Licence

Licence number	L4762/1972/14
Licence holder	Pilbara Iron Company (Services) Pty Ltd
ACN	107 210 248
Registered business address	Level 18, Central Park 152-158 St Georges Terrace PERTH WA 6000
DWER file number	DER2013/001057-2
Duration	21/05/2015 to 27/05/2036
Date of amendment	2/03/2023
Premises details	Greater Tom Price Iron Ore Mine Mining tenements ML4SA, G47/1258, G47/1260, L47/161, L47/209, L47/210, L47/342, L47/552, L47/645, L47/668, L47/698, L47/721, G47/1271, L47/745, L47/824, L47/826 and L47/858 MOUNT SHEILA WA 6751 As defined by the coordinates in Schedule 2

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	Assessed production / design capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore	40,000,000 tonnes per annual period
Category 6: Mine dewatering	11,000,000 tonnes per annual period (Western Turner Syncline Stage 2-B1 and Section 17 Deposits) 7,300,000 tonnes per annual period (Western Turner Syncline Section 10 Deposit) 3,000,000 tonnes per annual period (South East Prongs Deposit)
Category 12: Screening, etc. of material	10,000,000 tonnes per annual period
Category 54: Sewage facility	305 cubic metres per day
Category 64: Class II putrescible landfill site	8,000 tonnes per annual period
Category 73: Bulk storage of chemicals, etc.	2,250 cubic metres in aggregate

This licence is granted to the licence holder, subject to the attached conditions, on 2 March 2023, by:

Alana Kidd

Digitally signed by
Alana Kidd
Date: 2023.03.02
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MANAGER, RESOURCE INDUSTRIES
REGULATORY SERVICES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Reference number	Date	Summary of changes
L4762/1972/14	28/05/2015	Licence reissue.
L4762/1972/14	21/04/2016	Licence amendment: • Increased design capacity for Category 5 to 40,000,000 tpa; • Inclusion of Category 12 (design capacity 10,000,000 tpa) and Licence condition L1; • Inclusion of WDL1 and WDL2 (now WTS B1 and WTS B2) and a capacity increase for Category 64 to 6,000 tpa (from 4,000 tpa); • Amendment to condition L27 (previously L16) to include improvement requirements IR1 – IR3 relating to the Greater Tom Price Tailings Storage Facility (TSF), the Section 6 Pit and the MOC and Beneficiation Plant WWTPs; • Removal of previous conditions 1, 2, 4, 7, 8, 9, 10, 16 – 20, 25, 37 and 38; • Updated premises maps; and • Administrative changes.
L4762/1972/14	29/04/2016	Notice of amendment of licence expiry dates in accordance with section 59B(9) of the *Environmental Protection Act 1986*. New expiry date for L4762/1972/14 is 27/05/2036.
L4762/1972/14	17/10/2017	Amendment Notice 1 • Increased design capacity for Category 6; • Inclusion of the WTS S10 dewatering outfall discharge point; • Increased design capacity for Category 64; • Decreased design capacity for Category 73; • Reduction in the monitoring parameters of the WTS S2 discharge; • Construction and operation of the WTS B1 putrescible landfill; and • Other administrative changes.
L4762/1972/14	9/09/2019	Amendment Notice 2 • Amend Premises boundary to include a norther access road to connect the Western Turner Syncline mine to White Quartz Road; and • Operate a mobile crushing and screening plant adjacent to the access road (No changes to Category 12 capacity).
L4762/1972/14	28/09/2022	Licence amendment to: • Allow for the operation of the WTS2 Processing Facility; • Allow for the operation of the new Beneficiation Plant WWTP

Reference number	Date	Summary of changes
		and decrease in design capacity for Category 54 from 320 m^3/day to 305 m^3/day; • Increase design capacity for Category 73 (from 1,546 to 2,250 m^3); • Expand the premises boundary; • Consolidate Amendment Notices 1 and 2 into this Licence; and • Convert to current licence format.
L4762/1972/14	2/03/2023	Licence amendment to: • include the operation of the South East Prongs (SEP) Part 1 Waste Fines Storage Facility (WFSF) and associated infrastructure. The works were carried out under works approval W6409/2020/1; and • Replace the Tom Price Landfill groundwater monitoring bore MB12TPL01 with existing groundwater monitoring bore MB22TP0001.

Interpretation

In this licence:

(a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;

(b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(c) where tables are used in a condition, each row in a table constitutes a separate condition;

(d) any reference to an Australian or other standard, guideline, or code of practice in this licence:

(i) if dated, refers to that particular version; and

(ii) if not dated, refers to the latest version and therefore may be subject to change over time;

(e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

Licence conditions

The licence holder must ensure that the following conditions are complied with:

General conditions

1. The licence holder must ensure the limits specified in Table 1 are not exceeded.

Table 1: Production or design capacity limits

Category[1]	Category description[1]	Premises production or design capacity limit
5	Processing or beneficiation of metallic or non-metallic ore	76,000,000 tonnes per annual period
12	Screening etc. of material	10,000,000 tonnes per annual period
73	Bulk storage of chemicals etc.	2,250 m^3 in aggregate

Note 1: *Environmental Protection Regulations 1987*, Schedule 1.

2. The licence holder must install and maintain mechanisms to ensure that stormwater from the following areas onsite is diverted to facilities for treatment and disposal offsite or reuse:

(a) process plants;
(b) washdown bays;
(c) refuelling areas; and
(d) mechanical workshops.

3. The licence holder must as soon as practicable recover, or remove and dispose of, any liquid resulting from spills or leaks of chemicals including fuel, oil or other hydrocarbons, from inside or outside the low permeability compound(s).

4. The licence holder must utilise and maintain protective bunding, skimmers, silt traps, neutralisation pits, fuel and oil traps, drains and sealed collection sumps around the process plant, maintenance workshops, laboratory and power generation areas to enable recovery of spillages and protection of surrounding soils and groundwater, as practicable.

Infrastructure and equipment

5. The licence holder must ensure that the site infrastructure and equipment listed in Schedule 3: Infrastructure and equipment, Table 13 and located at the corresponding infrastructure location is maintained and operated in good working order.

6. The licence holder must ensure that the site infrastructure and equipment listed in Table 2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 2.

Table 2: Infrastructure and equipment requirements

Site infrastructure and equipment	Operational requirement	Infrastructure location
Mobile Crushing and Screening Plant(s)	In dry conditions, any dust generated must be managed by: • Spraying the feed stockpile with water prior to ore being fed into the screen; • Using dust suppression on stockpiles; • Operating water carts to dampen work areas, access roads and stockpiles to minimise dust lift-off during storage and handling of borrow and screened material as required; • Using hydraulically angle-adjustable stockpiling conveyors (if fitted) to minimise drop heights; and • Operating belt sprayers (if fitted) to dampen crushed material. Stormwater runoff must be managed in accordance with the following actions: • The mobile plant(s) shall be located at least 50 m from any permanent water body; • The mobile plant area is bunded so no contaminated runoff leaves the immediate work area; and • Uncontaminated stormwater from the surrounding areas shall be diverted around the mobile plant area.	Not shown.
Tailings Storage Facility (TSF)	• Maintain the interception drain immediately downstream of the main storage dam embankment, which shall be used to collect and recover liquid matter resulting from seepage of the main embankments. • Maintain at least 1 m of freeboard at the main embankment at all times.	As depicted in Schedule 1, Figure 2.
SEP WFSF including tailings delivery pipeline, droppers, decant pump and decant return pipeline	• Maintain freeboard adequate to store a 1:100 year, 72-hour rainfall event • Contain inflows from a 1:100 year Annual Exceedance Probability. • Conduct daily inspections to confirm required freeboard capacity is available. • Decant water recovered at a minimum rate of 60 L/s during tailings deposition, with volumes recorded. • Tailings deposition to occur at the	As depicted in Schedule 1, Figure 15.

Site infrastructure and equipment	Operational requirement	Infrastructure location
	eastern end of the pit via three sets of deposition droppers (primary deposition, secondary deposition and emergency bypass). • Record volumes of tailings discharged. • Conduct daily inspections of tailings delivery pipelines and decant return pipelines to check for integrity. • Conduct daily inspections of pipeline corridor bunding and sumps to ensure sufficient capacity to contain spillages between daily inspections is being maintained. • Maintain to manufacturers specifications tailings pipeline flowmeters and pressure drop sensors. • Decant recovery water transferred to the AWTP for treatment.	
DP14B1001 - Mine dewatering discharge point	All dewatering discharge must flow through a gabion outlet.	As depicted in Schedule 1, Figure 7.
Sludge hardstand area or drying bed	• Must have a hydraulic conductivity of equal to or less than 1 x 10^{-9} m/s. • Must be bunded to enable the containment and recovery of any liquid matter.	Not shown.

7. The licence holder must ensure that each item of infrastructure or equipment specified in Table 3 is designed and constructed in accordance with the requirements specified in Table 3.

Table 3: WTS B1 Putrescible Landfill Infrastructure Requirements

Infrastructure	Requirements (design and construction)
Landfill facility	Constructed within the approximate boundaries below:

MGA 50		
ID	Easting	Northing
1	547,104	7,491,323
2	547,269	7,491,297
3	546,732	7,490,673
4	546,692	7,490,947

Earthen stormwater bund	Constructed to divert clean stormwater away from landfill trenches.
Rollover bund	Constructed at the entrance to each trench to prevent stormwater entering trenches.
Mesh fence with access gates	To be constructed to a minimum height of 2.2 m. To be constructed around the perimeter of the WTS B1 putrescible landfill facility.

8. The licence holder must not depart from the requirements specified in Table 3 except:

(a) where such departures are minor in nature and do not materially change or affect the infrastructure; or

(b) where such departure improves the functionality of the infrastructure and does not increase the risks to public health, public amenity or the environment.

9. The licence holder must submit a construction compliance document to the CEO, following construction of the WTS B1 putrescible landfill and prior to operation.

10. The licence holder must ensure the construction compliance document:

(a) is signed by a person authorised to represent the Licensee and contains the printed name and position of that person within the company; and

(b) certifies that each item of infrastructure specified in Table 3 has been constructed in accordance with the conditions of the Licence with no material defects beyond those listed under condition 8.

Emissions and discharges

11. The licence holder must ensure that the emissions specified in Table 4, are discharged only at the corresponding discharge point location.

Table 4: Authorised discharge points

Emission	Discharge point location
Treated sewage for irrigation purposes	As shown in Schedule 1, Figure 3 - Mine Camp WWTPs Irrigation field.
Treated sewage	As shown in Schedule 1, Figure 4 - MOC WWTP Discharge point; and Figure 5 – Discharge point for new WWTP.
Surface water	As shown in Schedule 1, Figure 2 - Reclaim Dam.
	As shown in Schedule 1, Figure 2 - TSF Seepage Main Embankment.
	As shown in Schedule 1, Figures 2 and 6 - Section 6 Discharge Point.
Mine dewatering discharge	As shown in Schedule 1, Figure 7 - DP14B1001.
	As shown in Schedule 1, Figure 10 - DP17S1001.

Emission	Discharge point location
Tailings	As depicted in Schedule 1, Figure 2 - Tailings Storage Facility and Schedule 1, Figure 15 - SEP WFSF.

12. The licence holder must ensure that emissions from the discharge point listed in Table 5 for the corresponding parameter do not exceed the corresponding limit when monitored in accordance with condition 15.

Table 5: Emission and discharge limits

Discharge point	Parameter	Limit
Section 6 Pit Discharge Point	Volume of water	3,000,000 tonnes per annual period
DP14B1001	Volume of mine dewater	11,000,000 tonnes per annual period
DP17S1001		7,300,000 tonnes per annual period
Reclaim Dam TSF Seepage Main Embankment DP14B1001 DP17S1001	Total Recoverable Hydrocarbons	30 mg/L

13. The licence holder must ensure that the waste types specified in Table 6 are only subjected to the corresponding process(es), subject to the corresponding process limits and/or specifications.

Table 6: Waste processing

Waste type[1]	Process(es)	Process limits and/or specifications[2,3]
Sewage	Biological, physical and chemical treatment	With the combined total capacity of all WWTPs listed below being 305 m^3/day. • MOC WWTP • Beneficiation Plant WWTP • Mine Camp WWTP1 • Mine Camp WWTP2
Sludge and biosolids	Storage and disposal	• Must be disposed in accordance with the *Western Australian guidelines for biosolids management* or to a licensed or registered landfill facility. • Must be immediately removed offsite or stored onsite within a hardstand area or drying bed.
All waste types	Receipt, handling and disposal of waste by landfilling	No more than 8,000 tonnes per annual period of all waste types cumulatively shall be disposed of to the Putrescible Landfills and Waste Dump Landfills as

Waste type[1]	Process(es)	Process limits and/or specifications[2,3]
		shown in Schedule 1, Figure 9.
Inert Waste Type 1 Putrescible Waste Special Waste Type 1 Special Waste Type 2		<u>All waste types</u> • Disposal of waste by landfilling must only take place within the Putrescible Landfills as shown in Schedule 1, Figure 9. • Tipping area is not greater than 30 m in length and 2 m above ground level in height. • No waste within 100 m of any surface water body at the site and 3 m of the highest level of the water table aquifer. • Manage stormwater so that: (a) it is diverted from areas of the site where there is waste; and (b) water that has come into contact with waste is to be diverted into a sump on the site, or otherwise retained on the site. <u>Special Waste Type 2</u> • To be disposed of in sealed bags and within a dedicated trench. • The location of disposed wastes to be recorded.
Inert Waste Type 1 Inert Waste Type 2 Special Waste Type 1 Putrescible Waste (wooden pallets only)		• Disposal of waste by landfilling must only take place within the Waste Dump Landfills as shown in Schedule 1, Figure 9. • No waste within 100 m of any surface water body at the site and 3 m of the highest level of the water table aquifer. • Manage stormwater so that water that has come into contact with waste is retained on the site.

