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## **MINING MANAGEMENT PLAN UPDATE (EXPLORATION)**

### **FOR EL 24839 FENN GAP IRON-MANGANESE PROJECT**

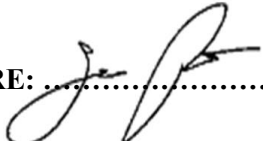
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**Reporting Year Ending 05/01/2019**

**GES Report No: 147**

	<b>Author</b>	<b>Reviewed by</b>	<b>Approved by</b>
Date			
Name	Dayna Healey & James Patterson	James Patterson	James Patterson
Signature			

**I, James Patterson, Exploration Manager and Non – Executive Director declare that to the best of my knowledge the information contained in this mining management plan is true and correct and commit to undertake the works detailed in this plan in accordance with all the relevant Local, Northern Territory and Commonwealth Government legislation.**

**SIGNATURE:**  .....

**DATE: 17/12/2018**

#### **DISTRIBUTION**

1. Northern Territory Department of Primary Industry and Resources
2. Genesis Resources Ltd

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## AMENDMENTS

Section	Amendment
Section 2.0 - Project Detail	Updated Expiry Date
Section 3.3 - Flora and Fauna	Updated details with recent changes to the Australian Government's National Threatened Species List. No weeds been identified.
Section 4.4.1 - Identified Stakeholders	New emails sent on 3/12/2018.

*Information in this report that relates to exploration activity and results was compiled under the guidance of James Patterson who is a Member of the Australasian Institute of Geoscientists. Mr Patterson has sufficient experience relevant to the styles of mineralization and to the activities which are being reported to qualify as a Competent Person as defined by the JORC code, 2004. Mr Patterson consents to the release of the information compiled in this report in the form and context in which it appears.*

## 1.0. OPERATOR DETAIL

Name of operator: Genesis Resources Limited

Key contacts: James Patterson - Exploration Manager  
Dayna Healey - Tenement Manager (employed by Genesis Resources Ltd)

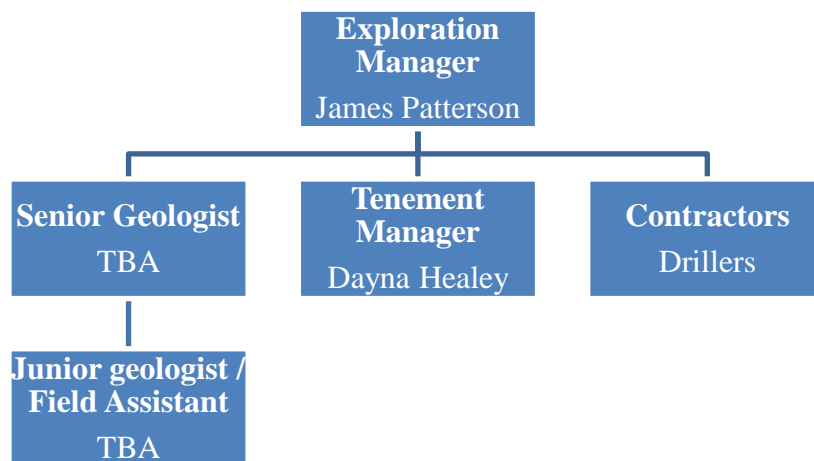
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## 1.1. Organisational Structure



**Figure 1: Genesis Resources Ltd organisational chart**

## 1.2. Workforce

The exploration team will consist of one geologist and one field assistant for the non ground disturbance field work.

