Affidavit of Stuart James Badock

WAD 37 of 2022

Federal Court of Australia

District Registry: Western Australia

Division: General

YINDJIBARNDI NGURRA ABORIGINAL CORPORATION RNTBC

Applicant

STATE OF WESTERN AUSTRALIA & ORS

Respondents

Affidavit of:	**Stuart James Badock**
Address:	c/- Fortescue Metals Group, Level 2, 87 Adelaide Terrace, East Perth WA 6004
Occupation:	Senior Manager Exploration
Date:	10 July 2023

Filed on behalf of (name & role of party) FMG Pilbara Pty Ltd, Pilbara Energy (Generation) Pty Ltd, Pilbara Energy Company Pty Ltd, Pilbara Gas Pipeline Pty Ltd and the Pilbara Infrastructure Pty Ltd
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I, Stuart James Badock, c/- Fortescue Metals Group, Level 2, 87 Adelaide Terrace, East Perth WA 6004, Senior Manager Exploration, make oath and say as follows:

1. I am employed by FMG Personnel Services Pty Ltd, a subsidiary of Fortescue Metals Group Limited (**FMGL**), as a Senior Manager Exploration. I have been in this role since January 2022. Prior to being employed in this role, I have been employed by FMG Personnel Services Pty Ltd in various roles since January 2010.

2. I am authorised to make this affidavit on behalf of the 2nd to 6th respondents (**FMG Respondents**), which are subsidiaries of FMGL. In this affidavit, I refer to FMGL, the FMG Respondents, and other entities related to them collectively as "**FMG**".

3. Unless otherwise stated, the facts contained in this affidavit are within my own knowledge and are true.

BACKGROUND AND QUALIFICATIONS

4. I am a qualified geologist and have the following tertiary qualifications:

   (a) Bachelor of Science (Applied Geology), from Curtin University; and

   (b) Bachelor of Commerce (Finance), from Curtin University.

5. I first became involved with FMG's mining operations at Solomon (**Solomon Hub**) when I joined FMG in January 2010 as an Exploration Geologist. At this time, FMG's exploration operations at the Solomon Hub were advanced, and predominantly involved work delineating and defining the extent of the iron ore resource at the Solomon Hub. In my role:

   (a) I worked in the field or on the ground as a rig geologist;

   (b) as a consequence, I gained first-hand experience of how FMG's exploration operations are carried out in practice.

6. In January 2011, I was promoted to the role of Project Geologist at FMG. In that role, I supervised FMG's Exploration Geologists and external drilling contractors as they performed exploration work on the ground. My role also involved drill hole planning, approval management, data acquisition and geological interpretation, and general project management.

7. In July 2015, I was promoted to the role of Senior Project Geologist at FMG. This was a similar, but more senior, role to that of Project Geologist.

8. In August 2016, I was seconded, then further promoted to the role of Geology Superintendent. My role in this position involved a combination of office-based and site-based works managing various geology and field functions across FMG's Pilbara Exploration operations. The role included drill hole planning, geological reviews and interpretations, report writing, approval management, contractor management, budgeting and general supervision in field.

9. In January 2019, I was promoted to my current role as an Exploration Manager. In this role, I oversaw and supervised FMG's iron exploration activities within Western Australia, almost all of which are carried out in the Pilbara. I was responsible for ensuring that these exploration activities are carried out in accordance with FMG's policies and procedures. The role involved supervision of on-ground works, ensuring the geological excellence of the group, strategy and planning and budgeting.

10. In January 2022, I was promoted to the role of Senior Manager Exploration at FMG. This was a similar, but more senior, role to that of Exploration Manager. The role is specific to iron exploration in WA.

Summary of FMG's exploration activities in the Compensation application area

11. FMG engages in two broad categories of exploration activity within the compensation application area: greenfield exploration and resource definition.

12. The first type of exploration is greenfield exploration. This refers to low-intensity drilling in remote areas for the purpose of identifying potential iron ore resources. I explain the conditions governing FMG's greenfield exploration activities in paragraphs 16 to 19 below, and FMG's methodology in preparing for, conducting, and remediating greenfields exploration in paragraphs 20 to 41 below.

13. A large part of FMG's greenfield exploration in relation to the Solomon Hub project occurred prior to 2010. From approximately 2010, the bulk of FMG's exploration activity at the Solomon Hub project has been resource definition drilling, with minor greenfield exploration programmes.

14. FMG still engages in greenfield exploration across its exploration licences within the compensation area. However, since the commencement of operations at the Solomon Hub, FMG's exploration activities have been limited to that which is necessary to meet the regulatory requirements of FMG's exploration licences. I explain the scope of FMG's exploration activities in paragraphs 42 to 50 below.

15. The second type of exploration is resource definition drilling. In my current role, I am not responsible for supervising resource definition drilling at the Solomon Hub project. However, FMG engages in this type of exploration once an economical resource has been located. It consists of drilling at much shorter intervals in order to determine the precise extent of the resource, understand the variability, improve confidence and support the life of established mining operations. This type of drilling is governed by the same plans and procedures which govern greenfields exploration drilling.

FMG'S EXPLORATION OBLIGATIONS

16. FMG is required to comply with multiple pieces of Commonwealth and State environmental legislation when conducting its exploration activities.

17. In order to ensure compliance with its legislative obligations, FMG has prepared an Exploration Environmental Management Plan. The purpose of the Exploration Environmental Management Plan is to outline the management actions and procedures applicable to FMG's exploration activities across Western Australia in order to ensure that FMG's environmental commitments and objectives are met. It is the main document upon which FMG employees rely when planning and executing exploration activities. Attached to this affidavit and marked "**SJB-1**" is a copy of the latest revision of the Exploration Environmental Management Plan.

18. The legislation with which FMG is required to comply when conducting its exploration activities is identified in Table 2 of the Exploration Environmental Management Plan. In particular, I am aware that the key pieces of legislation that govern FMG's obligations are:

    (a) the *Mining Act 1978* (WA); and

    (b) the *Aboriginal Heritage Act 1972* (WA).

19. Also as identified in the Exploration Environmental Management Plan, FMG employees and contractors are also required to comply with FMG's internal procedures and guidelines. Relevantly, these procedures include FMG's *Exploration Drill Hole Stabilisation and Site Rehabilitation Procedure*, which I refer to below. A copy of the *Exploration Drill Hole Stabilisation and Site Rehabilitation Procedure* is attached to this affidavit and marked "**SJB-2**". Where FMG's

exploration activities require reference to other procedures or guidelines, the Exploration team will consult with members of other teams to ensure a full understanding of their obligations.

FMG'S EXPLORATION METHODOLOGY

Prior to drilling

20. Upon grant of the tenement, the first step will be for a geologist in the Exploration team to understand the geological prospectivity and then generate a potential exploration target. This process involves two steps. First, the geologist will conduct a desktop data analysis. The analysis will utilise all available information, and will generally include geological mapping obtained from the Geological Survey of Western Australia, third party data, and geophysical datasets. Secondly, the geologist will geologically map the surface bedrock in-field by travelling to the site via land vehicle or helicopter, in order to verify the target/anomaly.

21. If the target is acceptable to explore, FMG will then proceed to obtain the necessary approvals to conduct exploration activities.

22. One of the first things that happens at this stage is that the Exploration team will apply for heritage approval of the target. A member of the Exploration team will set out the scope of the proposed exploration activity to the Heritage team, who will organise for the programme to be cleared by an approved anthropologist and archaeologist in consultation with traditional custodians.

23. In all cases, FMG will be required to obtain a Programme of Works (**PoW**) from DMIRS before it can commence exploration activity.

24. In its application for a PoW, FMG outlines:

    (a) the number of holes proposed to be drilled, and the size of the drill pads, access tracks, and ancillary works;

    (b) the duration of the proposed activities;

    (c) the result of the environmental desktop assessment;

    (d) the environmental management strategies it proposes to adopt in order to ensure compliance with its legislative obligations and approval conditions, and ensure protection of local flora and fauna; and

    (e) its proposed rehabilitation activities.

25. If DMIRS grants approval to the PoW, then FMG is required to carry out the exploration activity in accordance with the details it provided in the application. Additionally, DMIRS may impose further conditions in its approval, which FMG must comply with. Attached to this affidavit and marked "**SJB-3**" is a copy of the PoW for the Mt Florance campaign, by way of example. I elaborate on the Mt Florance campaign below.

26. In addition to these external approvals, FMG's internal policies require that before any ground-disturbing works are conducted, the team seeking to perform those works must obtain a Land Use Certificate, or "LUC". The purpose of the LUC procedure is to ensure that all relevant approvals have been obtained before activities commence, and to ensure that any obligations concerning those activities can be effectively managed, by causing all required checks to be made and for a LUC to be prepared for each exploration campaign.

27. In the case of exploration activities, an application for a LUC is made by a Project Geologist (or Field Logistics Assistant) after the PoW is obtained and the land is cleared from a Aboriginal Cultural Heritage perspective. That application will be assessed by designated Approvers in other FMG teams, who may impose conditions on the LUC that govern the relevant exploration activities. For example, a LUC for exploration activities usually includes conditions from:

(a) the Heritage team, which first conducts an Aboriginal heritage survey in order to determine whether any Aboriginal sites are located in the vicinity of the exploration area, and if the proposed exploration is in the vicinity of a site, imposes conditions relating to the avoidance and/or demarcation of that site; and

(b) the Environment/Exploration Approvals team, which imposes (among other things) conditions requiring that the Exploration team protect significant flora and fauna, as outlined by the WA Government, and use appropriate weed hygiene to avoid the spread of weeds;

(c) the Pastoral team, which considers the interaction of the proposed exploration activity with any agreements FMG has reached with local pastoralists;

(d) the Tenure team, which makes sure that the on-ground works are on a tenement, or that we have appropriate agreements or approvals in place if not; and

(e) the Water Infrastructure team, which makes sure that none of FMG's water infrastructure (e.g. bores and pipes) will be affected by the exploration activity.

28. Attached to this affidavit and marked "**SJB-4**" is a copy of a LUC for the Garnagee campaign, by way of example. I also outline the Garnagee campaign below.

During drilling

29. Once FMG has obtained the necessary internal and external approvals, it will carry out the exploration activities.

30. First, FMG will organise for earthmoving machines to clear access tracks and drill pads for drilling to occur. On average, these tracks are up to 4.5m wide. FMG will either undertake these activities using a loader (where the terrain is flat) or a combination of a bulldozer and excavator (where the terrain exceeds approximately 10 degrees in slope).

31. The drilling itself is conducted on "drill pads". A drill pad is a cleared area of land approximately 20m by 20m in size, on which the drill rig and support truck are parked, and on which the rock samples produced by drilling are placed. Where natural groundwater is likely to be intersected drill pads have a sump on them to ensure any water is directed to the sump.

32. Once the access tracks and drill pads are cleared, then an exploration team travels to the area to conduct the drilling. A typical drill team consists of 3-4 drilling contractors and an Exploration Geologist employed by FMG. The duration of an exploration campaign will vary depending on the number of holes drilled during the campaign. On average, a team will drill two holes in a given day.

33. In its greenfield exploration operations, FMG utilises "reverse circulation", or "RC", drilling. This form of drilling produces data in the form of rock chips of 20mm or less in size. Data from each metre of hole depth is laid out and logged by the Exploration Geologist. On average, an exploration drilling hole is approximately 60m in depth, but this will vary depending on the depth of the geological target.

34. In the course of performing this work, FMG employees are required to comply with the conditions of the internal and external approvals set out above. FMG ensures compliance with these conditions through the following procedures:

    (a) First, the field technician and operator in charge of the earthmoving activity are provided with the approved LUC, which sets out the conditions on their work. These personnel frequently refer to the LUC over the course of the exploration activities.

    (b) Secondly, the earthmoving machines are fitted with a remote geographical information system known as an "EEMIS". The EEMIS tracks the precise location of the vehicle and sounds an alarm if the machine is about to enter an area where it is not approved under the LUC (for example, if the machine is approaching a heritage site).

    (c) Thirdly, all contractors and employees are required to comply with specified on-ground procedures and working instructions and are fully inducted prior to commencing work (which includes an earthworking induction involving discussions and teachings about the significance of Aboriginal cultural heritage and how to manage heritage matters on-ground). As part of these procedures, any access tracks are logged and uploaded into FMG's geographic information system, and all drill holes are entered into FMG's Acquire geological database.

    (d) Fourthly, for more advanced projects, FMG conducts aerial photography of the area. The extent of ground disturbance revealed by the photography will be digitised and entered into FMG's geographic information system.

After drilling

35. As soon as FMG personnel or contractors complete drilling, they immediately stabilise and plug the hole in order to manage any risk to fauna posed by open drill holes and prevent contamination of groundwater. This plugging is conducted in accordance with FMG's *Drill Hole Stabilisation and Site Rehabilitation Procedure*.

36. Following this, contractors engaged by FMG utilise "wireline" geophysical probes to record the natural gamma magnetism and density of the rock. At around this time, FMG field technicians go to the site in order to pick up the data samples and conduct a visual analysis. A surveyor engaged by FMG as an employee or contractor will also record the specific location of the drill hole or holes using a Differential GPS.

37. If the data warrants further detailed analysis, it will be sent off-site to a laboratory in Perth for XRF analysis, in order to determine the iron ore content of the material. If the results of that analysis are promising, FMG will conduct a second drill phase in the area in order to better understand the area and further test whether it would be economical to mine that area. Otherwise, FMG will end its exploration activity in the area, and proceed to rehabilitation of the area. From my experience, FMG has generally not encountered favourable results from its exploration activities to the north of the Solomon Hub.

38. Rehabilitation is conducted in accordance with FMG's *Drill Hole Stabilisation and Site Rehabilitation Procedure*. In short, this requires that FMG remove any infrastructure, material or rubbish it has introduced, cut the PVC collar (which is installed underground at the start of operations to avoid cave-in of drilling holes) so that it is not visible from 40mm below the ground level, remove or re-distribute sample piles, re-profile the soil and rock in the area back to its natural state or landform, spread any vegetation and topsoil removed during clearing to a depth similar to the surrounding environment, and scarify the soil to encourage regrowth.

39. Depending on the scope of the exploration activity, in my experience a rehabilitation operation can take between one hour and two days to complete. This can be conducted by either a loader or an excavator, depending on the steepness of the terrain. For example, a loader is used in particular areas that have been cleared or disturbed to scarify and rehab the area.

40. Where FMG's exploration activities produce positive results, it will keep the access tracks open for further exploration, but will nonetheless rehabilitate the pad areas. As I have noted above, FMG's exploration has generally not produced promising or positive results in the Yindjibarndi compensation application area outside of the Solomon Hub mine.

41. Finally, FMG will submit a notice of rehabilitation work to DMIRS to confirm that it has completed its rehabilitation works. The notice will include photographs and maps of the rehabilitation work and a prescribed Programme of Work Rehabilitation Report which sets out the type of work conducted. Attached to this affidavit and marked "**SJB-5**" is the Programme of Work Rehabilitation Report for the Mt Florance campaign.

SCOPE OF FMG'S EXPLORATION ACTIVITIES

42. As I have noted above, the Solomon Hub was identified in 2006, and the scope of that resource has been well-defined. FMG has been conducting exploration activities for over 15 years, and as a consequence has reached a point in its operations where it has identified the areas which are economical for it to mine. From my employment at FMG, I understand that those prospects or targets which are more distal to the Solomon Hub, and in particular to the north of that resource, have been well-mapped and FMG has determined that those targets do not have the estimated size to make them viable or economical to mine.

43. However, FMG does still carry out some exploration activities outside the footprint of the Solomon Hub, including within the compensation application area. I have been shown a list of the exploration licences for which compensation is claimed (the **Solomon Exploration Licences**). That list is attached to this affidavit and marked "**SJB-6**". FMG still continues to execute semi-regular exploration programmes across those licences.

44. In order to maintain its exploration licences, FMG is required to comply with a minimum expenditure commitment in each year. In compliance with its commitments, FMG has undertaken a modest level of exploration work on each of its exploration tenements in each year. This work may include any of the matters identified above, including geological mapping, heritage and environment work, exploration drilling, or rehabilitation work.

45. Since 2011, FMG has conducted three exploration drilling campaigns in the area of the Solomon Exploration Licences which is within the compensation application area and outside the area of its mining leases. These campaigns were as follows.

46. First, the ELP-1304 campaign, termed "Solomon Detritals", was conducted in 2014 to the north of the Solomon Hub area and within exploration licence E47/1398. It involved the drilling of 11 holes in 2014, all of which have since been rehabilitated.

47. Secondly, the ELP-829 campaign, known as the "Mt Florance" prospect, was a drill programme of 1 drill hole conducted in 2014 to the north of the Solomon Hub area and within exploration licence E47/1398. That one drill pad has been rehabilitated.

48. Thirdly, the ELP-1120 campaign, termed "Garnagee", was conducted in 2017, to the direct north of mining tenement M47/1473 and within exploration licences E47/1319 and E47/1447. I was not involved in this campaign as it fell within the remit of the resource definition team. However, I was made aware of this campaign in the course of my duties at FMG.

49. Attached to this affidavit and marked "**SJB-7**" is a set of maps outlining the details of FMG's past, current and planned exploration campaigns within that part of the Solomon Exploration Licences which is within the compensation application area. By way of explanation, the green squares

indicate the area within which FMG was entitled to operate according to the Programme of Work, whilst the black dots represent the drill holes (all of which have been rehabilitated).

50. The maps also refer to the ELP-2627, ELP-2616 Mt Margaret, ELP-2556 Investigator North programmes of work. FMG has applied for PoWs over these areas, which it considers to be areas of interest for exploration. However, for various reasons, FMG has not yet been able to gain access to these areas to conduct exploration.

Sworn by Stuart James Badock)
at Perth)
in the State of Western Australia)
on 10 July 2023)
)

Signature of deponent

Before me:

Signature of witness

SB SM ~~[insert practitioner name]~~ SIMON ALEXANDER YAMCHIKOV
a legal practitioner who has held
a practice certificate for at least
2 years and who holds a current
practice certificate.

"SJB-1"

WAD 37 of 2022

Federal Court of Australia

District Registry: Western Australia

Division: General

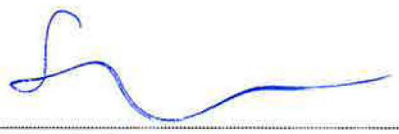
YINDJIBARNDI NGURRA ABORIGINAL CORPORATION RNTBC

Applicant

STATE OF WESTERN AUSTRALIA & ORS

Respondents

This is the annexure marked "**SJB-1**" referred to in the affidavit of Stuart James Badock sworn on 10 July 2023.



Signature of witness

a legal practitioner who has held
a practice certificate for at least
2 years and who holds a current
practice certificate.

Fortescue
The New Force in Iron Ore

Plan

Exploration Environmental Management Plan

Environment

April 2019
E-PL-EN-0002 Rev 6d

	Exploration Environmental Management Plan		
Document_Revision Number	E-PL-EN-0002 Rev 6d		**2/04/2019**
Status	**IFU - ISSUED FOR USE**		
Summary of Changes	Revised Figures, removed reference to *Discharge of Securities for Rehabilitated Exploration Tenements Procedure* (E-PR-EN-0009).		
Author	O. Hertsted	Signature	11/01/2019
Checked or Squad Review# (if applicable)	IR-00002530	Signature	31/01/2019
Approved	N. Nitchske	Signature	Click here to enter a date.
Access to this document:	**FORTESCUE STAFF & CONTRACTORS**	**Next Review Date (if applicable)**	8/03/2024

Revision History *(to be completed for each version retained by Document Control)*

Author	Checker	Approver	Rev No.	Status	Issued Date
N. Hogarth	**C. SImpson**	**E. Hannon**	0	**IFU**	1/04/2005
N. Hogarth	Initial/Surname	Initial/Surname	1	**IFU**	Click here to enter a date
S. Hart			2	**IFU**	16/03/2006
J. Cookson			2a	**DRAFT**	27/4/2007
	D. Dowdell		2b	**IFR**	20/08/2007
	E. Hannon		2c	**IFR**	26/09/2007
		G. Rowley	3	**IFU**	27/06/08
A Meyer; C. Simpson			3a	**DRAFT**	13/10/2008

Revision History *(to be completed for each version retained by Document Control)*

M. Ea; C Simpson			3b	**IFR**	17/11/2008
	P. Connolly	**G. Rowley**	4	**IFU**	26/11/2008
A Winzer	**T. Fairfield**	**B. McGuire**	4b	**DRAFT**	16/08/2010
T. Fairfield	**S. Grein**	**B. McGuire**	4b	**IFR**	21/09/2010
T. Fairfield	**A Winzer**	**A Meyer**	4c	**IFR**	30/09/2010
	T Fairfield	**B McGuire**	5	**IFU**	15/10/2010
O. Hertsted	**FMG-SQ-00468**	**S. Robinson**	6	**IFU**	25/07/2013
O. Hertsted	First Name Surname Here		6a	**IFR**	30/09/2016
M. Hellier			6b	**IFR**	9/10/2017
O. Hertsted			6c	**IFR**	18/01/2019

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ACRONYMS

The following acronyms, defined in Table 1, have been used throughout this Plan.

