groundwater levels rising into the root zone and causing detrimental impacts to the surrounding vegetation.

3. OBJECTIVES AND TARGETS

The primary objective of the FSGMP is to prevent impact to vegetation because of rising groundwater levels due to seepage from the Fimiston I and Fimiston II TSFs.

The management targets for the FSGMP are outlined in Table 2.

Table 2: FSGMP Management Targets

Item	Management Measure	Target
Depth to Groundwater in Compliance Monitoring Bores[1]	Maintain groundwater levels through seepage recovery (i.e. operation of the Eastern Borefield).	>4 mBGL
TSF Supernatant Pool Size, under normal operation	Minimise the normal operating supernatant pool size on the Fimiston TSFs through decant recovery.	<15% of the total surface area of the paddock in which deposition is occurring

[1] Refer to Fimiston Licence for current list of Compliance Monitoring Bores

4. SEEPAGE AND GROUNDWATER MANAGEMENT

To actively manage seepage and groundwater, KCGM has implemented the following controls:

- Recovering seepage by means of production bores and seepage interception trenches;
- Minimising the normal operating supernatant pool area on the Fimiston TSFs; and
- Monitoring groundwater levels in accordance with Licence conditions.

4.1 Seepage Recovery

KCGM has established a network of seepage recovery bores and interception trenches around the perimeter of the Fimiston I and Fimiston II TSFs (refer to Figure 1 for map). The Eastern Borefield has been progressively established since 1993 with the majority of the production bores located within 100 m of the Fimiston TSFs.

In accordance with the *Rights in Water and Irrigation Act 1915*, KCGM has been issued a Licence to Take Water (GWL66252) for seepage recovery from the Fractured Rock West – Palaeochannel Resource (which the Eastern Borefield is a part of) with an annual allowable groundwater abstraction volume of 8,000,000 kL. The annual abstraction allocation has been increased from 4,000,000 kL in 2023 due to a groundwater licence amalgamation process initiated by DWER. KCGM adheres to a borefield abstraction allocation of 4,000,000 kL for the Eastern Borefield.

The annual volume of groundwater produced from the Eastern Borefield has ranged from 17,627 kL in 1993 to 3,483,348 kL in 2012, which reflects the progressive expansion and optimisation of the Eastern Borefield. The long-term average volume of groundwater produced by the Eastern Borefield is approximately 2,200,000 kL per annum. This is equivalent to 55% of the borefield allocation and an average flow rate of 71 L/s. Long-term monitoring indicates that on average, there is sufficient installed groundwater production infrastructure in the Eastern Borefield to match the combined influences of recharge and TSF seepage and to control groundwater depths.

A contribution to the reduced total groundwater production since 2012 includes some production bores having groundwater depths approaching the pump setting, which reduces the pumping rate which can be achieved from those bores. In particular this has occurred in production bores near the Fimiston I TSF where tailings deposition was temporarily suspended from 2013 to 2018.

All groundwater produced from the Eastern Borefield is saline. The Fimiston Processing Plant operated by KCGM has capacity to receive the total flow from the Eastern Borefield for use in ore processing.

4.2 TSF Supernatant Pool Size

The extent of the supernatant pool controls the portion of the tailings pile which remains permanently saturated and therefore retains hydraulic connection from the pool at the surface of the facility to the potential seepage zone at the base of the facility. Generally, the larger the pool size, the larger the rate of seepage. This is confirmed by numerical modelling of seepage from the Fimiston I TSF which identified that allowing a supernatant pool equivalent to 20% of the paddock resulted in significantly shallower groundwater elevations around the facility compared to maintaining a pool area of 10% of the paddock (Golder, 2015).

Therefore, to mitigate the seepage rate, the size of the supernatant pool needs to be kept to a minimum. A target of the FSGMP is to maintain the supernatant pool size, under normal operating conditions, below a maximum of 15% of the total surface area of the paddock in which deposition is occurring on the Fimiston TSFs. The total paddock surface area will be determined by survey upon the completion of each wall raise.

