



Licence

Environmental Protection Act 1986, Part V

Licensee: Red October Gold Pty Ltd

Licence: L8567/2011/1

Registered office: Suite 11
139 Newcastle Street
PERTH WA 6000

ACN: 621 765 633

Premises address: Red October Gold Mine
Mining tenements M39/411, M39/412 and M39/413
LEONORA WA 6438
as depicted in Schedule 1.

Issue date: Thursday, 7 July 2011

Commencement date: Thursday, 7 July 2011

Expiry date: Thursday, 6 July 2034

Prescribed premises category

Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
6	Mine dewatering: premises on which water is extracted and discharged into the environment to allow mining of ore.	50 000 tonnes or more per year	900 000 tonnes per annual period
89	Putrescible landfill: premises on which waste is accepted for burial.	More than 20 but less than 5 000 tonnes per year	4 900 tonnes per annual period

Conditions

This Licence is subject to the conditions set out in the attached pages.

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Steve Checker
MANAGER, WASTE INDUSTRIES

Officer delegated under section 20
of the *Environmental Protection Act 1986*



Contents

Licence	1
Contents	2
Introduction	2
Licence conditions	4
1 General	4
2 Emissions	6
3 Monitoring	7
4 Information	8
Schedule 1: Maps	10
Schedule 2: Reporting & notification forms	12

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/Licensee 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 State Law Publisher website using the following link:

<https://www.legislation.wa.gov.au/legislation/statutes.nsf/actsif.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 and you will need to apply for a new licence for your Premises.

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

The Red October Gold Project (Red October) is located approximately 80 km south of Laverton on the western shore of Lake Carey, a large ephemeral salt lake. Red October consists of a historic open pit and an active underground mine accessed from the base of the open pit. The pit is located in the southern part of Lake Carey between two islands and is also flanked by two bunds. The mines site also consists of a waste rock landform, access roads, causeways, administrative buildings, contractor workshop with wash bay and fuel storage, drill core storage, explosives magazine and a 100 bed camp.

Operation of the underground mine, situated in the southern part of Lake Carey, requires dewatering in order to allow for the safe extraction of gold-bearing ore. Dewatering of the groundwater in the open pit began in 2010, discharging onto the lake bed, creating a shallow body of water that varies in size according to rainfall and prevailing winds. In 2000, a number of mines surrounding Lake Carey established a non-gazetted working group known as the Lake Carey Catchment Management Group (LCCMG) which has continued to investigate potential dewatering impacts on lake ecology until 2012. Saracen has been an active member of this group.

The site was last mined between 2000 and 2004 under the ownership of Sons of Gwalia Ltd, to a depth of 95m below the surface. Following the completion of mining, water levels in the Red October pit recovered to approximately 27m below surface level. Saracen Gold Mines recommenced dewatering onto Lake Carey in December 2010. Dewatering of the open pit was completed in July 2011, with underground mining commencing in September 2011 and is scheduled to operate til 2016.

This Licence is the result of a transfer to Red October Gold Pty Ltd and incorporates the previous Amendment Notices issued to Saracen Gold Mines Pty Ltd prior to the Licence transfer. The licences and works approvals issued for the Premises since 1 June 2007 are:

Instrument log		
Instrument	Issued	Description
L8038/1999/2	01/06/2007	Licence re-issue
L8038/1999/3	19/11/2009	Licence re-issue
W4747/2010/1	22/10/2010	Works approval for mine dewatering and bulk storage of chemicals
L8567/2011/1	07/07/2011	Licence re-issue
L8567/2011/1	10/09/2015	Licence amendment to remove chlorine from monitoring regime and to convert into latest template.
L8567/2011/1	07/01/2016	Licence amendment to change sample measurement units
L8567/2011/1	29/04/2016	Amendment Notice to extend expiry date to 6 July 2034
L8567/2011/1	18/07/2017	Amendment Notice 1 to change monitoring frequency as Premises operations transitions to care and maintenance
L8567/2011/1	11/12/2018	Transfer Licence to Red OctoberGold Pty Ltd and incorporate the previous Amendment Notices issued to Saracen Gold Mines Pty Ltd

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 period' means the inclusive period from 1 November until 31 October in the following year;

'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 5667.4' means the Australian Standard AS/NZS 5667.4 *Water Quality – Sampling – Guidance on sampling from lakes, natural and man-made*;

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

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means;
Chief Executive Officer
Department Administering the *Environmental Protection Act 1986*
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@dwer.wa.gov.au

'Licence' means this Licence numbered L8567/2011/1 and issued under the Act;

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

'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;

'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;

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

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

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

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



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 Licensee shall ensure that any saline dewatering effluent shall only be managed in the following manner:

- (a) used for dust suppression in a manner that minimises damage to surrounding vegetation; or
- (b) discharged through the approved discharge point to Lake Carey.

