Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L8880/2015/1
Licence holder	IGO Nova Pty Ltd
ACN (if applicable)	146 091 527
Registered business address	Suite 4, Level 5 83-85 South Perth Esplanade South Perth WA 6151
DWER file number	DER2015/000284
Duration	04/05/2015 to 03/05/2023
Date of amendment	09 September 2020
Premises details	Nova Nickel Project Eyre Highway FRASER RANGE WA 6443 Being Mining Tenement M28/376

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production / design capacity**
Category 5: Processing or beneficiation of metallic ore or non-metallic ore	1,750,000 tonnes per year
Category 52: Electric power generation: premises (other than premises within category 53 or an emergency or standby power generating plant) on which electrical power is generated using a fuel.	19.5 MW per year
Category 54: Sewage facility premises	192 cubic metres per day
Category 64: Class II or III putrescible landfill site	2,000 tonnes per year

This amended licence is granted to the licence holder, subject to the attached conditions, on 09/09/2020, by:

Carmen Standring
Digitally signed by Carmen Standring
Date: 2020.09.09 16:23:50 +08'00'

Carmen Standring
A/Manager, Resource Industries
REGULATORY SERVICES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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Introduction

This Introduction is not part of the Licence conditions.

DWER's industry licensing role
The Department of Water and Environmental Regulation (DWER) is a government department for the State of Western Australia in the portfolio of the Minister for Environment. DWER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DWER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DWER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DWER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements
This Licence is issued under Part V of the Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licence Holder the intention is not to replicate them in the Licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the Department of Justice website using the following link:
https://www.legislation.wa.gov.au/legislation/statutes.nsf/home.html .

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.

- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.

- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your Licence. Non-compliance with your Licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Licence fees
If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non-payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid.

Ministerial conditions
If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and Licence summary
Nova Nickel Project Licence Holder has changed the company name three times since the issuing of Licence L8880/2015/1. As of 17 January 2020, Independence Nova Pty Ltd (Independence Nova) (formerly Sirius Gold Pty Ltd (Sirius)) will be IGO Nova Pty Ltd (IGO Nova).

The Nova Nickel Project was developed from a greenfield site approximately 8 km east of the Fraser Range ridge for the underground mining of nickel and copper deposits on mining tenement M28/376. The Nova Project is located on M28/376 for mining activities and associated infrastructure and Miscellaneous Licences L28/51 for the airstrip, L28/52 for the accommodation village and L69/22 for the main access road. The estimated total area of disturbance for the Nova Nickel Project (the Project) is 1,100 hectares (ha) comprising 400 ha for the mine and 700 ha for the access road and associated borrow pits. The Project life of mine will be approximately 10 years although exploration is ongoing and extension of Project life is considered highly probable.

The closest human receptors to the Project area are the Fraser Range Caravan Park, approximately 40 km to the southwest and the Fraser Range Station, and an occupied homestead approximately 40 km to the southwest.

IGO Nova operates a putrescible landfill capable of accepting up to 2,000 tonnes per annual period. The landfill accepts putrescible and inert wastes from the camp, clean fill as well as waste tyres and plastics. Tyre management at the premises sees the of waste tyres removed from the premise by a recycling contractor. The landfill was originally constructed under Works Approval W5613/2014/1 as a category 89 putrescible landfill but was later revised to increase the throughput volumes.

A WWTP has also been constructed to treat on average 140 m^3/day of sewage with an instantaneous peak maximum flow of 192 m^3/day to service the growing workforce. The disposal site for the WWTP effluent was previously to a 4 hectare irrigation area, which remains an approved discharge location. Wastewater is also approved to discharge to the TSF.

Dewatering to allow for the underground mining of ore occurred throughout the construction of the Project with dewater effluent being used for dust suppression after being transferred from a 12,000 m^3 lined turkey's nest. Dewatering rates are projected to increase to 57 L/s with excess water unable to be used in dust suppression being discharged to the high density polyethylene (HDPE) lined TSF. Under direction of the Department's operational guidance, dewatering effluent discharged for the purposes of dust suppression was not considered a discharge to the environment per the definition of category 6 and therefore was not included as a prescribed activity under this Licence in the September 2015 licence amendment. Effluent from the wastewater treatment plant (WWTP) will also be discharged to the TSF for later use in the processing plant.

Previous Licence amendments:

- November 2017: to allow the operation of the Processing Plant (which includes the TSF and Paste Plant) and Power Station which were constructed and commissioned in stages under works approval W5752/2014/1.
- June 2018: DWER initiated amendment to clarify the requirements for the Workshop runoff containment pond (Containment Infrastructure) condition 1.2.9 only.
- March 2020: DWER initiated amendment to change the name of the Licence Holder on being advised by IGO Nova as to the change in the name of the company. The business number has not changed. ASIC extracts were provided by the IGO.