Note 1: As defined by the Landfill Definitions.
Note 2: Requirements for landfilling tyres are set out in Part 6 of the *Environmental Protection Regulations 1987*.
Note 3: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres) are set out the *Environmental Protection (Controlled Waste) Regulations 2004*.

14. The licence holder shall ensure that cover is applied and maintained on the waste facility in accordance with the corresponding cover requirements in Table 7 and that sufficient stockpiles or cover are maintained on the premises at all times.

Table 7: Cover requirements

Waste facility	Cover requirements
Putrescible landfill(s)	Waste in the tipping area is covered: • at least weekly; • with a dense (at least 200 mm), inert and incombustible material; and • totally, so that no waste is left exposed. <u>Special Waste Type 2</u> • immediately cover the waste with a minimum depth of 1 m of inert and incombustible material.
Waste dump landfill	Waste in the tipping area is covered with a dense (at least 200 mm), inert and incombustible material at final landform design.

Monitoring

15. The licence holder must monitor emissions in accordance with the requirements specified in Table 8 and record the results of all such monitoring.

Table 8: Emissions and discharge monitoring

Monitoring location	Parameter	Unit	Frequency	Averaging period	Method
WWTPs					
MOC WWTP Beneficiation Plant WWTP Mine Camp WWTP1 Mine Camp WWTP2 (As depicted in Schedule 1, Figure 2)	Volume	m^3	Monthly	Cumulative	Flow metering device
	Biochemical Oxygen Demand	mg/L	Quarterly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.10
	Total Suspended Solids	mg/L			
	pH[1]	pH units			
	Total Nitrogen	mg/L			
	Total Phosphorus	mg/L			
	E.coli	cfu/100ml			
Surface Water Monitoring Sites					
Reclaim Dam TSF Seepage Main Embankment (As depicted in Schedule 1, Figure 2)	Volumes of water discharged	m^3	Monthly	Cumulative	Flow metering device
	pH[1]	pH units	Quarterly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.10
	Electrical Conductivity[1]	µS/cm			
	Total Dissolved Solids	mg/L			

Monitoring location	Parameter	Unit	Frequency	Averaging period	Method
	Total Suspended Solids	mg/L			
	Total Recoverable Hydrocarbons	mg/L			
	Chemical Oxygen Demand	mg/L			
	Biochemical Oxygen Demand	mg/L			
	E. coli	cfu/100mL			
	Surfactants	mg/L			
	Major ions: Sodium Potassium Calcium Magnesium Sulfate	mg/L			
	Metals: Lead Copper Iron Manganese Molybdenum Zinc Arsenic Mercury Cadmium Chromium	mg/L			
Section 6 Pit Discharge Point (As depicted in Schedule 1, Figures 2 and 6)	Volumes of water discharged	m^3	Monthly when flowing	Cumulative	Flow metering device
	pH[1]	pH units	Quarterly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.10
	Electrical Conductivity[1]	µS/cm			
	Total Dissolved Solids	mg/L			
	Total Suspended Solids	mg/L			

Monitoring location	Parameter	Unit	Frequency	Averaging period	Method
	Major ions: Sodium Potassium Calcium Magnesium Sulfate	mg/L			
	Metals: Lead Copper Iron Manganese Molybdenum Zinc Arsenic Mercury Cadmium Chromium	mg/L			
Groundwater Monitoring Site					
Section 6 Pit MB13SSIX001 MB13SSIX002 MB13SSIX003 (As depicted in Schedule 1, Figure 6) Tailings Dam BH2 MB04TD0001 MB04TD0002 (As depicted in Schedule 1, Figure 8) Landfill Observation Bore TPL02 MB22TP0001 (As depicted in Schedule 1, Figure 9)	pH[1]	pH units	Quarterly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.11
	Electrical Conductivity[1]	µS/cm			
	Total Dissolved Solids	mg/L			
	Total Recoverable Hydrocarbons	mg/L			
	Major ions: Potassium Calcium	mg/L			
	Metals: Lead Copper Iron Manganese Molybdenum Zinc Arsenic Mercury Cadmium Chromium	mg/L			

Monitoring location	Parameter	Unit	Frequency	Averaging period	Method
	Magnesium				
SEP WFSF PZ16 MB18SEP0001 MB18SEP0002 GR17SEP0001 GR17SEP0002 GR17SEP0003 HM18SEP0001 HM18SEP0002 MB21SEP001 MB21SEP003 MB21SEP004 (As depicted in Schedule 1, Figure 17)	SWL	mbgl	Monthly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.11
SEP WFSF MB21SEP001 MB21SEP003 MB21SEP004 MB18SEP0001 MB18SEP0002 MB12SEP04 MB10SEP01 PZ07SEP03 PZ16	pH[1]	pH units	Quarterly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.11
	Alkalinity (HCO_3)	mg/L			
	Acrylamide				
	Major ions: Calcium Chloride Fluoride Magnesium Nitrate Total Phosphorus Potassium Sodium Sulfate				

Monitoring location	Parameter	Unit	Frequency	Averaging period	Method
(As depicted in Schedule 1, Figure 17)	Metals and metalloids: Aluminium Arsenic Cadmium Chromium Copper Iron Lead Manganese Molybdenum Nickel Selenium Zinc				
Tailings discharge to SEP WFSF					
SEP WFSF	Volume of tailings discharged, and water recovered	m^3	Monthly	Cumulative	Flow metering device
Dewatering Water Monitoring Sites – Beasley River					
DP14B1001	Volumes of water discharged	m^3	Monthly	Cumulative	Flow metering device
SW11BESR007 - reference sample point SW15B1001 - Primary dewatering discharge compliance sample point SW15B1002 - Secondary dewatering discharge compliance sampling point	Flow condition	N/A	Monthly when flowing	N/A	Photographic evidence
SW11BESR007 - reference sample point DP14B1001 - WTS S2 Mine dewatering discharge point SW15B1001 - Primary dewatering discharge	Electrical Conductivity[1]	µS/cm		Spot sample	AS/NZS 5667.1 AS/NZS 5667.6
	pH[1]	pH units			
	Temperature[1]	°C			
	Total Dissolved Solids	mg/L			
	Dissolved Oxygen[1]	% sat			

Monitoring location	Parameter	Unit	Frequency	Averaging period	Method
compliance sample point SW15B1002 - Secondary dewatering discharge compliance sampling point (Only sampled if no flow at primary sample point) As depicted in Schedule 1, Figure 7	Total Suspended Solids	mg/L			
	Hardness as $CaCO_3$	mg/L			
	Ions and Metals: Cadmium Carbon dioxide Calcium Cobalt Copper Total Chromium Bicarbonate Potassium Magnesium Nitrate Nitrate + Nitrite (NO_x as N) Total Nitrogen (TN) Sodium Total Phosphorus (TP) Total Reactive Phosphorus (TRP) Lead Sulphate-S Zinc	mg/L			
Dewatering Water Monitoring Sites – Hardey River					
DP17S1001	Volumes of water discharged	m^3	Monthly	Cumulative	Flow metering device
SW17S1001 - Primary dewatering discharge compliance point SW17S1002 - Secondary dewatering discharge compliance point	Flow condition	N/A	Monthly when flowing	N/A	Photographic evidence
SW17S1002 - reference sample point DP17S1001 - WTS S10 dewatering discharge point	Electrical Conductivity[1]	µS/cm		Spot sample	AS/NZS 5667.1 AS/NZS 5667.6
	pH[1]	pH units			
	Temperature[1]	°C			

Monitoring location	Parameter	Unit	Frequency	Averaging period	Method
SW17S1001 - Primary dewatering discharge compliance point As depicted in Schedule 1, Figure 10	Total Dissolved Solids	mg/L			
	Dissolved Oxygen[1]	% sat			
	Turbidity[1]	NTU			
	Total Suspended Solids	mg/L			
	Hardness as $CaCO_3$	mg/L			
	Ions and Metals: Aluminium Total Arsenic Boron Barium Cadmium Carbon Dioxide Calcium Cobalt Copper Total Chromium Iron Bicarbonate Total Mercury Potassium Magnesium Manganese Molybdenum Nitrate Nitrate + nitrite (NO_x as N) Total Nitrogen (TN) Sodium Nickel Total Phosphorus (TP) Total Reactive Phosphorus (TRP) Lead Silicon Sulphate-S Selenium Uranium Vanadium Zinc Silver	mg/L			

Monitoring location	Parameter	Unit	Frequency	Averaging period	Method
	Chloride				

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

16. All sample analysis must be undertaken by laboratories with current NATA accreditation for the relevant parameters, unless otherwise specified in condition 15.

17. The licence holder must collect all samples of for the analysis of chlorophyll a in accordance with AWWA 2017.

18. The licence holder must undertake the contingency actions in Table 9 for each event and in accordance with the timeframe as set out in Table 9.

Table 9: Contingency action in the event of an exceedance of the Interim Operational Guideline Value at the dewatering discharge compliance sampling points (SW15B1001, SW15B1002 and SW17S1001)

Event	Contingency action	Completion timeframe
1.1 The 3 month rolling median exceeds/outside the range of Site Specific Trigger Values (SSTV) specified in Schedule 4, Tables 14 and 15 for stressors or toxicants.	Assess data to determine if the exceedance is statistically significant (i.e. test using a one-tailed non-parametric 't-test' with significance level p=0,1) for toxicants and p=0.05 for stressors. If statistically significant, the licence holder is required to conduct a repeat sample.	Within two weeks of becoming aware of the exceedance event.
1.2 Single value ≥95%ile of baseline data or ≥ ANZECC default 90% species protection level trigger value (whichever is higher) listed in Schedule 4, Tables 14 and 15 for toxicants at the dewatering discharge compliance sampling point(s) for toxicants.	The licence holder is required to conduct a repeat sample.	
2 Repeat sample still exceeds the SSTV or ≥95%ile of baseline data or ≥ ANZECC default 90% species protection level trigger value (whichever is higher) specified in Schedule 4, Tables 14 and 15.	Investigate the likely cause of the exceedance.	Within one month of becoming aware of the exceedance event.
3 Discharge water is likely to be the cause of the SSTV exceedance or ≥95%ile of baseline data or ≥ ANZECC default 90% species protection level trigger value (whichever is higher) specified in	The licence holder must notify the CEO that an investigation to determine the environmental impact of the dewatering discharge has commenced and provide a completion date.	Within three months of becoming aware of the exceedance event

Event	Contingency action	Completion timeframe
Schedule 4, Tables 14 and 15.	The licence holder is required to complete an investigation into the environmental impact of discharge water in accordance with condition 22 of the Licence.	

Records and reporting

19. The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

(a) the name and contact details of the complainant, (if provided);

(b) the time and date of the complaint;

(c) the complete details of the complaint and any other concerns or other issues raised; and

(d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.

20. The licence holder must:

(a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and

(b) prepare and submit to the CEO by no later than 30 April after the end of that annual period an Annual Audit Compliance Report in the approved form.

21. The licence holder must submit to the CEO by no later than 30 April each year, an Annual Environmental Report for the preceding annual period for the conditions listed in Table 10, and which provides information in accordance with the corresponding requirement set out in Table 10.

