



Australian Ilmenite Resources Pty Ltd

ABN 55093419311

## Final Technical Report

EL29633

for the Period 09-02-2019 to 23-04-2019

(Ceased 23-04-2019)

Titleholder:	Australian Ilmenite Resources Pty Ltd.
Operator:	Australian Ilmenite Resources Pty Ltd.
Target Commodities:	Heavy Minerals
Project:	Roper Heavy Mineral Project
Date Granted:	24 <sup>th</sup> April 2013
Datum/Zone:	GDA94/53
1:250,000 Sheet:	Urapunga
1:100,000 Sheet:	Flying Fox
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## 1 Summary

EL29633 was a part of Australian Ilmenite Resources Pty Ltd (AIR) Reporting Group 274 (GR274).

EL29633 Ceased on 23 April 2019.

It was included in the seventh GR274 Annual Group Technical Report that covers the activities for the period 09/02/18 to 08/02/19.

## 2 Location and Access

EL29633 is located approximately 200km east of Katherine, Northern Territory. It is intersected by the Arnhem Highway.

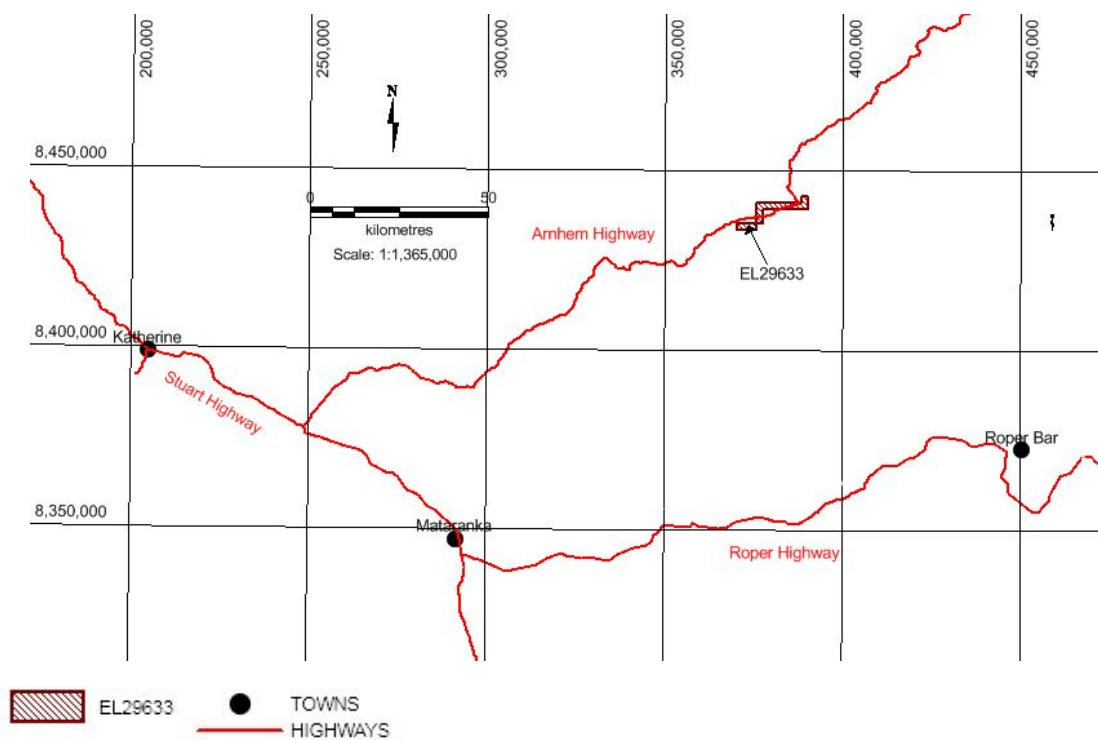


Figure 1: Location of EL29633.

## 3 Climate

The area has a humid monsoonal climate, with mild dry winters and hot humid summers often with heavy monsoonal rains rarely associated with tropical cyclones. The average annual rainfall is approximately 950 millimeters with most falls between November and April. The wet season renders portions of the area inaccessible for exploration activities.

## 4 Topography, Vegetation and Water Resources

GR274 lies within the Gulf Fall physiographic province which is part of the Arnhem Land Plateau. Dissection of Proterozoic sediments have produced an undulating topography of low hills and rubble covered ridges with broad areas of alluvial and colluvial plains.

The Roper River catchment represents some 82,000 square km. Thirteen significant rivers and creeks drain the system.

The vegetation of EL29633 is shown in Figure 2 and Table 1.