This amendment is to increase the putrescible landfill facility (Class II or III) from 1,000 tonnes per annum to 2,000 tonnes per annum.

The licences and works approvals issued for the Premises since 01/12/2014 are:

Instrument log		
Instrument	**Issued**	**Description**
W5752/2014/1	08/01/2015	New works approval instrument
L8880/2015/1	30/04/2015	New licence instrument
L8880/2015/1	02/07/2015	Amendment to permit larger WWTP (from 35m^3/day to 192 m^3/day)
W5752/2014/1	08/07/2015	Minor amendment to allow for a change of the processing facility crushing circuit to direct ore overflow onto a conveyor system to an emergency stockpile. The ROM pad height was also amended to allow for a nominal height of 8m
L8880/2015/1	24/09/2015	Amendment to permit the operation of the HDPE lined TSF as a containment facility for dewatered water
L8880/2015/1	29/04/2016	Notice of amendment to extend licence duration to 3 May 2023
L8880/2015/1	01/11/2017	Amendment to add power station operation, processing plant (to 1,750,000 tonnes per year production capacity), paste plant and use of TSF for receipt of tailings and treated effluent
L8880/2015/1	28/06/2018	DWER initiated amendment for the clarification of the 'Workshop area containment pond', containment infrastructure requirements.
L8880/2015/1	28/02/2020	DWER initiated amendment for the changing of the name on the Licence form 'Independence Nova Pty Ltd' to 'IGO Nova Pty Ltd'. This is a change of company name only. The business number has not changed. The cover page of the Licence was updated to the current licence template. Typographical errors have also been corrected.
L8880/2015/1	09/09/2020	This amendment is to increase the putrescible landfill facility (Class II or III) throughput from 1,000 tonnes per annual period to 2,000 tonnes per annual period and increase the area of the landfill.

Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION

Licence conditions

1 General

1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

'Act' means the *Environmental Protection Act 1986;*

'Annual Audit Compliance Report' means a report in a format approved by the CEO as presented by the Licence Holder or as specified by the CEO from time to time and published on the Department's website;

'annual period' means the inclusive period from 1 April until 31 March in the following year;

'AS 1692' means Australian Standard AS 1692-2006 - R2016 *Steel tanks for flammable and combustible liquids;*

'AS 1940' means Australian Standard AS 1940-2004 *The storage and handling of flammable and combustible liquids;*

'AS/NZS 2031' means the Australian Standard AS/NZS 2031 *Selection of containers and preservation of water samples for microbiological analysis;*

'AS/NZS 2067' means Australian Standard AS 2067:2016 *Substations and high voltage installations exceeding 1 kV a.c.;*

'AS/NZS 3007' means Australian Standard AS/NZS 3007:2013 *Electrical equipment in mines and quarries - Surface installations and associated processing plant;*

'AS/NZS 5667.1' means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples;*

'AS/NZS 5667.10' means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters;*

'averaging period' means the time over which a limit or target is measured or a monitoring result is obtained;

'CEO' means Chief Executive Officer of the Department;

"submit to / notify the CEO" (or similar), means either:

Director General
Department administering the *Environmental Protection Act 1986*
Locked Bag 10
Joondalup DC WA 6919

or:

info@dwer.wa.gov.au

'cfu/100mL' means coliform forming units per 100 millilitres;

'DWER' As of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER).

'Department' means the department established under section 35 of the Public Sector Management Act 1994 (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3;

'HDPE' means high density polyethylene;

'Leachate' means liquid released by or water that has percolated through waste and which contains some of its constituents;

'Inert Waste Type 1' has the meaning defined in Landfill Definitions;

'Inert Waste Type 2' has the meaning defined in Landfill Definitions;

'Landfill Definitions' means the document titled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer of the Department of Environment as amended from time to time.

'Licence' means this Licence numbered L8880/2015/1 and issued under the Act;

'Licence Holder' means the person or organisation named as Licence Holder on page 1 of the Licence;

'mbgl' means metres below ground level;

mg/m^3 means milligram per cubic metre;

'NATA' means the National Association of Testing Authorities, Australia;

'NATA accredited' means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

'**process equipment**' means any wastewater or sludge containment infrastructure or wastewater treatment vessel;

'putrescible waste' has the meaning defined in Landfill Definitions;

'quarantined storage area or container' means a hardstand storage area or sealed-bottom container that is separate and isolated from authorised waste disposal areas and is capable of containing all non-conforming waste and its constituents, these areas must be clearly marked and their access restricted to authorised personnel;

'quarterly' means the 4 inclusive periods from 1 April to 30 June, 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March;

'rehabilitation' means the completion of the engineering of a landfill cell and includes capping and/or final cover;

'Schedule 1' means Schedule 1 of this Licence unless otherwise stated;

'Schedule 2' means Schedule 2 of this Licence unless otherwise stated;

'six monthly' means the 2 inclusive periods from 1 April to 30 September and 1 October to 31 March in the following year;

'spot sample' means a discrete sample representative at the time and place at which the sample is taken; and

'TSF' means the Tailings Storage Facility;

'usual working day' means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia; and

'**WWTP'** means wastewater treatment plant.