Table 1: Acronyms

Acronym	Definition
BMS	Business Management System
Cwlth	Commonwealth of Australia
DBCA	Department of Biodiversity Conservation and Attractions
DMIRS	Department of Mines, Industry Regulation and Safety
DWER	Department of Water and Environmental Regulation
EMS	Environmental Management System
EPA	Environmental Protection Authority
EEMP	Exploration Environmental Management Plan
EPBC	Environment Protection and Biodiversity Conservation Act
GIS	Geographical Information Systems
HSE	Health Safety and Environment
LUC	Land Use Certificate
NVCP	Native Vegetation Clearing Permit
PoW	Programme of Works
PIMS	Project Information Management System
RASCI	Responsible Accountable Supported Consulted Informed Model

1. INTRODUCTION

Fortescue Metals Group (Fortescue) is an integrated business comprised of mine, rail and port operations based in the Pilbara region of Western Australia, with its head office located in Perth.

Detailed background information regarding the timing and nature of Fortescue's environmental approvals under the *Environmental Protection Act 1986 (WA)*, the *Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)*, current operations and plans for future expansion are contained in Appendix 1 and Appendix 2.

1.1 Purpose and Scope

The purpose of the Exploration Environmental Management Plan (EEMP) is to outline the management actions and procedures applicable to Fortescue's exploration and evaluation activities across Western Australia. Application of these management actions will ensure Fortescue's environmental commitments and objectives are met.

The EEMP covers the following activities:

- Exploration Drilling Activities – where a Programme of Work (PoW) is required[1] on a Mining Act's prospecting and exploration licence.
- Resource Definition Drilling Activities[2] - where a Programme of Works (PoW) is required on a Mining Act's mining lease.
- Water Drilling Activities – where a Miscellaneous Licence is required on a Mining Act's prospecting and exploration licence.
- A Native Vegetation Clearing Permit (NVCP) – where NVCP is required to undertake exploration related activities on a state agreement tenure. This includes areas where clearing native vegetation in an environmentally sensitive area is required (e.g. Threatened Ecological Communities).

For the purposes of the EEMP the term *Exploration* collectively encompasses all of the above activities.

The EEMP does not address the following:

[1] Fortescue defines exploration activities as any activity that involves the drilling for minerals and requires a Programme of Works (PoW) application to be submitted under the Mining Act 1978. PoWs are usually submitted for the approval of activities such as drill lines and pads, water bores, borrow pits and exploration drill holes on exploration tenure (See Table 2).

[2] Resource Definition Drilling Activities involves advanced drilling programs and additional resource definition activities conducted to support the life of established mining operations

- Resource Definition Drilling Activities where a mining proposal applies over a mining lease.
- Exploration activities in New South Wales which are addressed under the New South Wales Exploration Activities -Environmental Management Plan (EX-PL-EN-0005).

1.2 Definitions

The following terms are used throughout the EEMP. Definitions are provided below to ensure their context is clear.

(a) **Conservation significant fauna** is defined as those fauna listed as critically endangered, endangered, vulnerable or migratory under the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* or as a rare or endangered fauna under the *Biodiversity Conservation Act 2016*.

(b) **Environmentally sensitive areas** as defined in the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* and applicable to Fortescue's exploration activities include:

- A defined wetland and the area within 50m of the wetland. Wetlands in relation to exploration activities include nationally important wetlands as defined in *A Directory of Important Wetlands in Australia* (2001).
- The area covered by vegetation within 50m of declared rare flora, including the vegetation continuous (less than 5m at one or more points) with the rare flora.
- The area covered by a threatened ecological community.

(c) **Exploration drilling activities** is any activity that involves the drilling for minerals and requires a PoW application to be submitted under the *Mining Act 1978*.

(d) **Evaluation drilling activities** involve advanced drilling programs and additional resource definition activities conducted to support the life of established mining operations.

(e) **Exploration Area** refers to the area within the boundary of an approved PoW issued under the *Mining Act 1978*.

(f) **Raised blade clearing** involves clearing vegetation while leaving root stock and topsoil intact.

(g) **Significant flora and vegetation** is defined by the EPA in the Environmental Factor Guideline for Flora and Vegetation as significant for a range of reasons including but not limited to:

Flora

- Being identified as Threatened or Priority species
- Locally endemic or associated with a restricted habitat type (e.g. surface water or groundwater dependent ecosystems)
- New species or anomalous features that indicate a potential new species
- Representatives of the range of a species (particularly, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range)
- Unusual species, including a restricted subspecies, varieties or naturally occurring hybrids
- Relictual status, being representative of taxonomic groups that no longer occur widely in the broader landscape.

Vegetation

- Being identified as threatened or priority ecological communities
- Restricted distribution
- Degree of historical impact from threatening processes
- A role as a refuge
- Providing an important function required to maintain ecological integrity of a significant ecosystem.

(h) **Track** is defined as a standard width track of an average of 4.5 metres. This width is considered standard due to safety considerations. Track lengths will be defined in the PoW.

(i) **Priority weed species** is defined as:

- Weeds of National Significance
- Declared Pests that require management within the Local Government Area(s) where the Fortescue controlled site is located
- Environmental Weeds rated by the Department of Biodiversity Conservation and attractions (DBCA) as High and Rapid within the Pilbara Ranking Summary. Environmental weeds rated as High and Rapid and considered important for pastoralists purposes (e.g. Buffel grass and Birdwood grass) are only Priority Weeds within pastoral exclusion areas.
- Weeds that have not been recorded in the Pilbara as Declared Pests or Environmental Weeds within the Pilbara Ranking Summary and have been determined to be introduced into the project area as a result of the implementation of the proposal.

1.3 Legislation and Regulatory Framework

Fortescue employees and contractors are required to comply with all relevant Commonwealth and State legislation. Legislation relevant to the EEMP are detailed in Table 2.

Table 2: Commonwealth and State Legislation Relating to Exploration activities

Legislation	Application
Aboriginal Heritage Act 1972	Provides protection of Aboriginal Heritage Sites. Requires a Section 18 approval under the Act to disturb an Aboriginal Heritage Site.
Biosecurity and Agriculture Management Act 2007 and Regulations 2013	Prevents new animal and plant pests and diseases from entering the state and manages the impact and spread of those pests already present in the State.
Biodiversity Conservation Act 2016 (WA)	Conservation and protection of biodiversity and biodiversity components within Western Australia.
Bush Fires Act 1954	Prevention, control and extinguishment of bush fires.
Conservation and Land Management Act 1984 (WA)	Provides for the vesting or reservation of land for conservation purposes, and the ability to enter into agreements with private landholders and pastoral leases. It establishes a number of statutory bodies including the Conservation and Parks Commission.
Environmental Protection Act 1986 (WA)	Prevention, control and abatement or pollution and conservation protection and enhancement of environment.
Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)	Protection on environmental matters of national significance.
Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (WA)	Regulates the clearing of native vegetation.
Health Act 1911	Provides for the regulation, control and management of matters relating to public health.
Mining Act 1978	Governs mining activities including mineral exploration and mining operations. Requires a Programme of Works approval for any activity other than general access to tenements. Mining proposals are required for larger scale activities unless the activity falls under a State Agreement.
Mine Rehabilitation Fund 2012	Tenement holders are required to report disturbance and contribute annually to the Mine Rehabilitation Fund (MRF). The MRF also provides for the declaration of abandoned mine sites.
Rights in Water and Irrigation Act 1914 (WA)	Relates to rights in water resources, to make provisions for the regulation, management, use and protection of water resources, to provide for irrigation schemes and for related purposes.
Soil and Land Conservation Act 1945	Addresses the conservation of soil and land resources and the mitigation of the effects of erosion.

Table 3: Approvals required to Undertake Exploration Activities and to Construct Supporting Infrastructure

Approval	Requirement	Legislation	Regulator
Programme of Work (PoW)	For the purposes of this EEMP these activities include, but are not limited to: • Clearing of drill lines and pads • Construction of borrow pits • Drilling of exploration holes • Clearing and construction of camps, laydowns etc • Construction of access roads.	*Mining Act 1978*	DMIRS
Excess Tonnage Permit	An Excess Tonnage Permit is required for Exploration activities greater than 1000 tonnes or Prospecting activities greater than 500 tonnes	*Mining Act 1978*	DMIRS
Approval to Construct or Install an Apparatus for the Treatment of Sewage	Installation of a sewage treatment facility and effluent disposal system.	*Health Act 1911*	Department of Health Local Government Authority
Building Licence	Construction, alteration, addition to, repair, demolish, or underpin a building.	*Local Government (Miscellaneous Provisions) Act 1960*	Local Government Authority
Licence to Construct or Alter a Well (Section 26D)	Any exploration activity (for both minerals and water) to: • Commence, construct, enlarge, deepen or alter any artesian well	*Rights in Water and Irrigation Act 1914*	DWER

Approval	Requirement	Legislation	Regulator
	• Commence, construct, enlarge, deepen or alter any non-artesian well. Monitoring bores within non-artesian aquifers are exempt from this requirement.		
Form 2 (Section 26E)	Form 2 is required to be provided 1-month after completion of a non-artesian well approved under a 26D licence.	*Rights in Water and Irrigation Act 1914*	DWER
Licence to Take Water (Section 5C)	Any activity which involves the taking of water from a watercourse, wetland or underground source. These activities may include, but are not limited to: • General camp purposes • Dust suppression • Construction purposes • Drilling operations.	*Rights in Water and Irrigation Act 1914*	DWER
Native Vegetation Clearing Permit	Required when clearing native vegetation in an 'environmentally sensitive area' (e.g. Threatened Ecological Communities) or on Agreement Mineral Leases or other Non-Mining Act tenure.	*Environmental Protection Act 1986*	DMIRS
Works Approval	Construction of premises prescribed under Schedules 1 and 2 of the *Environmental Protection Regulations 1987*. Prescribed premises include, but are not limited to: • Sewage treatment facilities • Landfills • Material screening.	*Environmental Protection Act 1986*	DWER

Approval	Requirement	Legislation	Regulator
Operating Licence/ Registration	Operation of prescribed facilities and activities under Schedules 1 and 2 of the *Environmental Protection Regulations 1987*. These include: • Sewage treatment facilities - Greater than 20m³ per day (equates to approximately 150 persons) • Landfills - More than 20 tonnes per year • Material screening – More than 50,000 tonnes per year.	*Environmental Protection Act 1986*	DWER

1.4 Internal Management Plans and Procedures

Fortescue employees and contractors are required to comply with all internal procedures and guidelines. The procedures and guidelines relevant to this EEMP include:

- *Borrow Pit Management Plan* (45-PL-EN-0018)
- *Chemical and Hydrocarbon Spills Procedure* (100-PR-EN-0014)
- *Emergency Management Sub-Plan Bushfire Management* (100-PL-EM-0009)
- *Environmental Datasets – Data Governance Guidelines* (100-GU-EN-0020)
- *Exploration Drill Hole Stabilisation and Site Rehabilitation Procedure* (E-PR-EN-0010)
- *Fibrous Minerals Management* (100-PR-SA-1060)
- *Ground Disturbance and Topsoil Management Procedure* (100-PR-EN-1042)
- *Guideline for the Management of Aboriginal Cultural Heritage in Fortescue Project Areas* (100-GU-HE-0003)
- *Incident Event Management Procedure* (100-PR-SA-0011)
- *Land Use Certification* (100-PR-TA-0001)
- *Rehabilitation and Revegetation Monitoring Procedure (45-PR-EN-0027)*
- *Themeda Grasslands TEC Procedure (EX-WI-EN-0002)*
- *Weed Control Procedure* (45-PR-EN-0006)
- *Weed Hygiene Procedure (EX-PR-EN-0001).*

2. ROLES AND RESPONSIBILITIES

All Fortescue employees and contractors are required to comply with the requirements of this Plan.

The Group Manager Exploration will be accountable for ensuring the requirements of this EEMP are met during Exploration and Exploration Development.

Where responsibilities are delegated, this must be clearly recorded and communicated.

In Section 3 specific Management Actions have been attributed to the appropriate personnel.

3. KEY ENVIRONMENTAL ACTIVITIES

Many of the environmental activities[3] associated with Fortescue's exploration activities have the potential to impact on the environment.

The key exploration activities undertaken by Fortescue that have the potential to impact on the environment are:

- Vegetation clearing and ground disturbance
- Drilling
- Vehicle movement
- Waste disposal
- Groundwater abstraction and discharge
- Rehabilitation
- Accommodation.

[3] Fortescue uses the term 'activities' to refer to 'Environmental Aspects' as defined by ISO14001.

4. POTENTIAL ENVIRONMENTAL IMPACTS

The key potential direct and indirect environmental impacts from Fortescue's exploration activities are presented in Table 4.

Table 4: Potential Environmental impacts from Exploration Activities

Potential Environmental Impact	Details
Habitat loss and fragmentation	Individual animals may potentially be harmed during vegetation clearing. Earthworks alter the topography of an area, often removing foraging areas and retreats, and exposing individuals to increased risk of predation. Linear infrastructure has the potential to separate habitat and create isolated vegetation. This can restrict the movement of animals and can often have long term impacts (e.g. restricting access to foraging areas, animals are killed crossing roads, genetic isolation). Introduction of weeds into exploration areas can impact on fauna habitat and significant vegetation community health resulting in habitat loss or fragmentation and alteration in fire regimes.
Impacts to native fauna	Vehicles often unavoidably kill terrestrial fauna and birds. There is also an indirect affect, with carrion resulting from collisions with vehicles attracting raptors and goannas to feed on the carcases. Newly constructed roads and tracks inevitably bisect home ranges for individuals, resulting in a higher than normal number of fauna killed on tracks/roads. Noise and light may force terrestrial fauna away from existing habitats into new areas increasing the risk of predation or causing conflict with existing fauna assemblages. Light has the potential to attract species that forage at night on invertebrates that are attracted to the light where they come into conflict with human activities. An ongoing potential risk to conservation significant fauna is the presence of uncapped drill holes within Fortescue controlled sites (Malnic, 1997). Small mammals and reptiles can be caught in pipe and bucket pit-traps; therefore, it is probable that they also could be caught in uncapped drill holes. Sumps have a ramp for egress purposes. Poorly managed putrescible waste will attract native fauna, but also pests such as feral dogs and cats and rats and mice to human habitation areas. This can result in an increase in vermin and may alter the normal fauna assemblages in the area. An increase in feral animals can contribute to decline in native fauna populations and can cause significant damage to native habitats.
Impacts to native vegetation and flora	Dust interferes with physiological processes such as transpiration in vegetation. Whilst background levels of dust are high in the Pilbara, elevated dust loads can be caused by vegetation clearing, large disturbed areas exposed to disturbance and vehicle movement. Erosion can result in reduced topsoil, modified soil infiltration characteristics and altered surface drainage patterns. These processes can potentially result in vegetation health decline and an increase in sediment load runoff in surface waters. Native vegetation is generally adapted to fire, but changes in the frequency and intensity of fires pose a threat to species composition and vegetation structure.

Potential Environmental Impact	Details
Disruption to surface hydrology	The construction of linear infrastructure and other infrastructure can disrupt patterns of surface flow, potentially exposing riparian vegetation to either reduced or increased water availability affecting vegetation health and habitat for native fauna.
Reduction in water quality	Pollution of groundwater and surface waters from spills and inappropriate storage and disposal of chemicals and hydrocarbons and wastes can impact on vegetation and native fauna. Where groundwater is discharged during drilling it can impact water quality unless contained in sump.
Contamination of soil	Pollution of soil from spills and inappropriate storage and disposal of chemicals and hydrocarbons and waste can impact on vegetation and native fauna. Soil contamination not appropriately mitigated can lead to pollution of groundwater and surface water.

5. ENVIRONMENTAL MANAGEMENT

A series of environmental management objectives have been developed to mitigate environmental impacts that could potentially be caused by Fortescue's exploration activities. These objectives include:

1. Ensure personnel and contractors are provided with appropriate training relevant to exploration activities.
2. Avoid unauthorised disturbance to registered/ known Aboriginal Heritage Sites.
3. Minimise potential environment and heritage impacts from ground disturbance activities.
4. Establish management strategies to minimise the potential impacts on significant flora and vegetation.
5. Establish management strategies to minimise the potential impacts on conservation significant fauna and their habitats.
6. Avoid the introduction and spread of weeds from exploration activities.
7. Ensure that the disposal and management of waste does not adversely affect environmental values or the health, welfare and amenity of people and land uses.
8. Ensure that chemicals and hydrocarbons are handled, transported and stored to ensure minimal environmental impact and chemical and hydrocarbon spills are managed appropriately.
9. Ensure dust emissions do not adversely impact on the environment or surrounding land users and their amenity.
10. Minimise the environmental impacts to groundwater associated with exploration drilling, bore development and test pumping activities.
11. Prevent and minimise impacts to surface water from exploration activities.
12. Minimise fire risk from exploration activities and provide coordinated management in an event of a fire.
13. Ensure exploration areas are rehabilitated in accordance with DMIRS requirements or approval.

For each objective, management actions have been developed to ensure the impacts from Fortescue's activities are managed, and that appropriate monitoring, reporting and corrective action functions are implemented to support the successful implementation of the management actions.

The key elements of the environmental management process associated with each objective are described in Table 5.

Table 5: Description of Key Elements of Environmental Process to Achieve Identified Objectives

Element	Definition/ Description
Objective	What is intended to be achieved
Management Action	Tasks undertaken to enable the objective to be met
Performance Indicators	Metrics for evaluating the outcomes achieved by Management Actions
Reporting/ Evidence	Demonstrates that the Management Action has been applied and the outcome evaluated.
Timing	Period during which the Management Action should be undertaken.
Responsibility	Accountability for ensuring management action is completed. The responsible role is dependent on project timing.

The key management actions, performance indicators, evidence, timing and responsibilities for each objective are provided in Table 6.

The Timing element is broken into Before Exploration, During Exploration and Post Exploration. These are defined as:

- **Before Exploration** means any activity conducted prior to undertaking exploration activities. This includes planning and design and PoW development and submission.
- **During Exploration** means any activity conducted during exploration. This includes clearing for drill lines and pads, drilling of exploration holes, clearing and construction of camps, laydowns and access roads.
- **Post Exploration** means any activity conducted after exploration activities have concluded. This includes rehabilitation activities and monitoring works. This does not include works conducted for proposed mining operations under a Mining Proposal.

The key management actions, performance indicators, evidence, timing and responsibilities for each objective are provided in Table 6.