1.2.2 The Licensee shall prepare a dewatering discharge report when discharges occur which will provide adequate data to show that mine dewatering discharges to Lake Carey are not having any adverse environmental impact. The required information should come in the form of a concise report, which should include:

- (a) dewater discharge (volume and quality) as compared to runoff into the waterbody and water quality (salts and metals) of the receiving waters;
- (b) the area of the waterbody likely to be affected by the discharge and effects on waterbody levels resulting from the discharge;
- (c) the potential for water to flow along/out of the receiving waterbody
- (d) the potential impacts on vegetation and existing ecosystems;
- (e) water balance estimates;
- (f) chemistry of the waterbody; and
- (g) findings , conclusions and recommendations

1.2.3 The Licensee shall ensure that wastes accepted onto the landfill are only subjected to the process(es) set out in Table 1.2.1 and in accordance with any process limits described in that Table.

Table 1.2.1: Waste processing		
Waste type	Process(es)	Process limits^{1, 2}
Inert Waste Type 1	Disposal of waste by landfilling	<u>All waste types</u> Disposal of waste by landfilling shall only take place within the landfill areas shown on the Landfill Area Map 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.
Inert Waste Type 2		
Putrescible waste		
Clean Fill		

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*.



- 1.2.4 The Licensee shall ensure that cover is applied and maintained on landfilled wastes in accordance with Table 1.2.2 and that sufficient stockpiles of cover are maintained on site at all times.

Table 1.2.2: Cover requirements ¹	
Waste Type	Cover requirements
Putrescible wastes	To be covered monthly with sufficient quantities of Type 1 inert waste, clean fill or other appropriate cover material to prevent the spread of fire and harbouring of disease vectors.
Inert Waste Type 1	No cover required
Inert Waste Type 2	A minimum depth of 500 mm of clean fill is maintained over the buried tyres following disposal.

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

- 1.2.5 The Licensee shall take all reasonable and practical measures to ensure that no wind-blown waste escapes from the Premises and that wind-blown waste is collected on at least a fortnightly basis and returned to the tipping area.

2 Emissions

2.1 General

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

2.2 Point source emissions to surface water

- 2.2.1 The Licensee shall ensure that where waste is emitted to surface water from the emission points in Table 2.2.1 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 2.2.1: Emission points to surface water		
Emission point reference	Description	Source including abatement
W1	Lake Carey discharge point	Mine waters pumped from underground workings to Lake Carey via the Supergene Pit for settling and dilution. The discharge to the Lake is dispersed through numerous holes to minimise scouring and erosion.

- 2.2.2 The Licensee shall not cause or allow point source emissions to surface water greater than the limits listed in Table 2.2.2.

Table 2.2.2: Point source emission limits to surface water			
Emission point reference	Parameter	Limit (including units)	Averaging period
W1	Annual discharge amount	900 000 kL	Annual



3 Monitoring

3.1 General monitoring

3.1.1 The licensee shall ensure that:

- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
- (b) all surface water sampling is conducted in accordance with AS/NZS 5667.4, AS/NZS 5667.6 or AS/NZS 5667.9 as relevant;
- (c) all sediment sampling is conducted in accordance with AS/NZS 5667.12; 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 Licensee shall ensure that :

- (a) quarterly monitoring is undertaken at least 45 days apart; and
- (b) annual monitoring is undertaken at least 9 months apart.

3.2 Monitoring of point source emissions to surface water

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

Table 3.2.1: Monitoring of point source emissions to surface water			
Emission point reference	Parameter	Units	Frequency
W1	pH	-	Quarterly when in operation
	Total suspended solids	mg/L	
	Total recoverable hydrocarbons	µg/L	
	Metals: cadmium, selenium, iron, cobalt, lead, copper, nickel, zinc, arsenic and chromium	mg/L	
	Major anions and cations: sodium, potassium, calcium, magnesium, bicarbonate and sulfate	mg/L	

3.3 Process monitoring

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

Table 3.3.1: Process monitoring					
Monitoring point reference	Process description	Parameter	Units	Frequency	Method
W1	Volume of mine dewater	Volume	kL	Monthly when in operation	None specified



3.4 Ambient environmental quality monitoring

3.4.1 The Licensee shall undertake the monitoring in Table 3.4.1 according to the specifications in that table.

Table 3.4.1: Monitoring of ambient sediment quality				
Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
50m, 100m and 200m from W1	pH	-	Spot sample	Annually when in operation.
	Total dissolved solids	mg/kg		
	Total recoverable hydrocarbons			
	Metals: cadmium, selenium, iron, cobalt, lead, copper, nickel, zinc, arsenic and chromium			
	Major anions and cations: sodium, potassium, calcium, magnesium, bicarbonate and sulfate			
Salt crust thickness	mm			

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 Licensee shall ensure that:

- (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
- (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.