The size of the supernatant pool is monitored through a combination of daily visual inspections and fortnightly area surveys. To assist with maintaining the size of the supernatant pool below the 15% target, the rate of decant recovery is adjusted as required. In the event that the size of the supernatant pool becomes greater than the target size (e.g. due to a high rainfall event), decant water from the TSFs will be used as a priority for mineral processing in preference to groundwater derived from remote saline water borefields (i.e. the Northern, Southern and Kaltails Supply Borefields).

4.3 Depth To Groundwater

Protection of vegetation requires the depth to groundwater to be maintained so as not to impact on the soils from which plants source water (i.e. the root zone).

A depth to groundwater target of 4 mBGL was self-set by KCGM in the 1990s with the aim of protecting vegetation in the area surrounding the Fimiston TSFs. However, there was no scientific data to support this target and there was uncertainty around the effectiveness of this target on long-term protection of vegetation. A tree root investigation undertaken by Botanica Consulting (2009) found that the majority of roots occur within the top 1 m of the soil profile.

The nominated minimum depth to groundwater of 4 m below ground has been demonstrated to be protective of vegetation in the area to date, as evidenced by the vegetation monitoring undertaken up to September 2016 and so remains an appropriate target for the FSGMP.

The depth to groundwater targets does not apply within the Operational Area of the Fimiston I and Fimiston II TSFs as it is recognised that groundwater level management is most difficult in the immediate proximity of the TSF with this area having the greatest potential to fluctuate. This fluctuation is due to operational changes in deposition of tailings within the facility and the size of the supernatant pool.

The use of a TSF Operational Area with a maximum extent of 100 m from the facility is considered appropriate in setting groundwater depth targets. This area forms part of the footprint of the facility and associated infrastructure and is highly disturbed. While the minimum depth requirement is not applied in the operational area, KCGM continues to manage groundwater elevations within this area, as high groundwater elevations would potentially cause non-compliances for groundwater immediately outside the operational area.

In accordance with the Licence, depth to groundwater limits is applied to Compliance Monitoring Bores. Generally, these are monitoring bores located outside of the TSF Operational Area, however it does not apply to all monitoring bores located outside of the TSF Operational Area. NB: Refer to the Licence for the current list and map of Eastern Borefield Compliance Monitoring Bores.

The locations and monitoring frequency for groundwater depth monitoring in the Licence are considered appropriate to identify changes in groundwater conditions which have the potential to affect vegetation. Annual hydrogeological assessments consider the typical rates of change in groundwater elevations observed to date, the known directions of groundwater flow, and the locations of vegetation in the receiving environment.

4.4 Pumping Capacity

In accordance with Conditions of the Licence, KCGM is required to take relevant management action (i.e. increase pumping capacity) in the case of an event as stipulated in the Licence.

Groundwater levels and trends in the Eastern Borefield Compliance Monitoring Bores are reviewed during the preparation of the Fimiston TSF Quarterly Groundwater Monitoring Report. Depending on groundwater levels and trends, a decision will be made as to whether an increase in groundwater pumping capacity is required. For example, short-term shallowing of groundwater levels in response to significant rainfall events do not necessarily trigger the requirement to increase pumping capacity, as some areas naturally recover quickly without the need for increased pumping.

The event criteria and required management actions associated with the Eastern Borefield are summarised in Table 3: Management Actions for Groundwater Level and Quality Targets.

Table 3: Management Actions for Groundwater Level and Quality Targets

Event		Management Action
Eastern Borefield Compliance Monitoring Bores	Groundwater level <4 mBGL	Increase pumping capacity within 6 months
	Groundwater level >4 mBGL and <6 mBGL	Review the potential cause of the change in groundwater and increase pumping capacity within 9 months if cause is directly associated with seepage

An increase in pumping capacity can be achieved by:

- Maximising the use of near-by production bores;
- Upgrading existing infrastructure, such as pumps and pipelines; and/or
- Construction of new production bores and infrastructure.