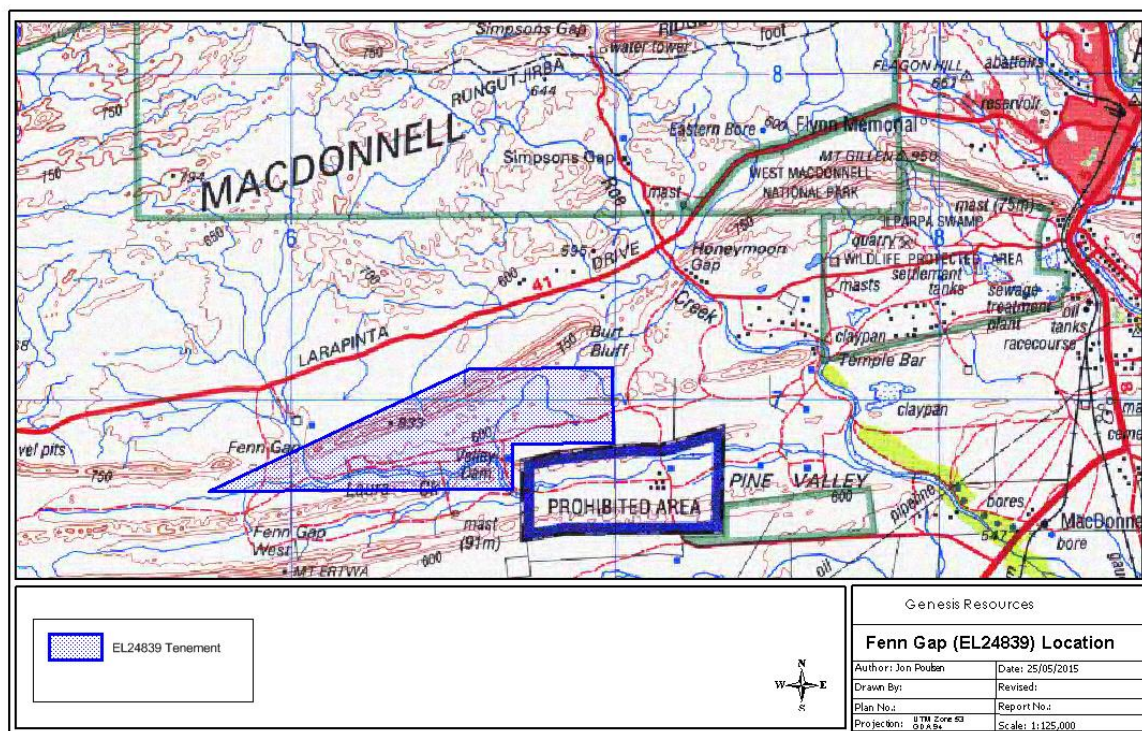
## 2.0 PROJECT DETAIL

The Fenn Gap Tenement is located approximately 25 kilometres south west of Alice Springs in the Northern Territory. The project is 25 kilometres from major infrastructure such as the Stuart Highway and Darwin to Adelaide railway line. The project comprises one Exploration Licence (EL24839) which covers a total area of 26.93 sq km. The exploration licence tenement details are summarised in Table 1 and the location is shown in Figure 2.

**Table 1: Fenn Gap Project - Tenement Summary.**

Project	Tenement Number	Grant Date	Current Holder	Pastoral Lease	Expire Date
Fenn Gap	EL24839	6 May 2008	Genesis Resources Ltd	PPL968	05/05/2020

### 2.1. Map of site location and layout



**Figure 2. Fenn Gap EL24839 Location Map (14 blocks = 26.93 sq km).**

## 2.2 History of Development and Current Status

A small reconnaissance mapping over the tenement area was conducted by the NTGS in early 1970 which delineated manganese mineralisation. The known manganese mineralisation occurs in the eastern part of the licence area and rock-chip sampling outlined a strata-bound dolomite-hosted manganese-rich zone over several kilometres in length. Historical rock-chip sampling returned manganese grades up to 50.9% Mn (averaging 39% Mn).

A field visit was completed in December 2008 and 37 rock chip samples were collected in the significant zones of alteration. Moderate to high grade iron assay results were obtained along the 9.9 kilometres strike length and moderate to high grade manganese mineralisation was outlined in the Table Prospect area.

During March 2009, Genesis completed a ground gravity survey over 7 kilometres along the main outcropping mineralisation that represented large ore zones required for iron ore mining. The gravity survey was completed by Daishat Surveyors and consisted of 200m spaced lines orientated north-south with data collected every 50m along line, totalling 622 stations. The survey was successful in defining broad scale gravity anomalies which could be correlated in most instances to mapped outcrop and goethite/manganese mineralisation. The residual filtering and modelling highlighted local areas of gravity anomalism which indicated areas of higher density.

Genesis completed a 13 hole Reverse Circulation drilling program (1,024m) between 14<sup>th</sup> and 29<sup>th</sup> June 2010, testing the outcropping iron-manganese and gravity models. The drill holes intersected predominantly limestone and dolomite with several holes intersecting hematite, goethite and limonite associated with chert. Fe results from drilling were generally of low to moderate grade, including:

- FGRC001 - 2m @ 12.0% Fe from surface, 4m @ 5.8% Fe from 27m and 10m @ 11.0% Fe from 67m
- FGRC002 - 10m @ 26.2% Fe from 9m.
- FGRC007 - 4m @ 14.1% Fe from 1m, 6m @ 15.7% Fe from 7m and 4m @ 17.7% Fe from 15m

Refer to Appendix 1 for drill hole coordinates completed in 2010. All thirteen drilled holes were rehabilitated in December 2010, six months after the completion of the drilling program. Please refer to Appendix 2 for Drill Hole Site Photographs Before Drilling and Appendix 3 for Drill Hole Site Photographs Before and After Rehabilitation. In the future, all dried spoil and samples will be returned down the drill hole to improve visual amenity. This will encourage vegetation growth and increase rehabilitation success.

It appears that two extra holes were drilled during the 2010 drilling program FGRC003A and FGRC005A. As the Geologist in charge Phill MacKenzie is no longer an employee of Genesis we can not confirm why this happened. We would assume that no extra earthworks were required. Genesis Resources Ltd understand that in the future if additional holes are required it is our responsibility to seek permission through DoR.

The 2010 drilling program sites were rehabilitated. Above blade techniques were utilized to leave roots in the ground for reshooting, spreading removed vegetation over cleared areas to reduce erosion and promote seed set. A Bobcat Loader and Operator was contracted and mobilised to site to complete the earthworks required to rehabilitate the thirteen drill hole sites. The bobcat was mobilised on a trailer and pulled by tipper truck. The access tracks and grid lines were rehabilitated immediately, the main track is an existing track used by the landowner and this wasn't rehabilitated.