Table 10: Annual Environmental Report

Condition	Requirement
Condition 15 WWTPs	The results to be provided to the CEO must include, but need not be limited to the following: • the monthly cumulative volume of all effluent discharges from the Mine Camp WWTPs for the purpose of irrigation and the MOC and Beneficiation Plant WWTPs treated effluent discharge pipes in tabular form; • the dates at which monitoring was undertaken for each location; • the raw monitoring data from each location, for each parameter in a tabular form; and • include an assessment and comparison against the NWQMS 1997 and all recorded monitoring data.
Condition 15 Surface Water Monitoring Sites	The results to be provided to the CEO must include, but need not be limited to the following: • the monthly cumulative volume of waters discharged in tabular form; • the dates at which monitoring was undertaken for each location;

Condition	Requirement
	• the raw monitoring data from each location, for each parameter in a tabular form; • the monitoring data presented graphically; and • include an assessment and comparison against the appropriate ANZECC 2000 water quality trigger values and previous years' monitoring data.
Condition 15 Groundwater Monitoring Sites	The results to be provided to the CEO must include, but need not be limited to the following: • the dates at which monitoring was undertaken for each location; • the monitoring data from each location, for each parameter presented in a tabular form and in cumulative time-series graphs in a Microsoft Excel format; • the monitoring data compared against previous years' monitoring date; • include an assessment and comparison of the SEP WFSF monitoring data against baseline sampling data and against appropriate ANZECC 2000 water quality trigger values; and • copies of original monitoring, laboratory and analysis reports submitted to the licence holder by third parties.
Condition 15 Dewatering Water Monitoring Sites – Beasley River	The results to be provided to the CEO must include, but need not be limited to the following: • the monthly cumulative volume of waters discharged in tabular form; • the dates at which monitoring was undertaken for each location; • the monitoring data from each location, for each parameter in a tabular form; • the monitoring data compared against previous years' monitoring data; • the monitoring data presented graphically; and • an assessment for SW15B1001 and/or SW15B1002 against the values specified in Schedule 4: Guideline Values, Table 14 and where exceedances are identified a summary of these exceedances that includes: (i) laboratory reports and graphical representation; (ii) comparison of exceedance values with water quality at SW11BESR007; (iii) any third party reports in accordance with condition 22(b); (iv) a list of all reports submitted as required under condition 22 for the previous annual period; and (v) outcomes of any contingency actions and corrective measures undertaken.
Condition 15 Dewatering Water Monitoring Sites – Hardey River	The results to be provided to the CEO must include, but need not be limited to the following: • the monthly cumulative volume of waters discharged in tabular form; • the dates at which monitoring was undertaken for each location; • the monitoring data from each location, for each parameter in a tabular form; • the monitoring data compared against previous years' monitoring data; • the monitoring data presented graphically; and • an assessment for SW17S1001 against the values specified in

Condition	Requirement
	Schedule 4: Guideline Values, Table 15 and where exceedance are identified a summary of these exceedances that includes: (i) laboratory reports and graphical presentations; (ii) comparison of exceedance values with water quality at SW17S1002; (iii) any third party reports in accordance with condition 22(b); (iv) a list of all reports submitted as required under condition 22 for the previous annual period; and (v) outcomes of any contingency actions and corrective measures undertaken.
Condition 15 Volume of tailings discharged and water recovered at the SEP WFSF	The results to be provided to the CEO must include, • The monthly cumulative volume of tailings discharged to the SEP WFSF; and • the monthly cumulative volume of decant water recovered from SEP WFSF.

22. The licence holder must submit to the CEO a report into the environmental impact of the dewatering discharge:

(a) an investigation into the level of risk to the environment as determined in consultation with a Suitably Qualified Third Party;

(b) a Direct Toxicity Assessment, unless where advised by a Suitably Qualified Third Party that impacts to aquatic ecosystems will not occur as a result of the exceedance; and

(c) timeframes for any contingency actions and corrective measures to be taken to mitigate the environmental impact of the discharge.

The licence holder is required to submit the report to the CEO by the completion date nominated in accordance with condition 18 of the Licence.

23. Where required by condition 22(b), the licence holder must carry out the Direct Toxicity Assessment in accordance with the principles of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality ANZECC/ARMCANZ 2000.

24. The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:

(a) the calculation of fees payable in respect of this licence;

(b) any maintenance of infrastructure that is performed in the course of complying with condition 5 and 6 of this licence;

(c) monitoring programmes undertaken in accordance with conditions 15 and 22 of this licence; and

(d) complaints received under condition 19 of this licence.

25. The books specified under condition 24 must:

(a) be legible;

(b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;

(c) be retained by the licence holder for the duration of the licence; and

(d) be available to be produced to an inspector or the CEO as required.

Definitions

In this licence, the terms in Table 11 have the meanings defined.

Table 11: Definitions

Term	Definition
ACN	Australian Company Number
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website)
annual period	a 12 month period commencing from 1 January until 31 December in the same year
ANZECC 2000	means the most recent version and relevant parts of the *Australian and New Zealand Environment guidelines for fresh and marine water quality Volume 1 – 3* (Australian and New Zealand Environment and Conservation Council, Agriculture and Resource Management Council of Australia and New Zealand)
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 5667.6	means the Australian Standard AS/NZS 5667.6 *Water Quality – Sampling – Guidance on sampling of rivers and streams*
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters*
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on Sampling of Groundwaters*
AWTP	Acid Water Treatment Plant
AWWA 2017	means the Standard Methods for the Examination of Water and Wastewater, 23rd edition. American Water Works Association 2017
books	has the same meaning given to that term under the EP Act
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 colony forming units per 100 millilitres

Term	Definition
Clean Fill	has the meaning defined in Landfill Definitions
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
discharge	has the same meaning given to that term under the EP Act
emission	has the same meaning given to that term under the EP Act
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	*Environmental Protection Regulations 1987* (WA)
freeboard	means the vertical height between the maximum water surface elevations and the top of retaining banks or structures at their lowest point
Inert Waste Type 1	has the meaning defined in Landfill Definitions
Inert Waste Type 2	has the meaning defined in Landfill Definitions
kg/ha/year	means kilograms per hectare per year
Landfill Definitions	means the document titled “Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)” published by the Chief Executive Officer of the Department of Water and Environmental Regulation as amended from time to time
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted
m/s	means metres per second
µS/cm	means microSiemens per centimetre
mg/L	means milligrams per litre
MOC	means Mine Operations Centre
NATA	means 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
NWQMS 1997	means the most recent version and relevant parts of the “National Water Quality Management Strategy, Australian Guidelines for Sewerage Systems - Effluent Management” as published by the Agriculture and Resource Management Council of Australia and New Zealand and Australian and New Zealand Environment and Conservation Council, 1997

Term	Definition
OLC	means overland conveyor
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this licence
prescribed premises	has the same meaning given to that term under the EP Act
Putrescible	has the meaning defined in Landfill Definitions
quarterly	means the 4 inclusive periods from 1 January to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October to 31 December in the same year
ROM	means Run-of-Mine
SEP WFSF	South East Prongs Waste Fines Storage Facility
Special Waste Type 1	has the meaning defined in Landfill Definitions
Special Waste Type 2	has the meaning defined in Landfill Definitions
Suitably Qualified Third Party	means a person, not employed by the Licensee that has qualifications and expertise in hydrology and/or environmental and water sciences; or a person as determined to be appropriate by the CEO from time to time
Tipping area	means the area of the landfill where waste is currently being disposed
Total Nitrogen	means the sum of total kjeldahl nitrogen (ammonia as nitrogen plus organic nitrogen) and nitrate as nitrogen plus nitrite as nitrogen
Total Phosphorus	means the sum of all forms of phosphorus (orthophosphate, condensed phosphate, and organic phosphate)
TSF	means Tailings Storage Facility
waste	has the same meaning given to that term under the EP Act
Western Australian guidelines for biosolids management	means the document titled “Western Australian guidelines for biosolids management, December 2012” published by the Department of Environment Regulation as amended from time to time
WDL	means waste dump landfill
WWTPs	means Wastewater Treatment Plants
WTS	means Western Turner Syncline
WTS S1	means WTS Stage 1
WTS S2	means WTS Stage 2

Term	Definition
WTS S10	means WTS Section 10

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1).