The key steps/factors that determine the timeframe required for new bore installation are as follows:

- Expert consultation on water level trend – whether long/short term or event related (i.e. rainfall).
- Identification of bore locations.
- Licence application and approval to construct bores.
- Drilling contractor availability.

4.5 Construction and Decommissioning of Bores

New monitoring/production bores that are established within the Eastern Borefield will be constructed according to the requirements of the DWER and to relevant guidance contained in the following:

- National Uniform Drillers Licencing Committee - Minimum Construction Requirements for Water Bores in Australia (4th edition, 2020).
- Department of Water and Environmental Regulation (DWER), Water Quality Protection Guideline No 4 - Installation of Mine Site Groundwater Monitoring Bores.

If there is an inconsistency in construction standards, the requirements specified by the DWER will take precedence over those specified in the Minimum Construction Requirements for Water Bores in Australia.

A Form 1 (application to construct or alter well) will also need to be submitted to construct production bores and a 26D Licence (Licence to construct or alter well) issued. The 26D Licence will specify an amount of time to complete the drilling of the bores. The details of newly constructed production bores and their flow meters will be reported in accordance with the DWER requirements. These are submitted by a Form 2 (Information to be provided on completion of a non-artesian well) and a Form 8 (Information to be provided on installation of a water meter).

5. POST CLOSURE

Long-term management of ground and surface water systems affected by KCGM's mining operations has been identified as a key closure aspect within KCGM's Mine Closure Plan (MCP). It is envisioned that post closure criteria for groundwater levels surrounding the Fimiston TSFs will be aligned with the objective of this FSGMP, which is to prevent impact to vegetation as a consequence of rising groundwater levels due to seepage from the Fimiston TSFs.

The MCP has been developed and implemented in accordance with tenement conditions of KCGM's associated Mining Leases and Ministerial Statement 1258 issued by the EPA in October 2025 (Fimiston Gold Mine Operations Extension (Stage 3) and Mine Closure Planning: Revised Proposal – Fimiston South Project). KCGM is required to review and resubmit the MCP every three years and requires approval by both the Environmental Protection Authority (EPA) and the Department of Mines, Petroleum & Energy (DMPE).

It is anticipated that once tailings deposition ceases at the Fimiston TSFs, seepage from the facility will continue at reducing rates, and continued operation of the Eastern Borefield will be required to manage groundwater levels post closure. Pumping will be terminated once groundwater elevations reach agreed targets. The duration and rate of pumping will be a function of the residual seepage rates from the Fimiston TSFs.

It should be noted that as a result of the permanent changes to the hydrological regime associated with the operation of the Fimiston TSFs, groundwater elevations are unlikely to return to the estimated pre-mining elevations in all locations. Therefore, post closure criteria for groundwater levels will be determined on a facility and location specific basis, and will be finalised and incorporated into future versions of the MCP.

6. REVIEW

Review of the FSGMP will be undertaken as per the following:

- On advice from the DWER via Licence Amendments or otherwise;
- Following a significant change in process or operational aspect; or
- Following recommendations made in the annual audit.

7. REPORTING

7.1 Quarterly Groundwater Monitoring Report

In accordance with reporting requirements in the Licence, KCGM shall submit a Quarterly Groundwater Monitoring Report to the DWER within 46 calendar days after end of the reporting period. Results of groundwater monitoring programme and commentary on performance against the FSGMP targets are provided within the quarterly report.

7.2 Annual Audit

In accordance with the Licence, the FSGMP is required to be audited each year by a suitably qualified professional. The audit shall include but not be limited to:

- The licensee's progress towards existing targets and milestones;
- Whether the objectives in the FSGMP are being achieved and are still appropriate; and
- A statement of the independence of the auditor, including experiences and qualifications.