Casing was removed by cutting off 0.3 metres below ground level and was securely plugged below surface. A plastic stopper was inserted about half a metre from the surface and then sediment placed on top of the stopper and finally a topsoil mound placed at the top of the hole to allow for subsidence.

The sample cuttings were removed from the sample bags and spread on the top of the drill holes and on the ground adjacent to the drill holes. The sites were levelled and small channels were made to facilitate quick growth. Unfortunately when the drill samples were spread across the surface they left areas of white discolouration which are inconsistent with the surrounding areas. The station owner Patrick Brown did the rehabilitation, he may not have been properly supervised. If future drilling is undertaken Genesis will provide appropriate supervision to manage the rehabilitation.

Sumps dug next to the drill holes were used to contain drilling water were later refilled.

Upon completion of drilling, all biodegradable and non biodegradable rubbish was removed from each drill site to an approved dump site in Alice Springs.

Two brief site visits were made during May and September 2014 by our Exploration Manager James Patterson and Exploration Geologist Jon Poulsen. Checks were made on the location of RC holes drilled during June 2010. All tracks and drill pads had been covered by natural vegetation. Three, short geological mapping traverses were made across the area of high gravity response north of the known manganese - iron mineralization. Four representative rock samples were collected for specific gravity measurement as reference against results of the previous gravity survey.

**Table 2. Fenn Gap Rock Chip Sample Locations (2014)**

Sample	GDA94_E	GDA94_N	RL	Comments
G00601	365157	7368724	611	Mn+Go outcrop at Hole Hill. Pyrolusite as breccia fill in goethite
G00602	363155	7368367	631	Mass Go in brecciated chert unit. MnO on weathered surfaces
G00603	365021	7368882	658	Dolomite on ridge crest.
G00604	366979	7369265	638	Dolomite on south flank of steep ridge.

Two samples were collected from goethite – manganese mineralised outcrops and two samples were collected from dolomite outcrops on ridges that correspond to the area of the gravity high. All 4 samples were submitted to ALS Laboratories for a calculated bulk density analysis from wet/dry method, specific gravity measurements (OA-GRA09s). The 2 mineralised samples were assayed for Fe, Mn, Al, Ba, Ca, Cr, K, Mg, Na, P, S, Si, Sr and Ti by fused disc XRF (ME-XRF26s).