4.1.3 The Licensee shall submit to the CEO by 31 January of each year, a Compliance Report indicating the extent to which the Licence Holder has complied with the conditions in this Licence for the Annual Period.

*Note 1: The Compliance Report is available from DWER website at;
https://www.der.wa.gov.au/images/documents/our-work/licences-and-works-approvals/aacr/IR-F14_AACR_Form_v3.docx*

4.1.4 The Licensee 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 Licensee shall submit to the CEO an Annual Environmental Report by 31 January in each year. 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 action taken	None specified
1.3.4	Dewatering discharge report when in operation.	
Table 3.2.1	Monitoring of point source emissions to surface water	
Table 3.3.1	Process monitoring	
Table 3.4.1	Ambient sediment monitoring when in operation.	
4.1.4	Complaints summary	None specified

4.2.2 The Licensee shall ensure that the Annual Environmental Report also contains:

- any relevant process, production or operational data recorded; and
- an assessment of the information contained within the report against previous monitoring results and Licence limits.

4.2.3 The Licensee shall submit the information in Table 4.2.2 to the CEO 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 submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEO's request	As received by the Licensee from third parties

4.3 Notification

4.3.1 The Licensee shall ensure that the parameters listed in Table 4.3.1 are notified to the CEO 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
2.1.1	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