The reporting period for the annual audit is currently defined by KCGM to be 1 January to 31 December each year,

since 2024. This has been changed from the previous reporting year of 1 October to 30 September.

7.3 Annual Environment Report

In accordance with the Licence, KCGM shall include a copy of the annual audit report of the FSGMP in the Annual Environment Report (AER), which is submitted to the DWER by 31 March each year.

8. STAKEHOLDER CONSULTATION

Initially, in accordance with conditions of the Licence, as per the Minister for the Environment's appeal determination, the outcomes of the audit for the FSGMP were made available for public comment for a minimum period of 21 days. This condition was removed when the Licence was reissued on 26 September 2008.

The requirement to consult annually with the CRG on the FSGMP draft audit report was incorporated into the FSGMP in 2009. Since then, the feedback received from the CRG has been supportive of KCGM's management practices and therefore has not resulted in any material changes to the FSGMP. Consequently, KCGM has determined that presentation of the audit report findings to the CRG is no longer required. However, a copy of the audit report will be provided to the CRG members if requested.

9. GLOSSARY OF TERMS

Beneficial Use: The current or future uses of an identified resource. Beneficial Use is also referred to as the Environmental Value of a resource. Beneficial use designations provide objectives for the management, use and protection of the resource.

Bore: A narrow, normally vertical hole drilled in soil or rock to monitor or withdraw groundwater from an aquifer.

Borefield: A group of bores to monitor or withdraw groundwater.

Compliance Monitoring Bore: Monitoring bores which are located outside the TSF Operational Area as listed in the Licence.

CRG: Community Reference Group

DWER: Department of Water and Environmental Regulation.

Eastern Borefield: This is the bore network that is constructed around the Fimiston I and Fimiston II TSFs and comprises all of the Production and Monitoring Bores and associated infrastructure.

FSGMP: Fimiston Seepage and Groundwater Management Plan.

Groundwater Level: The upper surface of groundwater, or the level below which an unconfined aquifer is permanently saturated with water, (also known as water-table, piezometric level).

Increased Pumping Capacity: Increased abstraction of groundwater from an area which may be achieved by additional bore installation, pump or pipeline upgrade.

Licence: DWER Prescribed Premises Licence L6420/1988/14 issued to KCGM.

KSGMP: Kaltails Seepage and Groundwater Management Plan.

mBGL: Is the groundwater level or depth below ground level (metres Below Ground Level).

Seepage: Water infiltration into the soil beneath the TSF.

Supernatant Pool: This is the pool of water that forms on the surface of an active TSF paddock and comprises of water that has bled to the surface from the tailings slurry as it settles. The water then flows to the low point on the TSF surface from where it is reclaimed for reuse in the Processing Plant.

Tailings Storage Facility (TSF): An engineered structure (holding area) that consists of embankments designed for storing tailings usually with a mechanism to recover water for re-use.

TSF Operational Area: The area of the Fimiston I and Fimiston II TSFs that includes the immediate footprint of the facility plus a halo around the perimeter in which infrastructure associated with the operation of the facility is located. The halo is a maximum of 100m wide

10. REVISION HISTORY

Revision Number	Date	Changes made to document
1.0	11/08/2021	New Document
2.0	11/12/2025	Scheduled review. Maps updated to show new bores. Doc ID superseded from KCGM-FIM-ENV-003-PLA to KCGM-ENV-003-PLA