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.

1.1.4 Any reference to a guideline or code of practice in the Licence means the version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.2 Premises operation

1.2.1 The Licence Holder shall record and investigate the exceedance of any descriptive or numerical limit, and in this section.

1.2.2 The Licence Holder shall only accept waste to the landfill or wastewater treatment vessels if:
- a) it is of a type listed in Table 1.2.1; and
- b) the quantity accepted is below any quantity limit listed in Table 1.2.1; and
- c) it meets any specification listed in Table 1.2.1.

Table 1.2.1: Waste acceptance[1]

Waste type	Quantity limit	Specification
Sewage	192 m^3/day	Sewage is directed to wastewater treatment vessels
Inert Waste Type 1	2,000 tonnes per year	Waste containing visible asbestos or ACM shall not be accepted.
Inert Waste Type 2		Tyres and plastic only
Clean Fill		None specified
Putrescible waste		Must meet the acceptance criteria for Class II landfills.

Note 1: Additional requirements for the acceptance of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

1.2.3 The Licence Holder shall ensure that where waste does not meet the waste acceptance criteria set out in Table 1.2.1, the Licence Holder shall contact the CEO to agree a course of action in relation to the waste.

1.2.4 The Licence Holder shall ensure that wastes are only subjected to the process(es) set out in Table 1.2.2 and in accordance with any process requirements described in that table.

Table 1.2.2: Waste processing

Waste type	Process	Process requirements[1, 2]
Sewage	Physical, biological and chemical treatment	None specified
All	Disposal of waste by landfilling	<u>All waste types</u> Disposal of waste by landfilling shall only take place within the Landfill Area shown in Schedule 1. No waste shall be temporarily stored or landfilled within 35 metres from the boundary of the premises. The separation distance between the base of the landfill and the highest groundwater level shall not be less than 2m.

Table 1.2.2: Waste processing		
Waste type	**Process**	**Process requirements[1, 2]**
Inert Waste Type 2	Disposal of waste by landfilling	Tyres shall only be landfilled: (a) in batches separated from each other by at least 100 mm of soil and each consisting of not more than 40 cubic metres of tyres reduced to pieces; or (b) in batches separated from each other by at least 100 mm of soil and each consisting of not more than 1,000 whole tyres.
Putrescible Waste	Receipt, handling, associated storage and disposal of waste by landfilling	None specified
Clean Fill		
Inert Waste Type 1		

Note 1: Requirements for landfilling tyres are set out in Part 6 of the *Environmental Protection Regulations 1987*.
Note 2: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

1.2.5 The Licence Holder shall manage the landfilling activities to ensure:
- (a) waste is levelled and compacted after it is discharged and prior to covering with Type I waste or clean fill; and
- (b) waste is placed and compacted to ensure all faces are stable and capable of retaining rehabilitation material;
- (c) rehabilitation of a cell or phase takes place within 12 months after disposal in that cell or phase has been completed;
- (d) waste does not get washed, or blown, outside the site;
- (e) waste that has been washed, or blown, away from the tipping area of the site is returned to the tipping area at least once in each week;
- (f) drainage diversion bunding at the perimeter of the landfill shall be installed and maintained to ensure that stormwater is diverted from the landfill;
- (g) stormwater is diverted from areas of the site where there is waste;
- (h) water that has come into contact with waste is to be diverted into a sump on the site, or otherwise retained on the site; and.
- (i) The base of the landfill shall be compacted.

1.2.6 The Licence Holder shall ensure that cover is applied and maintained on landfilled wastes in accordance with Table 1.2.3 and that sufficient stockpiles of cover are maintained on site at all times.

Table 1.2.3: Cover requirements[1]	
Waste Type	**Cover requirements**
Inert Waste Type 2 (Tyres)	To be covered at least weekly. Waste deposited shall be covered with sufficient quantities of Type 1 inert waste or clean fill to prevent the spread of fire and harbouring of disease vectors.
Putrescible waste	To be covered at least weekly with sufficient quantities of Type 1 inert waste or clean fill to ensure that no waste is exposed.
Inert Waste Type 1	No cover required

Note 1: Additional requirements for final cover of tyres are set out in Part 6 of the *Environmental Protection Regulations 1987.*

1.2.7 The Licence Holder shall implement the following security measures at the landfill site:
- (a) erect and maintain suitable fencing to prevent unauthorised access to the site; and
- (b) ensure that any entrance gates to the premises are securely locked when the premises are unattended; and
- (c) undertake weekly inspections of all security measures and repair damage as soon as practicable.