Table 6: Key Management Actions for Exploration Activities

Objective 1	Ensure personnel and contractors are provided with appropriate training relevant to exploration activities				
Reference	**Management Action**	**Performance Indicators**	**Reporting/Evidence**	**Timing**	**Responsibility**
1.1	Ensure all personnel and contractors involved in exploration activities are made aware of their responsibilities in relation to environmental and Heritage management through the exploration or site induction program, specialist training programs and site-specific toolbox meetings. Specialist training programs may include: • Hydrocarbon and chemical handling, storage and spill control and response • Cross Cultural training • Weed awareness and management • Significant flora and vegetation management • Fauna awareness, handling and care	• Environmental/Heritage management included in induction program • Environmental/Heritage mitigation measures included in Toolbox meetings • Specialist training programs conducted • All personnel and contractors completed exploration induction program	• Site inductions and toolbox meeting minutes • Training records	Before Exploration/ During Exploration/ Post Exploration	Manager Exploration Manager, Geology Manager, Drilling Manager Native Title and Heritage
Objective 2	**Avoid unauthorised disturbance to registered/ known Aboriginal Heritage Sites**				
Reference	**Management Action**	**Performance Indicators**	**Reporting/Evidence**	**Timing**	**Responsibility**
2.1	Prior to ground disturbance, verify if an Aboriginal heritage survey is required. If required, ensure it is conducted in accordance with Department of Planning, Lands and Heritage guidelines and the terms of the applicable Agreement.	• Survey conducted in accordance with Department guidelines prior to ground disturbance. • Compliance with the applicable Land Access, Project or Heritage Agreement	• Survey report	Before Exploration	Manager Exploration Manager, Geology Manager, Drilling Manager, Native Title and Heritage
2.2	Ensure that heritage survey reporting, and spatial data are recorded in the Corporate GIS and Document Management Systems (i.e. PIMS and Infoscope).	• GIS, PIMS and Infoscope updated • Compliance with Procedure	• GIS dataset • PIMS record	Before Exploration	Manager, Native Title and Heritage
2.3	Where an Aboriginal Heritage Site has been identified and cannot be avoided during ground disturbance activities, submit a Section 18 application to disturb the Aboriginal Heritage Site in accordance with the *Aboriginal Heritage Act 1972*.	• Section 18 submitted • Approval obtained and conditions met prior to disturbance	• Section 18 approval	Before Exploration	Manager, Native Title and Heritage

Objective 3	Minimise potential environment and heritage impacts from ground disturbance activities				
Reference	**Management Actions**	**Performance Indicators**	**Reporting/ Evidence**	**Timing**	**Responsibility**
3.1	Obtain the required approvals in Table 2 to undertake exploration activities and construct supporting infrastructure prior to ground disturbance. Where the exploration activity is proposed on DBCA managed land, consult with DBCA and develop a Conservation Management Plan, where required (DEC, 2011). Submit the endorsed Plan with the applicable PoW application.	• PoW/licence/permit/works approval submitted and approved • Conservation Management Plan developed • Consultation with DBCA	• PoW/licence/permit/works approval application and approval • Stakeholder consultation records	Before Exploration	Manager Exploration Manager, Geology Manager, Drilling
3.2	Minimise disturbance and erosion where practicable by using existing tracks and pads and minimising track widths and drill pad size. Where safe operating distances are unable to be achieved within the standard pad sizes or hydrogeological conditions require a larger pad or sump, provide sufficient justification for a larger disturbance area in the PoW application and refer to the typical pad layouts in Figures 3-11.	• Existing tracks and pads used where possible • PoW application submitted and approved • Compliance with the Guidelines	• PoW application	Before Exploration	Manager, Exploration Manager, Drilling
3.3	When clearing vegetation for new tracks or drill pads (exploration and water bore drill pads) is necessary, ensure vegetation clearing requirements minimise the size of cleared working areas without compromising safety. Refer to the standard pad layouts in Figures 3-11 and standard track clearances in Figures 12-18.	• Compliance with PoW • Compliance with LUC • Compliance with the EEMP.	• PoW application	Dunng Exploration	Manager, Exploration Manager, Geology Manager, Drilling
3.4	Where the proposed drilling activities require a track width of >4.5m for major access to projects, provide sufficient justification for the larger disturbance area in the PoW application. Refer to standard track Figures 12-18.	• PoW application submitted and approved	• PoW application	Before Exploration	Manager, Exploration Manager, Geology Manager, Drilling
3.5	Minimise disturbance and erosion where practicable in steep terrain. • Where hillside disturbance is required for drill pad construction, place the drill pad on shallow slopes where possible and estimate the slope and tonnage in the PoW application. • Where hillside disturbance is required for track construction, plan the track route to avoid gulley's and steep slopes where possible and estimate the slope and tonnage in the PoW application. • Where cut and fill pads and/or tracks are necessary utilise the DMIRS hillside tonnage calculator to determine the tonnage disturbance and include in the PoW application.	• Drill pads placed on shallow slopes where possible • DMIRS hillside tonnage calculator used for cut and fill	• PoW application	Before Exploration	Manager Exploration Manager, Geology Manager, Drilling

Objective 3	Minimise potential environment and heritage impacts from ground disturbance activities				
3.6	Conduct a desktop assessment for a LUC [4] application in accordance with the *Land Use Certification Procedure (100-PR-TA-0001)*. When an environmentally sensitive area, significant species[5] and/or Aboriginal Heritage Site are identified during the desktop assessment relocate the activity where possible. Where the exploration activity is unable to be relocated: ▪ Ensure a flora survey is conducted in accordance with EPA guidance outlined in Section 1.3 of the EEMP; and/or ▪ Ensure a fauna survey is conducted in accordance with EPA and/or Department of the Environment and Energy (DoEE) guidance outlined in Section 1.3 of the EEMP; and/or ▪ Discuss with the Heritage Department to ensure compliance with the applicable Legislation, Land Access, Project or Heritage Agreement.	• Significance species and Aboriginal Heritage sites avoided if possible • Assessments conducted prior to disturbance • Surveys conducted where required • Compliance with the LUC Procedure and PoW conditions • Compliance with the applicable Legislation, Land Access, Project or Heritage Agreement	• Survey Reports • Approval documentation • Consultation records • Compliance audits	Before Exploration	**LUC assessment and compliance with Land Access or Heritage Agreement:** Manager, Exploration Manager, Geology Manager, Drilling Manager, Native Title and Heritage **Undertake flora and fauna surveys:** Group Manager Environment
3.7	Minimise clearing and vegetation disturbance to ensure significant flora and fauna species and Aboriginal Heritage Sites are protected and dust and erosion are minimised. Avoid heavily vegetated areas where possible. Use appropriate machinery for the activity and the environmental conditions to conduct vegetation clearing in accordance with a permit issued under the *Land Use Certification Procedure (100-PR-TA-0001)* advice provided with a PoW approval and relevant tenement conditions.	• No disturbance to significant species or Aboriginal Heritage sites • Appropriate machinery used • Existing tracks/pads used where possible • LUC obtained • Clearing within specified LUC boundary • Compliance with Procedure, PoW approval	• Ground disturbance permit and application • Annual Environmental Report	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
3.8	Where possible, clearing should not be undertaken where adverse weather conditions (i.e. excessive wind or rain) would result in significant topsoil losses.	• No significant loss of topsoil	• Site audit reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
3.9	Where possible, use raised blade clearing for new tracks and drill pads unless the clearing is for cut and fill disturbance or the DMIRS has approved the use of lowered blade clearing techniques. Stockpile the vegetation accordingly.	• Raised blade clearing used • DMIRS approval obtained if required	• Site audit reports • DMIRS approval	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
3.10	When raised blade clearing is not used, clear vegetation and topsoil to a minimum depth of 100mm and stockpile separately in rows no higher than 2m and in close proximity to the disturbed area. When excavating for sumps and costeans ensure subsoil is stockpiled separately.	• Vegetation and topsoil cleared to a minimum of 100mm • Material stockpiled separately • Stockpile height <2m	• Site audit reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling

[4] Land Use Certificate system (LUC) - an internal permit system required to undertake on-ground activities.

[5] Significant species are conservation significant fauna and conservation significant vegetation and flora as defined in the *Conservation Significant Fauna Management Plan* (100-PL-EN-1022) and the *Vegetation Health Monitoring and Management Plan* (100-PL-EN-1020)

Objective 3	Minimise potential environment and heritage impacts from ground disturbance activities				
3.11	Vegetation cleared during exploration activities must not be burnt, with vegetation stockpiled for use during rehabilitation activities.	• Vegetation stockpiled	• Site audit reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
3.12	When ground disturbance activities have resulted in injury or death to conservation significant fauna or unauthorised disturbance to significant flora and vegetation or an Aboriginal Heritage Site, investigate and report the incident.	• BMS updated • Incident reported to the appropriate Regulator where required • Compliance with the Incident Event Management Procedure	• BMS record • Reporting record	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling

Objective 4	Establish management strategies to minimise the potential impacts on significant flora and vegetation				
Reference	**Management Action**	**Performance Indicators**	**Reporting/ Evidence**	**Reference**	**Responsibility**
4.1	Ensure significant flora and vegetation identified during flora surveys (See Action 3.6) are recorded in the Corporate GIS and Document Management System (i.e. PIMS, Sharepoint).	• GIS and Document Management System updated • Compliance with *Environmental Datasets – Data Governance Guidelines*	• GIS dataset • PIMS record	During Exploration	Group Manager Environment
4.2	Where Declared Rare Flora (DRF) have been identified and cannot be avoided during ground disturbance activities obtain a licence to disturb DRF prior to disturbance in accordance with the *Biodiversity Conservation Act 2016*.	• Licence obtained prior to disturbance • Compliance with EEMP	• Licence	Before Exploration	Group Manager Environment
4.3	Prior to disturbance, ensure known locations of environmentally sensitive areas (and the associated buffer) to be protected and retained from disturbance are identified in the LUC in conjunction with awareness of personnel working in the area. Where the environmentally sensitive area is a TEC, and the TEC is Themeda Grasslands, adhere to the *Themeda Grasslands TEC Procedure* (EX-WI-EN-0002) otherwise consult with DBCA to determine an appropriate buffer to ensure the area is adequately protected.	• No disturbance to significant flora or vegetation • Site personnel working in the area are made aware of ESA location and measures for protection • Compliance with Procedure • DBCA consulted where required	• Incident reports • Site audit reports • DBCA consultation records	Before Exploration	Manager, Exploration Manager, Geology Manager, Drilling
4.4	Where DRF, Priority Flora or TECs/PECs have been identified, mark out a 10m buffer around these areas, unless otherwise specified, with green and white environment tape to ensure no disturbance occurs within the associated buffers.	• No significant impact on significant flora or vegetation • Environment tape installed • Compliance with the Ground disturbance and Topsoil Management Procedure	• Incident reports • Flagging • Site audit reports	Before Exploration During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
4.5	Where possible, design and locate any excavations such as sumps and costeans away from the drip line of significant flora and vegetation to minimise potential root disturbance and prevent horizontal transmission of potentially hostile material.	• Sumps and costeans away from drip line	• Site audit reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling

Objective 5	Establish management strategies to minimise the potential impacts on conservation significant fauna and their habitats				
Reference	**Management Action**	**Performance Indicators**	**Reporting/ Evidence**	**Reference**	**Responsibility**
5.1	Undertake subterranean fauna surveys in accordance with sampling methods defined in the *Technical Guidance Sampling Methods for Subterranean Fauna*. Ensure the sampling is scheduled within the rehabilitation timeframes required under the PoW or NVCP. Where sampling is required within drill holes approved under different approvals, ensure the sampling schedule aligns with the different rehabilitation timeframes.	• Survey reports completed	• Survey reports	During Exploration	Manager, Environmental Approvals
5.2	Ensure conservation significant fauna identified during fauna surveys (See action 3.4) are recorded in the Corporate GIS and Document Management System (i.e. PIMS, Sharepoint).	• GIS and Document Management System updated • Compliance with *Environmental Datasets – Data Governance Guidelines* (100-GU-EN-0020)	• GIS dataset • Document Management System record	During Exploration	Manager, Environmental Approvals
5.3	Where a native fauna injury or death has occurred as a result of Fortescue exploration activities investigate and report the incident. Causes of incidents will be determined and management procedures will be modified (as required), with measures taken to prevent re-occurrence of incidents.	• Incident reported in BMS • Incident investigated according to Incident Event Management Procedure • Incident reported to Regulator within the specified legislative or licensing condition, where required	• Incident Report in BMS • Correspondence with relevant Regulator	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
5.4	Ensure conservation significant fauna identified during fauna surveys (See action 3.6) are recorded in the Corporate GIS and Document Management System (i.e. PIMS, Sharepoint).	• GIS and Document Management System updated • Compliance with *Environmental Datasets – Data Governance Guidelines*	• GIS dataset • Document Management System record	During Exploration	Group Manager Environment
5.5	Ensure adequate and effective fauna egress, exit structures and/or exclusion methods are included in the design of any excavations including sumps and costeans to avoid fauna entrapment, injury or death.	• No mortality of fauna • Fauna incidents are recorded in BMS • Compliance with Management Plan	• BMS record	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
5.6	Adhere to appropriate speed limits on all roads to minimise fauna strikes and prevent fauna fatalities and injuries.	• Road strikes reported in BMS • Environmental mitigation measures included in Toolbox meetings	• BMS record	During Exploration/ Post Exploration	Manager, Exploration Manager, Geology Manager, Drilling
5.7	Temporarily plug drill holes immediately after drilling is complete to avoid fauna becoming trapped or harmed.	• 0% of all drill holes at ground level are uncapped • No mortality of conservation significant fauna as a result of uncapped drill holes	• Register of all drill holes • Completed drill hole checklist • Audit reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling

Objective 5	Establish management strategies to minimise the potential impacts on conservation significant fauna and their habitats				
		• Compliance with the Exploration Drill Hole Stabilisation and Site Rehabilitation Procedure			
5.8	If conservation significant fauna are identified, other than during a survey conducted in Action 3.6, record the sighting in BMS. Where the sighting is confirmed by a qualified fauna specialist[6], ensure the Corporate GIS, Corporate Document Management System and BMS are updated.	• Sighting has been confirmed by a fauna specialist • The Corporate GIS, Document Management System and BMS are updated	• Confirmation from specialist • GIS dataset • BMS record	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling

[6] Fauna specialist as defined by the EPA in the *Guidance for the Assessment of Environmental Factors No 56 – Terrestrial Fauna Surveys for Environmental Impact Assessments.*

Objective 6	Avoid the introduction and spread of weeds from exploration activities				
Reference	**Management Action**	**Performance Indicators**	**Reporting/ Evidence**	**Reference**	**Responsibility**
6.1	Ensure priority weed species identified during flora surveys (See action 3.6) are recorded in the Corporate GIS and Document Management System	• GIS and Document Management System updated • Compliance with *Environmental Datasets – Data Governance Guidelines*	• GIS dataset • Document Management System record	During Exploration	Group Manager Environment
6.2	Implement weed hygiene requirements for high risk vehicles, plant and equipment in identified weed risk areas and/or in areas where weed populations have been identified and high-risk activities are proposed to be undertaken as outlined in the *Weed Hygiene Procedure* (EX-PR-EN-0001).	• Weed hygiene undertaken in weed risk areas and/or in areas where weed populations have been identified and high-risk activities are proposed • Compliance with the *Weed Hygiene Procedure*	• LUC conditions • Completed inspection/ clean down checklists where required	Before Exploration/ During Exploration/ Post Exploration	Manager, Exploration Manager, Geology Manager, Drilling
6.3	Prior to conducting ground disturbance activities, ensure known locations of weed populations are identified and management measures to minimise the potential for weed spread are included in the LUC.	• LUC approval includes weed management measures	• LUC approval • LUC inspections	Before Exploration/ During Exploration/	Manager, Exploration Manager, Geology Manager, Drilling
6.4	Inspect known populations of priority weed species and in rehabilitated areas conduct inspections to identify new weed outbreaks. Pay particular attention to areas where groundwater is being discharged and waste is being irrigated. Where required, implement control methods and ensure GIS is updated.	• New priority weed populations registered in BMS and GIS • Control activities recorded in BMS	• Inspection record, including reports • BMS record • GIS dataset	During Exploration/ Post Exploration	Manager, Exploration Manager, Geology Manager, Drilling
6.5	If a new priority weed species is identified during exploration activities update BMS with the record and include the species in the site-specific weed control program.	• New population of priority weed species recorded in the BMS Plant and Animal register • Control program updated with priority weed species identified	• BMS Plant and Animal record • Control program updated with priority weed species identified	During Exploration/ Post Exploration	Manager, Exploration Manager, Geology Manager, Drilling

Objective 7	Ensure that the disposal and management of waste does not adversely affect environmental values or the health, welfare and amenity of people and land uses				
Reference	**Management Action**	**Performance Indicators**	**Reporting / Evidence**	**Reference**	**Responsibility**
7.1	Putrescible and inert wastes will be disposed to an appropriate Landfill Facility either on or off site.	• Landfill waste disposed to an appropriate facility • Compliance with EEMP • Compliance with the Waste Management Plan	• Site Inspection Reports • Disposal records	During Exploration	Manager, Exploration Manager, Geology
7.2	Designated bulk bags for putrescible waste will be made available and securely closed when in use.	• Bulk bags are available and securely closed when in use	• Site Inspection Reports	During Exploration	Manager, Exploration Manager, Geology
7.3	Hydrocarbon and chemical wastes (including oily water) shall be segregated from the general waste stream and removed offsite by an appropriately licensed controlled waste contractor for disposal.	• Hazardous wastes disposed to licensed facility • Compliance with the Environmental Protection (Controlled Waste) Regulations and tracking system • Compliance with EEMP • Compliance with the Chemical and Hydrocarbon Management Plan	• Site audit report • Controlled waste tracking form	During Exploration/ Post Exploration	Manager, Exploration Manager, Geology
7.4	Manage waste materials and on-site waste facilities as detailed below to minimise potential impacts on human health, fauna and a potential increase in feral animals. Waste management measures include: • Skip bins to be covered • Bulker bags tied up during use • All bins to have closed lids • Hydrocarbon wastes disposed of in red bins (i.e. used rags) • Spill Kits available in yellow bins and marked accordingly • Any material contaminated with asbestos (including potentially contaminated samples) must be double bagged, labelled and placed in a Drum marked as per the *Asbestos Management Plan*, with the drum placed in the Asbestos holding area and disposed of as soon as possible.	• Compliance with EEMP	• Internal audit and inspection reports • Site audit report	During Exploration	Manager, Exploration Manager, Geology
7.5	Drill samples will be emptied out of sample bags into sumps, drill holes or other excavations before backfilling. The sample bags must be removed from site and disposed of at an appropriately licensed facility.	• Sample bags disposed appropriately • Drill samples disposed in sumps, drill holes or other excavations	• Site audit report • Completed drill hole checklist	Post Exploration	Manager, Exploration Manager, Geology

Objective 8	Ensure that chemicals and hydrocarbons are handled, transported and stored to ensure minimal environmental impact and chemical and hydrocarbon spills are managed appropriately				
Reference	**Management Action**	**Performance Indicators**	**Reporting / Evidence**	**Reference**	**Responsibility**
8.1	Chemical and hydrocarbons, and associated waste, will only be stored and handled accordingly: • Storage of chemical and hydrocarbons and associated waste will be in designated areas with a current Safety Data Sheet (SDS) available for all chemicals stored • Chemicals brought to site are on Chemalert and appropriate disposal methods are in place • Chemical and hydrocarbon wastes to be stored in appropriate bins for controlled waste removal	• Compliance with EEMP • Chemical and hydrocarbons and associated wastes only stored in designated areas • SDS available for all stored chemicals and hydrocarbons • Compliance with the *Chemical and Hydrocarbon Management Plan*	• Site audit reports	During Exploration	Manager, Exploration
8.2	Chemicals and hydrocarbons must be stored in accordance with AS1940, AS 3833 or AS 3780 to minimise the potential for environmental harm.	• Compliance with storage requirements of AS 1940, AS 3833 and AS 3780 • Safety Data Sheets (SDS) available for all stored goods	• Site inspection/audit reports • Available SDSs	*Before Exploration/ During Exploration*	Manager, Exploration Manager, Geology Manager, Drilling
8.3	Chemical and hydrocarbons must be stored in bunded storage facilities capable of storing 110% of the volume of the largest vessel, or 25% of the total volume.	• Storage in bunded facility/pallet • Spills reported as an incident	• Site audit reports • Incident report in BMS	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
8.4	Ensure chemicals and hydrocarbons are transported in accordance with the Australian Dangerous Goods Code (ADGC) and are appropriately stowed and restrained to prevent any movement which may result in a leak or spill.	• Chemicals and hydrocarbons stowed and restrained during transported • Transported according to ADGC	• Site audit reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
8.5	Where a hydrocarbon leak or spill has occurred as a result of drilling activities, place an adequately sized drip tray and/or spill matting under the drill rig to prevent soil contamination and to contain the leakage/spill in accordance with PoW conditions.	• Drip trays placed under drill rigs • Spill kits stored on drill rigs	• Site audit reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
8.6	Maintain appropriately sized spill response equipment in each vehicle and facility storing chemicals and hydrocarbons and in close proximity to where chemicals and hydrocarbons are being used.	• Compliance with EEMP • Compliance with *Chemical and Hydrocarbon Management Plan* • Spill kit appropriately sized	• Site audit reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
8.7	Where a chemical or hydrocarbon spill has occurred as a result of Fortescue exploration activities, investigate and report the incident and manage the spill (including contaminated soil) as per the *Chemical and Hydrocarbon Spills Procedure* (100-PR-EN-0014).	• Incident reported in BMS • Incident investigated according to Incident Event Management Procedure • Incident reported to Regulator within specified legislative or licensing condition, where required	• Incident Report in BMS • Correspondence with relevant Regulator	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling

Objective 9	Ensure dust emissions do not adversely impact on the environment or surrounding land users and their amenity				
Reference	**Management Action**	**Performance Indicators**	**Reporting / Evidence**	**Reference**	**Responsibility**
9.1	Fit drill rigs with dust suppression systems to minimise the potential for dust deposition on vegetation.	• Dust suppression system fitted • Dust emissions minimised	• Site audit reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
Objective 10	**Minimise the environmental impacts to groundwater associated with exploration drilling, bore development and test pumping activities**				
Reference	**Management Action**	**Performance Indicators**	**Reporting / Evidence**	**Reference**	**Responsibility**
10.1	When constructing or altering a bore under the *Rights in Water and Irrigation Act 1914*: • obtain a licence in accordance with Section 26D • submit a Form 2 under Section 26E one month after completion of a non-artesian well • obtain a licence in accordance with Section 5C when operating a bore.	• Necessary licence(s) obtained • Compliance with the *Rights in Water and Irrigation Act 1914*	• 26D License • 5C Licence • Form 2	Before Exploration/ During Exploration	Manager Exploration Manager, Geology Manager, Drilling
10.2	When constructing a sump, ensure it has sufficient capacity to contain expected groundwater quantities with additional volume for excess fluid produced during exploration drilling	• Water quantities contained • Audit to determine if sump is adequate	• Internal audit and inspection reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
10.3	When test pumping bores subject to soil erosion or adjacent to sensitive receptors, manage discharge in order to prevent scouring and minimise erosion	• No significant soil erosion • No impacts to significant flora, vegetation, fauna or fauna habitat • Discharge rates reduced	• Internal audit and inspection reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
10.4	Contain generators/pumps used for test pumping to reduce the risk of a hydrocarbon spill and potential soil and groundwater contamination.	• No impacts to significant flora, vegetation or fauna • No soil or groundwater contamination • Compliance with the EEMP	• Internal audit and inspection reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
10.5	When an uncontrolled release of water has occurred as a result of exploration activities and the release has caused or is likely to cause pollution or environmental harm as defined in the *Environmental Consequence Descriptors Matrix* (100-MX-EN-0001), investigate and report the incident.	• Incident reported in BMS • Incident investigated according to *Incident Event Management Procedure* • Incident reported to Regulator within the specified legislative timeframe, where required	• Incident report • Correspondence with relevant Regulator • Annual reporting	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
10.6	All water encountered during drilling will be contained within the drill pad, whilst water contained in the sumps will be allowed to settle and either evaporate or infiltrate. Each sump will have sufficient capacity to contain expected groundwater volumes and allow water to settle to minimise turbidity.	• No significant soil erosion • No impacts to significant flora, vegetation, fauna or fauna habitat	• Internal audit and inspection reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling