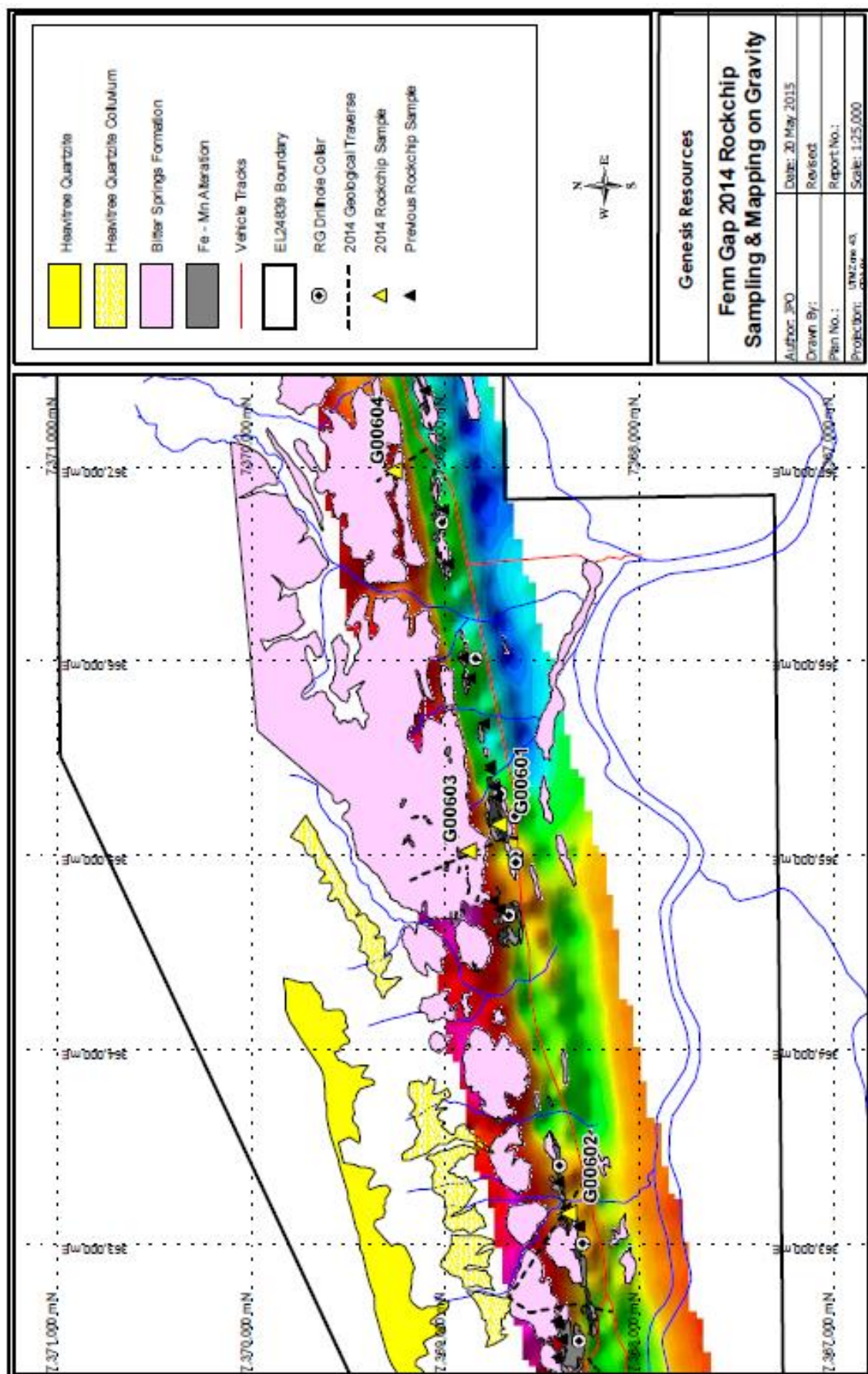


Figure 3: Fenn Gap 2014 Rockchip Sampling and Mapping on Gravity



## **2.3 Proposed Exploration Method**

### **2.3.1 Reconnaissance mapping and rock chip sampling**

Collection of further rock chip samples. Collection of 30 representative samples should provide an adequate population size of samples for bulk density measurements. Representative samples will be selected from the Mn – Fe mineralised horizon, the Bitter Springs dolomites and the Heavitree Quartzite. More detailed field mapping, particularly more detailed structural mapping will also be carried out in association with the rock chip sampling program. More detailed field mapping, particularly more detailed structural mapping will also be carried out in association with the rock chip sampling program.

## **3.0 CURRENT PROJECT SITE CONDITIONS**

### **3.1 Geology**

The area around Fenn Gap predominately consists of undulating flat Quaternary sands with minor clay pans with a Heavitree Quartzite and associated formations range running east-west in the northern portion of the project area. The area of interest south of the range is underlain by sediments of the Bitter Springs Formation. The goethite and manganese alteration occurs in the Bitter Springs Formation. This formation dips steeply to the south. It forms a broad strike-parallel valley (termed the ‘Bitter Springs Valley’ in this report) lying to the south of a major cuesta formed from Heavitree Quartzite (termed the ‘Heavitree Quartzite Ridge’. In the project area, the Bitter Springs Formation is dominated by carbonates -mainly dolomite which is thought to represent the Loves Creek Member. Minor clastic units occur lower in the sequence near to the contact with the underlying Heavitree Quartzite. These clastics could be remnants of the Gillen Member. Numerous chert lenses are enclosed by dolomite in the carbonate sequence

The area lies within the Gillen Land System of Perry et al (1962) characterised as quartzite and sandstone ridges to 300m, little soil and vegetated with Spinifex. Valleys are alluvial plains and gravelly terraces with rocky soils, sparse shrubs and trees including mulga or witchetty bush over short grasses and forbs. Land resource capability mapping (Lennartz 2002) does not extend far into the EL but the landscape indicates that the Heavitree quartzite units (1.01), Gillen Member dolomite hills (1.06) and ridges (2.06), Mid-gravelly wash slopes (3.11), Lower gravelly wash slopes (3.14), dominate in the areas to be drilled. South of the drill sites, confined to moderately confined drainage floors (5.06, 5.07) and possibly Relic Drainage Depressions (5.09) extend along Laura Ck.

### **3.2 Hydrology**

At the western end of the exploration licence is the Hugh River and Jay Creek. Laura Creek is an ephemeral creek running to the east into Roe Creek which crosses the Alice Springs water basin. Ephemeral drainage channels run when rain occurs with the Rivers and Creeks remaining dry for most of the year. The Laura Creek watercourse is a NRETAS groundwater management area which is suitable quality for stock, domestic and most irrigation uses or “fair quality”. A groundwater quality bore “Valley Bore” RN014987 is located in the Laura Creek zone. According to a bore report from 1987, the bore yields 0.5-1.2L/s of water and reached water at a depth of approximately 100m.

### 3.3 Flora and Fauna

Spinifex and acacias, particularly mulga, occur throughout the bioregion. Table 3 shows a list of threatened species with potential to occur in a 10km radius of the proposed rock chip sampling areas.

A detailed report regarding flora and fauna of the Macdonnell Ranges Bioregions is attached in Appendix 4.

A report under the title “Great MacDonnell Ranges-Sites of conservation significance” downloaded from the Northern Territory Government Department of Natural Resources web site is attached as Appendix 5.

Table 3: List of threatened species has been updated with the recent changes to the Australian Government’s National Threatened Species List, under the Environmental Protection and Biodiversity Act, some of the species that inhabit our project have been changed.

EPBC Act Protected Matters Report was used to determine flora and fauna at risk.