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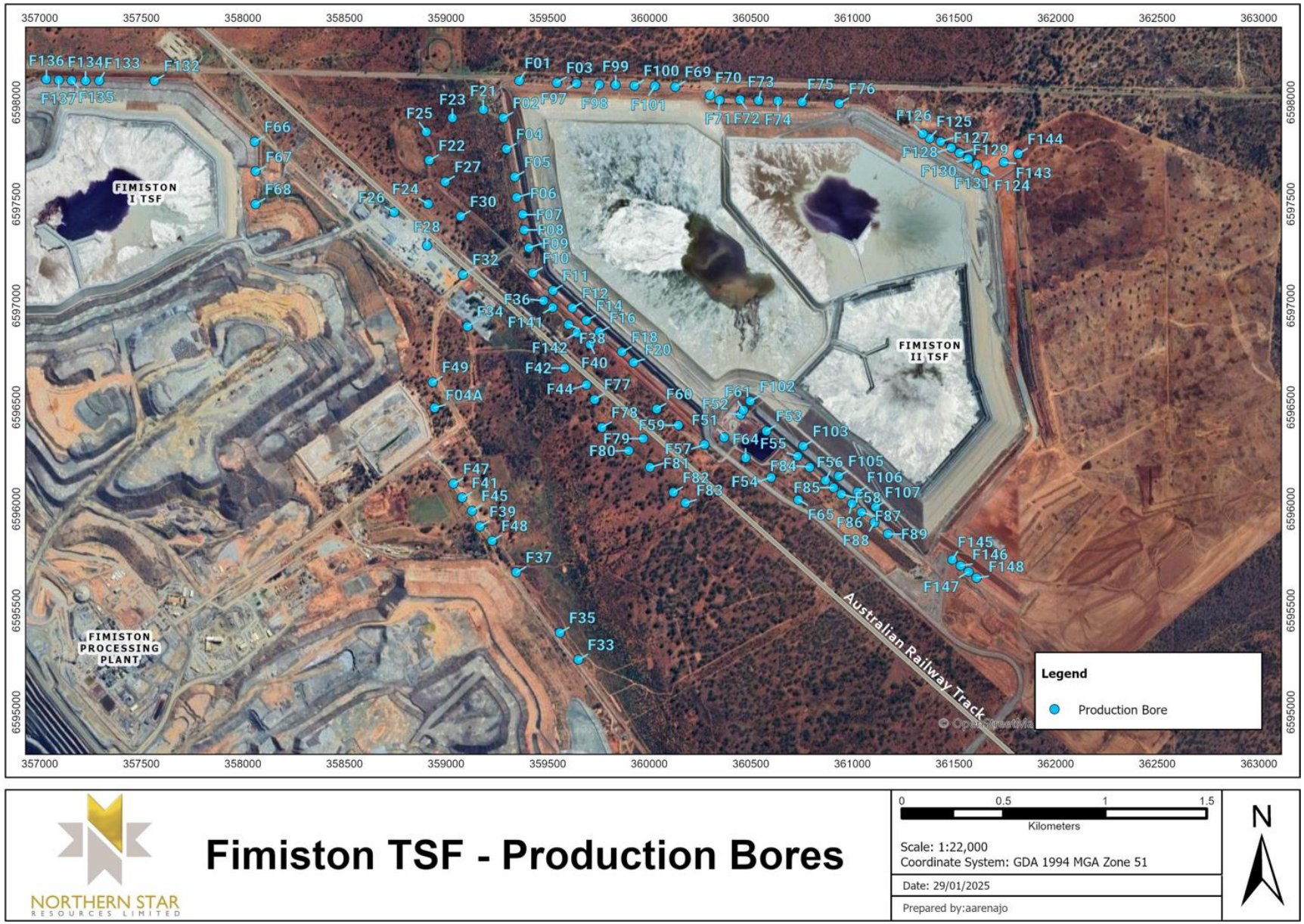
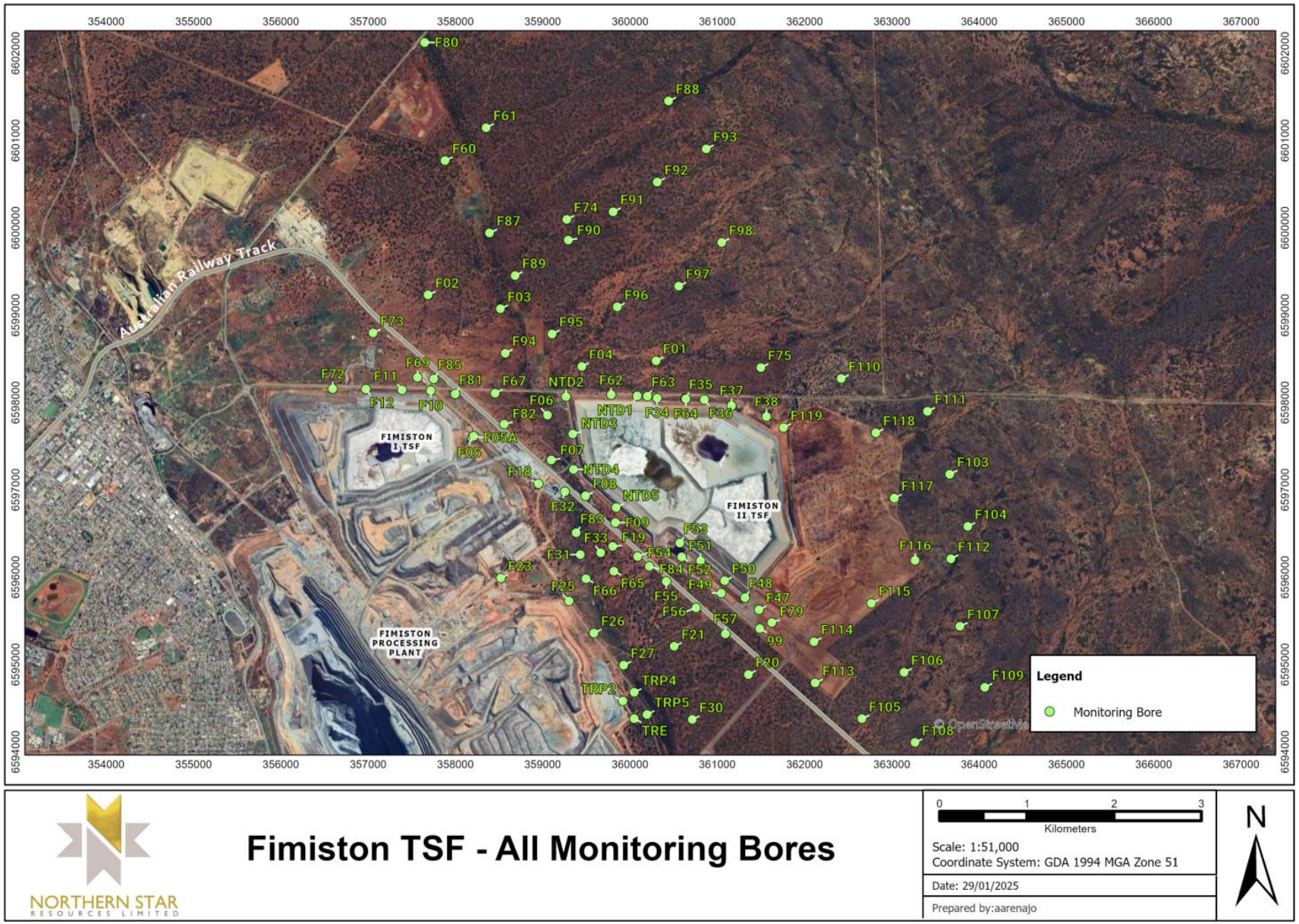


Figure 1. Location of Fimiston TSFs Groundwater Production (Seepage Abstraction) Bores



NORTHERN STAR RESOURCES LIMITED

Fimiston TSF - All Monitoring Bores

0 1 2 3 Kilometers

Scale: 1:51,000
Coordinate System: GDA 1994 MGA Zone 51
Date: 29/01/2025
Prepared by:aarenajo

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Figure 2. Location of Fimiston TSFs Groundwater Monitoring Bores