Objective 11	Prevent and minimise impacts to surface water from exploration activities				
Reference	Management Action	Performance Indicators	Reporting / Evidence	Reference	Responsibility
11.1	Where possible, design and locate camps and other infrastructure with potential to release contaminants into surface waterways away from natural creeks, water bodies and waterways.	• No contamination of surface waterways • Infrastructure located away from natural creeks and waterways • Toilets located >100m from drainage lines and in a location with vertical buffer of at least 2 metres from expected maximum wet season water table.	• Site audit reports	Before Exploration/ During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
11.2	Ensure borrow pits and other excavations are designed, located and constructed to design specifications to minimise interference and disruption of natural surface water flows and quality and impacts on turbidity and the establishment of ponded water.	• Borrow pits comply with design specifications • Compliance with the EEMP	• Site audit reports	Before Exploration/ During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
11.3	Design and locate borrow pits to minimise the potential impact on fauna and associated habitat.	• Impacts on fauna and associated habitat is minimised • Borrow pits located away from fauna and associated habitat	• Survey Reports • Development Plans • Borrow pit design and location	Before Exploration/ During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
11.4	Ensure new tracks, drill pads and sample farms avoid drainage lines and limit impacts on river/creek beds and banks. Where access tracks are required to cross natural creeks and waterways, ensure tracks and the associated windrows do not block water flows and impact on riparian vegetation.	• Drainage infrastructure complies with design specifications • No significant impact on riparian vegetation	• Site audit reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
11.5	Minimise disruption of natural surface water flow by ensuring surface water does not pond against structures and bunds.	• No disruption of natural surface water flows • No ponding against structures or bunds	• Site audit reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling

Objective 12	Minimise fire risk from exploration activities and provide coordinated management in the event of a fire				
Reference	**Management Action**	**Performance Indicators**	**Reporting / Evidence**	**Reference**	**Responsibility**
12.1	Construct and maintain firebreaks around accommodation areas (permanent or temporary camping), chemical and hydrocarbon storage areas and other assets.	• Fire breaks constructed and maintained	• Site audit reports	During Exploration	Manager, Exploration Manager, Geology
12.2	Exploration vehicles will have dry chemical fire extinguishers and accommodation areas will have sufficient, reliable fire water supplies (e.g. portable fire trailer) in place to effectively suppress or extinguish fires	• Fire suppression equipment in place • Compliance with EEMP	• Site audit reports	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
12.3	Where a fire has occurred as a result of Fortescue exploration activities, investigate and report the incident and manage the fire in accordance with the *Emergency Management Sub-Plan Bushfire Management Plan* (100-PL-EM-0009).	• Incident reported in BMS • Incident investigated according to *Incident Event Management Procedure* • Incident reported to Regulator within specified legislative or licensing condition, where required • Compliance with EEMP	• Incident Report in BMS • Correspondence with relevant Regulator	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling
12.4	When a bushfire is identified within twenty kilometres of an exploration asset, notification must be sent to Emergency Services who will provide the necessary notification to internal and external stakeholders and manage and respond to the fire where necessary.	• Bushfire notification received • Compliance with EEMP • Compliance with the *Emergency Management Sub-Plan Bushfire Management Plan*	• Bushfire notification	During Exploration	Manager, Exploration Manager, Geology Manager, Drilling

Objective 13	Ensure exploration areas are rehabilitated in accordance with DMIRS requirements				
Reference	**Management Action**	**Performance Indicators**	**Reporting/ Evidence**	**Reference**	**Responsibility**
13.1	All disturbed areas will be progressively rehabilitated and made safe, stable, and non-polluting and have demonstrated capacity to support a self-sustaining ecosystem similar to surrounding natural environments.	• Compliance with *Exploration Drill Hole Stabilisation and Site Rehabilitation Procedure* • Rehabilitation completed within timeframe • 0% of all drill holes at ground level are uncapped • No mortality of conservation significant fauna as a result of uncapped drill holes • Monitoring conducted	• Monitoring reports • Register of all drill holes • Survey reports	During Exploration/ Post Exploration	Manager, Exploration Manager, Geology Manager, Drilling
13.2	Where the disturbed area is a TEC, and the TEC is Themeda Grasslands, adhere to the rehabilitation requirements outlined in the *Themeda Grasslands TEC Procedure* (EX-WI-EN-0002) and undertake data analysis in accordance with the *Rehabilitation and Revegetation Monitoring Procedure* (45-PR-EN-0027).	• Compliance with Procedure • Monitoring conducted in accordance with the Procedure • Reporting undertaken in accordance with the Procedure	• Inspection/audit reports • Monitoring reports • Correspondence with Regulator	During Exploration/ Post Exploration	Manager, Exploration Manager, Drilling Group Manager, Environment
13.3	Upon completion of ground disturbing activities complete rehabilitation activities in accordance with the conditions of the approved PoW or NVCP and: • Where rehabilitation activities are required in an environmentally sensitive area or in an area with recorded significant species[5], complete rehabilitation within 6 months of the completion of ground disturbing activities. Where rehabilitation works are unable to be completed within 6 months of the completion of ground disturbing activities, seek approval from DMIRS for an alternate timeframe. Specifically, • Where rehabilitation activities are required **outside** of an environmentally sensitive area or **outside** of an area with recorded significant species, seek approval for rehabilitation activities within 12 months of the completion of ground disturbing activities. • Where access tracks are considered semi-permanent ensure rehabilitation timeframes are extended appropriately. • Where rehabilitation activities are unable to be completed within the agreed timeframe and the rehabilitation activities are not in an environmentally sensitive area or in an area with recorded significant species provide justification and seek approval for an extension from DMIRS.	• Rehabilitation completed as per the approved PoW or NVCP. • Where rehabilitation is unable to be completed within the approved timeframe approval for an extension from DMIRS is obtained.	• Register of all drill holes • Survey/Audit reports • Monitoring reports • Correspondence with Regulator	During Exploration	Manager Exploration Manager, Geology Manager, Drilling
13.4	Where tracks are to be retained for future exploration works, consult with DMIRS and obtain approval from: • the owner on freehold land • the relevant vested authority on crown land or reserves	• Approval obtained from owner/vested authority/Pastoral Leaseholder	• Approval letter	During Exploration	Manager Exploration Manager, Geology Manager Pastoral Access

Objective 13	Ensure exploration areas are rehabilitated in accordance with DMIRS requirements				
	• the Pastoral Leaseholder on a pastoral lease.				
13.5	Once bore construction and test pumping activities are finalised and the water within the sumps has evaporated/infiltrated, backfill with stockpiled soil and progressively rehabilitate. If the bore is not required for ongoing monitoring or water supply, bores should be decommissioned in accordance with the requirements outlined in the Minimum Construction Requirements for Water Bores in Australia (ARMCANZ, 2011).	• Rehabilitation of sumps • Compliance with Guideline	• Internal audit and inspection reports	During Exploration/ Post Exploration	Manager, Exploration Manager, Geology Manager, Drilling
13.6	Where required and practicable, rehabilitate drainage lines	• Previously disturbed areas resemble undisturbed natural contours • Compliance with EEMP • Compliance with the Surface Water Management Plan • Compliance with approval requirements where applicable (i.e. NVCP)	• Monitoring and reports • Annual Environmental Report	Post Exploration	Manager, Exploration Manager, Geology Manager, Drilling
13.7	Conduct weed control activities for known populations of priority weed species which may affect revegetation efforts on rehabilitated sites.	• Compliance with *Weed Control Procedure* • Weed control records	• Monitoring reports • Control records	Post Exploration	Manager, Exploration Manager, Geology
13.8	Monitor rehabilitation sites to ensure plugged drill holes have not subsided, rehabilitated hillside areas remain stable and rehabilitation and revegetation efforts have been effective. Where necessary, conduct further rehabilitation works to ensure the area is rehabilitated in accordance with the requirements of the *Exploration Drill Hole Stabilisation and Site Rehabilitation Procedure* (E-PR-EN-0010)	• Monitoring conducted • Compliance with *Exploration Drill Hole Stabilisation and Site Rehabilitation Procedure* • Additional rehabilitation measures conducted where necessary	• Monitoring reports • Register of all drill holes	Post Exploration	Manager, Exploration Manager, Geology
13.9	Following rehabilitation works complete and lodge the Exploration Rehabilitation Report to DMIRS via: http://www.dmp.wa.gov.au/Environment/Programmes-of-Work-5966.aspx	• Rehabilitation complete • Rehabilitation report submitted to DMIRS	• Inspection reports, photos	Post Exploration	Manager, Exploration Manager, Geology

6. COMPLIANCE

Fortescue ensures compliance with its legal obligations through first party quality assurance by site environment teams with a focus on effective environmental management through the corporate Environmental Management System (EMS).

Fortescue has adopted a risk-based approach to monitor compliance with its environmental obligations. The Exploration HSE Team will monitor their compliance with the commitments contained within the EEMP and the required site-specific management and monitoring programs using the *Self-Verification of Environmental Obligations- Environment (100-PR-EN-1040).*

Where non-conformance issues or opportunities for improvement are identified these will be documented and tracked via the Business Management System (BMS).

7. REVIEW

It is important that plans and procedures are frequently reviewed and revised as Fortescue's operations change and opportunities for improved management practices are identified.

This EEMP will be reviewed every five years, or when significant additional information comes to hand. Upon review, the document will be revised where appropriate and the revision status will be updated in accordance with Fortescue's document control procedures.

8. STAKEHOLDER CONSULTATION

Fortescue has undertaken extensive stakeholder engagement whereby landowners, regulators and other relevant parties have been consulted with regard to investigation and design of mining activities and supporting infrastructure through the environmental approval process.

The then Department of Mines and Petroleum (DMP) and the Department of Environment and Conservation (DEC) was consulted and where required approved the content of the original version of the Plan for which this revision will replace.

The current revision of this Plan has been submitted to the Department of Mines Industry Regulation and Safety for their review and approval.

Table 7 will be updated following receipt of stakeholder comment as a result of the review and approval process.

Table 7: Stakeholder Consultation, Comments and Responses

Stakeholder	Correspondence	Comments	Changes
DEC	E-EN-0385.01	Rev 5b_ Response to comments	Changes made to address comments received regarding DEC managed land.
DMP	E-EN-0369.03	Rev 5d: Response to comments	Changes made to address comments received from both DEC and DMP on Rev 5b and 5c
DEC	E-EN-0385.04	Rev 5e: Response to comments	Changes made to address comments from DEC. Comments relate to TECs, weed management, ESAs and bushfire management.
DMP	E-EN-0369.04	Rev 5g: Response to comments received from DEC	Changes made to address comments from DEC on Rev 5e and 5f
DMP	100-EN-0412.01	Rev 6: Approved	NA
DMIRS		Rev6c: Submission for review and approval	NA
DMIRS	EX-EN-0002	Rev 6c: Comments received	Track width and provisions of supporting documentation
DMIRS	EX-EN-0002.01	Rev 6d: Response to comments	Key changes include: • Track widths • Rehabilitation timeframes • Supporting documentation provided • Revised Figures

9. REFERENCES

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Figure 1: Multi Use Laydown: 100 x 100m Generalised Layout

Multi Use Laydown: 100 x 100 m Generalised Layout

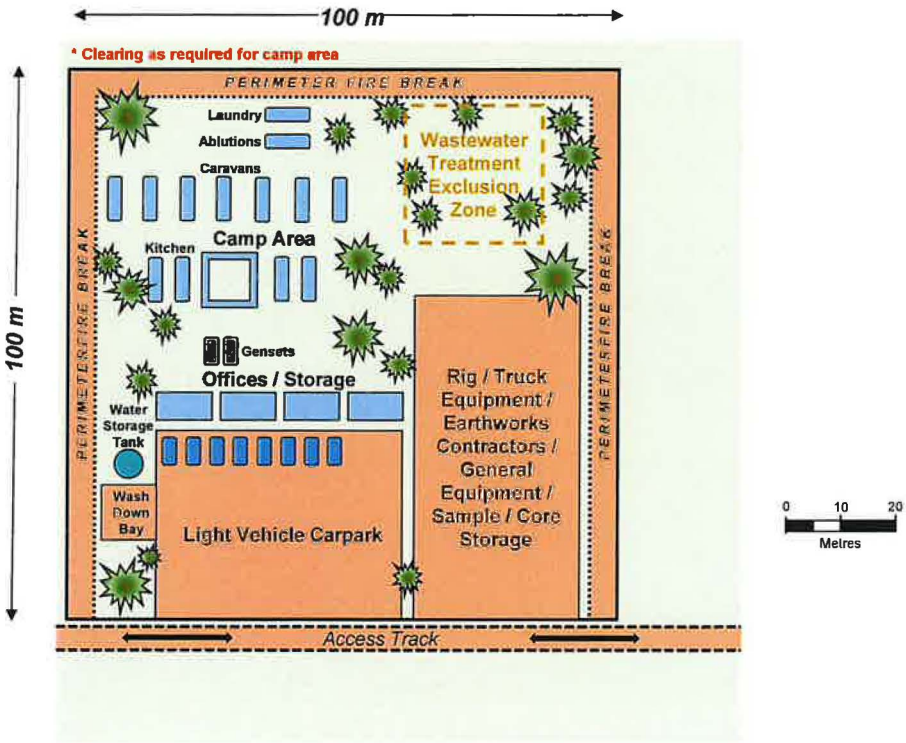
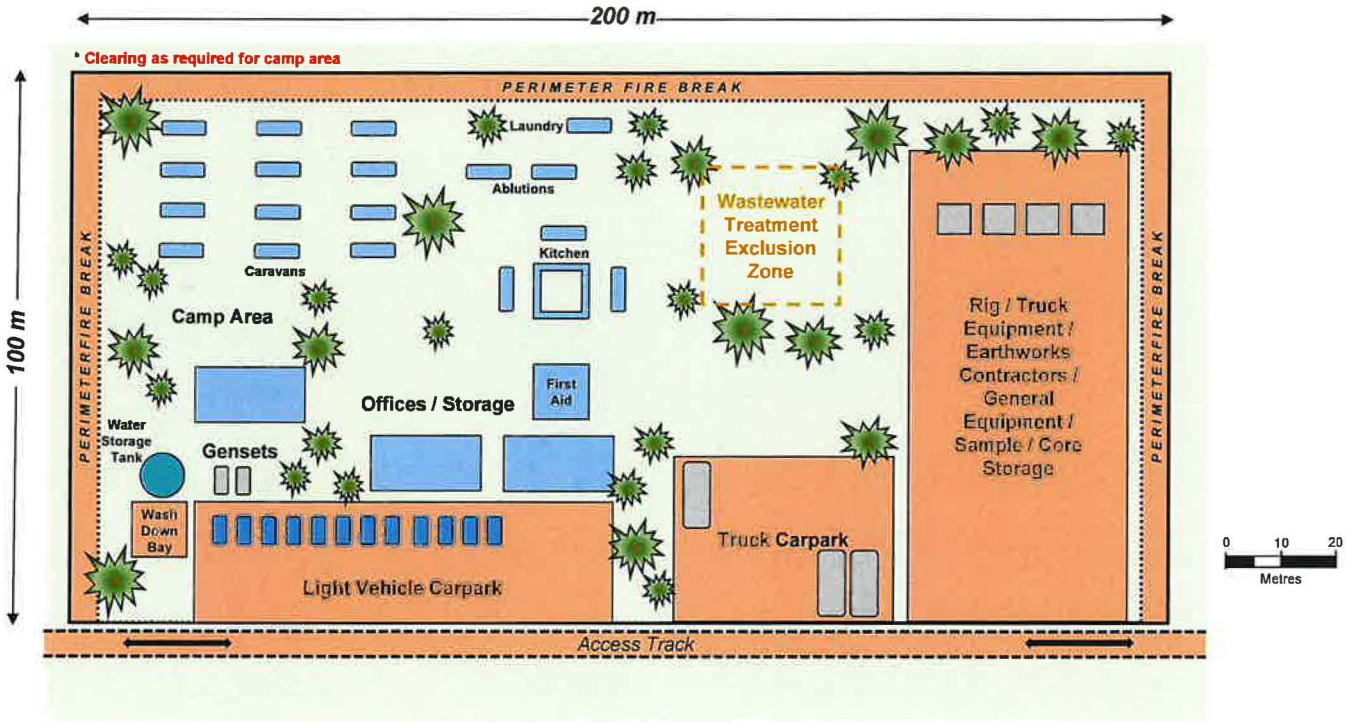


Figure 2: Multi Use Laydown: 100 x 200 m Generalised Layout

Multi Use Laydown: 100 x 200 m Generalised Layout



Fortescue
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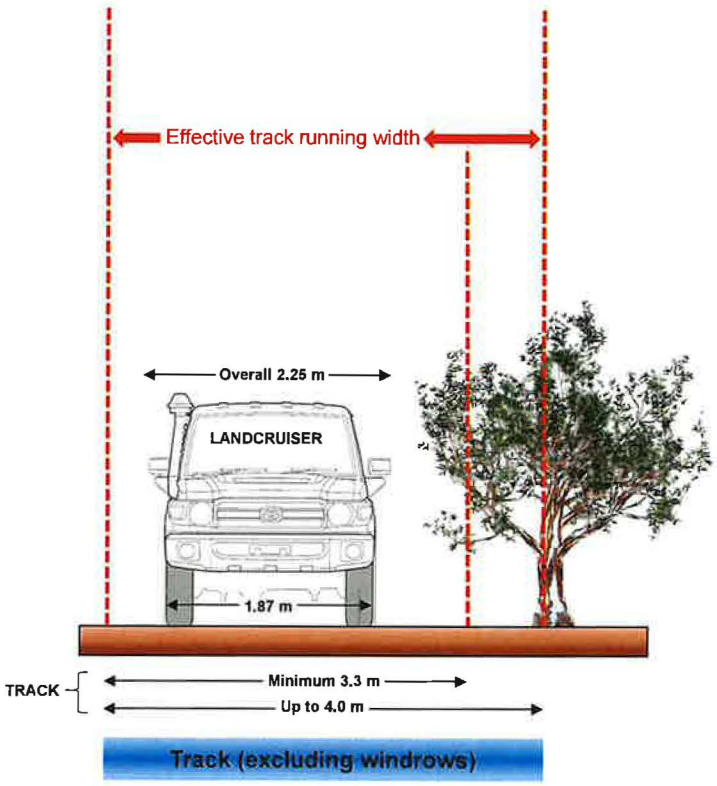
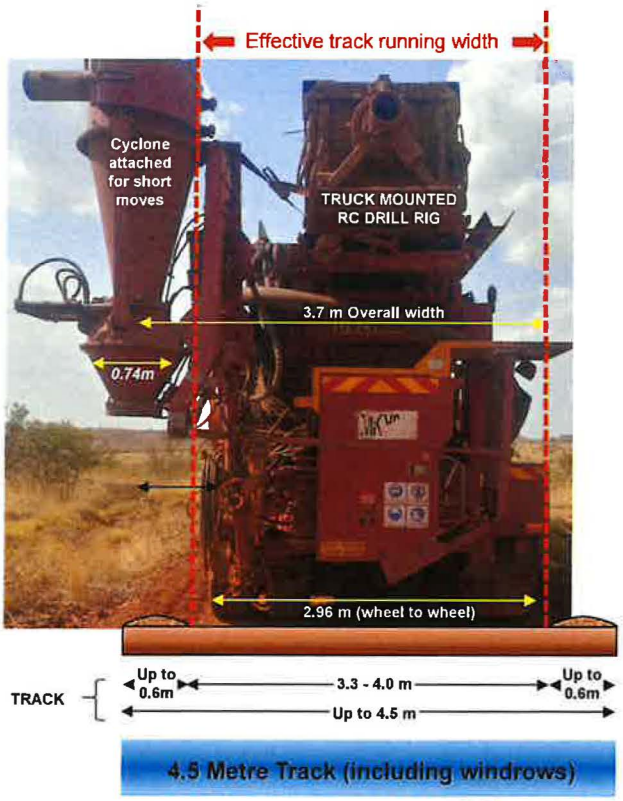
Figure 3: RC Drill Pad: 20 x 20 m Set Up (1 Sump)

Average Track Width (With / Without Windrows)





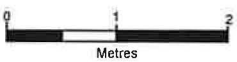


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Figure 4: RC Drill Pad: 20 x 20 m Set Up (1 Sump) Cut & Fill