**Table 3: List of threatened species with potential to occur in a 10km radius of the proposed rock chip sampling areas. Vu=Vulnerable, EN=Endangered, IN=Invasive species, CR=Critically Endangered. Information obtained from the EPBC Act Protected Matters Report, 21/11/2018.**

Group	taxons	Common Name	EPBC List	NT Threatened animals list
Bird	<i>Rostratula australis</i>	Australian Painted Snipe [77037]	EN	VU
Bird	<i>Calidris ferruginea</i>	Curlew Sandpiper [856]	CE	VU
Bird	<i>Pezoporus occidentalis</i>	Night Parrot [59350]	EN	CE
Bird	<i>Polytelis alexandrae</i>	Princess Parrot [758]	VU	VU
Bird	<i>Erythrorchis radiatus</i>	Red Goshawk [942]	VU	VU
Invertebrate	<i>Sinumelon bednalli</i>	Bednall’s Land Snail [79113]	EN	Not under NT legislation
Insects	<i>Croitana aestiva</i>	Desert Sand-Skipper [26238]	EN	
Mammal	<i>Dasycercus cristicauda</i>	Crest-tailed Mulgara [328]	VU	VU
Mammal	<i>Macrotis lagotis</i>	Greater Bilby [282]	VU	VU
Mammal	<i>Notoryctes typhlops</i>	Southern marsupial mole [296]	VU	VU
Mammal	<i>Zyzomys pendunculatus</i>	Central rock-rat [68]	EN	EN
Mammal	<i>Petrogale lateralis</i>	Black Footed Rock Wallaby [66649]	VU	Not under NT legislation
Reptile	<i>Liopholis slateri</i>	Slater’s Skink [83163]	EN	VU
Reptile	<i>Liopholis kintorei</i>	Great Desert Skink [83160]	VU	VU
Plants	<i>Macrozamia macdonnellii</i>	MacDonnell Ranges cycad [11843]	VU	Not under NT legislation
Plants	<i>Minuria tridens</i>	Minnie daisy	VU	VU

### **3.3.1 Weeds Management**

#### **Prevention in the Natural Environment**

Prevention is the most effective method of dealing with weeds. Early detection and eradication are crucial to reduce its potential environmental and economic impacts. It is much easier to treat weeds when present in small numbers than when they are well established.

Early detection and eradication requires an awareness and understanding of the factors that favour the establishment and spread of weeds, and applying appropriate management practices that can prevent or reduce the risks. The spread of most weeds occurs through similar pathways, such as the movement of goods, animals and vehicles contaminated with weed seeds.

It is important to reduce the risk of the environment becoming vulnerable to invasion by exotic species by encouraging beneficial vegetation growth and by avoiding disturbance as much as possible.

Measures for weed prevention in the landscape include:

- Minimise the disturbance of desirable plants along trails, roads, and waterways.
- Maintain desired plant communities through good management.
- Monitor high-risk areas such as transportation corridors and bare ground.
- Revegetate disturbed sites with desired plants.

We need to be aware of new infestations and report potential new weeds or new outbreaks to the local council, or to the Northern Territory weed management agencies.

#### **A. Objectives and targets**

Implement weed control activities to reduce the chance of weed infestation by washing down vehicles before entering the tenement. The target is to enter the tenement with clean vehicles so as no seeds can contaminate the area.

#### **B. Prevent the introduction and spread of weeds**

Measures that will be implemented by Genesis Resources employees to prevent the introduction and limit the spread of weeds include:

- appropriate standards of hygiene with the inspection of equipment entering site and the provision of adequate vehicle wash down facilities. Access to the area will be from the east, via Ilparpa Road. The property of Partick Brown from Patrick Homes Construction Pty Ltd has a good access track that crosses the creek and leads directly into the subject area.

- use only established access roads to prevent further spread;

- minimise the introduction and spread of feral animals that may be further spreading weeds on or off site; and

- education and awareness of weed related matters for employees and contractors.

### c) Prioritise weed control activities

Weed control activities should be prioritised to maximise the use of the resources allocated and to take advantage of timing in relation to burning, seeding and growth periods of weed species (plant life cycle). Examples of specific factors to consider when prioritising weed control efforts for individual areas of infestation include:

- proximity to roads/tracks (e.g. infestations close to tracks get high priority);
- phase of invasion (e.g. early stages can be controlled more easily, so get high priority);
- size of infestation (e.g. smaller infestations can be controlled more easily);
- proximity to drainage lines/waterways (e.g. infestations close to drainage lines more likely to spread);
- susceptibility to wind dispersal as well as prevailing wind direction (e.g. weeds growing in elevated areas or weeds with light seeds more likely to disperse); and proximity to lease boundary (e.g. weeds close to boundary get higher priority).

### d) Outline weed control methods – How to manage the situation

Weeds can be controlled by chemical (i.e. herbicide), physical removal (i.e. hand pulling and the use of machinery), biological and/or land management (i.e. use of fire and cattle grazing) methods. Optimal methods vary from one species to another and may change over time with weed research and/or new chemical products.

We have not identified any weeds.

## **3.4 Current Land Use**

Predominant land uses in the East Macdonnell Ranges are cattle grazing and tourism. The project area occurs within pastoral leases that are primarily used for cattle. The major parts of the tenements are covered by the former pastoral station “Owen Springs Station” with station tracks providing access. The alignment of the Larapinta Drive road in the north provides access to Alice Springs.