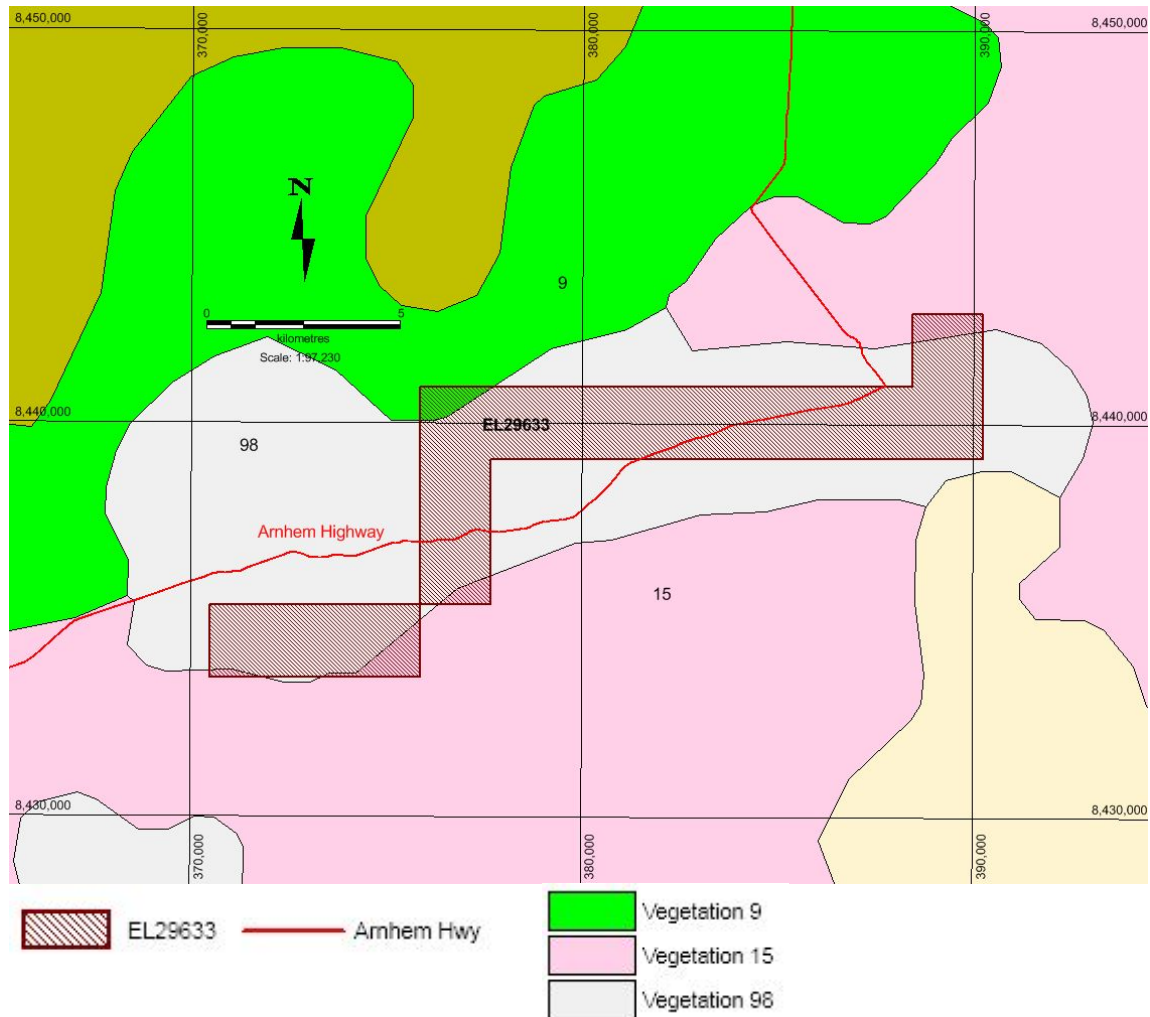


Figure 2: Vegetation (Refer to Table 1 for Explanation of Vegetation Code).

Unit	Description
9	<i>E. tetradonta</i> (Stringybark), <i>E. miniata</i> (Darwin Woolly Butt), <i>E. ferruginea</i> (Rusty Bloodwood) woodland with Sorghum grassland understorey.
15	<i>E. tectifera</i> (Northern Box), <i>E. latifolia</i> (Round-leaved Bloodwood) woodland with Sorghum grassland understorey.
98	<i>Chrysopogon fallax</i> (Golden Beard Grass), <i>Dichanthium fecundum</i> (Bluegrass) grassland.