1.2.8 The Licence Holder shall manage the irrigation of treated wastewater while irrigating at emission point L1, such that:
(a) treated wastewater is evenly distributed over the irrigation area;
(b) irrigation does not occur on land that is waterlogged; and
(c) vegetation cover is maintained over the irrigation area.

1.2.9 The Licence Holder shall ensure that the following material is only stored within vessels or compounds meeting the listed requirements detailed in Table 1.2.4.

Table 1.2.4: Containment infrastructure

Vessel or compound	Material	Requirements
Turkey's nest	Mine dewater	Lined with 1mm HDPE to achieve a permeability of at least <10^{-9} m/s
TSF	Tailings from the Process Plant, treated effluent from the WWTP and RO Brine	Lined with 1mm HDPE to achieve a permeability of at least <10^{-9} m/s
		Composite liner to minimise TSF seepage incorporates a 300 mm thick clay liner overlain by a 1.5 mm thick HDPE layer
		Liner system that extends across the TSF footprint, to the top of the embankment and has a permeability of less than 1 x 10^{-9} m/s
		Capable of maintaining a 1 in 100 year, 72 hour storm event with an additional 500mm freeboard
		Freeboard level indicator
RO Brine, raw water and dewatering pipelines	RO Brine and saline raw water	HDPE pipe with welded joints within earthen bund or buried to prevent interference with surface drainage
Tailings and decant pipelines	Tailings and decant water	Tailings distribution pipelines for the two tailings streams and their associated take-off spigots are functional with no blockages.
		Pipelines are HDPE with welded joints with flanges at approximately 100 m intervals.
		Pipelines contain functioning isolation valves, flow and leak detection sensors
		Located within an earthen bund and buried where necessary to prevent any interference with site drainage.
		Sumps located at low points along the pipeline routes to contain material from pipeline leaks or ruptures.
WWTP sewage and effluent pipelines	Sewage and treated effluent	Sewage, treated effluent distribution pipelines and delivery points at the WWTP, TSF and emission point L1 are functional with no blockages.
		The pipelines are HDPE with welded joints. Pipelines located within an earthen bund and buried where necessary to prevent any interference with site drainage.
Reagent tanks and storage	Bulk reagents	Tanks or silos in appropriately bunded facilities whereby 110% of the volume of the largest vessel is contained and 25% of the total volume is contained according to Australian Standards (AS1940 and AS1692).

Table 1.2.4: Containment infrastructure		
Vessel or compound	**Material**	**Requirements**
Return water tank (Nickel circuit process water tank)	Return water from TSF	Functioning high level alarm
Concentrate Shed wheel wash	Nickel and Copper concentrates	Impermeable concrete floor
		Drains lead to impermeable collection sump
Workshop area containment pond	Potentially hydrocarbon contaminated water	Connected to functioning oily water separator
Processing Plant sedimentation pond	Ore, processed materials	Maintain levels to capture a 1 in 20 year, 24 hour duration storm event
ROM pad containment ponds	ROM runoff	HDPE layer to prevent seepage Maintain levels to contain a one in one hundred year ARI rainfall event.
Paste Plant Tailings Storage Tank	Tailings	Impermeable concrete bunding High level alarm to prevent tailings tank overflow.
Paste Plant Bunker	Tailings	Impermeable concrete bunker base and walls
Fuel delivery area	Potentially hydrocarbon contaminated stormwater	Concrete sump to collect rainwater and fuel spillage which is then pumped to the wash-down bay oily water separator
		Equipped with overfill detection system and bunded to prevent leaks outside the delivery area
Heavy vehicle wash down facility and sumps	Ore and hydrocarbons	Sediment separation Wash down water treated via oily water separator and stored in designated workshop areas
Power Station diesel generators	Hydrocarbons	Stored within an enclosed shed on impermeable concrete bunded area with a sump to collect fuel spillage
Process Plant bunding	Ore, hydrocarbons, potentially contaminated stormwater, potentially acid forming material contaminated water, reagents, dust	Impermeable concrete bunding draining to sumps with recovery pumps
Conveyors and transfer points on conveyors in primary crushing circuit	Ore	Conveyors covered and oversized ore run at low speeds.
Dust collector at the crusher discharge conveyor	Ore	Dust collector operational on the crusher discharge conveyor

1.2.10 The Licence Holder shall manage the TSF such that:

(a) a minimum top of embankment freeboard of 500mm or a 1 in 100 year/72 hour storm event (whichever is greater) is maintained; and,

(b) methods of operation reduce the likelihood of erosion of the TSF embankments by wave action.