Main Thoroughfare Track Dimensions

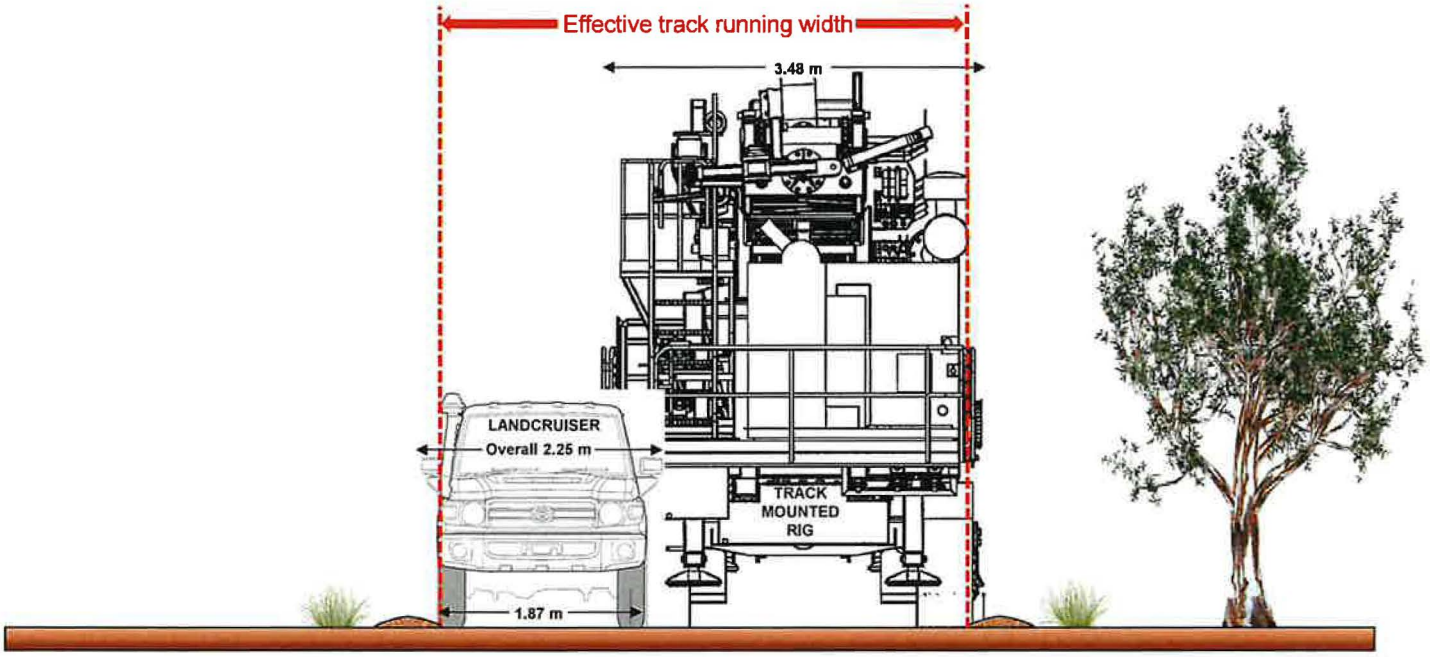

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Figure 5: RC Drill Pad: 20 x 20 m Set Up (2 Sumps)

Track Dimensions Hillside

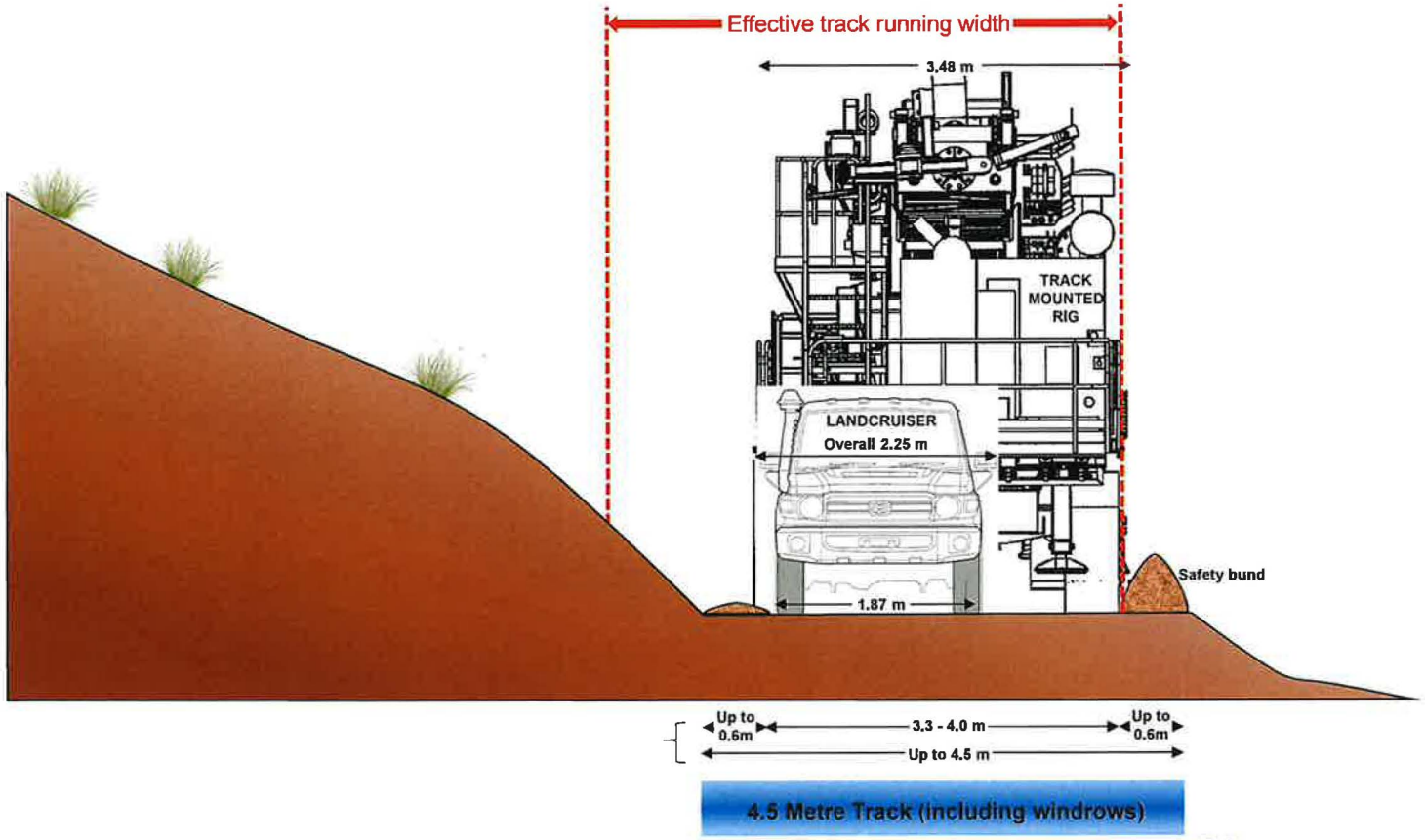

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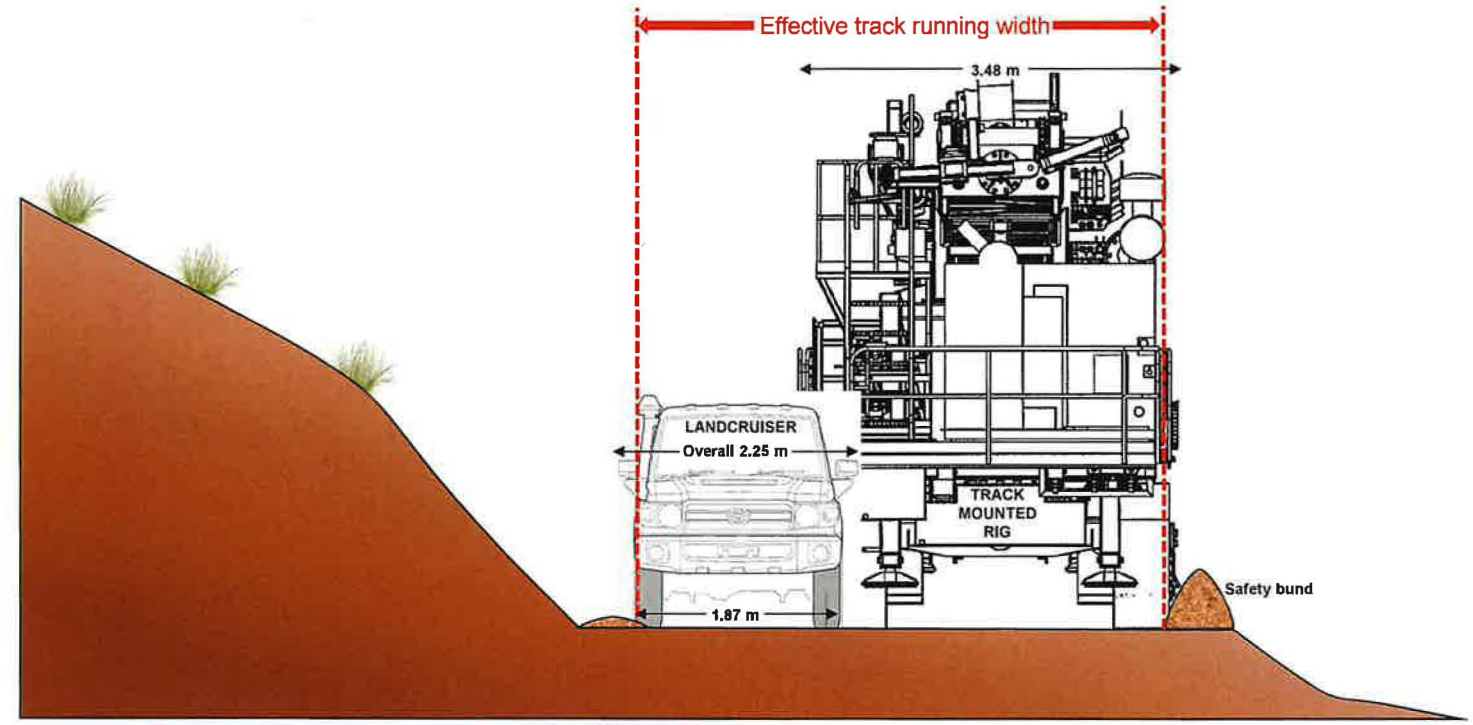
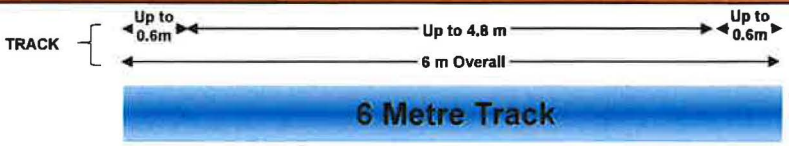
Figure 6: RC Drill Pad: 25 x 20 m Set Up (1 Sump)

Main Thoroughfare Track Dimensions Hillside





6 Metre Track

0 1 2
Metres

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Figure 7: RC Drill Pad: 25 x 20 m Set Up (1 Sump) Cut & Fill

Cat D8 Dozer and Average Track Widths

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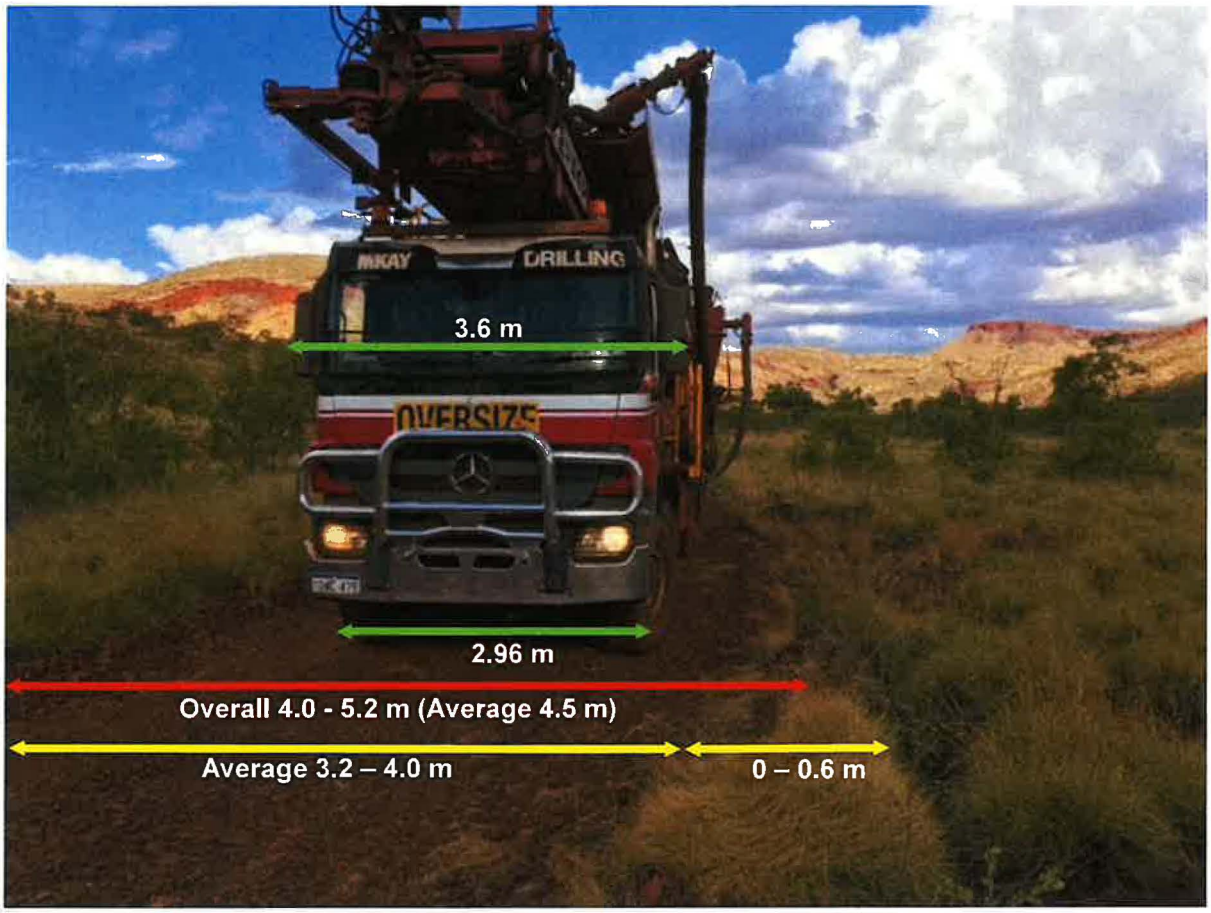
Figure 8: Drill Pad: 25 x 20 m RC Set Up (2 Sumps)



RC Drill Rig and Average Track Widths

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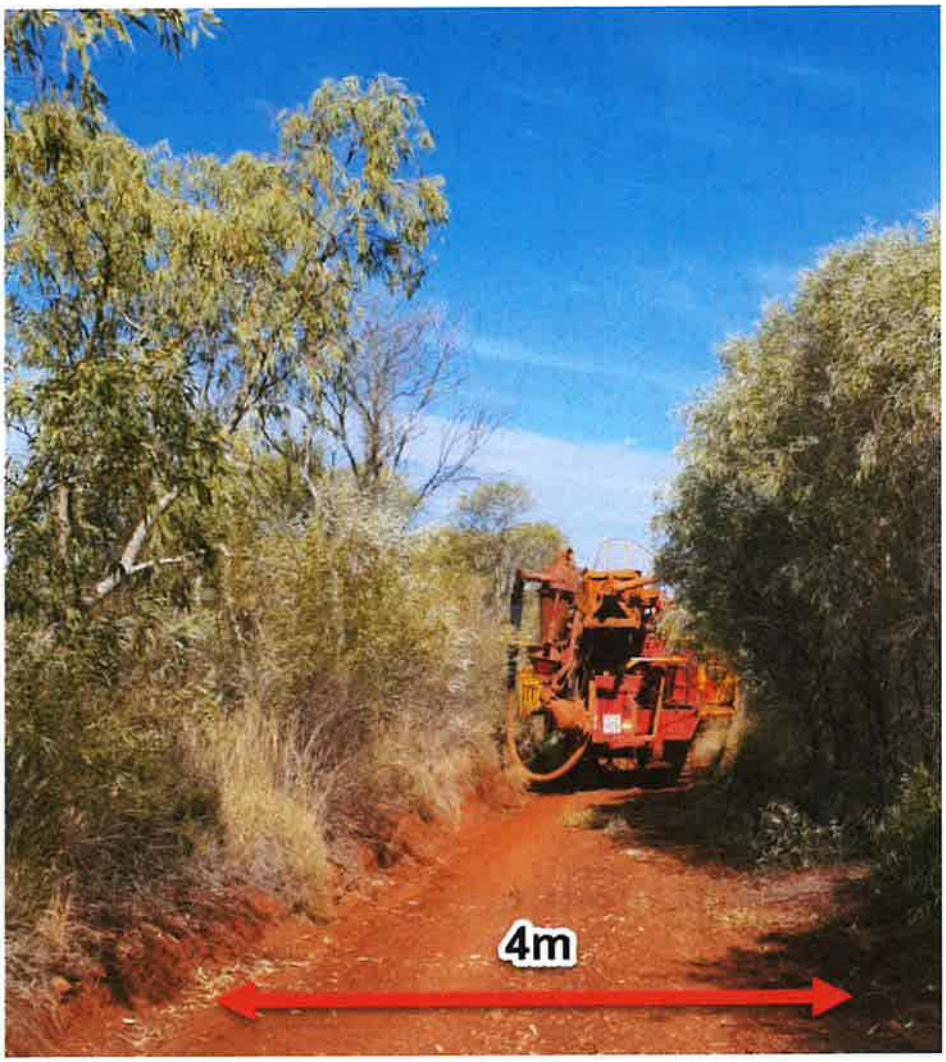
Figure 9: RC Drill Pad: 30 x 20 m Set Up (1 Sump)



RC Drill Rig and 4m Track with Overgrowth

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Figure 10: Diamond Drill Pad: 20 x 30 m Set Up

RC Drill Pad: 20 x 20 m Set Up (1 Sump)

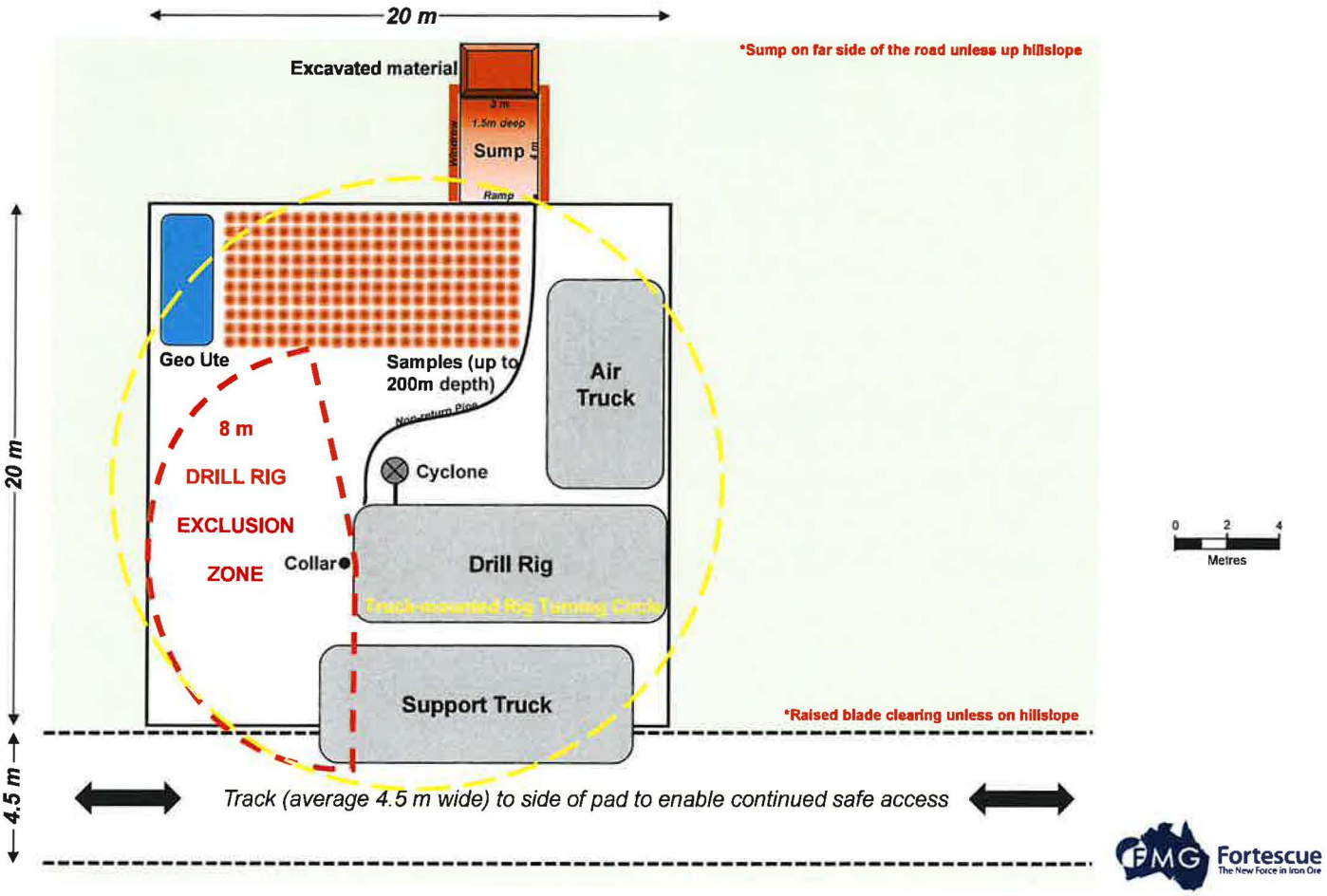

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Figure 11: Water Bore Drill Pad: 50 x 50 m Set Up