Table 1: NTG Mapped Vegetation

## 5 Pastoral Perpetual Leases

EL29633 coincides with Mainoru and Wongalara Pastoral Perpetual Leases (Table 2, Figure 3).

Property	Parcel No.	Owner	Perpetual Pastoral Lease
Mainoru	05108	Daniel and Catherine Hayes	PPL01167
Mountain Valley	06518	Mountain Valley Station Trust	PPL01188

Table 2: Pastoral Property Coinciding with EL29633

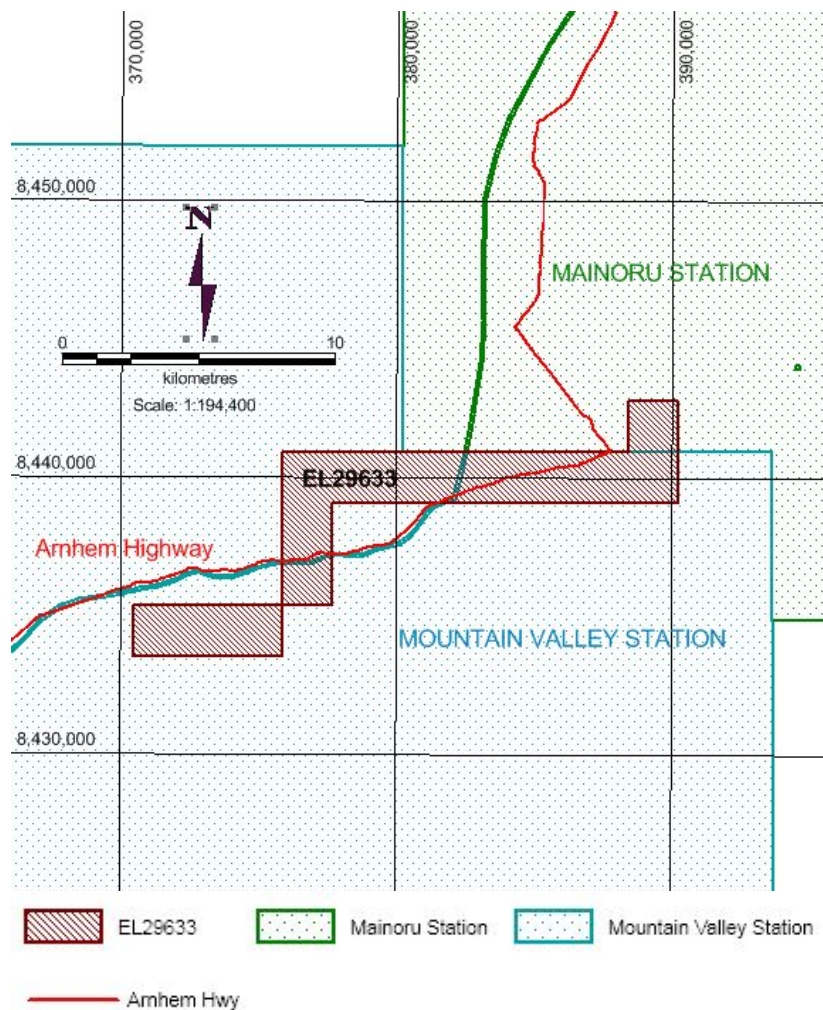


Figure 3: Mainoru and Mountain Valley Perpetual Pastoral Leases Coincide with EL29633

## 6 Native Titles

There are no Native Title claims which affect EL29633.

## 7 Aboriginal Sacred Sites

There are no known Aboriginal Sacred Sites amongst the northern and southern tenements of Group 274 including EL29633. No archaeological surveys have been carried out during the current tenure. If ground disturbing exploration was to have been considered for EL29633 then AAPA clearances would have been conducted.

## 8 Geology

EL29633 straddles the Arnhem Highway. Units of the Mainoru Formation consisting of Mountain Valley Limestone overlain successively by the Wooden Duck Creek and Showell Members outcrop in the western part of the tenement. These are overlain by Crawford Formation in the central and eastern parts of the area. A small area of SILL29, part of the Mountain Valley 1 Group of sills, intrudes the Showell Member-Crawford Formation contact zone. Assays from seventeen trenches over an area of about 1 sqkm by ERD immediately south of EL29633 showed that this sill varies from ilmenite type to sub-ilmenite type to titanomagnetite type and is one of the few sills low in the stratigraphic sequence of ilmenite type. The airborne magnetics is flat throughout most of the area except for SILL29 but it is apparent that this sill extends only a short distance below cover. See Figure 4.