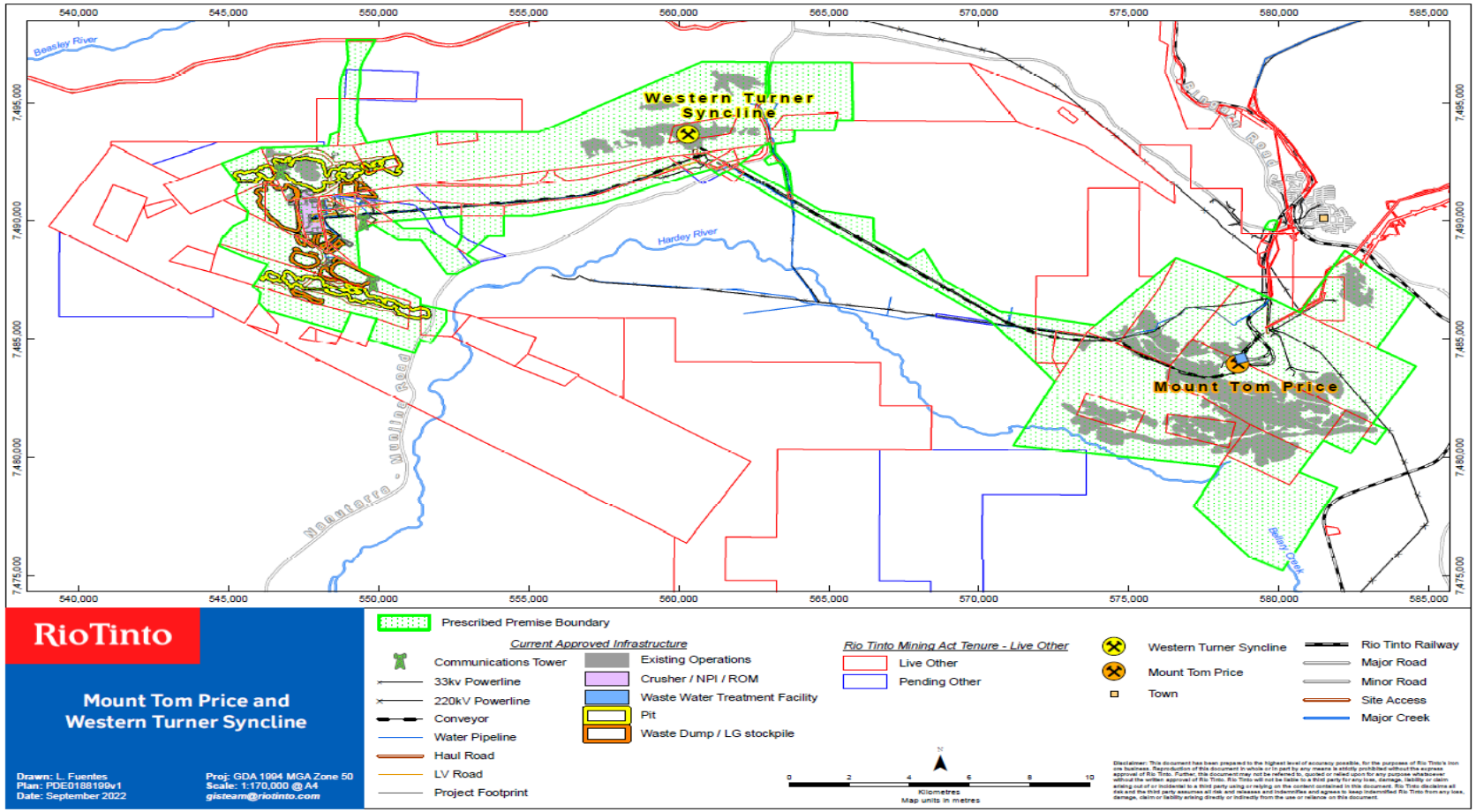

Figure 1: Map of the boundary of the prescribed premises

Infrastructure, Discharge and Monitoring Points

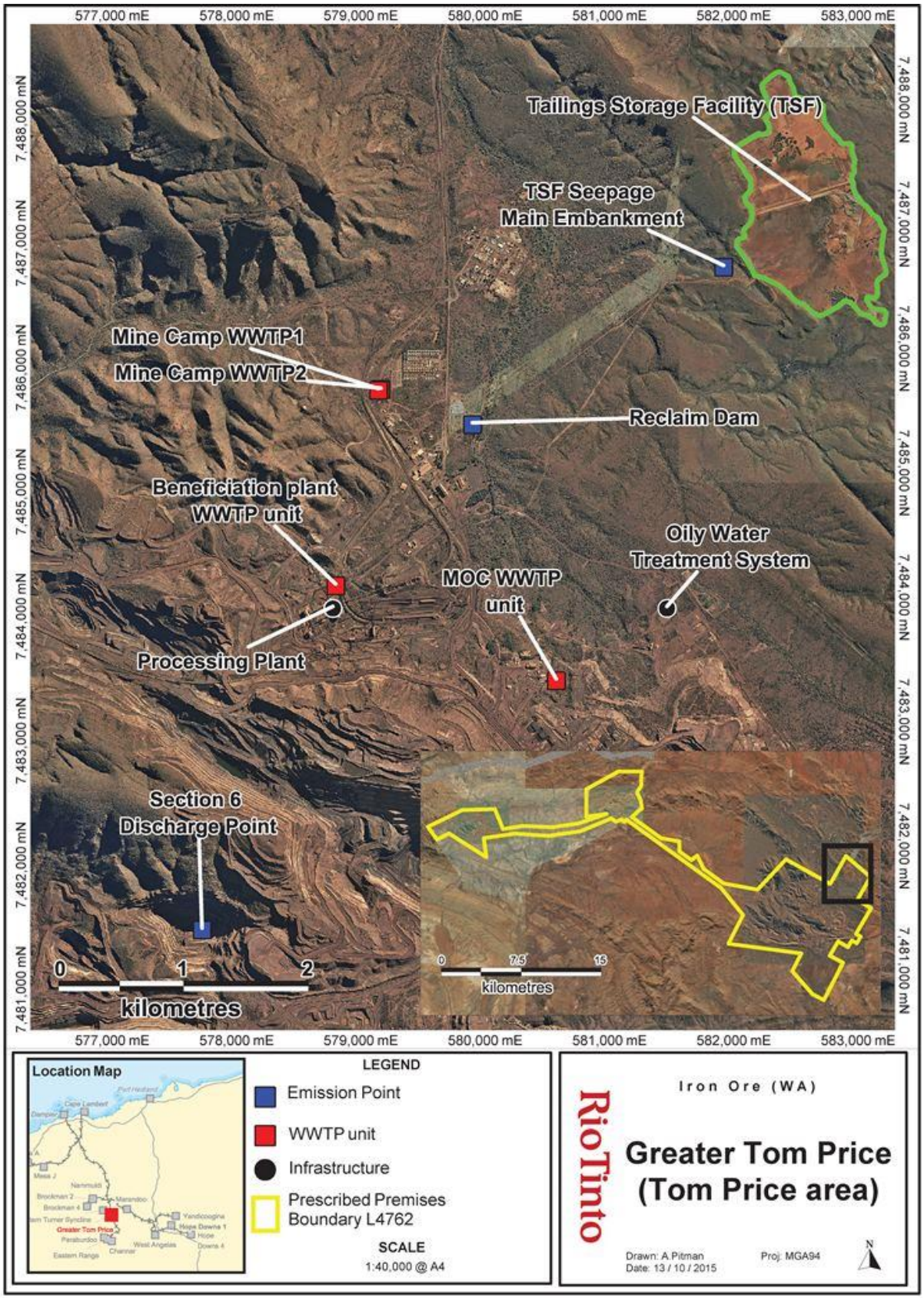

Figure 2: Tom Price Containment Infrastructure and Discharge Points

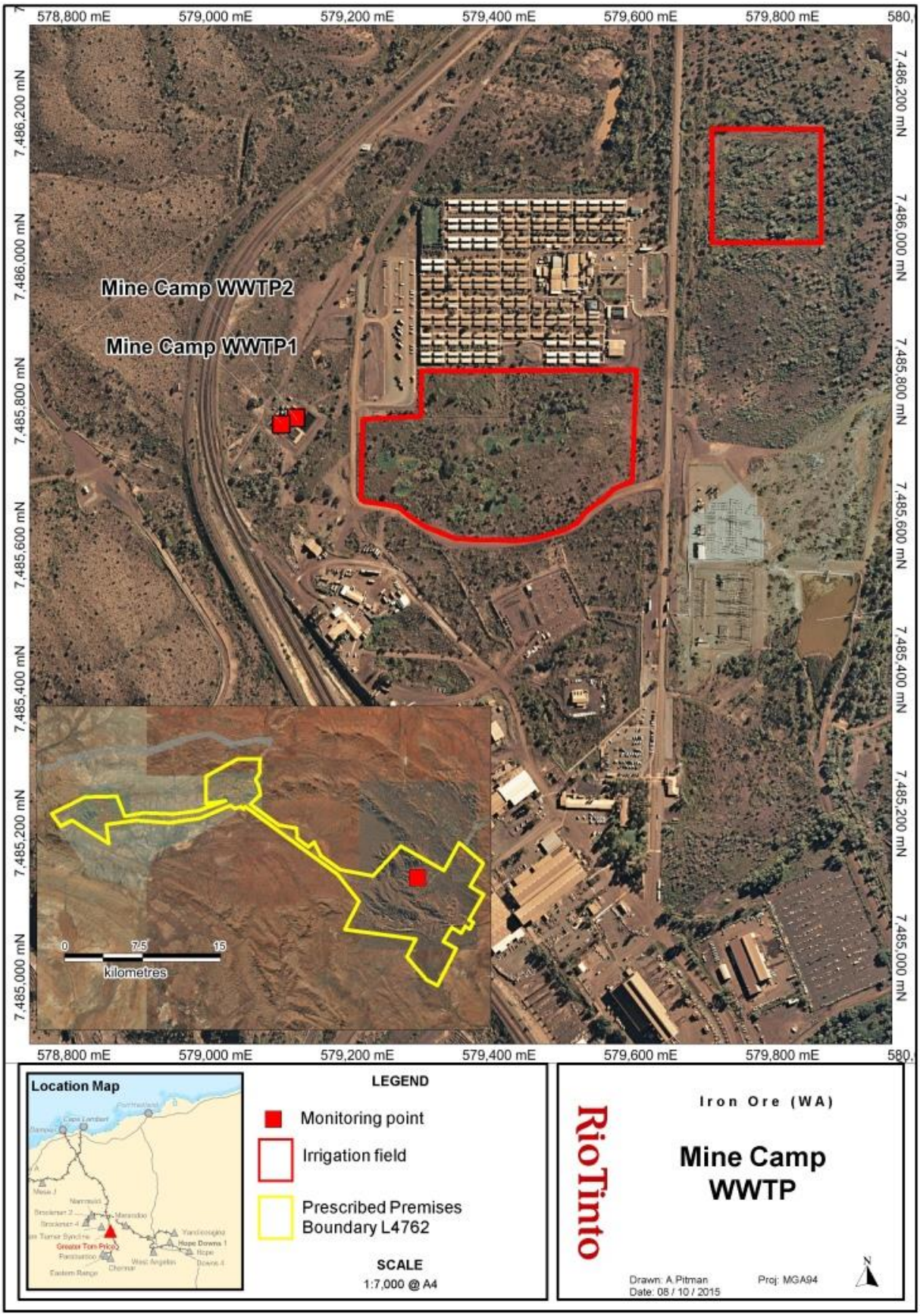

Figure 3: Mine Camp WWTPs and irrigation fields

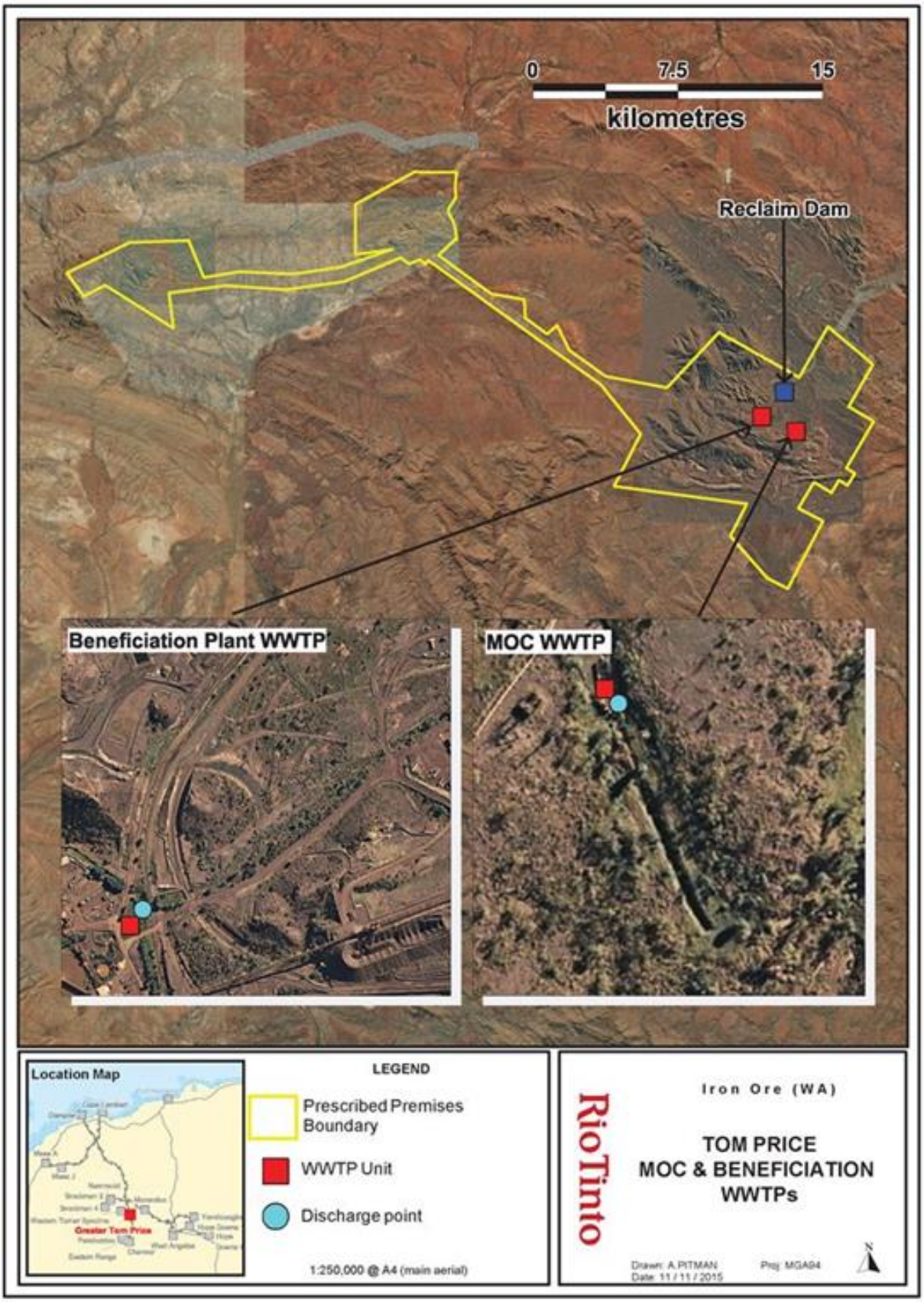

Figure 4: MOC WWTP Discharge Point