1.2.11 The Licence Holder shall conduct and maintain a written record of the following inspections as outlined in Table 1.2.5, with the record of each inspection being signed by the responsible person.

Table 1.2.5: Inspection of infrastructure		
Scope of inspection	**Type of inspection**	**Frequency of inspection**
Tailings delivery pipelines	Visual integrity	Daily whilst operational
TSF exposed liner condition	Visual integrity	Daily
Tailings decant water return pipelines	Visual integrity	Daily whilst operational
Tailings storage facility embankment freeboard	Visual to confirm required freeboard capacity is available	Daily whilst operational
Integrity of decant barge and fittings	Visual integrity with mixing occurring within the TSF	Weekly
Outer perimeter of TSF	Visual to check for any evidence of seepage	Daily
RO Brine pipelines	Visual integrity	Daily
Concentrate Shed Wheel wash	Visual to identify nickel and copper concentrates outside of washdown area	Weekly
Landfill facility	Visual inspection of waste coverage and security	Weekly

1.2.12 The Licence Holder shall not exceed production limits in accordance with the specifications listed within Table 1.2.6.

Table 1.2.6: Production limits	
Facility	**Maximum approved premises production or design capacity**
Processing Plant	1,750,000 tonnes per year of ore
Power Station	19.5 MW

2 Emissions

2.1 General

2.1.1 The Licence Holder shall record and investigate the exceedance of any descriptive or numerical limit specified in any part of section 2 of this Licence.

2.2 Emissions to land

2.2.1 The Licence Holder shall ensure that where waste is emitted to land from the emission point in Table 2.2.1 and identified on the map of the emission point in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 2.2.1: Emissions to land

Emission point reference and location on Map of emission points	Emission point reference on Map of emission points	Description	Source including abatement
L1	On-site irrigation area	Discharge from irrigation pump station to on-site irrigation area	Treated wastewater pumped from final WWTP tank

2.2.2 The Licence Holder shall not cause or allow emissions to land at or above the levels specified in Table 2.2.2.

Table 2.2.2: Emission limits to land

Emission point reference	Parameter	Limit (including units)	Averaging period
L1	Load of Total Phosphorus	180 kg/ha/annum	Annual
	Load of Total Nitrogen	480 kg/ha/annum	

3 Monitoring

3.1 General monitoring

3.1.1 The Licence Holder shall ensure that:
(a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
(b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
(c) all microbiological samples are collected and preserved in accordance with AS/NZS 2031; and
(d) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table.

3.1.2 The Licence Holder shall ensure that:
(a) quarterly monitoring is undertaken at least 45 days apart; and
(b) six monthly monitoring is undertaken at least 5 months apart.

3.1.3 The Licence Holder shall record production or throughput data and any other process parameters relevant to any monitoring undertaken of the Prescribed Premises.

3.1.4 The Licence Holder shall ensure that all monitoring equipment used on the Premises complies with the conditions of this Licence and is calibrated in accordance with the manufacturer's specifications.

3.1.5 The Licence Holder shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

3.2 Monitoring of emissions to land

3.2.1 The Licence Holder shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of emissions to land

Emission point reference	Parameter		Units	Averaging Period	Frequency
L1	Effluent	Volumetric discharge flow rate (cumulative)	L/s or m^3/day	Monthly	Continuous
		pH[1]	pH units	Spot Sample	On commencement of discharge at L1 thereafter, six monthly
		Biochemical Oxygen Demand	mg/L		
		Total Dissolved Solids			
		Total Suspended Solids			
		Nitrate + Nitrite-nitrogen			
		Ammonium-nitrogen			
		Total Nitrogen			
		Total Phosphorus			
		Escherichia coli	cfu/100 mL		
		Load of Total Nitrogen	kg/ha/day	Quarterly	On commencement of discharge at L1 thereafter, quarterly
		Load of Total Phosphorus	kg/ha/day	Quarterly	On commencement of discharge at L1 thereafter, quarterly

Note 1: In-field non-NATA accredited analysis permitted.

