

Traffic Management Plan

Toms Gully
Underground
Project

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1 Purpose

Primary Gold Limited (Primary Gold) is proposing to develop a new underground mining phase at Toms Gully (Toms Gully Underground (TGU Project)). This document describes the key aspects of traffic management and controls associated with safe operation. As it is a gold operation, there will be minimal impact on regional traffic as ore will be processed on site and other traffic changes will be minor as demonstrated within this Traffic Management Plan (TMP).

2 Location & Production Overview

Toms Gully is an existing, non-operating mine, located within the Old Mount Bunday Station, approximately 90 km south-east of Darwin. The mine was operational for periods from 1988 and has most recently been in care and maintenance since February 2011. Existing mine infrastructure comprises of an open pit and underground mine, access roads, 22 kv power reticulation, processing facility, two waste rock dumps (WRDs), two tails storage facilities (TSFs), two evaporation dams, drains and sumps, maintenance shed and lay-down yard, stores shed and yards and administration offices.

The proposed TGU Project comprises of the following works:

- Mining underground to the south of the existing underground workings;
- Extraction of up to 350,000 tonnes per annum (tpa) of ore over three to four years;
- Removal of approximately 720,000 tpa of waste rock, replaced underground or in the base of the existing pit (no external storage of waste rock);
- Conventional Carbon in Leach gold processing plant and ancillaries renovated and re-used;
- Storage of approximately 830,000 t of tailings in a raised TSF;
- New 2.1 GL freshwater dam;
- Treatment of pit water, then storage in new dam to facilitate mine dewatering; and
- Clearing of approximately 84 ha of native vegetation (46 ha being for freshwater dam).

3 Operations History

The Toms Gully gold deposit was originally discovered in 1986 by Carpentaria Exploration Company, a subsidiary of Mount Isa Mines. Toms Gully was developed by Carpentaria in 1988 as an open cut mine, with an associated ore treatment plant, and later extended to an underground operation by Renison Consolidated Mines. In addition to Carpentaria, Toms Gully has had several owners and operators including Kakadu Resources, Sirocco Resources who changed their company name to Renison Consolidated Mines, GBS Gold Australia, and Crocodile Gold Australia Operations, who then sold to Primary Gold in 2013. Currently the site is in care and maintenance.

4 Current Traffic Management & Traffic Flow

With the site currently being in care and maintenance, the site entrance is occasionally being used by the pastoralist and for site visits by various technical consultants engaged by Primary Gold.

Annual traffic data for Counter RDVDP007 published by the Department of Transport in conjunction with Territory Asset Management Services (TAMS) Pty Ltd is provided in Table 1 below to provide an indication of the level of traffic flow on Arnhem Highway in the vicinity of the TGU Project. Counter RDVDP007 is located on Arnhem Highway, 35 km northwest of the TGU Project site entrance.

Table 1: Counter RDVDP007 Traffic Data

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Inbound Vehicles	451	474	481	529	520	541	485	620	577	694
Outbound Vehicles	466	481	506	553	574	605	584	629	689	702
Both Vehicles	917	955	987	1082	1094	1146	1069	1249	1266	1396

5 Future Traffic Management & Traffic Flow

A workforce of approximately 100 people will be required for the TGU Project and will be sourced predominantly from the nearby towns. The town of Humpty Doo is approximately 60km from the TGU Project, Palmerston approximately 80km and the centre of Darwin approximately 100km. Primary Gold will offer a bus service to transport employees to and from work, thereby considerably reducing TGU Project traffic on the road.

The proposed underground mining method will see mined ore trucked directly to the existing Toms Gully processing facility which is on site. The proposed processing capacity of 350,000 tpa is expected to produce 65,000 oz per annum (pa). This level of production is relatively small for mining operations and as such deliveries of consumables and reagents will be low.

TGU Project traffic flow on and off site is estimated at an average of five delivery trucks per week, up to six bus trips daily and ten light vehicles daily.

Three quarries located East of the TGU Project site (Boral Concrete, Ostojic Group and Halkitis Bros) have, up to mid-2015, been supplying rock to the Inpex project at a production rate exceeding 1.5 Mtpa. The completion of the Inpex project will see a reduction in excess of 80 road trains per day travelling past the TGU Project site entrance.