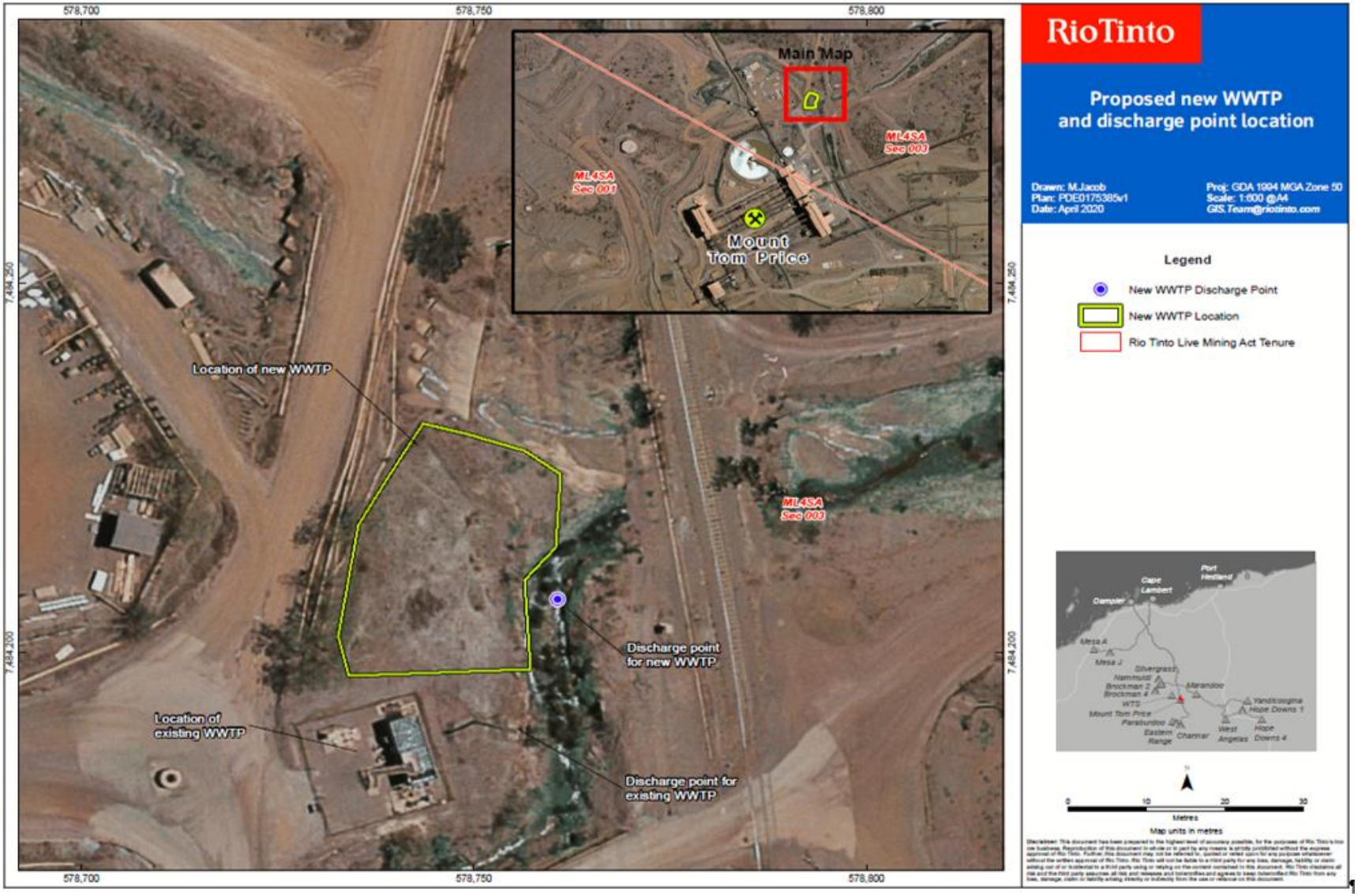

Figure 5: New discharge point for the Beneficiation Plant WWTP

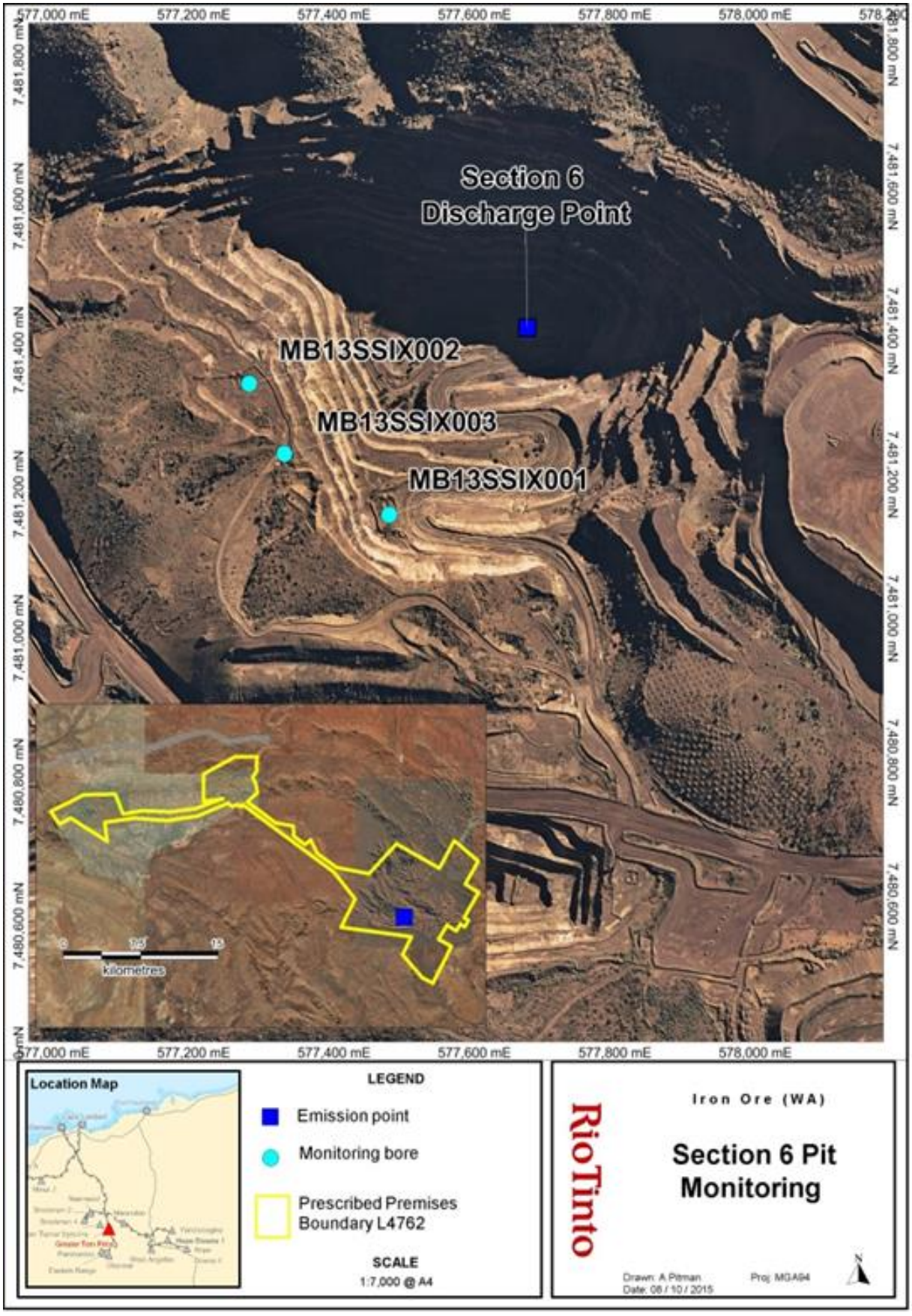

Figure 6: Section 6 Pit Discharge Point and Monitoring Locations

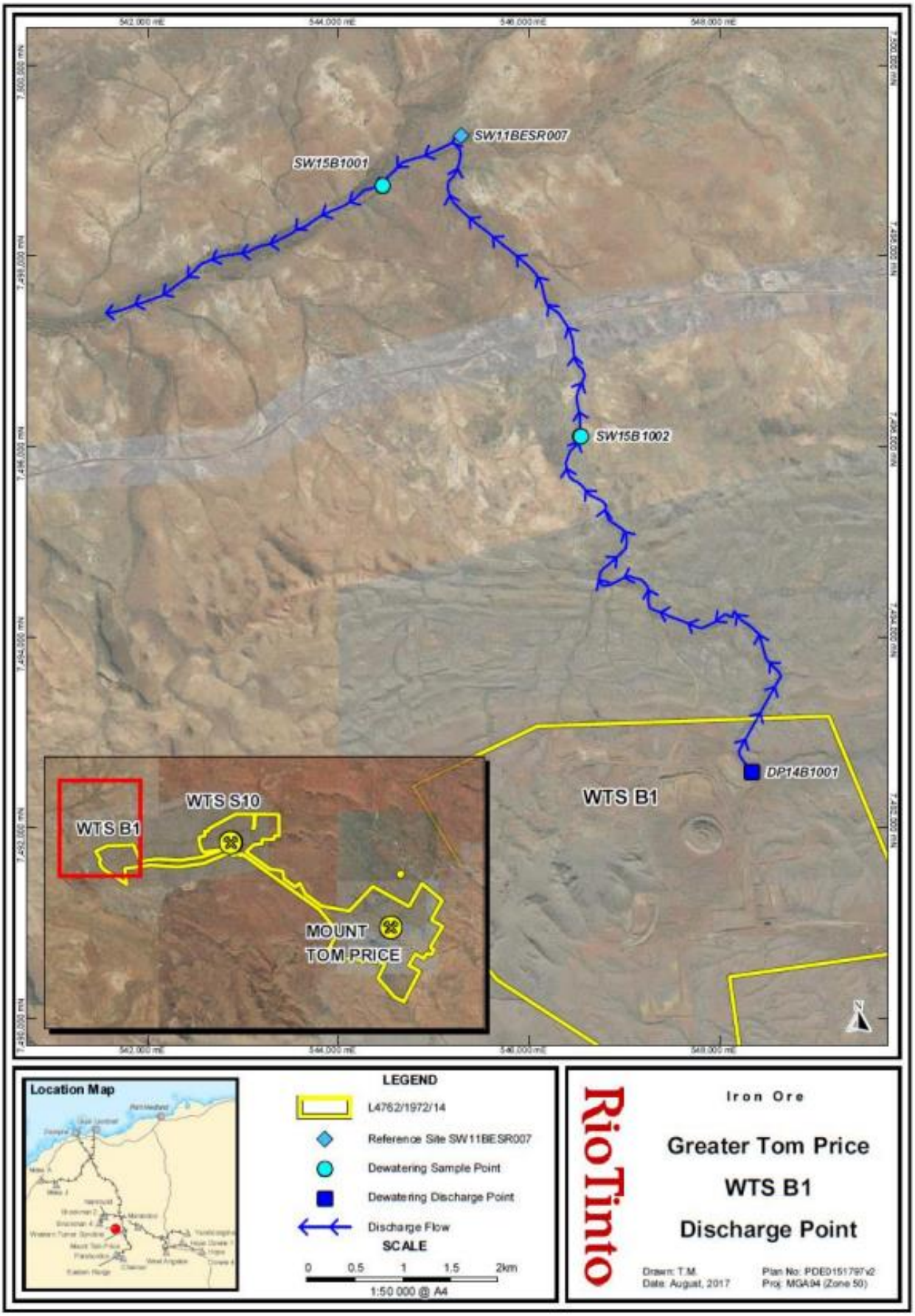

Figure 7: WTS B1 Dewatering Discharge Point and Monitoring Locations

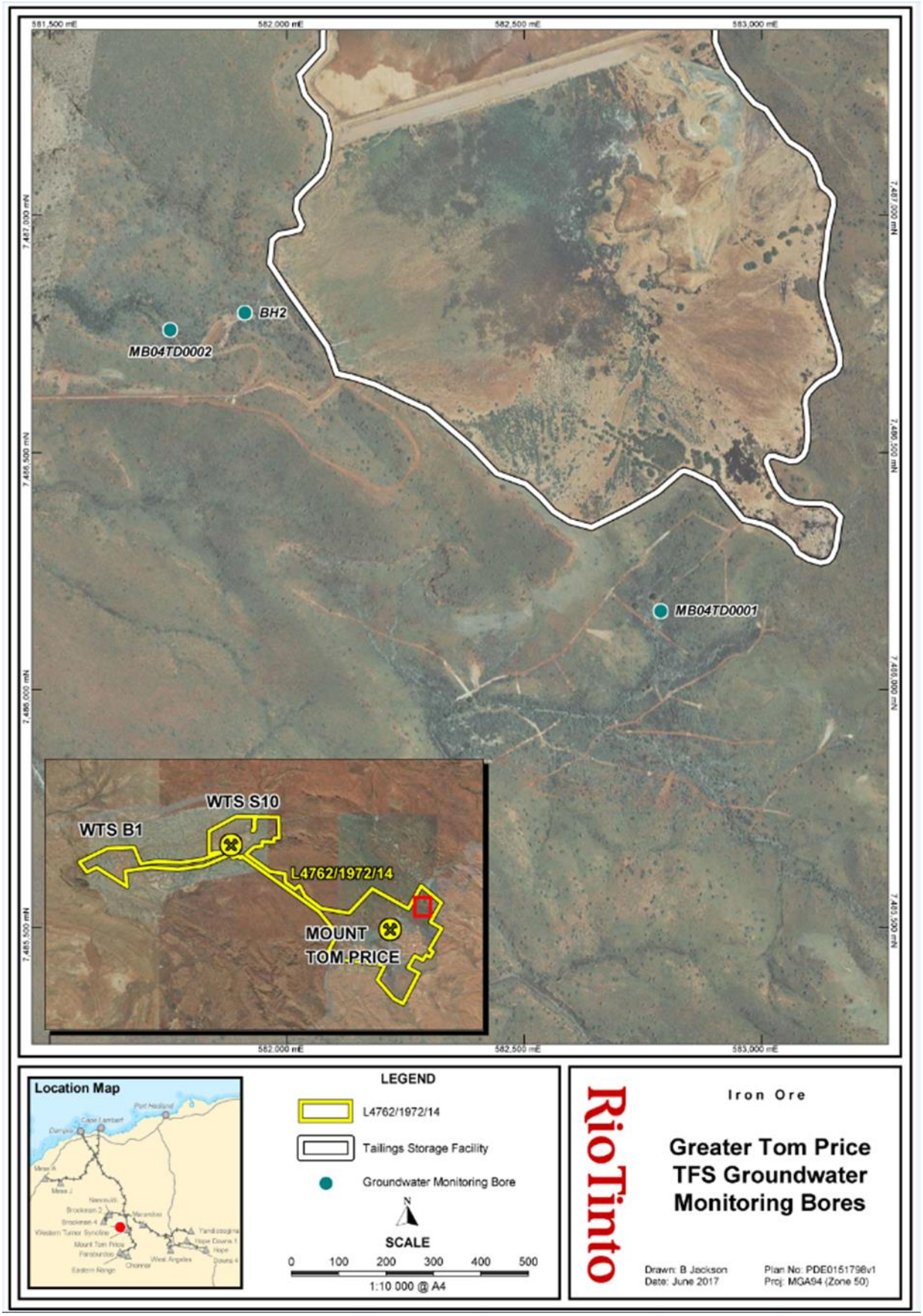

Figure 8: TSF and Groundwater Monitoring Points