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act

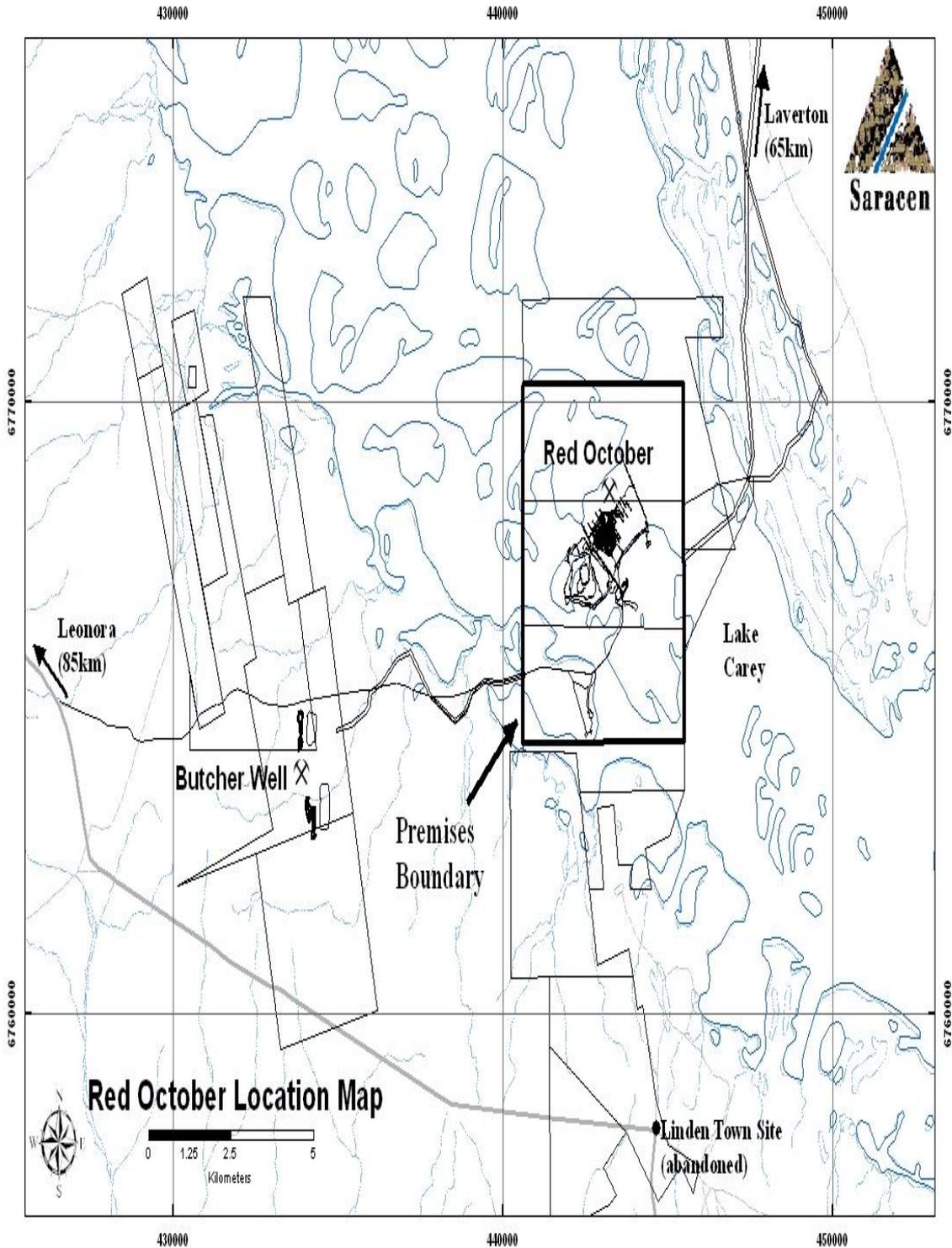
Note 2: Form is in Schedule 2



Schedule 1: Maps

Premises map

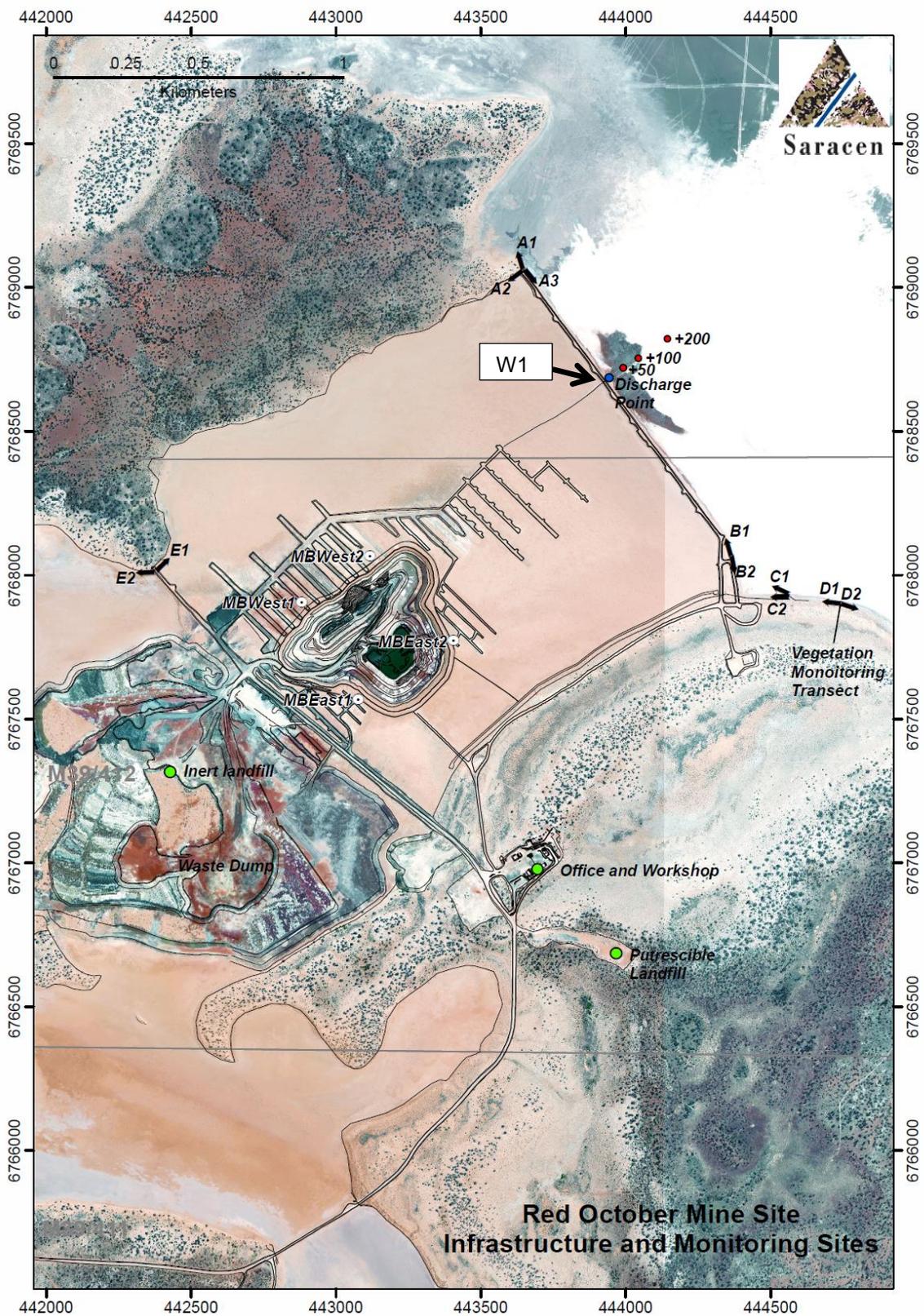
The Premises is shown in the map below. The bold black line depicts the Premises boundary.



Map of landfills, dewatering discharge point and monitoring locations



The locations of the points defined in Tables 1.2.1, 2.2.1, 3.2.1 and 3.4.1 are shown below.





Schedule 2: Reporting & notification forms

Licence: L8567/2011/1 Licensee: Red October Gold Pty Ltd
 Form: N1 Date of breach:

Notification of detection of the breach of a limit.

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	
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 Red October Gold Pty Ltd	
Date	