3.3 Monitoring of inputs and outputs

3.3.1 The Licence Holder shall undertake the monitoring in Table 3.3.1 according to the specifications in that table.

Table 3.3.1: Monitoring of inputs and outputs

Input/Output	Parameter	Units	Averaging period	Frequency
Sewage - Inlet Flow (M1)	Volumetric inflow rate (cumulative)	m^3/day	Monthly	Continuous
Waste Inputs	Inert Waste Type 1, Inert Waste Type 2, Clean Fill, Putrescible Waste	tonnes (where a weighbridge is present on the site) m^3 (where no weighbridge is present)	N/A	Each load arriving at the Premises
Waste Outputs	Waste type as defined in the Landfill Definitions			Each load leaving or rejected from the Premises
Treated effluent (at outflow point of the WWTP)	Volumetric discharge flow rate (cumulative)	L/s or m^3/day	Monthly	Continuous
Tailings Inputs to TSF (at Processing Plant discharge point)	Volumetric inflow rate (cumulative)	m^3/day	N/A	Continuous
	pH[1]	pH units	Spot sample	Once every 6 months
	TDS[1]	mg/L	N/A	
TSF Decant output to Process Water Tank	Volumetric flow rate (cumulative)	m^3/day	N/A	Continuous
	TDS[1]	mg/L	N/A	Once every 6 months
	pH[1]	pH units	Spot sample	

Note 1: In-field non-NATA accredited analysis permitted.

3.4 Environmental quality monitoring

3.4.1 The Licence Holder shall undertake the monitoring in Table 3.4.1 according to the specifications in that table and record and investigate results that do not meet any limit specified.

Table 3.4.1: Monitoring of groundwater quality

Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
Shallow bores: TSF-MBH01A, TSF-MBH02A and TSF-MBH03A **Deep bores:** TSF-MBH01B, TSF-MBH02B and TSF-MBH03B	Standing water level	mbgl	Spot sample	Quarterly
	Total Nitrogen	mg/L	Quarterly	
	Total Phosphorous	mg/L		
	pH[1]	N/A	Quarterly	Once upon identification of water within the boreholes, thereafter, quarterly
	TDS	mg/L		
	Total Alkalinity			
	Aluminium			
	Calcium			
	Chromium			
	Cobalt			
	Copper			
	Iron – Total dissolved			
	Lead			
	Magnesium			
	Manganese			
	Molybdenum			
	Nickel			
	Potassium			
	Selenium			
	Sodium			
	Sulfate			
	Zinc			

Note 1: In-field non-NATA accredited analysis permitted.

4 Information

4.1 Records

4.1.1 All information and records required by the Licence shall:
- (a) be legible;
- (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
- (c) except for records listed in 4.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
- (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
  - (i) off-site environmental effects; or
  - (ii) matters which affect the condition of the land or waters.

4.1.2 The Licence Holder must submit an Annual Audit Compliance Report indicating the extent to which the Licence Holder has complied with the conditions of the Licence, and any previous licence issued under Part V of the EP Act for the Premises for the previous annual period. The report must be submitted to the CEO within 90 days after the anniversary date of the Licence issue.

4.1.3 The Licence Holder shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

4.2 Reporting

4.2.1 The Licence Holder shall submit to the CEO an Annual Environmental Report within 28 calendar days after the end of the annual period. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

Table 4.2.1: Annual Environmental Report

Condition or table (if relevant)	Parameter	Format or form[1]
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any environmental impacts, investigations conducted including outcomes, and remedial actions	None specified
Table 3.2.1	Monitoring of emissions to land	None specified
	Contaminant loading (kg/day and kg/ha/day – monthly average and total annual loading kg/yr and kg/ha/yr) to land of parameters monitored in Table 3.2.1 (except pH and *E.coli*)	None specified
Table 3.3.1	Monitoring of inputs and outputs	None specified
Table 3.4.1	Monitoring of groundwater and a comparison of results against background water quality[2]. Details of investigations conducted, including outcomes, environmental impacts and remedial actions	None specified
4.1.3	Compliance	Annual Audit Compliance Report (AACR)
4.1.4	Complaints summary	None specified

Note 1: Forms are in Schedule 2
Note 2: Table 8 of Groundwater Resource Management (GRM). 2014. Hydrogeological Study for the Nova Nickel Project. Unpublished report prepared for Sirius Resources NL.

4.2.2 The Licence Holder shall ensure that the Annual Environmental Report also contains:
- (a) any relevant process, production or operational data recorded under condition 3.1.3; and
- (b) an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets.

4.2.3 The Licence Holder shall submit the information in Table 2.2 to the CEO at the Contact Address according to the specifications in that table.

Table 4.2.2: Non-annual reporting requirements				
Condition or table (if relevant)	**Parameter**	**Reporting period**	**Reporting date (after end of the reporting period)**	**Format or form**
-	Copies of original monitoring reports	Not Applicable	Within 14 days of the CEO's request	None specified

4.3 Notification

4.3.1 The Licence Holder shall ensure that the parameters listed in Table 4.3.1 are notified to the CEO at the Contact Address and in accordance with the notification requirements of the table.