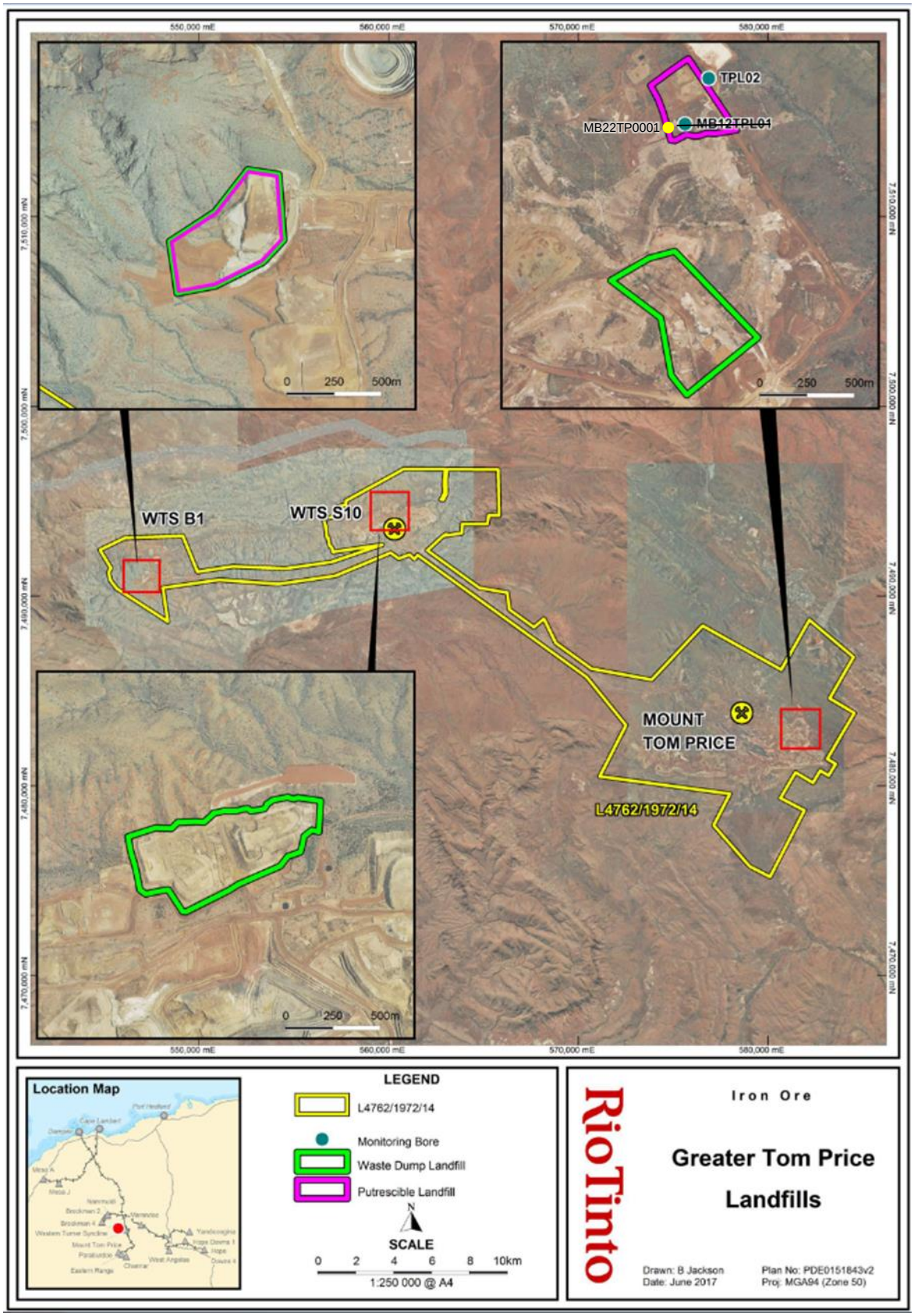

Figure 9: Greater Tom Price Landfills and Groundwater Monitoring Locations

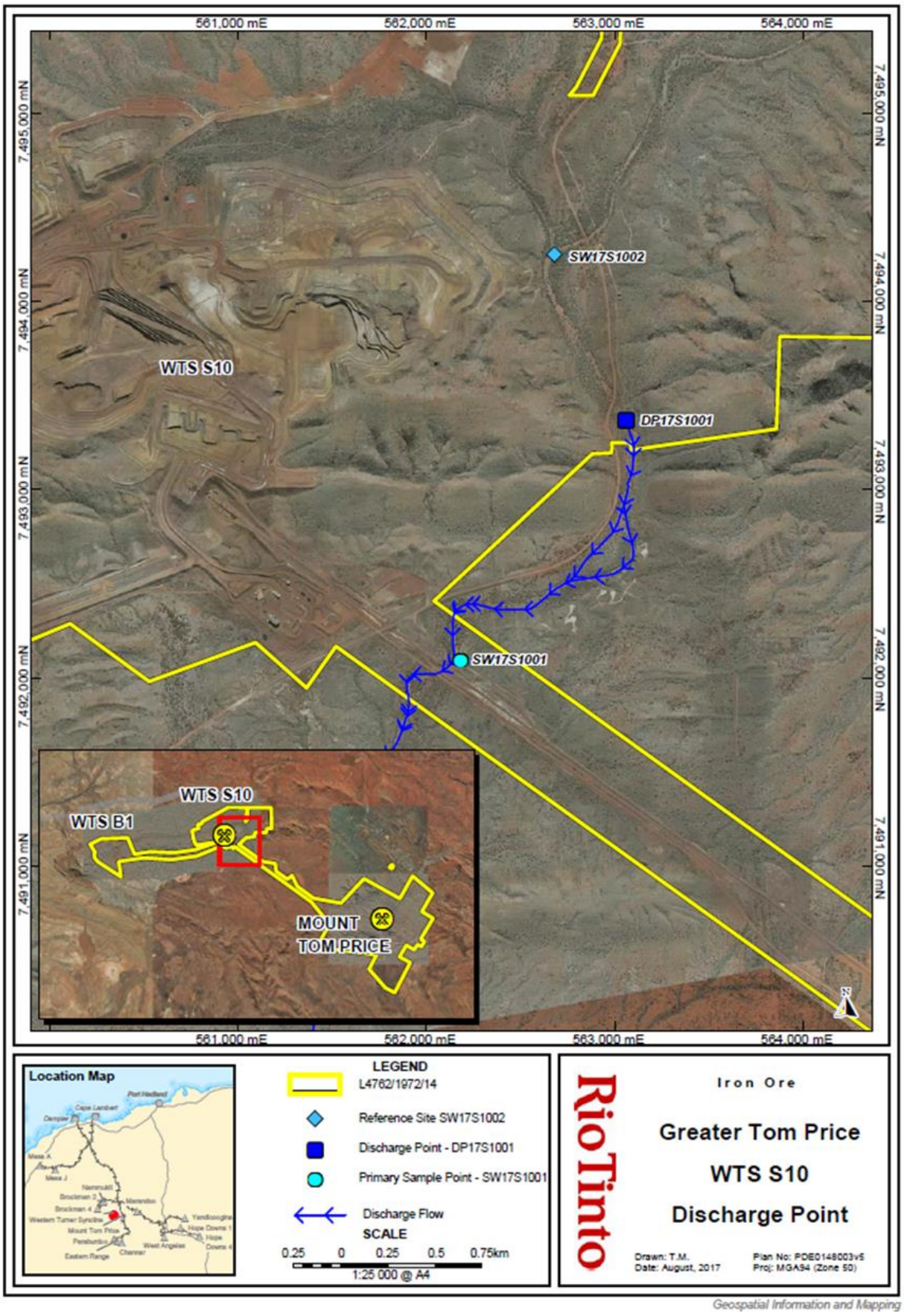

Figure 10: WTS S10 Dewatering Discharge Point and Primary Sample Point

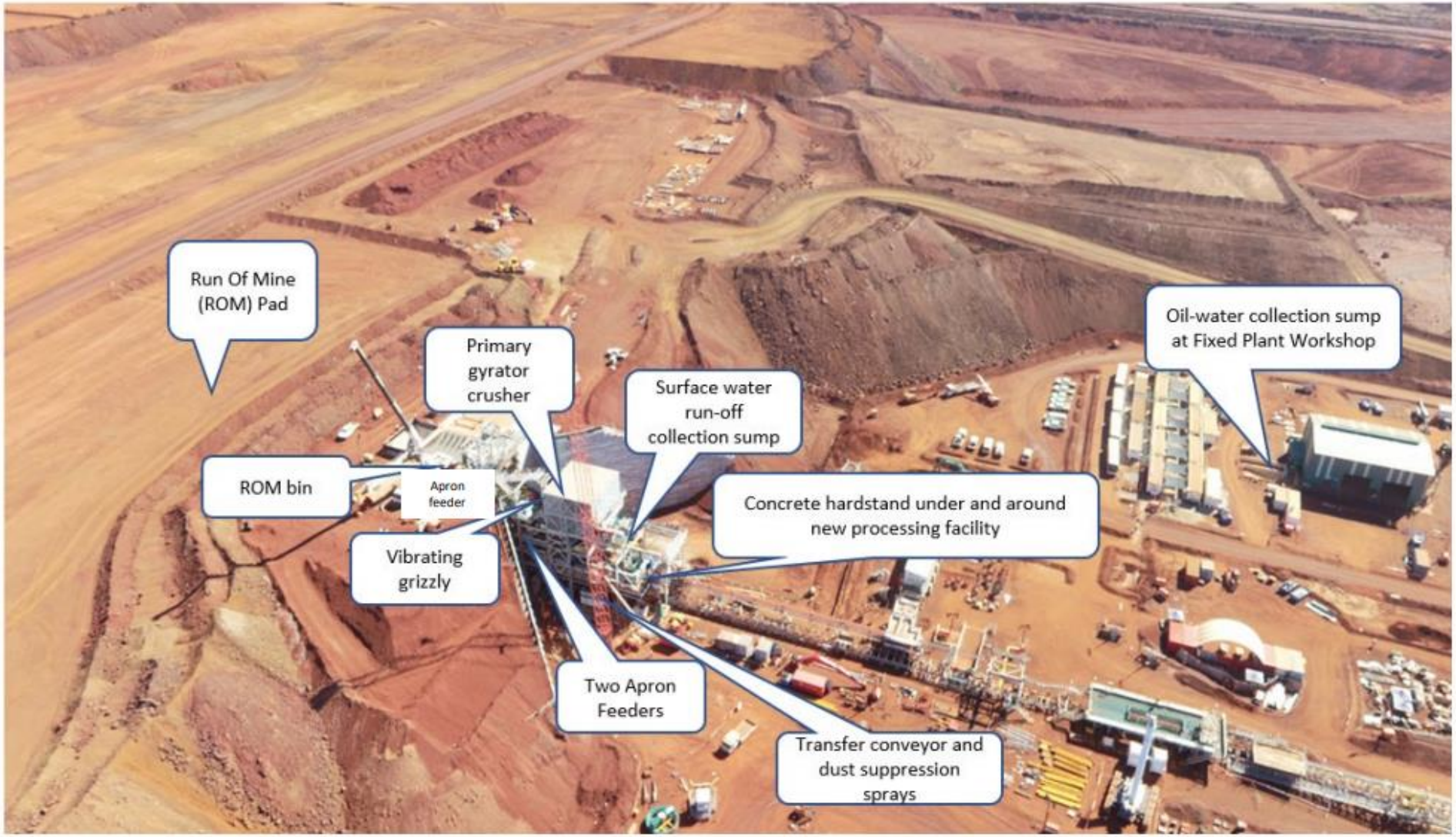

Figure 11: WTS S2 Processing Facility layout

Figure 12: WTS S2 Conveyor

Figure 13: Processing Facility – WTS S1 end

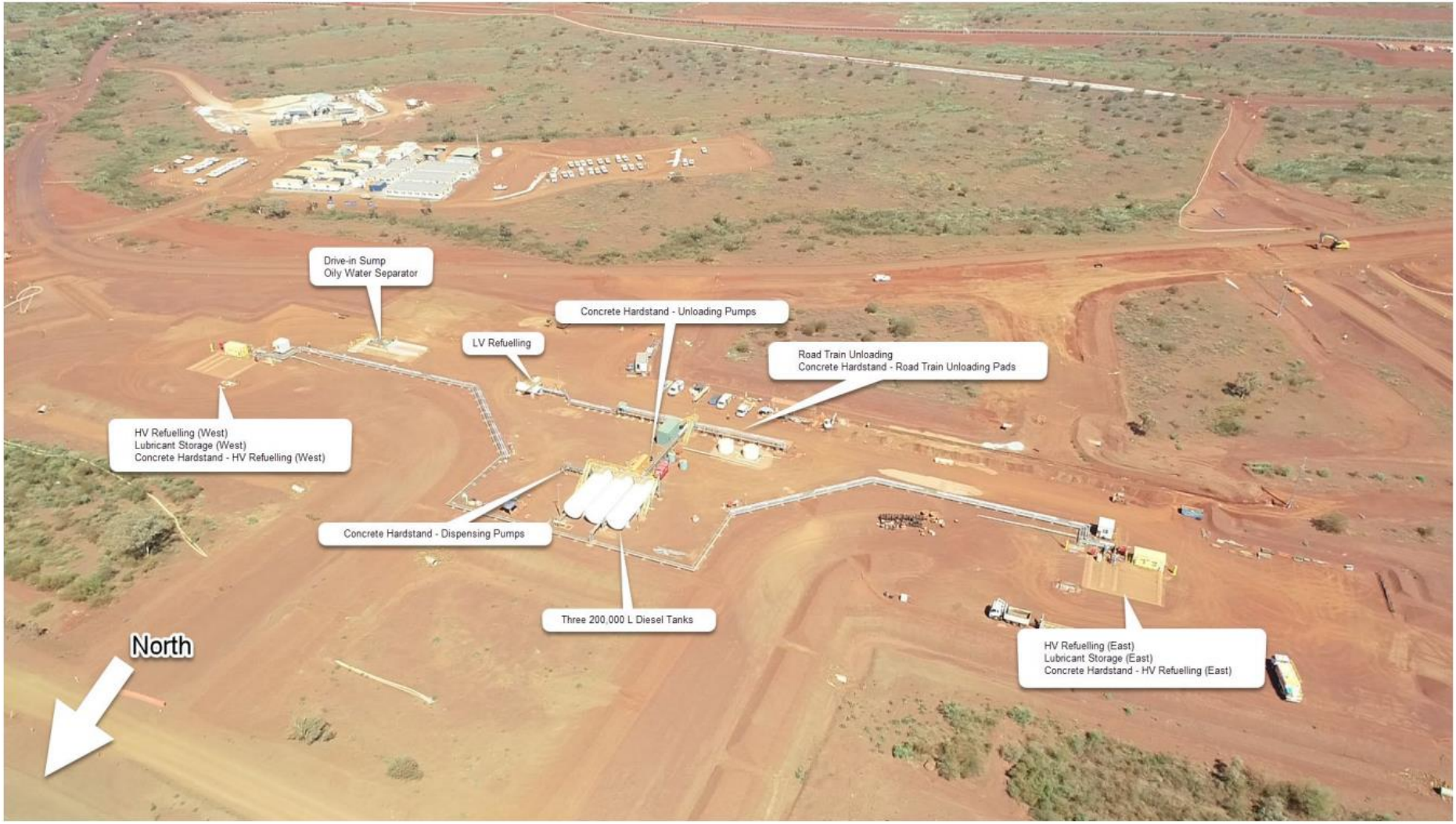