PPL 968 Owners: Department of NRETAS (formerly Lands, Planning & Environment)  
(Postal: GPO Box 1680, Darwin NT 0801)  
NT Portion No. 1406

The project area is not subject to any native title claims.

## **3.5 Historical, Aboriginal, Heritage Sites**

A search of the AAPA register shows two recorded sites of significance. One to the north east of the EL numbered 5650-224 “Burt Bluff, three kilometres south west of Honeymoon Gap” and one to the western side of the EL numbered 5550-14 “This sink hole is located on the south side of Namatjira Drive 50 metres in from Larapinta drive. It is within the Turnoff bore area which comprises a windmill and a turkey nest dam. The sink hole is immediately to the west of the windmill”.

A search by Dianne Bensley, Senior Heritage Officer from the Heritage Branch of the Department of Lands, Planning and the Environment on the 2 September 2015 showed that there are no previously recorded Aboriginal archaeological sites (red dots) located within the EL, Refer Appendix 6 for the Ariel photo from Heritage Branch. There are also no declared heritage places located within the EL (aqua squares). There are previously recorded Aboriginal archaeological sites located within the wider vicinity of EL24839 and it is likely that the area in question has never been subject to an archaeological survey.

If any archaeological sites (commonly stone artefact scatters or rock art sites) are located, then all works in the immediate vicinity must cease and Heritage Branch contacted for comment.

There are no registered Native Title Claims over the Area, but this does not mean there are no native title claimants.

Genesis Resources will not disturb any sacred sites should they be found on the Exploration Licence and will notify the Central Land Council Immediately.

A Central Land Council (CLC) sacred site Clearance Certificate was issued on the 4 May 2010. The Sacred Site Clearance Certificate Number is 2009.107.

## **4.0. ENVIRONMENTAL MANAGEMENT SYSTEM PLAN**

### **4.1. Environmental Policy and Responsibilities:**

The company is committed to achieving the highest performance in occupational health and safety with the aim of creating and maintaining a safe and healthy working environment throughout its work sites.

The company has set a target of zero lost time injuries for its officers and contractors engaged in exploration activities at the Fenn Gap project.

Genesis have set the following targets for environmental performance:

- Undiscovered Aboriginal archaeological site found within the boundaries of the Fenn Gap Project. Objective – All work in the immediate vicinity will be ceased and the Heritage Branch contacted on (08) 8999 5051. GPS co-ordinates of the site to be given to the Heritage Branch.
- Control of weeds: Objective- Implement weed control activities to reduce the chance of weed infestation by washing down vehicles before entering the tenement. The target is to enter the tenement with clean vehicles so as no seeds can contaminate the area.
- If there is a weed issue: Objective – Reduce declared weeds to less than 10% in disturbed areas within the Fenn Gap Project by December 2018.
- Oil spill (from vehicles): Objective - Spillage of hydrocarbons such as diesel, engine and hydraulic oils that have a potential to contaminate soils and drainages are required

to be cleaned up immediately. They are to be contained and absorbed with earth, sand or vermiculite. Any contaminated soil will be shoveled into plastic bags or containers which will be sealed and clearly labelled for disposal.

- Damage to native vegetation and fauna habitat: Objective: Try to use only established access roads to keep vegetation damage to a minimal level. If damage occurs, native seeds can be replanted within 6 months after the exploration program has been undertaken.

Genesis Resources Ltd is responsible for all Environmental Management at the site. The person responsible for implementing safety management at the Project is the company's Exploration Manager, James Patterson.

## **4.2 Statutory Requirements**

Current applicable legislation permits and conditions under which the project has been operated are:

- Mining Management Act,
- Mining Management Regulations,
- Mineral Titles Act,
- Weeds Management Act,
- Bushfires Act,
- Heritage Act,
- NT Aboriginal Sacred Sites Act,
- Native Title Act,
- Aboriginal Land Rights (Northern Territory) Act,
- Environment Protection & Biodiversity Conservation Act,
- Soil Conservation and Land Utilization Act
- Work Health and Safety (National Uniform Legislation) Act,
- Radioactive Ores and Concentrates (Packaging and Transport) Act (NT),
- Code of Practice for Safe Transport of Radioactive Materials 2001,
- Code of Practice for Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing,
- Reporting requirements such as those for; production statistics; employment/injury and safety statistics; frequency of water quality reporting,
- Lease conditions,
- Authorisation conditions,
- Territory Parks and Wildlife Conservation Act,
- Waste Management and Pollution Control Act & the Dangerous Goods Act.

## **4.3. Non-Statutory Requirements**

A Central Land Council (CLC) sacred site Clearance Certificate was issued on the 4 May 2010. The Sacred Site Clearance Certificate Number is 2009.107. Genesis will fulfil its obligations to follow Environmental Management Plans for the project and maintain communication with relevant stakeholders during the life of the exploration project.



## 4.4. Identified Stakeholders and Consultations

### 4.4.1. Identified Stakeholders

Genesis Resources Limited, NT WorkSafe, Department of Mines and Energy, Central Land Council as Native Title Representative under the Native Title Act, and pastoral leases landowner (Table 4).