RC Drill Pad: 20 x 20 m Set Up (1 Sump) Cut & Fill

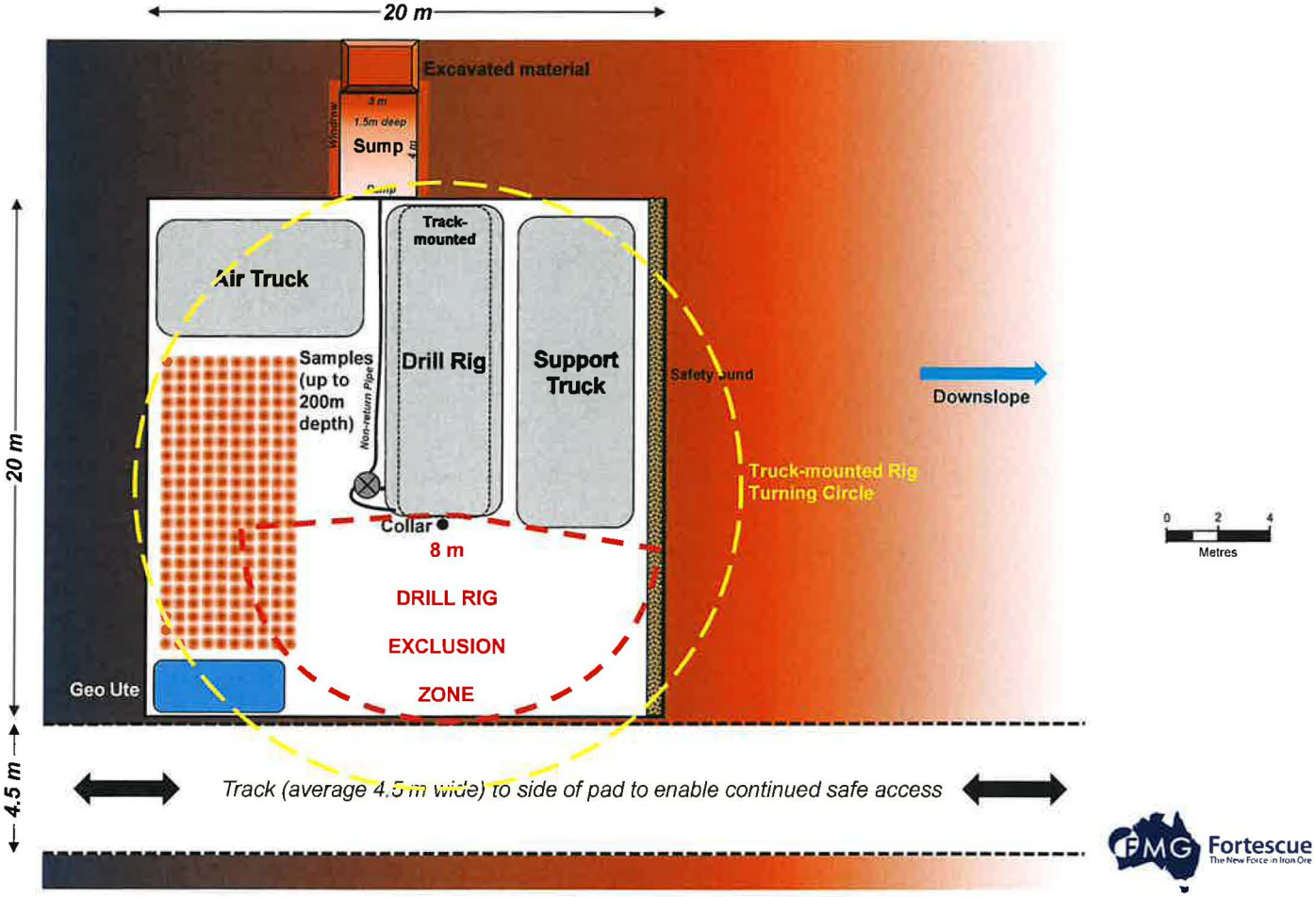

Figure 12: Average Track Width (With/ Without Windrows)

RC Drill Pad: 20 x 20 m Set Up (2 Sumps)

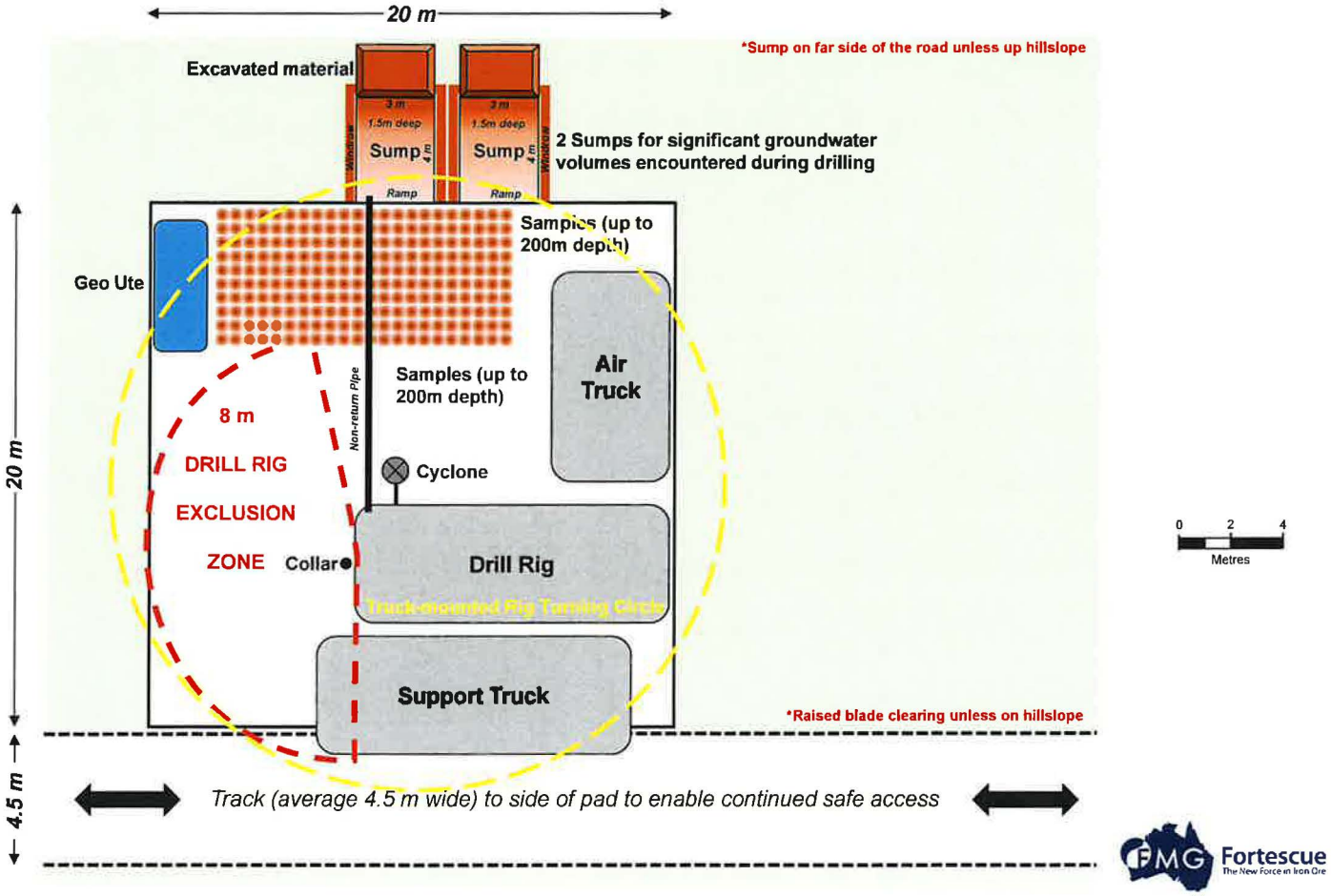

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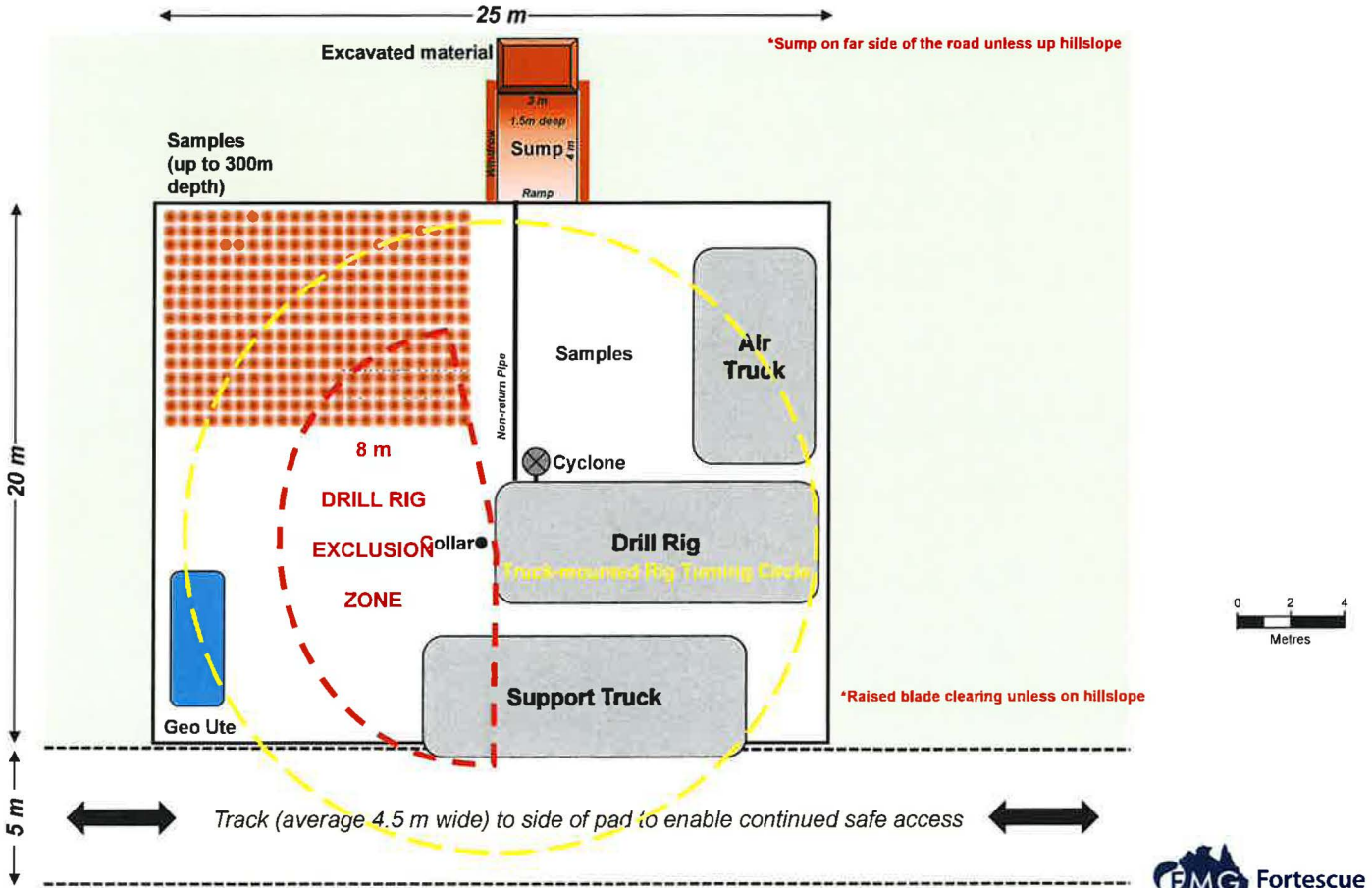
Figure 13: Main Thoroughfare Track Dimensions

RC Drill Pad: 25 x 20 m Set Up (1 Sump)



Fortescue
The New Force in Iron Ore

Figure 14: Track Dimensions Hillside

RC Drill Pad: 25 x 20 m Set Up (1 Sump) Cut & Fill

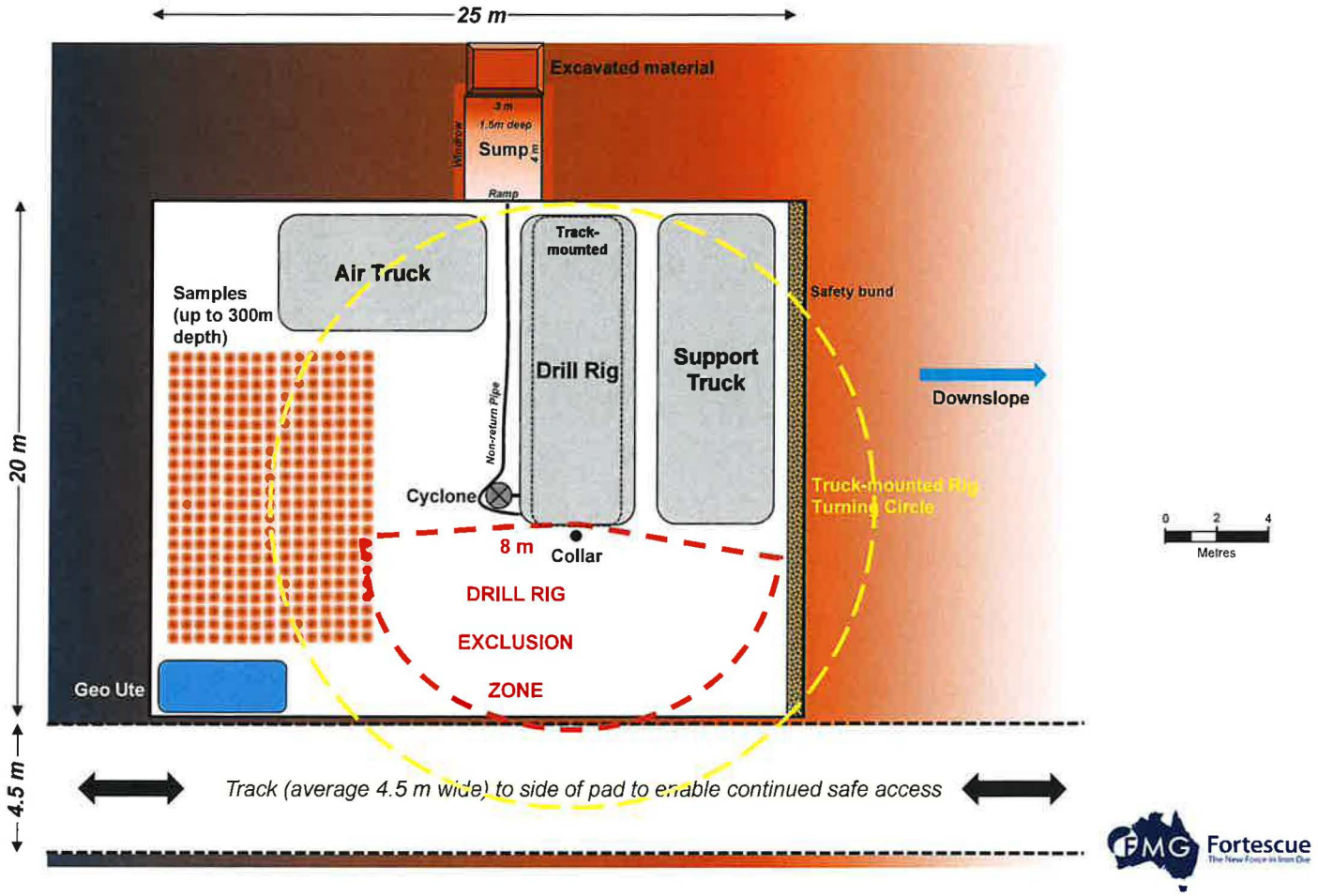
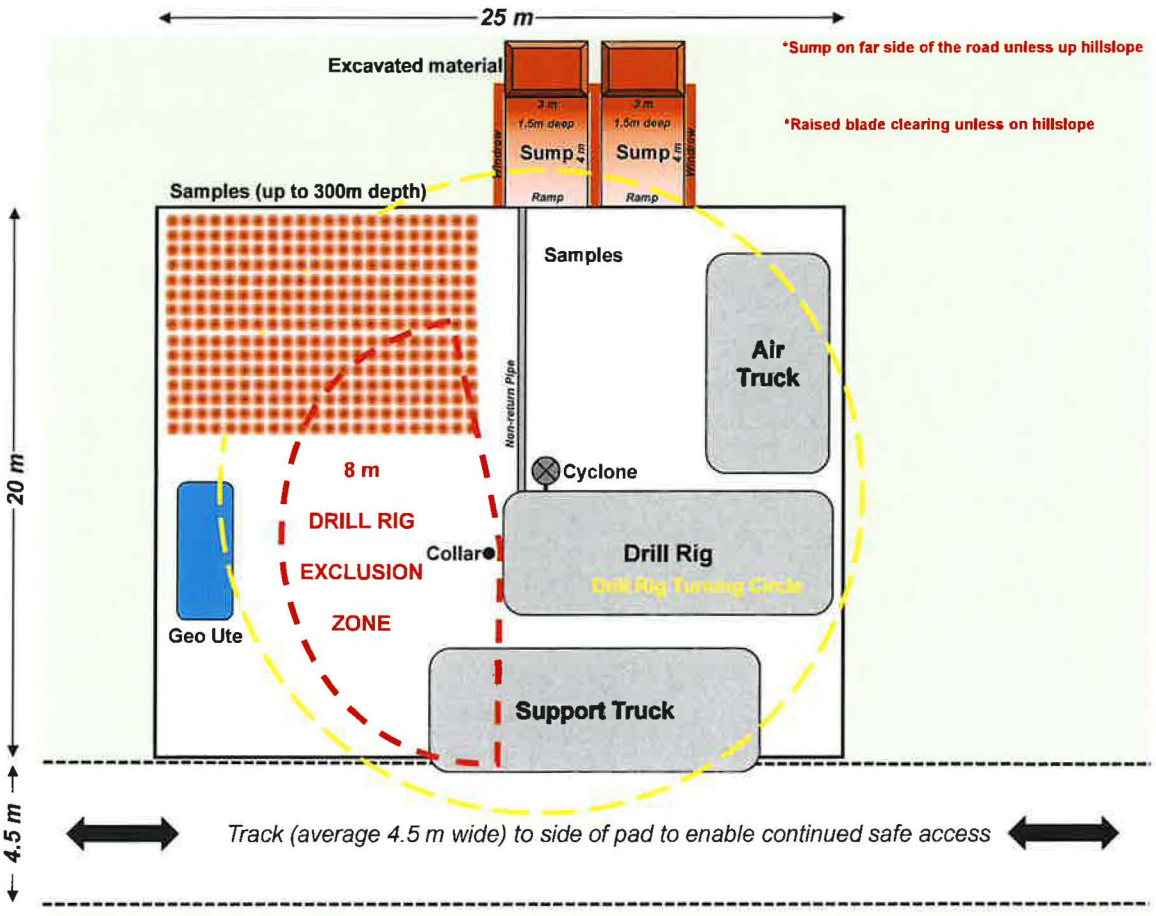


Figure 15: Main Thoroughfare Track Dimensions Hillside

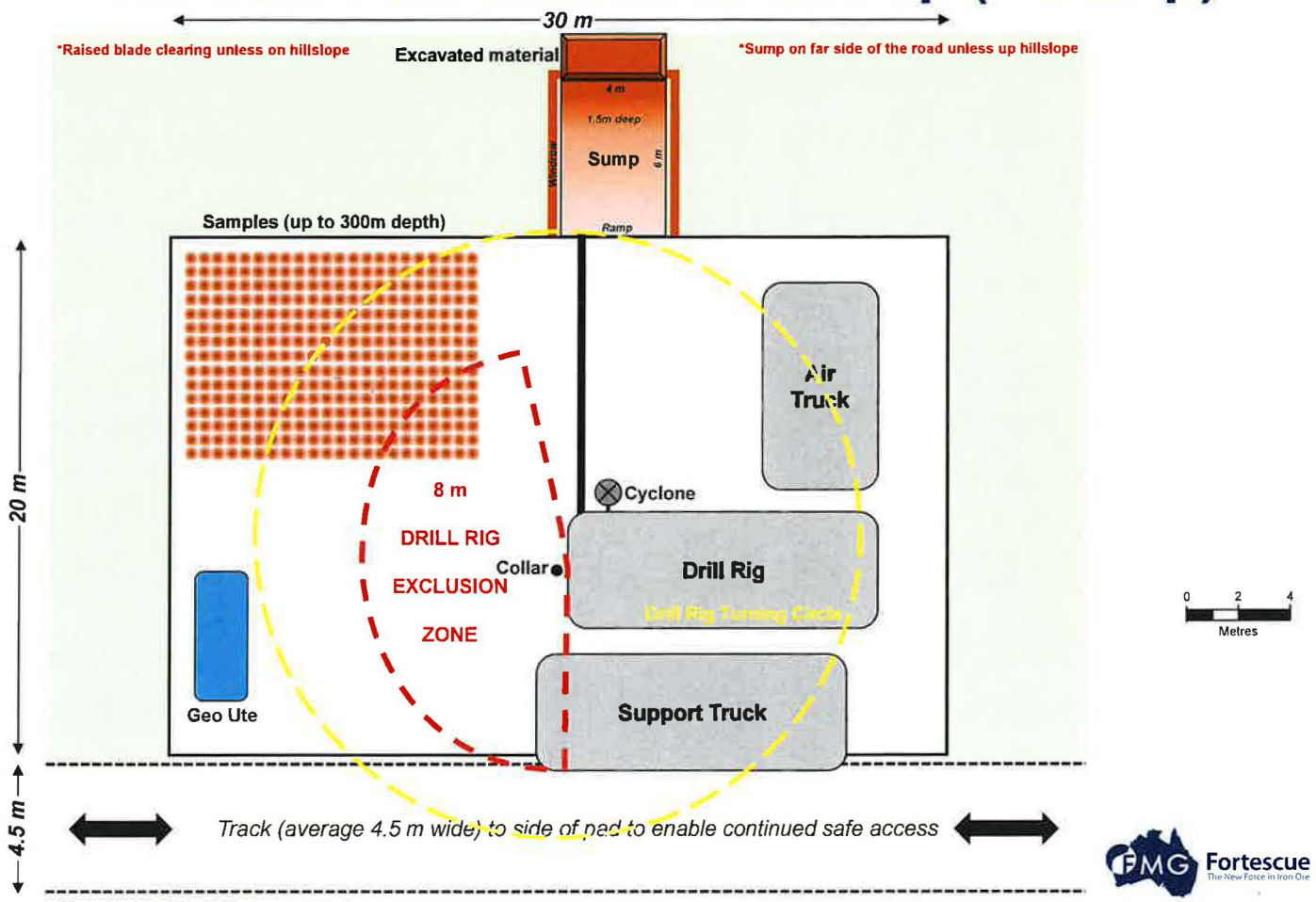
Drill Pad: 25 x 20 m RC Set Up (2 Sumps)