Figure 14: Site layout of Heavy Vehicle Refuelling Facility

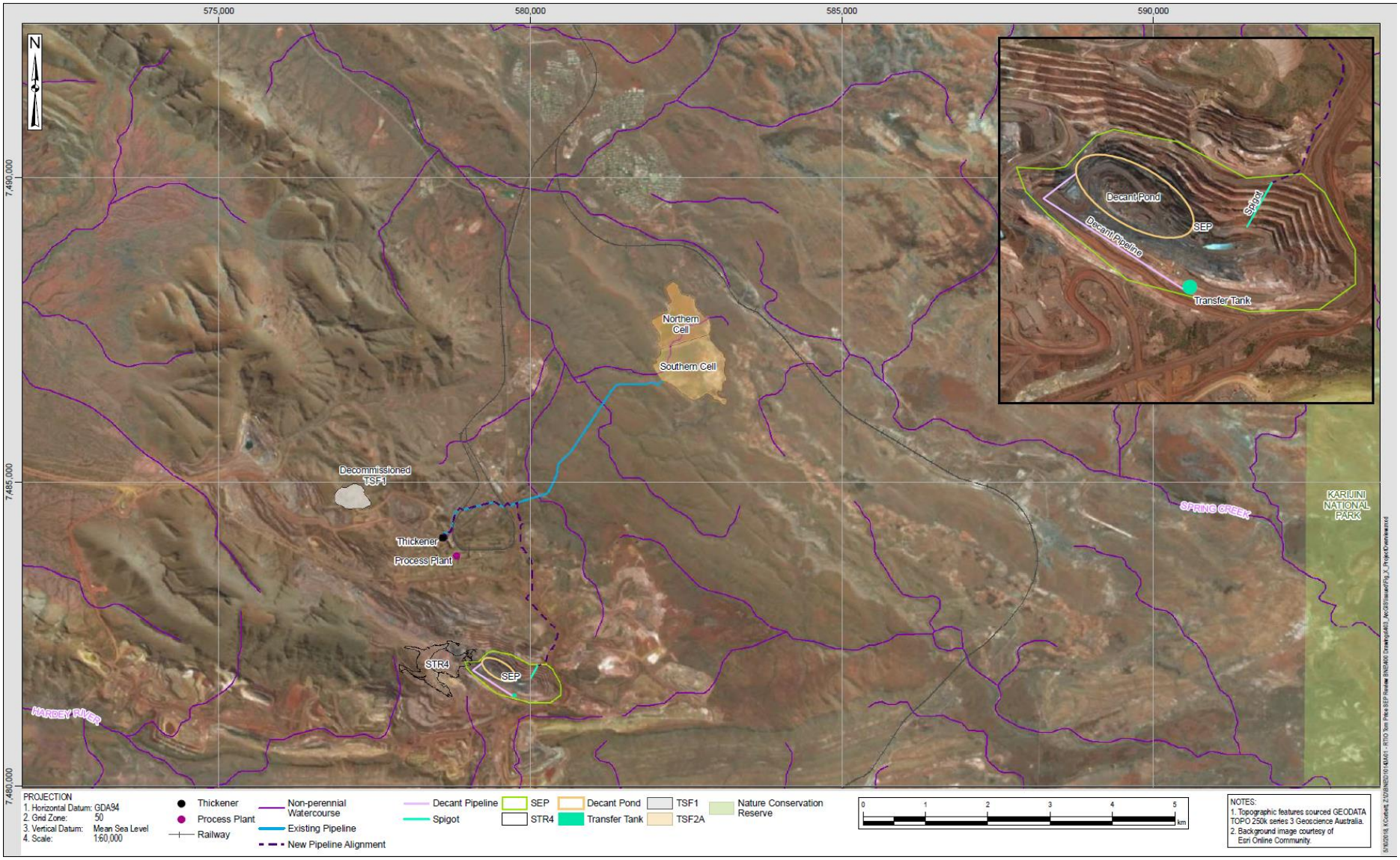

Figure 15: Location of the SEP WFSF

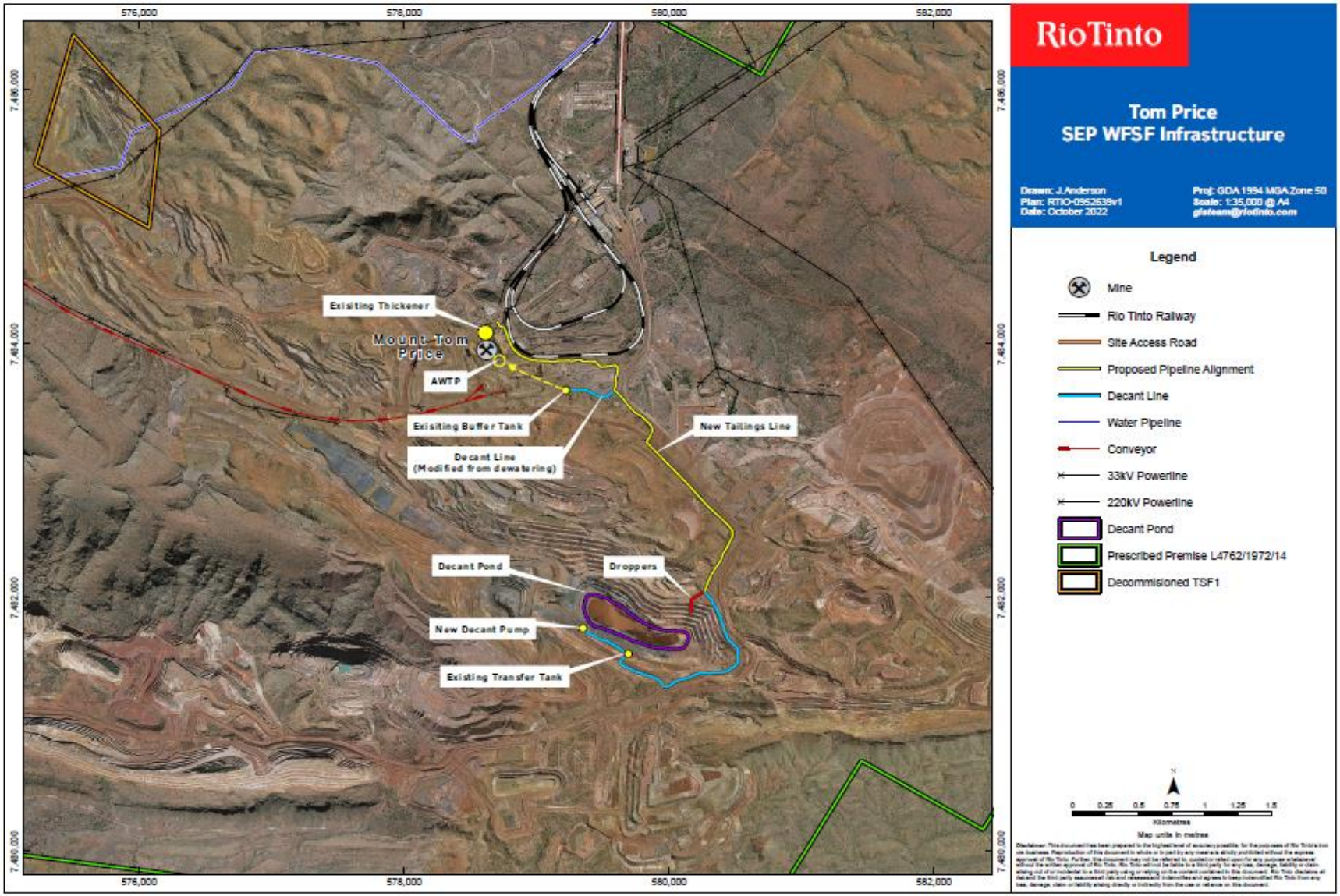

Figure 16: SEP WFSF infrastructure layout

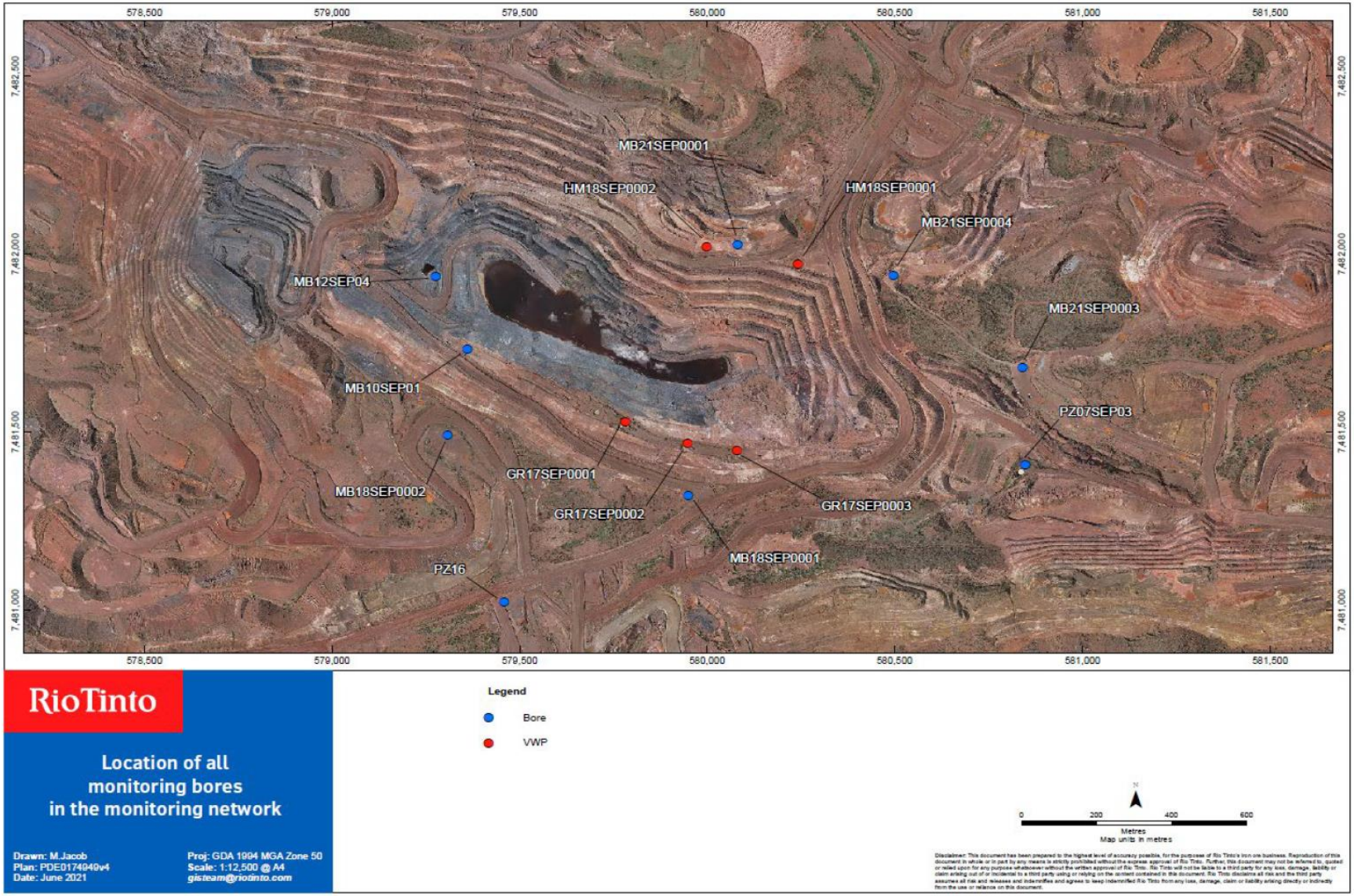

Figure 17: SEP WFSF Groundwater monitoring bores

Schedule 2: Premises boundary

The premises boundary is defined by the coordinates in Table 12.