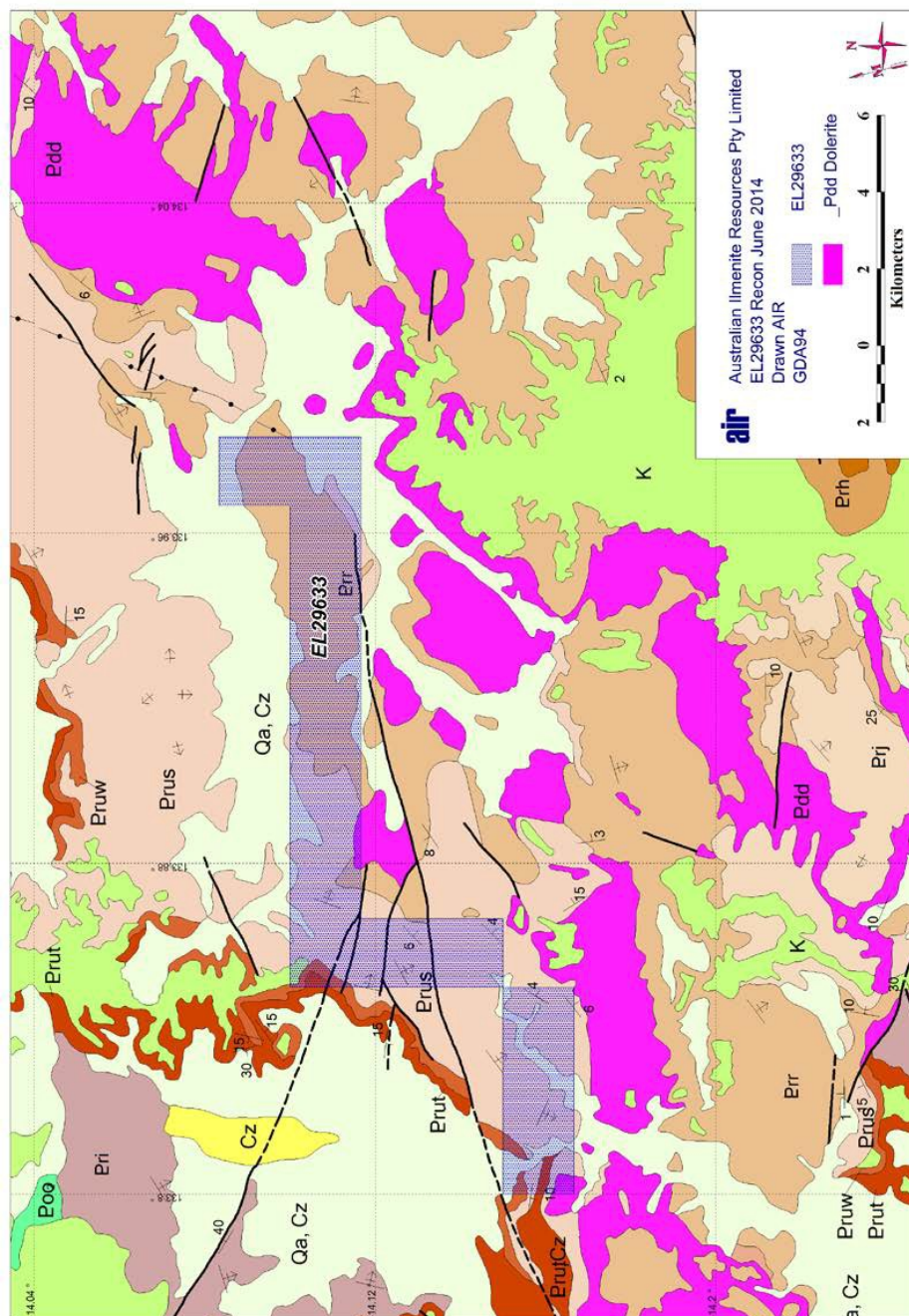


Figure 4: Geology EL29633

## 9 Previous Exploration EL29633

There are no known mineral occurrences here and there has been no previous geochemical sampling except for the work carried out by ERD.

## 10 Prospectivity of EL29633

The area was ranked with a 5 by TZMI and AIR on the absence of dolerites and that the dolerites to the south were potentially of titanomagnetite type.

## 11 Exploration of EL29633 during the 2018/2019 Reporting Period

Purchase of 5m resolution Rapid Eye satellite imagery was recommended but not carried out that would have included EL29633 to assist with the search for prospective dolerite regolith. There was no ground work this period.

## 12 Exploration of EL29633 from 09-02-2019 to 23-04-2019

There was no Exploration during this period.

## 13 Cessation of Lease

EL29633 ceased on 23 April 2019.



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