**Table 4: Pastoral leases landowner details**

Section No	Name of owners	Address/email/phone
PPL 968	Northern Territory Government c/- Department of Primary Industry and Resources. Contact: Pieter Conradie, Manager, Market and Enterprise Development, Arid Research Institute, Alice Springs or Susan Turner – Regional Executive Officer.  Bryan Gill – Farm Manager OMP or Craig Maxwell Acting Farm Manager OMP (December 2018)	<a href="mailto:Pieter.Conradie@nt.gov.au">Pieter.Conradie@nt.gov.au</a>  <a href="mailto:Susan.Turner@nt.gov.au">Susan.Turner@nt.gov.au</a>  <a href="mailto:Bryan.Gill@nt.gov.au">Bryan.Gill@nt.gov.au</a>  <a href="mailto:Craig.Maxwell@nt.gov.au">Craig.Maxwell@nt.gov.au</a>
Access	Patrick Brown of Patrick Homes and Construction Pty Ltd	PO Box 136 ALICE SPRINGS NT 0871 <a href="mailto:pat@patrickhomes.com.au">pat@patrickhomes.com.au</a>

### 4.4.2. Consultation

As per the CLC Sacred Site Clearance Certificate, access to the area is from the east, via Ipara Road. The property of Patrick Brown has a good track that crosses the creek and leads directly into the subject area. No access via Fenn Gap to the north is approved.

No direct requests regarding access are to be made to traditional owners or residents in the Iwupataka Aboriginal Land Trust, along Larapinta Drive. All queries will be directed through the CLC.

The managers of the effected pastoral leases will be consulted and fully informed of the company's exploration activities and its rehabilitation and environmental process.

Contact will be made via phone or face to face with managers of pastoral leases regularly to update on the program and notify them of any change to circumstances.

## 4.5. Induction and Training

Genesis are aware that as the operator we take full responsibility for all environmental and safety management on site. The company has in place a generic induction process which can be adapted (or altered) to suit specific project needs. For the Project, the initial induction process would focus on remote area safety and vehicle safety.

Standard operating procedures and inductions are in place for the following:

- Field communication & search and rescue;
- Emergency evacuation procedure and
- Vehicle induction

Various consultants may be employed and the company will ensure that they will provide their safety procedures. All site personnel are required to participate in an induction before commencing work.

Environmental topics to be covered in induction include but are not limited to: Threatened plants and animals (identification, actions, responsibilities), weeds (identification, responsibilities), erosion minimisation, vegetation clearing minimisation techniques, emergency responses to spills or accidents, hazardous substances, location of first aid, fire extinguishers, bush fire safety, stop work events such as heavy rain, sacred sites, health and safety topics such as heat stress, dehydration and fatigue.

Appropriate manuals and training will be provided where required.

Identification, assessment, management and control of risks will be the subject of daily toolbox meetings between all site personnel. The results of these discussions will be passed to the Operator. All contractors will have to demonstrate they are aware of their company's safety and environmental procedures and all visitors to the site will be escorted and will wear appropriate personal protective equipment. A Standard Operating Procedure (Emergency Evacuation Procedure) is in place for a medical emergency.

#### **4.6. Identification of environmental aspects and impacts**

Refer to Table 5 for the Environmental aspects and impacts related to proposed exploration activities at the Fenn Gap Project.

**Table 5: Environmental aspects and impacts related to proposed exploration activities.**

<b>Aspect</b>	<b>Impact</b>	<b>Risk Rating</b>
Driving between rock chip sampling sites/ mapping.	Spread of weeds / pests	Low

##### **4.6.1 Erosion and Sediment Control**

As we are only undertaking rock chip sampling and mapping there should be minimal impact on the environment. Vehicles will remain on access tracks where possible.

##### **4.6.2 Water Management**

Water for industrial use will not be required.

## 4.7. Emergency procedure and incident reporting

### 4.7.1. Emergency Procedures

Part of the induction program will identify the method of contact for the Alice Springs Hospital and the person in charge will ensure that there is a method of contact via phone (satellite if necessary) and any evacuation procedures recommended. Refer to Table 6 for Emergency Contacts.

**Table 6: Emergency Contacts**

<b>POLICE STATIONS</b>	<b>ADDRESS</b>	<b>PHONE</b>
Harts Range Police	Plenty Highway, Alice Springs NT 0872	(08) 8956 9772
Alice Springs Police Station	Parsons Street, Alice Springs NT 0870	(08) 8951 8822
Tennant Creek Police Station	Paterson Street, Tennant Creek NT 0860	(08) 8962 4444
<b>EMERGENCY</b>		
Alice Springs Fire Station	Lot 7728 Telegraph Tce	(08) 8951 6688
Alice Springs Hospital	Gap Road, AS 0870	(08) 8951 7777
Alice Springs RFDS	8-10 Stuart Tce, AS NT 8870	(08) 8952 1033

A comprehensive first aid kit will be available onsite and site personnel will be shown its location.

A muster point will be identified in the induction program to be used in the event of an emergency. The warden for such emergencies will be the most senior person on site.

A fire extinguisher will be available at the site if necessary. The induction program will make all staff aware of responsibilities and procedures in preventing and surviving bush fires.