Due to the limited numbers of TGU Project traffic expected and the removal of approximately 80 road trains from current traffic volumes, the TGU Project is not expected to adversely impact on current traffic flow in the TGU Project vicinity.

6 Existing Site Entrance and Approach

A layout of the existing site entrance is illustrated in Figure 1. Past operations have used this entrance without incident and therefore no modifications are proposed to the entrance as part of the TGU Project.

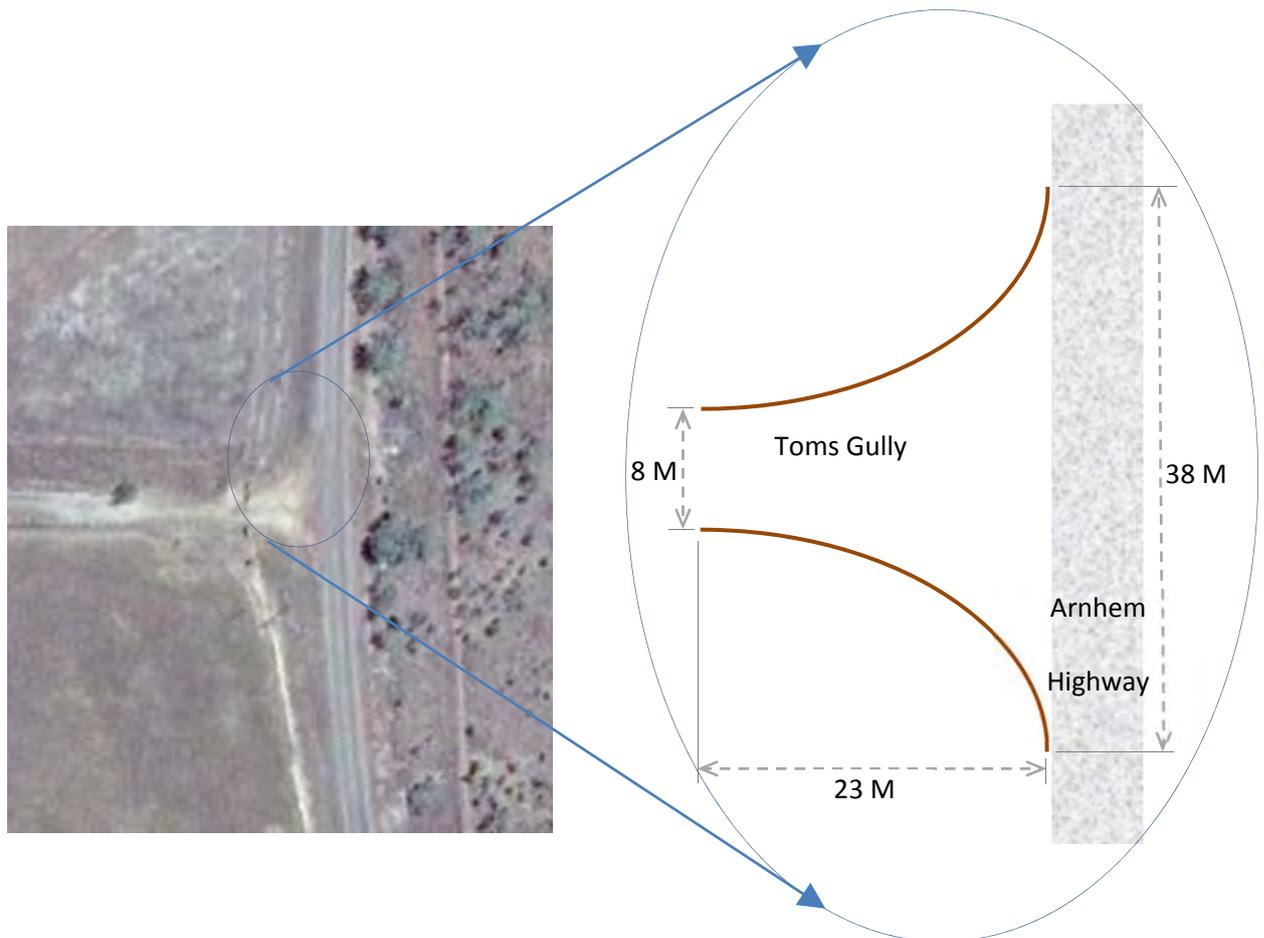


Figure 1: Project Site Entrance Layout

Figure 2 illustrates the North and South direct line of sights along Arnhem Highway from the TGU Project site entrance.