Table 12: Premises boundary coordinates (MGA94 Zone 50)

Corner	Easting (m)	Northing (m)	Corner	Easting (m)	Northing (m)
1	548,337.63	7,493,143.22	67	577,886.37	7,487,780.76
2	546,086.46	7,493,066.14	68	576,550.90	7,488,432.06
3	544,782.06	7,492,435.31	69	573,859.55	7,485,588.29
4	545,364.17	7,491,478.99	70	570,690.76	7,486,169.91
5	545,239.34	7,491,255.33	71	568,808.56	7,487,527.52
6	545,327.76	7,490,834.03	72	568,182.55	7,488,805.48
7	545,657.59	7,490,407.17	73	567,654.00	7,488,360.27
8	545,600.30	7,490,063.43	74	566,530.46	7,489,170.65
9	545,156.31	7,489,786.52	75	566,495.12	7,490,127.39
10	544,774.37	7,489,227.96	76	564,778.62	7,490,434.22
11	544,702.76	7,488,931.96	77	563,794.88	7,491,143.89
12	546,311.65	7,488,158.54	78	563,701.14	7,492,049.39
13	546,094.42	7,487,769.45	79	563,601.53	7,492,325.06
14	545,812.56	7,487,245.25	80	563,235.75	7,492,909.46
15	545,941.49	7,487,077.41	81	563,236.95	7,493,232.45
16	546,078.94	7,486,964.57	82	563,858.45	7,493,322.88
17	546,023.96	7,486,535.53	83	563,875.91	7,493,813.31
18	546,252.49	7,486,223.06	84	565,207.69	7,493,798.18
19	548,789.98	7,485,299.73	85	565,272.76	7,494,260.30
20	549,080.76	7,486,116.14	86	565,828.04	7,494,256.04
21	549,942.16	7,485,860.77	87	565,778.88	7,496,671.32
22	549,672.12	7,484,977.90	88	563,091.85	7,496,692.49
23	551,206.82	7,484,400.97	89	563,028.42	7,496,185.08
24	551,411.29	7,484,958.35	90	563,028.45	7,495,369.88
25	551,759.96	7,484,826.45	91	562,886.18	7,495,094.92
26	552,267.27	7,485,725.16	92	562,758.86	7,495,095.44
27	552,275.52	7,486,212.22	93	562,929.19	7,495,395.85
28	551,413.57	7,486,440.81	94	562,926.61	7,496,093.28
29	551,414.53	7,486,726.89	95	562,990.95	7,496,693.24
30	549,365.28	7,488,017.65	96	560,802.43	7,496,710.50
31	549,290.22	7,489,544.52	97	555,324.42	7,493,729.57
32	549,815.93	7,489,861.13	98	551,949.59	7,493,739.20
33	550,648.31	7,489,206.88	99	549,608.53	7,493,265.92
34	551,422.57	7,489,176.92	100	549,288.39	7,494,129.11
35	552,294.17	7,487,754.77	101	549,383.07	7,496,342.83
36	552,628.04	7,487,753.61	102	549,895.95	7,497,617.80
37	553,360.95	7,488,238.58	103	548,934.06	7,497,621.73
38	552,951.86	7,488,577.58	104	548,997.11	7,496,780.97
39	553,670.94	7,489,361.45	105	548,751.94	7,495,983.28
40	554,183.29	7,489,349.35	106	548,722.72	7,495,682.72
41	554,185.17	7,490,211.31	107	548,707.18	7,494,128.03
42	555,147.42	7,490,224.14	108	548,682.31	7,493,745.53
43	557,526.89	7,490,777.51	109	548,399.96	7,493,625.41
44	561,093.93	7,492,187.10	110	550,500.94	7,490,001.13

Corner	Easting (m)	Northing (m)	Corner	Easting (m)	Northing (m)
45	561,364.99	7,491,946.99	111	550,822.80	7,489,704.71
46	561,602.21	7,492,108.84	112	551,616.60	7,489,683.91
47	570,440.36	7,485,734.03	113	552,585.81	7,488,880.90
48	572,507.50	7,483,194.92	114	552,758.32	7,489,266.93
49	571,124.85	7,480,500.91	115	552,762.70	7,490,216.30
50	577,991.79	7,479,587.09	116	563,634.28	7,491,259.73
51	577,135.51	7,477,925.56	117	563,475.78	7,492,298.88
52	579,035.65	7,475,760.97	118	563,355.50	7,492,486.04
53	580,101.14	7,475,209.81	119	562,998.63	7,492,373.09
54	581,910.04	7,478,708.58	120	562,874.09	7,492,575.96
55	580,652.00	7,479,359.52	121	563,125.78	7,492,843.49
56	581,453.15	7,480,713.30	122	563,039.96	7,493,249.27
57	582,370.42	7,480,170.09	123	562,868.73	7,493,178.95
58	582,748.80	7,480,809.47	124	562,041.43	7,492,408.48
59	583,196.07	7,480,544.54	125	579,636.13	7,489,981.69
60	583,562.68	7,481,163.93	126	579,595.56	7,489,893.54
61	583,115.39	7,481,428.87	127	579,523.82	7,489,789.16
62	584,549.55	7,483,838.37	128	579,526.83	7,489,687.72
63	583,248.19	7,484,608.22	129	579,827.16	7,489,607.59
64	584,499.90	7,486,784.75	130	579,928.84	7,489,979.79
65	582,175.56	7,488,742.28	131	579,819.07	7,490,037.25
66	580,697.32	7,486,117.61	132	579,669.27	7,489,981.47

Schedule 3: Infrastructure and equipment

Table 13: Infrastructure and Equipment

Infrastructure and equipment		Infrastructure location
Category 5: Processing or beneficiation of metallic ore		
1	Wet and dry processing plants (Mount Tom Price) including fixed crushing, wet scrubbing and screening	As shown in Schedule 1, Figure 2.
2	Dry processing plant (WTS S1) including crushing	Not shown
3	Dry processing facility at WTS S2 including ROM pad, ROM bin, two apron feeders, vibrating grizzly, primary gyrator crusher, transfer conveyor including skirts or covers and dust suppression sprays; overland conveyor (OLC) with a permanent cover; OLC loading points and transfer station at WTS including a surge bin and apron feeder	As shown in Schedule 1, Figures 11, 12 and 13.
4	Ore stackers, reclaimers, stockpiles and train loading facilities	Not shown.
5	Conveyors including OLC	As shown in Schedule 1, Figure 1 – Conveyor.
6	Tailings Storage Facility	As shown in Schedule 1, Figure 2.
7	Waste fines pipelines (delivery and return)	As shown in Schedule 1, Figures 15 and 16.
8	Surface water discharge points	As shown in Schedule 1, Figure 2 - Section 6 Discharge Point; TSF Seepage Main Embankment; and Reclaim Dam.
9	SEP WFSF	As shown in Schedule 1, Figure 15.
Category 6: Mine dewatering		
9	Dewater discharge point to the Hardey River	As shown in Schedule 1, Figure 10 – DP17S1001.
10	Dewater discharge point to the Beasley Reiver	As shown in Schedule 1, Figure 7 – DP14B1001.
11	Flow meters	Not shown.
12	Water conveyance pipelines	Not shown.
Category 12: Screening, etc. of material		
13	Mobile crushing and screening plant(s)	Not shown.
Category 54: Sewage facility		

Infrastructure and equipment		Infrastructure location
14	Mine Camp WWTP1, Mine Camp WWTP2 and Irrigation field	As shown in Schedule 1, Figure 3.
15	MOC WWTP	As shown in Schedule 1, Figure 4.
16	New Beneficiation Plant WWTP	As shown in Schedule 1, Figure 5.
17	Sludge drying beds	Not shown.
Category 64: Landfills		
18	Putrescible Landfills	As shown in Schedule 1, Figure 9 - Putrescible Landfill.
19	Waste Dump Landfills	As shown in Schedule 1, Figure 9 - Waste Dump Landfill.
Category 73: Bulk storage of chemicals		
20	Heavy Vehicle Refuelling Facility at WTS including: • 3 x 200,000L self-bunded fuel storage tanks • Oily water collection and treatment system	As shown in Schedule 1, Figure 14.

Schedule 4: Guideline Values

Table 14: Guideline Values for the WTS S2 Dewatering discharge (SW15B1001 and/or SW15B1002)

Parameter	Beasley River Guideline values (units) - Site Specific Trigger Values (SSTV)	95%ile of baseline data (RTIO to provide)	ANZECC default 90% protection trigger value
Physical and chemical stressors			
Chlorophyll a	0.005 mg/L	N/A	N/A
Electrical conductivity (EC)	1760 (µS/cm)	N/A	N/A
pH	7.5-8.5 (pH units)	N/A	N/A
Total Dissolved Solids (TDS)	1100 (mg/L)	N/A	N/A
Dissolved oxygen (DO)	70-120 (% sat)	N/A	N/A
Temperature	29 (^{o}C)	N/A	N/A
Total Suspended Solids (TSS)	5 (mg/L)	N/A	N/A
Total Phosphorus (TP)	0.02 (mg/L)	N/A	N/A
Filterable reactive phosphorus (FRP)	0.01 mg/L	N/A	N/A
Total Nitrogen (TN)	0.6 (mg/L)	N/A	N/A
Nitrate + nitrite nitrogen (NO_x as N)	0.04 (mg/L)	N/A	N/A
Ammonium (NH_4 as N)	0.01 (mg/L)	N/A	N/A
Toxicants			
Ammoniacal Nitrogen (NH_3 as N)	0.9 mg/L	0.081 mg/L	1.43 mg/L
Cadmium (Cd)[H]	0.0002 (mg/L)	0.0005 mg/L	0.0004 mg/L
Cobalt (Co)	0.001 (mg/L)	0.0025 mg/L	N/A
Copper (Cu)[H]	0.0018 (mg/L)	0.0034 mg/L	0.0018 mg/L
Total Chromium (Cr)	0.001 (mg/L)	0.0005 mg/L	0.006 mg/L
Nitrate (NO_3)	3.4 (mg/L)	3.15 mg/L	3.4 mg/L
Lead (Pb)[H]	0.0034 (mg/L)	0.0005 mg/L	0.0056 mg/L

Zinc (Zn)	0.019 (mg/L)	0.05 mg/L	0.015 mg/L

H= the SSTV should be modified for water hardness (mg/L $CaCO_3$) at the time of measurement, according to the algorithms provided in Table 3.4.3 of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ 2000)

Table 15: Interim Operational Guideline Values for WTS S10 Dewatering discharge (SW17S1001)

Parameter	Hardey River Interim Operational Guideline values (units) - Site Specific Trigger Values (SSTV)	95%ile of baseline data (RTIO to provide)	ANZECC default 90% protection trigger value
Physical and chemical stressors			
Chlorophyll a	0.005 mg/L	N/A	N/A
Electrical conductivity (EC)	1760 (µS/cm)	N/A	N/A
pH	7.5-8.5 (pH units)	N/A	N/A
Total Dissolved Solids (TDS)	1100 (mg/L)	N/A	N/A
Dissolved oxygen (DO)	70-120 (% sat)	N/A	N/A
Temperature	29 (^oC)	N/A	N/A
Turbidity	15 (NTU)	N/A	N/A
Total Suspended Solids (TSS)	5 (mg/L)	N/A	N/A
Total Phosphorus (TP)	0.02 (mg/L)	N/A	N/A
Filterable reactive phosphorus (FRP)	0.01 mg/L	N/A	N/A
Total Nitrogen (TN)	0.6 (mg/L)	N/A	N/A
Nitrate + nitrite nitrogen (NO_x as N)	0.04 (mg/L)	N/A	N/A
Ammonium (NH_4 as N)	0.01 (mg/L)	N/A	N/A
Toxicants			
Ammoniacal Nitrogen (NH_3 as N)	0.9 (mg/L)	0.081 mg/L	1.43 mg/L
Aluminium (Al)	0.055 (mg/L)	0.081 mg/L	0.008 mg/L
Total Arsenic	0.013 (mg/L)	0.002 mg/L	0.042 mg/L
Boron (B)	0.40 (mg/L)	0.996 mg/L	0.68 mg/L

Barium (Ba)	0.1 (mg/L)	0.16 mg/L	N/A
Cadmium (Cd)[H]	0.0002 (mg/L)	0.0005 mg/L	0.0004 mg/L
Cobalt (Co)	0.001 (mg/L)	0.0025 mg/L	N/A
Copper (Cu)[H]	0.0018 (mg/L)	0.0034 mg/L	0.0018 mg/L
Total Chromium (Cr)[H]	0.001 (mg/L)	0.0005 mg/L	0.006 mg/L
Iron (Fe)	0.3 (mg/L)	0.29 mg/L	N/A
Total Mercury	0.0001 (mg/L)	N/A	0.0019 mg/L
Manganese (Mn)	1.9 (mg/L)	0.3 mg/L	2.5 mg/L
Molybdenum (Mo)	0.001 (mg/L)	0.003 mg/L	N/A
Nickel (Ni)[H]	0.011(mg/L)	0.002 mg/L	0.013 mg/L
Nitrate (NO_3)	3.4 (mg/L)	3.15 mg/L	3.4 mg/L
Silver (Ag)	0.00005 (mg/L)	N/A	0.0001 mg/L
Lead (Pb)[H]	0.0034 (mg/L)	0.0005 mg/L	0.0056 mg/L
Selenium (Se)	0.005 (mg/L)	0.0005 mg/L	0.018 mg/L
Uranium (U)	0.002 (mg/L)	0.0035 mg/L	N/A
Vanadium (V)	0.005 (mg/L)	0.009 mg/L	N/A
Zinc (Zn)[H]	0.019 (mg/L)	0.05 mg/L	0.015 mg/L

H= the SSTV should be modified for water hardness (mg/L $CaCO_3$) at the time of measurement, according to the algorithms provided in Table 3.4.3 of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ 2000)