### 4.7.2. Incident Reporting

In the case of an environmental incident (an unplanned event) that causes environmental harm, it will be dealt with immediate containment and, if necessary, an environmental consultant will be contacted. All incidents will be reported as soon as practicable after the environmental incident has occurred to the Chief Executive Officer of the Department of Mines and Energy, in accordance with Section 29 of the Mining Management Act. If we give notice orally, we will provide written notice to the Chief Executive Officer no later than 48 hours after the event.

Genesis understands that when assessing an incident and making decisions about reporting on an environmental incident or serious environmental incident, we should have regard to the definition of “environment” in the MMA.

“Environment” is defined under section 4 of the MMA as follows:

*land, air, water, organisms and ecosystems on a mining site and includes:*

- (a) the well-being of humans;*
- (b) structures made or modified by humans;*
- (c) the amenity values of the site; and economic, cultural and social conditions*

A new requirement of The Department of Primary Industry and Resources is that all environmental incidents are to be recorded in a site register and reported to the Chief Executive regardless of its severity class.

Incidents that require reporting are:

- (a) Escape (by any means such as a spill or leak) of a fuel, chemical, product or residue in solid, liquid or gaseous form including fumes, smoke, vapours, contaminated water, or dust;
- (b) Emissions of noise (beyond reasonable permitted levels);
- (c) Uncontrolled or accidental fire on any land, structure or infrastructure;
- (d) Unauthorised, uncontrolled, or both, discharge of controlled waters to surface or ground waters;
- (e) Damage to a Sacred Site, Aboriginal Protected Area, other protected area, archaeological or heritage site;
- (f) Unauthorised mining, whether the activity is undertaken on or off an authorised mining site;
- (g) Unauthorised clearing of vegetation or disturbance of the ground on or off an authorised mining site; and,
- (h) Harm to human well-being.

#### **4.8. Environmental Audits and Inspections**

John Howard (previous Exploration Manager) visited the area and inspected the drill-hole sites on 24<sup>th</sup> of March 2011, followed by Baheta Enday (previous Senior Geologist) on 15<sup>th</sup> and 16<sup>th</sup> of November 2011. The inspection results are summarised as follows:

- All tracks and drilling pads were stable.
- All new tracks and drill pads were covered by natural regeneration.
- No drill-holes failed after being tapped.
- All waste had been removed.
- No flora and fauna were damaged - no vulnerable or endangered species were identified.
- No evidence of weeds were found on the site.
- No further work was required on return to the site.

More recently, two brief site visits were made during May and September 2014 by our Exploration Manager James Patterson and Exploration Geologist Jon Poulsen. The 13 drill hole sites were inspected, drill pads had vegetation on them.

#### **4.9. Environmental performance reporting**

Genesis Resources' goal is to prevent incidents that impact people, wildlife and the environment. When they do occur, we are committed to transparent reporting.

Genesis will, at all times, operate its facilities in compliance with applicable laws and regulations and will adopt and adhere to standards that are protective of both human health and the environment.

The Fenn Gap Project, in addition to its mineral resources, is an area rich in other natural resources and plant and animal species, and we are committed to conserving and protecting biological diversity and ecosystem service.

Genesis will establish an audit program to systematically evaluate compliance of operating facilities with applicable federal, state, and local rules and regulations.

Each employee (including contractors) will be held accountable for ensuring that those employees, equipment, facilities and resources within his or her area of responsibility are managed to comply with this policy, and to minimize environmental risk.

#### **4.9.1. Biological Management**

Training of site personnel about threatened flora and fauna at induction prior to rock chip sampling and mapping will assist in reducing risk.

Fauna will not be harassed during the exploration program. Induction of staff will discuss vulnerable species that potentially occur in the area so that any impact can be avoided. Vulnerable species are only likely to occur during wet periods when fauna are exploring for new country. During these periods staff will be extra vigilant and report any sightings to Parks and Wildlife.

Feral species will not be brought to site. No feeding of wildlife will be permitted on site. Weeds species will not be brought to site. Care will be taken with any wildlife noticed and a record will be kept of the species noted.

Site personnel will endeavour to drive on established tracks as much as possible to minimise soil disturbance where weeds are prone to establish and to avoid weed seed distribution.

Staff and contractors will report any Weeds of National Significance found in the exploration zone to NRETAS immediately. Staff will remove weeds of lower impact during and after rock chip sampling using appropriate and effective methods which can be found in the Greening Australia Field Guide or from NRETAS.

## **5.0 EXPLORATION REHABILITATION**

As the exploration program involves non ground disturbance field work, there will be no rehabilitation required.

## **6.0. PERFORMANCE OBJECTIVES**

- Successfully complete exploration rock chip sampling and reconnaissance mapping programs with minimal environmental impact.

- Zero lost time injuries by implementing and maintaining best practice in occupational health and safety.
- Avoid any disturbance of sites of cultural significance to traditional owners.
- To have minimal, preferably zero impact on the environment.
- Have 0% introduction of weed species and pests.
- Ensure damage to native vegetation and fauna habitat is kept to a minimal level.
- Advance Genesis Resources staff knowledge-awareness of Indigenous cultural and heritage values through structured programs.
- Genesis's Exploration Manager James Patterson is the person responsible for ensuring the performance objectives are completed.