Figure 2: Direct Line of Sight on Arnhem Highway

The section of Arnhem Highway adjacent to the site entrance consists of a two lane road with an approximate paved width of 8 m. This section of road is subject to a speed limit of 110 km/hr. As illustrated above, there is a direct line of sight from the entrance to the North of 800m and to the South of 400m.

Sight distance requirements are given in Austroads Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections. The required distances assuming a reaction time of 2.5 seconds and a travelling speed of 110 km/hr are:

- Safe Intersection Sight Distance (SISD) (value for trucks at night has been used) – 385m;
- Approach Sight Distance (value for trucks has been used) – 293m; and
- Minimum Gap Sight Distance (MGSD) – 305m for a right turn (this is the maximum distance given in Austroads).

The available distances are all greater than the direct line of site distances and are therefore acceptable.

Photographs of the approach roads and TGU Project site entrance are provided in Appendix A.

7 Traffic Management Risk Controls

To mitigate the risks associated with TGU Project traffic, Table 2 identifies the management measures proposed to be implemented to minimise any adverse impacts:

Table 2: Traffic Management Measures

Action	Timing	Responsibility
All drivers shall have the appropriate driving licences in place	Life of TGU Project	EH&S Manager
All drivers on site shall have their competency confirmed through competency based training or verification of competence	Life of TGU Project	EH&S Manager
All drivers on site shall undertake the TGU Project site induction which shall contain a section on driving requirements	Life of TGU Project	EH&S Manager
A bus shall be made available to transport employees to and from the TGU Project site	Life of TGU Project	EH&S Manager
Road signage shall be installed on the Northern and Southern approaches of Arnhem Highway warning of the mine entrance and the potential for entering and exiting vehicles. This signage shall be in accordance with Austroad requirements and to the satisfaction of the Northern Territory Department of Transport	Prior to commencement of TGU Project	EH&S Manager
Signage shall be installed along the site entrance road warning of the upcoming intersection with the Arnhem Highway. A stop sign shall also be installed on the entrance road at the intersection point	Prior to commencement of TGU Project	EH&S Manager
The site access road shall be regularly maintained and sprayed with water to minimise dust generation.	Life of TGU Project	EH&S Manager
Vehicle speed limits shall be set and signposted within the TGU Project site	Life of TGU Project	EH&S Manager
On site demarcation of heavy equipment, light vehicles and pedestrians shall be implemented where appropriate and practicable	Life of TGU Project	EH&S Manager
All vehicles shall be regularly serviced and maintained	Life of TGU Project	EH&S Manager
All loads shall be safely secured prior to departure and regularly checked	Life of TGU Project	EH&S Manager
Transport, storage, handling, and use of hazardous materials shall be in accordance with relevant Northern Territory legislation	Life of TGU Project	EH&S Manager
Traffic incidents for TGU Project related traffic shall be managed in accordance with the Project Incident Reporting and Management System	Life of TGU Project	EH&S Manager

8 Management Plan Review

This TMP shall be reviewed if a number of traffic near misses and/or incidents are recorded. Upon review, the document shall be revised where appropriate and consultation undertaken with the Northern Territory Department of Transport where required.

Appendix A - Photographs



Figure 3: Site entrance West side of Arnhem Highway looking South



Figure 4: Site entrance West side of Arnhem Highway looking North



Figure 5: East side of Arnhem Highway looking West along site access road



Figure 6: Site entrance East side of Arnhem Highway looking South



Figure 7: Site entrance East side of Arnhem Highway looking North



Figure 8: Arnhem Highway North of entrance looking South



Figure 9: Arnhem Highway South of entrance looking North