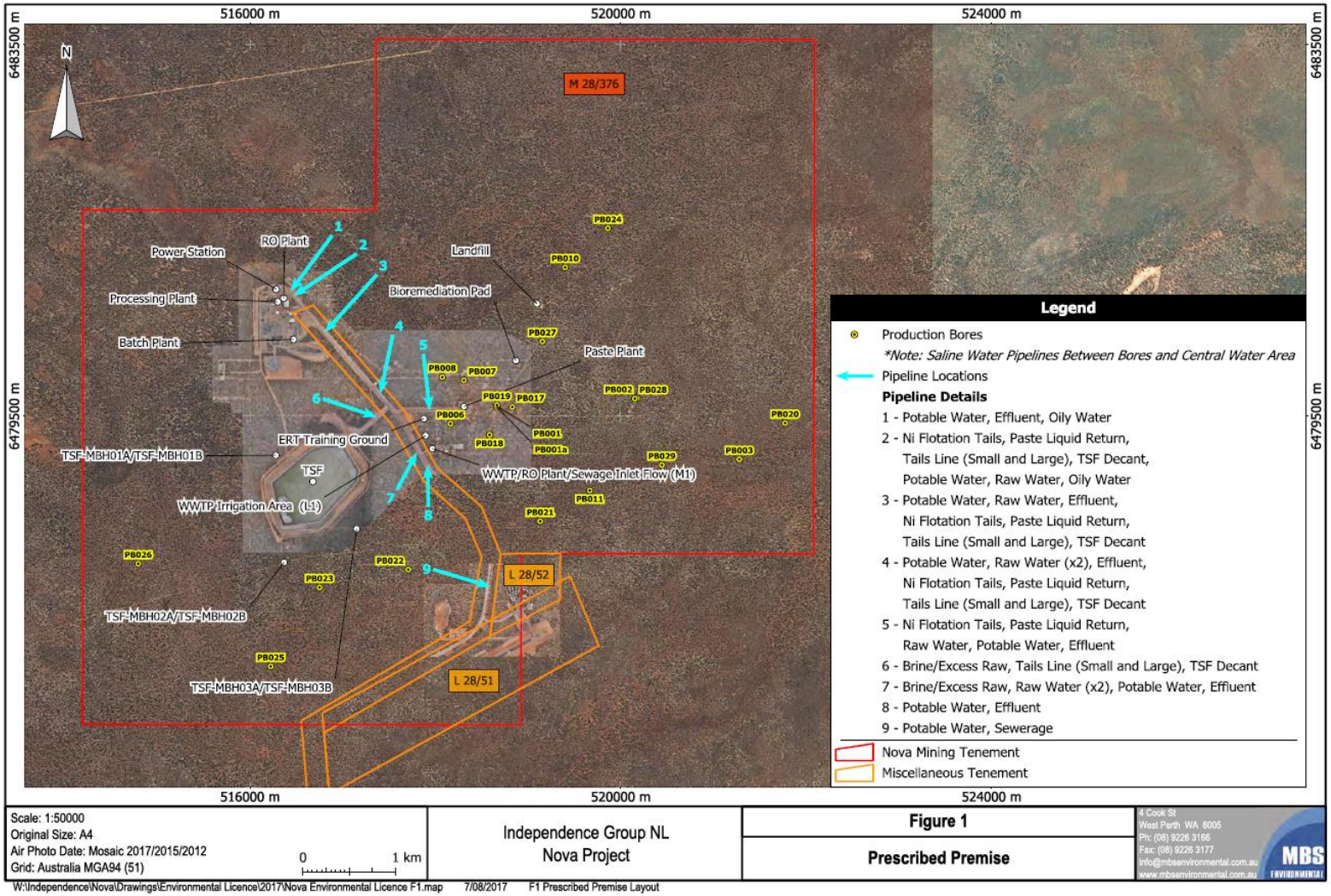
Table 4.3.1: Notification requirements			
Condition or table (if relevant)	**Parameter**	**Notification requirement[1]**	**Format or form[2]**
Table 1.2.1 and Table 2.2.2	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day Part B: As soon as practicable	N1
3.1.5	Calibration report	As soon as practicable	None specified
3.2.1	Recommencement of discharge at L1	Within 24 hours of commencement of discharge to L1	None specified
-	Action of SRK Nova TSF 2016 Audit[3] recommendations 3, 6, 8 and 10	Within 7 days of completion of actioning audit recommendations	None specified

Note 1: No notification requirement in the Licence shall negate the requirement to comply with s72 of the EP Act.
Note 2: Forms are in Schedule 2
Note 3: SRK Consulting 2016, Nova TSF 2016 Audit. Report Prepared for Independence Group NL. SRK Consulting (Australasia) Pty Ltd. IDG005, September 2016.