FMG Fortescue
The New Force in Iron Ore

Figure 16: RC Drill Rig and Average Track Widths

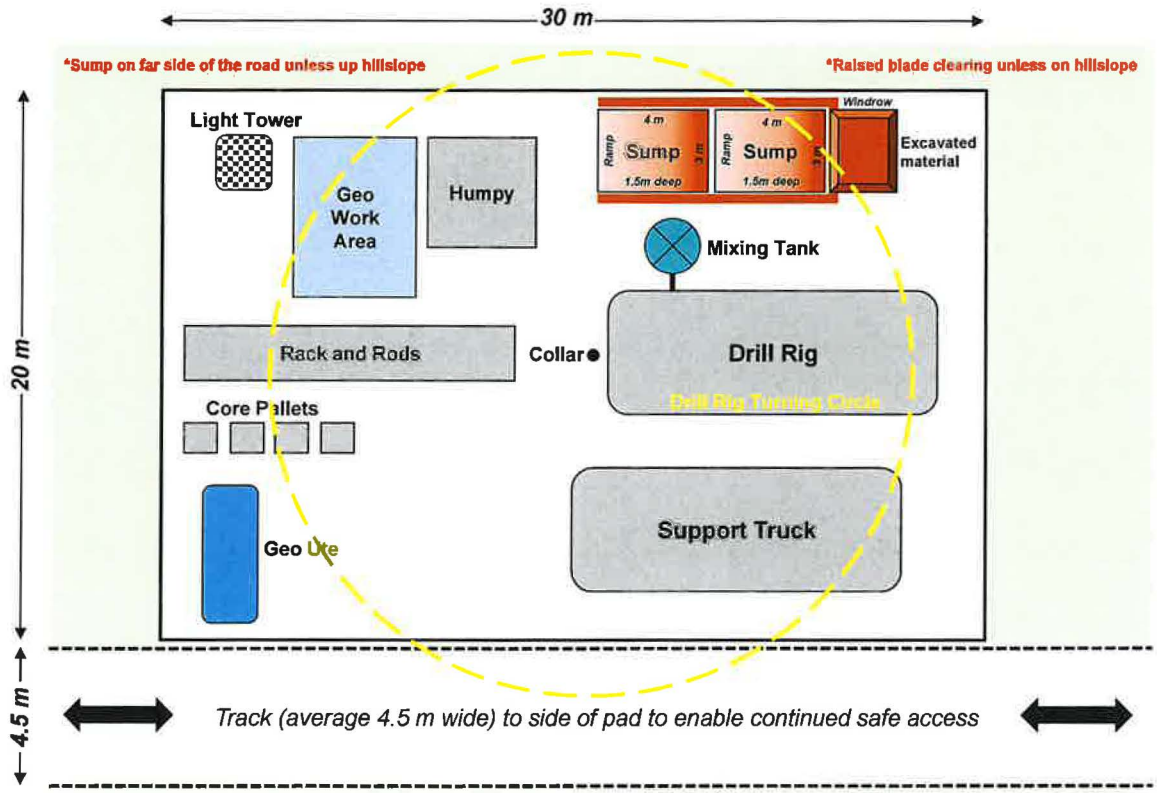
RC Drill Pad: 30 x 20 m Set Up (1 Sump)



FMG Fortescue
The New Force in Iron Ore

Figure 17: Cat D8 Dozer and Average Track Widths

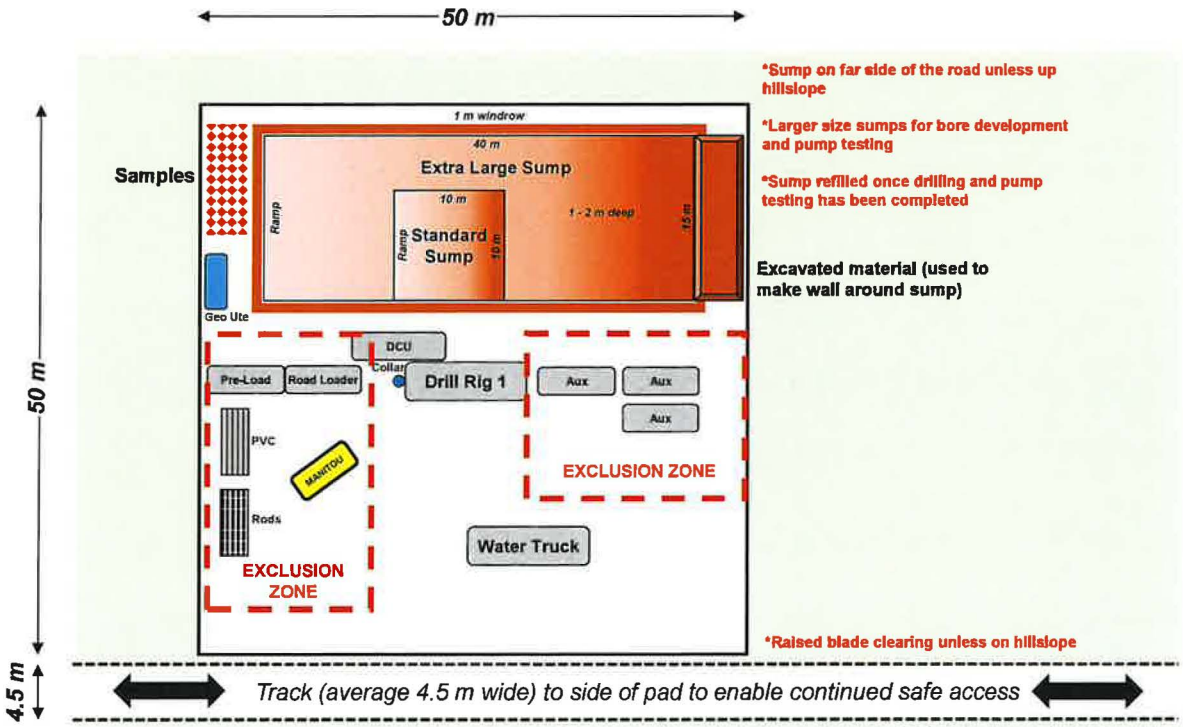
Diamond Drill Pad: 20 x 30 m Set Up



Fortescue
The New Force in Iron Ore

Figure 18: RC Drill Rig and 4 m Track with Overgrowth

Water Bore Drill Pad: 50 x 50 m Set Up



Appendix 1: Project Background

Fortescue Metals Group Background

Fortescue Metals Group (Fortescue) is an integrated business comprised of mine, rail and port operations based in the Pilbara region of Western Australia with its head office located in Perth.

Fortescue has commenced operation of the Pilbara Iron Ore and Infrastructure Project (the Project), which consists of several iron ore mines and associated rail and port infrastructure in the Pilbara region of Western Australia.

The Project was granted Major Project Facilitation Status in December 2004 and Fortescue has signed two Agreements with the State of Western Australia:

- *The Railway and Port (The Pilbara Infrastructure Pty Ltd) State Agreement* for the port and rail infrastructure to transport ore from the mines to the port
- *The Iron Ore (FMG Chichester Pty Ltd) Agreement* for the iron ore mines.

The Project has been developed in the following stages:

- Stage A, consisting of a two-berth iron ore export facility at Port Hedland and a north-south railway from the central Pilbara to Port Hedland, approved under Ministerial Statement 690
- Stage B, consisting of iron ore mines in the eastern Pilbara (Christmas Creek) and an east-west spur rail line connecting to the Stage A railway; approved under Ministerial Statement 707. (Note this approval included the Mindy Mindy mine site but this has not been developed to date)
- Cloudbreak iron ore mine west of the Christmas Creek area, approved under Ministerial Statement 721 and federal approval under the EPBC Act (EPBC 2005/2205)
- Port facility upgrade consisting of a third berth at Anderson Point, Port Hedland, approved under Ministerial Statement 771
- Port Facility upgrade of a fourth berth at Anderson Point, Port Hedland, Not Assessed - Public Advice Given in 2010
- Solomon iron ore project consisting of two new mines and a railway connecting to the existing Fortescue rail line, approved under Ministerial Statement 862 and federal approval under the *EPBC Act* (EPBC 2010/5567 and 2010/5513) in 2011
- Additional rail infrastructure between Herb Elliot Port Facility and Cloudbreak Mine Site, approved under Minsiterial Statement 690 and 707 and federal approval under the EPBC Act (EPBC 2010/5513)
- Christmas Creek water management scheme to increase the mine dewatering rate and to inject surplus water into two brackish and one saline injection zones, approved under Ministerial Statement 871

- Cloudbreak Life of Mine, approved under Ministerial Statement 899 (supersedes the conditions of Ministerial Statement 721); Ministerial Statement 962 (to amend conditions of Ministerial Statement 899; and Ministerial Statement 1010 (to increase abstraction and reinjection of groundwater under Ministerial Statement 899 and 962)
- Northstar Hematite Project, Not Assessed - Public Advice Given in 2012 and federal approval under the EPBC Act (EPBC 2012/6530)
- North Star Magnetite Project, to construct and operate an open-cut iron ore mine and associated infrastructure, approved under Minsiterial Statement 993
- Christmas Creek Mine revised proposal, approved under Ministerial Statement 1033 (supersedes the conditions under Ministerial Statement 707 and Ministerial Statement 871) and federal approval under EPBC Act (EPBC 2013/7055).
- Solomon Iron Ore Project Sustaining Production, approved under Ministerial Statement 1062 (supersedes the conditions under Ministerial Statement 862) anad federal approval under the EPBC Act (EPBC 2014/7275).

Changes to Ministerial Statements 690, 707, 721, 771 and 899 were made and approved under Section 45 or 46 of the *Environmental Protection Act 1986 (EP Act).*

Fortescue is extending its current operations in the Pilbara with proposed expansion of mining to the west within the Western Hub Project area which contains approximately 10 ore bodies. Expansion of mining is also proposed east of Solomon at Nyidinghu.

Fortescue is also conducting drilling programmes to further delineate resources and iron ore reserves within tenements surrounding Solomon and in additional locations throughout the Pilbara.

In addition to its wholly owned tenements, Fortescue is party to joint ventures and agreements with other tenement holders within the Pilbara region and is the manager of iron ore exploration operations upon these tenements.

"SJB-2"

WAD 37 of 2022

Federal Court of Australia

District Registry: Western Australia

Division: General

YINDJIBARNDI NGURRA ABORIGINAL CORPORATION RNTBC

Applicant

STATE OF WESTERN AUSTRALIA & ORS

Respondents

This is the annexure marked "**SJB-2**" referred to in the affidavit of Stuart James Badock sworn on 10 July 2023.

Signature of witness

a legal practitioner who has held
a practice certificate for at least
2 years and who holds a current
practice certificate.

Fortescue
The New Force in Iron Ore

Procedure

Drill Hole Stabilisation and Site Rehabilitation Procedure

Environment

April 2018
E-PR-EN-0010 Rev3

	Drill Hole Stabilisation and Site Rehabilitation Procedure		
Document Revision Number	E-PR-EN-0010 Rev3		**30/04/2018**
Status	**IFU - Issued for Use**		
Summary of Changes	Title updated, Exclusions to Procedure identified and Key Principals included		
Author	Martin Heller	Signature	12/10/2017
Checked or Squad Review# (if applicable)	FMG-SQ-100-571	Signature	13/10/2017
Approved	Stuart Robinson	Signature	30/04/2018
Access to this document:	**FORTESCUE STAFF & CONTRACTORS**	**Next Review Date (if applicable)**	30/04/2021

Revision History *(to be completed for each version retained by Document Control)*

Author	Checker	Approver	No.	Rev	Status	Issued Date
Andrew Winzer	**Tristy Fairfield**			**0a**	**IFR**	10/08/2010
		Brett McGuire		**1**	**IFU**	16/08/2010
Olivia Hertsted	**Nick Nitschke/ Guy Watson/ Fiona Rowland/ Stuart Badock**			**1a**	**IFR**	09/07/2012
Olivia Hertsted	**FMG-SQ-00539**	**Brett McGuire**		**2**	**IFU**	07/08/12
Martin Heller	**FMG-SQ-100-00571**	**Brett McGuire**		**3**	**IFU**	30/04/2018

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LIST OF ATTACHMENTS

1. PURPOSE

Drill hole stabilisation is undertaken to meet Department of Mines, Industry Regulation and Safety (DMIRS) requirements, and associated tenement conditions, under the *Mining Act 1978.*

The requirement to rehabilitate is dependent on the approval in place. The requirement to rehabilitate within 6 months normally applies to activities under PoW approval. The Department of Mines, Industry Regulation and Safety requires disturbed areas to be progressively rehabilitated and made safe, stable, and non-polluting and have a demonstrated capacity to support a self-sustaining ecosystem similar to surrounding natural environments. Site rehabilitation commitments and actions are detailed in the *Exploration Environmental Management Plan* (E-PL-EN-0002).

2. SCOPE

This procedure applies to all drill hole stabilisation and, where applicable, site rehabilitation requirements, associated with:

- Exploration Drilling Activities[1] [2] – where a Programme of Works (PoW) is required on a Mining Act's prospecting and exploration licence.
- Resource Definition Drilling Activities[3] - where a Programme of Works (PoW) is required on a Mining Act's mining licence.

The procedure is relevant to activities including drill pads, access tracks, laydown areas, sample farms and camp sites across Fortescue areas. This includes joint venture projects in the West Australian, Pilbara where Fortescue is a managing/lead partner.

Table 1: Key Accountabilities

Role	Responsibility
Manager, Exploration	Implement procedure for Exploration Drilling Activities
Manager, Geology	Implement procedure for Resource Definition Activities where a PoW is required on a Mining Act's mining lease

[1] Includes Native Vegetation Clearing Permit (NVCP) – where NVCP is required to undertake exploration related activities on a state agreement tenure.
[2] Fortescue defines exploration activities as any activity that involves the drilling for minerals and requires a Programme of Works (PoW) application to be submitted under the *Mining Act 1978.* PoWs are usually submitted for the approval of activities such as drill lines and pads, water bores, borrow pits and exploration drill holes on exploration tenure.
[3] Resource Definition Drilling Activities involve advanced drilling programs and additional resource definition activities conducted to support the life of established mining operations.

Table 2: Exclusions to Procedure

Role	Responsibility
Manager, Geology	For Resource Definition Activities (such as grade control) approved under a mining proposal, rehabilitation is in accordance with the mining proposal or mine closure plan. Drill hole stabilisation requirements for Resource Definition Drilling Activities at the Chichester Mines (Cloudbreak and Christmas Creek Mines) are detailed in the Safe Work Instruction (Resource Definition – Drill Hole Rehabilitation (CH-00000-WI-GY-001)). Drill hole and pad rehabilitation requirement for Resource Definition Drilling Activities at Solomon and surrounding areas are detailed in the Standard Work Instruction (Solomon Drill Pad Rehabilitation - SO-00000-WI-GE-0001).

3. DEFINITIONS

Table 3: Definition of Terms/Acronyms

Word/Term	Definition
DBCA	Department of Biodiversity, Conservation and Attractions
DMIRS	Department of Mines, Industry Regulation and Safety
LUC	Land Use Certificate (formerly Ground Disturbance Permits)
NVCP	Native Vegetation Clearing Permit
Permanent Plug	A drill hole plug constructed of a suitable size and material to close off the drill hole below ground level and permanently support the backfilling of natural and proximally sourced topsoil for permanent rehabilitation.
PoW	Programme of Works
Temporary Plug	A drill hole plug constructed of a suitable size and material to prevent the ingress of any fauna into the drill hole.

4. LEGISLATIVE CONTEXT

The following Legislation provides the broad framework for which this procedure must operate and with which it needs to comply.

Table 4: Legislation

Act / Regulation / Standards
Environmental Protection Act 1986
Environment Protection and Biodiversity Conservation Act 1999 (Cth)
Guidelines for Environmentally Responsible Mineral Exploration & Prospecting in Western Australia (DMP, 2012)
Mineral Exploration/ Rehabilitation Activities Guidelines (DMP, 2007)
Minimum Construction Requirements for Water Bores in Australia (ARMCANZ, 2011)
Mining Act 1978
Wildlife Conservation Act 1950

5. KEY PRINCIPALS FOR DRILL HOLE STABILISATION

An overarching key principal for drill hole stabilisation for both Resource Definition Drilling Activities and Exploration Drilling Activities is that:

- **Temporary plugs** to be used shall be constructed of a suitable size and material to prevent the ingress of any fauna into the drillhole.
- **Permanent plugs** to be used shall be constructed of a suitable size and material to close off the drillhole below ground level and permanently support the backfilling of natural and proximally sourced topsoil for permanent rehabilitation.

6. PROCEDURE

This procedure details the activities required to undertake drill hole stabilisation and site rehabilitation activities following exploration drilling activities.

Responsibility	Steps (Tasks)	Refer Guideline
Manager, Exploration	1. **RC and diamond drill hole stabilisation**	1
Manager, Exploration	2. **Bulk sampling hole stabilisation**	2
Manager, Exploration	3. **Site rehabilitation**	3
Manager Exploration	4. **Monitoring**	4

7. GUIDELINES

7.1 Exploration Drilling Activities - RC and Diamond Drill Hole Stabilisation

7.1.1 Immediately Post Drilling

- Insert a PVC collar into drill holes that protrudes a maximum of 0.5m above ground level.
- Place a temporary plug in all PVC collars. Plugging drill holes is crucial to manage the risk posed to fauna by open drill holes and to prevent contamination of groundwater resources.
- After each drill hole is collared and plugged, collect and remove all rubbish from the site.
- Where damaged drill collars are identified, arrange for replacement to ensure fauna are not impacted.

7.1.2 Completion of Drilling Program

Equipment check

- Inspect collar cutter prior to use to ensure it is good working order. Check the cutter is idling correctly.
- Where a problem has been identified, fix before operating the collar cutter. Do not use faulty or inappropriate tools.

Cut PVC collar

- Start collar cutter and place inside the PVC collar before applying acceleration. Cut the collar to a minimum depth of 400mm below the surface. In areas which may become mining areas, cut collars at a greater depth to ensure they are not collected by future stripping operations.
- Allow time for the blade to stop rotating before removing the cutter from the hole.
- Remove the cutter from the hole and switch off. Place the cutter down with the fuel cap facing up.

Remove PVC collar

- Loosen the soil and foam from the cut collar with a crow bar/pelican pick.

- Use gloves to remove the cut PVC collar.
- If the collar is hard to remove from the hole, use a shovel or pelican pick to dig it out.

Plug and backfill the hole

- Insert a plug into the drill hole so that it has a tight fit. Do not use plugs made of materials such as gypsum or polystyrene.
- Carefully tap the plug into the hole to ensure it is secure.
- Remove all black poly tail piping.
- Move wooden survey pegs to near the hole.
- Using gloves and shovel, backfill above the plug.
- Backfill the hole with soil, preferably of a low permeable nature.

Mound over the hole

- Mound over the backfilled hole with soil, preferably of a low permeable nature to facilitate water shedding.
- Where possible, cover the mound with a layer of topsoil to a depth similar to the surrounding environment.

Remove Rubbish

- Remove all foam and rubbish from around the collar.
- Dispose of rubbish, including PVC collar, appropriately.

7.2 Exploration Drilling Activities – Bulk Sampling Hole Stabilisation

7.2.1 Immediately Post Drilling

- Place PVC piping similar to that used for RC drilling into the hole prior to backfilling to ensure post drilling measurements can be taken.
- Backfill the hole with low permeability material, such as material from sample farms, clean fill from approved borrow pits or overburden.
- Mound soil on top of the hole to promote water run-off away from the hole.
- Erect a perimeter fence and warning sign near the hole.

7.2.2 Completion of Drilling Program

- Once post-drilling measurements have been collected, rehabilitate the hole in accordance with the RC drill hole stabilisation process outlined in Section1.
- Remove rubbish
- Remove all fencing, signage and rubbish and dispose of appropriately.