Schedule 1: Maps

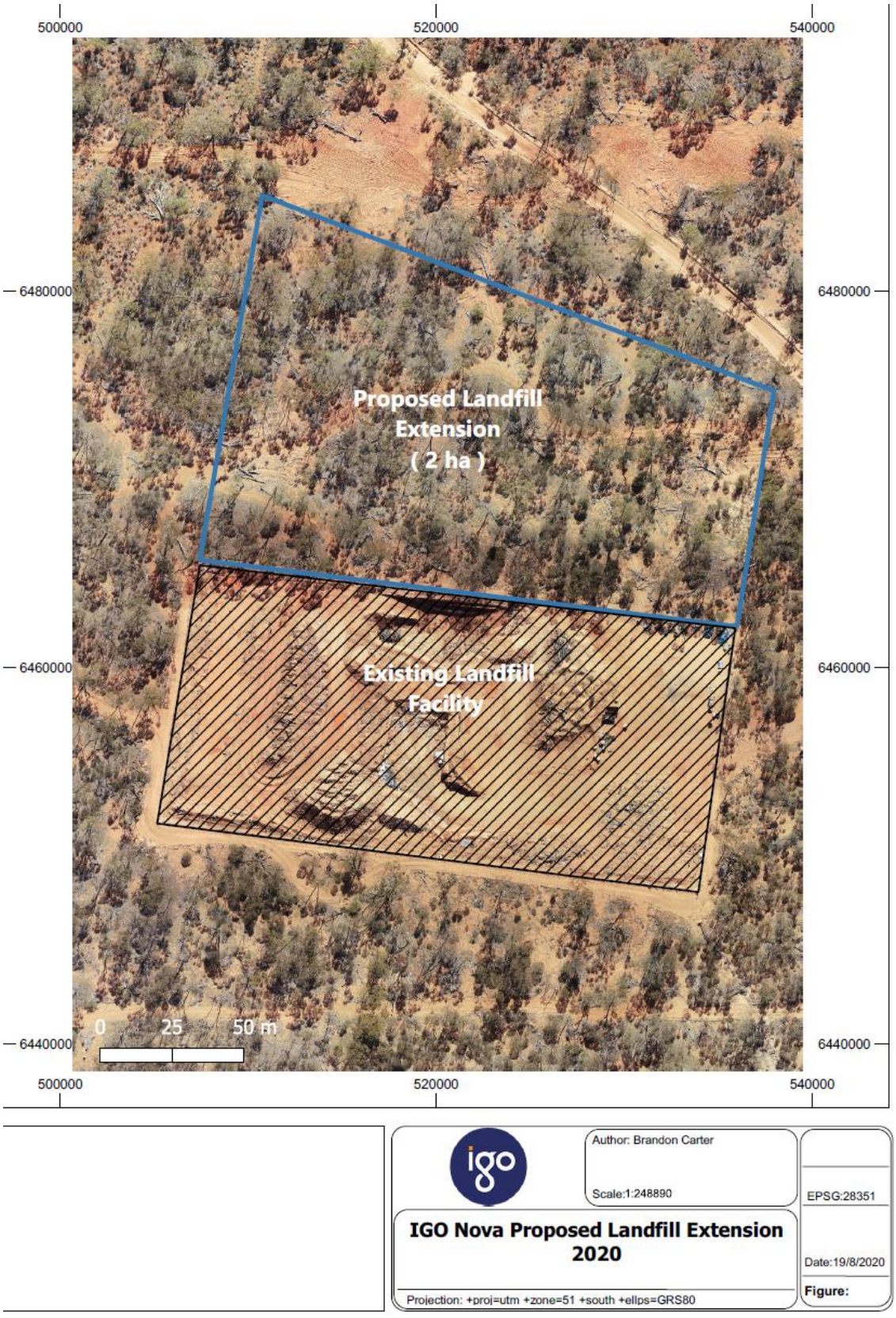
Premises map and monitoring locations

The Premises and monitoring locations are shown in the map below. The red line depicts the Premises boundary.



Premises Landfill Area

The Landfill Area authorised by condition 1.2.4 is shown in the map below.



Schedule 2: Notification form

This form is provided for the proponent to notify the DWER of detection of the breach of a limit or any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution. It can be requested in an electronic format.

Licence:	L8880/2015/1	Licence Holder: IGO Nova Pty Ltd
Form:	N1	Date of breach:

Notification of detection of the breach of a limit or any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution.

These pages outline the information that the operator must provide.
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	IGO Nova Pty Ltd
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of IGO Nova Pty Ltd	
Date	