7.3 Exploration Drilling Activities – Site Rehabilitation

7.3.1 Drill pads, sample farms and access tracks

- Sample piles may be retained on the surface of the drill pad if the samples contain only non-hostile materials; are in small volumes (e.g. 5kg per metre); are similar colour to the adjacent landscape; are not within land managed by the Department of Biodiversity, Conservation and Attractions (DBCA), a water reserve or other sensitive environment; and are emptied out of the sample bag.
- Rake sample piles through and spread the material as much as possible. Where the vegetation is well established, only rake piles that avoid damaging established vegetation.
- Bury spoil or drill samples (emptied out of sample bags) containing material unsuitable for raking (i.e. clays or black shale) or containing potentially hostile material (i.e. asbestos or acid forming material) to an appropriate depth within a sump, drill hole or other excavation before backfilling.
- Remove plastic liners from all sumps and costeans and backfill to the surface with stockpiled soil.
- Rehabilitate borrow pits, costeans, sumps and turkeys nests to be free-draining and re-contoured to achieve a gentle slope which is consistent with the surrounding natural landscape and provides for successful revegetation and fauna egress and reduces the potential for excessive erosion. Spread topsoil over the surface to a depth similar to the surrounding environment.
- Re-profile hillside disturbance back into the natural hillside/terrain.
- Spread any vegetation and topsoil removed during clearing evenly to a depth similar to the surrounding environment.
- Rip or scarify compacted areas (e.g. drill pads and tracks) to loosen compacted soil, promote vegetation recruitment and ensure drainage and contours are adequate. Rip

on the contour where the compacted area is in a sloping landscape to avoid erosion gullying. Where contour ripping is not possible, rip against the contour but periodically raise the tynes of the machinery to provide some resistance to downhill surface water flow.

- Flatten windrows and rip tracks not required by the land owner, unless land owner has advised an alternative. Block access to rehabilitated tracks to prevent vehicle use and to allow vegetation to establish.
- Remove sample bags from the site and dispose of appropriately.
- Remove fencing and rubbish from sample farms and dispose of appropriately.

7.3.2 Camp Sites and Lay Downs

- Remove any contaminated soil found on site to an appropriately licensed facility.
- Remove impermeable lining in bunded storage areas.
- Empty, hole or crack all septic tanks at the base and then backfill with soil.
- Remove other underground services (i.e. power and water) that are less than 1000 mm below ground level.
- Break up and bury all concrete pads.
- Remove all pump and pipeline infrastructure from water supply bores.
- Decommission bores according to the requirements outlined in the Agriculture and Resource Management Council of Australia and New Zealand's *Minimum Construction Requirements for Water Bores in Australia (2011)*.
- Remove all campsite infrastructure. Adhere to any licence or Shire requirements for rehabilitation.
- Reinstate surface water drainage lines where applicable.
- Lightly rip camp sites and laydowns once infrastructure and rubbish have been removed.
- Spread vegetation and topsoil removed during clearing and deep rip to promote regeneration.
- Remove rubbish from the site and dispose of appropriately.

7.4 Exploration drilling activities – monitoring

- Establish fixed monitoring points once rehabilitation is complete.
- Monitor rehabilitation progress to determine the effectiveness of rehabilitation methods.
- Where possible, conduct an annual inspection, on rehabilitated sampling sites to identify potentially collapsed drill holes and to monitor rehabilitation progress. Where subsidence has been identified, arrange for further remediation.
- Implement weed control where priority weed species[4] have been identified at rehabilitated sites.

[4] Priority weed species that require control as defined in the *Weed Management Plan* (100-PL-EN-1017).

8. MONITORING AND REVIEW

Table 5: Programmes and Schedules

Monitor (Audit) and Review	Frequency	**Responsibility**
Procedure Review	Every three years	Senior Environmental Advisor

9. DOCUMENTATION AND RECORDS MANAGEMENT

This Procedure and all supporting documents shall be maintained as controlled documents in Fortescue's Document Management System and in accordance with Fortescue *Document Control Procedure* (100-PR-DC-0002).

Records shall be retained and archived in accordance with the Fortescue *Records Retention Manual* (100-MA-DC-0001).

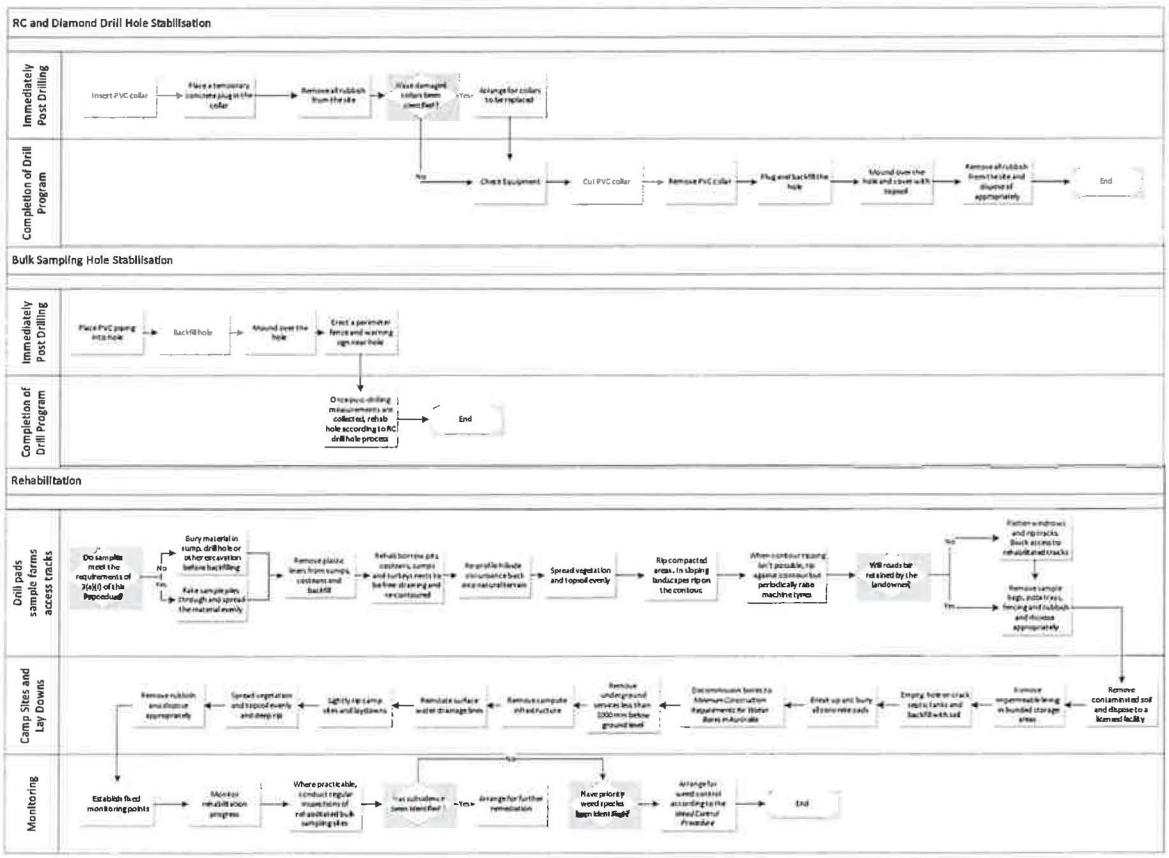
The following documents should be read in conjunction with this procedure:

Table 6: Policy, Flowchart, Work Instructions, Forms (Templates)

Document ID	Title of Document
E-PL-EN-00002	Exploration Environmental Management Plan

Attachment 1: Exploration Drilling Activities – Drill Hole Stabilisation and Site Rehabilitation Flowchart

EXPLORATION DRILL HOLE STABILISATION AND SITE REHABILITATION FLOWCHART



PREPARED BY	CHECKED BY	APPROVED BY
Olivia Halsted	FMG-SQ-00539	Brett McGuire

"SJB-3"

WAD 37 of 2022

Federal Court of Australia

District Registry: Western Australia

Division: General

YINDJIBARNDI NGURRA ABORIGINAL CORPORATION RNTBC

Applicant

STATE OF WESTERN AUSTRALIA & ORS

Respondents

This is the annexure marked "**SJB-3**" referred to in the affidavit of Stuart James Badock sworn on 10 July 2023.

Signature of witness

a legal practitioner who has held
a practice certificate for at least
2 years and who holds a current
practice certificate.

Government of **Western Australia**
Department of **Mines and Petroleum**

ENVIRONMENT DIVISION 150

(APPLICATION FORM)

Office use only: Registration ID:.....

PROGRAMME OF WORK – EXPLORATION (*MINING ACT 1978*)

Operator Name: Fortescue Metals Group Limited	**Contact Person:** Matthew Dowling
Address: Level 2, 87 Adelaide Terrace, East Perth WA 6004.	**Operator Reference No:** EN-0018
Email: mdowling@fmgl.com.au	**Tel:** 9230 1301
Mob:	**Fax:** 6218 8999

Tenement No/s:	**E47/1398**					

Are you the registered tenement holder? ☒ Yes ☐ No *(please complete section below)*

Please state all registered tenement holders

Tenement No/s:	**Holder (Name and Address):**
E47/1398	FMG Pilbara Pty Ltd. Level 2, 87 Adelaide Terrace, East Perth WA 6004.

☐ I have attached a signed copy of an Agreement for Access / Consent from each of the Registered Tenement Holders.

NOTE: The Programme of Work cannot be approved until consent of all registered tenement holders is received.

☒ ***All statements made and information given in this certified application is true and correct. I acknowledge that this application will be rejected if I have not addressed all relevant tenement conditions and/or sufficient information is not supplied.***

NAME:	**Sean McGunnigle**	**POSITION:**	**Manager, Environmental Approvals**
SIGNATURE:	Sean McGunnigle	**DATE:**	27/1/12

Please note the following:

- Please ensure your PoW is complete and that you have checked and complied with tenement conditions prior to lodging your PoW with the Department of Mines and Petroleum (DMP). **Incomplete applications will be rejected.**
- **Requests** for further information will have a time limit of **10 working days** to **contact the Department**.
- **All bond requests will remain valid for a period of 3 months**. This PoW will be rejected 3 months after the date of issue of the bond request letter.
- Please ensure that every category available is marked with a cross, or N/A if 'Not Applicable'.
- Please allow sufficient time for this proposal to be assessed (at least 30 business days). If all required information is not supplied, or if consultation with other agencies is required, then the assessment time frame may increase.
- The *Mines Safety and Inspections Act 1994* require an Exploration Operation Notification form to be submitted to Resources Safety Division of DMP prior to the proposed activities (see section 6) taking place. http://www.dmp.wa.gov.au/6711.aspx#7074
- DMP have a Memorandum of Understanding (MoU) with the EPA, certain criteria may trigger DMP to seek advice from other agencies. The MoU document is available at: *http://www.dmp.wa.gov.au/documents/MOU.PDF*
- All tenement holders will be notified of the approval.
- Please do not modify this form.
- This application will be made available to other government agencies as required.

*Send your application to **"The Environmental Officer"** at the address below.*

PERTH INSPECTORATE DMP – Environment Division 100 PLAIN STREET EAST PERTH WA 6004 TEL: (08) 9222 3333	**KALGOORLIE INSPECTORATE** DMP – Environment Division Locked Bag 405 KALGOORLIE WA 6433 TEL: (08) 9021 9405
MINERAL FIELDS: 01, 04, 08, 09, 12, 20, 21, 45, 46, 47, 51, 52, 57, 58, 59, 66, 70, 74, 77, 80	**MINERAL FIELDS:** 15, 16, 24, 25, 26, 27, 28, 29, 30, 31, 36, 37, 38, 39, 40, 53, 63, 69

Please fill out the following information:

1. Tenement Conditions:

(To check your conditions, please go to the Minerals Titles Online database at http://www.dmp.wa.gov.au/3968.aspx)

☒ If exploring for Iron Ore, have you checked your conditions to see if you have Iron Ore endorsement?

☒ I have addressed all relevant tenement conditions for this Programme of Work application.

2. Proposed Dates: *Approval will be valid for 12 months from date on Approval letter*

Commencement Date: April 2012	**Completion Date:** April 2013

***NOTE** "If approved, the programme will be granted for 12 months from the date shown on the approval letter. Application for an extension to timeframe can be made to an Environmental Officer prior to the expiry of the approval. A PoW is only valid on live tenure.*

3. Existing Tenure:

Is the Proposal On: (Use *Tengraph at http://www.dmp.wa.gov.au/3980.aspx*

☐ **Freehold Land** ***NOTE: Landowner consent and Surface Rights are required (Section 29, Mining Act). Please check your tenement conditions.***

☐ **Unallocated Crown Land / VCL / DEC Purchased Pastoral Lease(s)**

☒ **Pastoral lease** – Pastoralist notified

When: Prior to commencement of the drilling programme.	**How: Written Correspondance.**

NOTE: *Section 20 of the Mining Act 1978 requires written consent of the occupier of Crown Land prior to ground disturbing activities within 100m of a yard, stockyard, garden, cultivated field, orchard, vineyard, plantation, airstrip or airfield, a burial ground or cemetery, land under crop, a house or other substantial building that is in occupation, and within 400m of a water works, race, dam or bore on Crown Land that is the subject of a pastoral lease. If required for your proposal, please attach a copy of this consent.*

☐ **DEC Managed Land** - DEC notified

When:	**How:**

NOTE: *Includes Proposed National Parks, Proposed Nature Reserves, Proposed State Forests and Proposed Conservation Parks*

Proponent to consult with Department of Environment and Conservation (DEC, formerly CALM) regarding the proposal and DEC advice to be supplied.

☐ **Other**

Eg. Reserves:

NOTE: *Ground disturbing activities within Reserves (e.g. Water Reserves, Road Reserves) may require consent from the vested authority, and/or Ministerial consent. Please check your tenement conditions.*

4. Aboriginal Heritage Management:

☒ I have completed a query of the Register of Aboriginal Sites at *http://www.dia.wa.gov.au/AHIS/* for the area subject to this application.

Does your proposal partly or wholly intersect the boundary of a registered site?

☐ Yes ☒ No

If yes; Prior to submitting this Programme of Work to DMP, you must seek advice from the Department of Indigenous Affairs (DIA) to ensure that you are aware of your obligations under the *Aboriginal Heritage Act 1972* and that suitable arrangements can be put in place to comply with that Act . If your Programme does not have DIA advice attached, it will be rejected. The Programme of Work will need to be resubmitted with the advice attached.

Further referrals may be required under the *Environmental Protection Act 1986*.

***NOTE 1**: To facilitate advice, DIA will require (i) a description and map (GDA94 co-ordinates) showing the proposed activities and the affected mining tenements, (ii) the title, author and date of any Aboriginal heritage survey conducted over the area, and (iii) a copy of this survey if not already provided to DIA. If the survey is more than 10 years old DIA may require a new survey. The survey should aim to identify places and objects of heritage significance that are currently known or unknown.*

***NOTE 2**: The Programme, if approved, does not remove the need to obtain any approvals required under the Aboriginal Heritage Act 1972.*

5. Proposed Activities:

Tenement Number *(Up to 6 can be listed)*	**E47/1398**				
Type of Drilling Rig *(e.g. RAB, RC, Diamond, Aircore)*	**RC**				
Mineral(s) Being Explored	**Iron**				
Number of Drill Holes Proposed	**7 (6 RC drill holes and 1 groundwater bore)**				
Maximum depth of holes	**300 metres**				
Is this infill / resource drilling? *1 *(Y or N)*	**No**				
How far apart are drill holes? *(Metres)*	**450 metres x 500 metres**				
Does this PoW require construction of cut & fill pads or tracks? (Y or N)	**No**				
Tonnage disturbed for the construction of cut & fill pads and/or tracks. *Please attach additional information detailing how the tonnages were calculated* *2	**N/A**				
Number of Drill Pads *(Length: 20 x Width: 20m)*	**6**				
Is the drilling likely to encounter groundwater? *3	**Yes**				
Number of Sumps *(Length: 6 x Width: 3 x Depth: 1.5m)*	**7 (6 sumps 6 metres in length, three metres in width and 1.5 metres in depth and 1 sump 10 metres in length and width and 1 metre in depth).**				
Length of Line / Track Clearing *(Kilometres: 4.3 x Width: 4m)*	**4.3 kilometres**				
Number of Costeans *(Length: x Width: x Depth: m)*	**N/A**				
Does this PoW require construction of an Exploration Camp? (Y or N) *4 *(Length:200x 100 Width:)*	**1 Laydown area (200 metres by 100 metres).**				
Total Area Disturbed *(Hectares)*	**4 hectares**				
Total Tonnage Disturbed *5 *(Tonnes)*	**160 tonnes**				
Previous disturbance yet to be rehabilitated on tenement *(Ha)* *(If Known)*					

*1 ***If proposing infill / resource drilling, it is recommended you conduct waste characterisation to assist in mine planning. Waste characterisation is required when seeking approval to mine. Please refer to the "Guidelines for Mining Proposals in Western Australia" on the DMP website.***

*2 *Please ensure the additional information includes the number of pads, pad dimensions (length x width) and specific gravity, specific for each gradient. If you are having difficulties please contact an Environmental Officer (EO), DMP for assistance. The Departmental Hillside Tonnage Calculator (used as a guide to calculate tonnage estimates for cut and fill activities associated with exploration/prospecting activities) is available on the DMP website.*

*3 *Refer to the "Guidelines for the protection of surface and groundwater resources during exploration drilling". If the proposed drilling has potential to intercept artesian aquifers, consultation and permitting from the Department of Water (DoW) may also be required.*

*4 *If yes, please provide a covering letter detailing; camp facilities (number of dongas, size of camp etc), environmental management (e.g. waste disposal, surface water management, etc), other relevant approvals (e.g. Shire), rehabilitation procedures of the facility and an additional map illustrating the site layout.*

*5 *Note that tonnage limits on P's and E's apply to tonnage disturbed for excavations (costeans, test pits, etc), cut and fill pads, access tracks and larger than normal sumps. If unsure, please consult the Regional EO, DMP.*

5.1 Does your proposal exceed the tonnage limit for the tenement type? *Disturbance exceeding 500 tonnes on a Prospecting Licence (Section 48c Mining Act 1978) or 1,000 tonnes on an Exploration Licence (Section 66c Mining Act) requires delegated approval from the Director, Mineral Titles Division (MTD). Please note that disturbed tonnage is cumulative for the life of the tenement.*

☐ Yes ☒ No

If yes: You will need to apply for excess tonnage approval. (*Please contact the Manager, Compliance & Legislation on (08) 9222 3187).* ***NOTE:*** *Any excess tonnage disturbance over 50, 000 tonnes requires Ministerial approval. The tenement holder is required to contact (MTD).*

6. Maps:

☒ I have attached A3 or A4 scaled plans of the proposed area that provide the information outlined below.
NOTE: *plans using a topographical map or aerial photo are required, with GDA94 co-ordinates.*

☒ Proposed activities and disturbance (showing drill holes and/or lines)
☒ Line and track clearing
☒ Major landforms and topographical features
☒ Existing tracks / route onto tenement and route to proposed drill holes/costeans
☒ Tenement boundaries and labels
☒ Freehold land / Reserve location boundaries and relevant cadastral information
☒ Legend

7. Are the activities proposed in this Programme of Work located within an area under formal assessment by the EPA under Part IV of the *Environmental Protection Act 1986*?

☐ Yes ☒ No **If yes;** Name of project and EPA assessment number:

8. Clearing of native vegetation:

Does your proposal involve the clearing of native vegetation?

☒ Yes ☐ No

If yes; (i) Clearing for exploration purposes is exempt from requiring a clearing permit provided it is not within an Environmentally Sensitive Area (ESA), and is conducted under an authority granted under the *Mining Act 1978* (e.g. an approved Programme of Work) (PoW). This exemption is found at item 25 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004.

(ii) The Native Vegetation Map Viewer, on the Department of Environment and Conservation (DEC) website, provides a guide to the locations of ESA's. http://maps.dec.wa.gov.au/idelve/nv/index.jsp. .

Instructions on using the Map Viewer can be found on the DMP website at http://www.dmp.wa.gov.au/830.aspx

Environmentally Sensitive Areas are defined in regulation 6 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004. *Some examples of ESA's are Bush Forever Sites, areas listed on the Register of National Estate for natural values, the area within 50 m of Declared Rare Flora, and the area covered by a Threatened Ecological Community*

(iii) If you have any queries regarding clearing permits please contact the DMP – Native Vegetation Assessment Branch (9222 3570), or visit their website: http://www.dmp.wa.gov.au/819.aspx

i) is the clearing of native vegetation that you propose within an Environmentally Sensitive Area?

☐ **Yes**	*If known, please state the type of ESA (e.g. Bush Forever Site, Threatened Ecological Community etc);*	☒ **No**	(Please go to Section 9)	154

ii) Have you applied for a permit to clear native vegetation?

☐ **Yes**	*State the CPS number and/or the date the application was lodged:*	☐ **No**	*Please lodge a clearing permit application with the DMP – Native Vegetation Assessment Branch.*

NOTE: *Allow at least 15 weeks for processing of a clearing permit application. Your Programme of Work will not be approved until the clearing permit is granted and an additional 30 day period allowing for public appeal has expired. If an appeal is lodged clearing cannot be conducted until the appeal is settled.*

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9. Environmental Management:

Please refer to the DMP's exploration rehabilitation guidelines, available at:
at:*http://www.dmp.wa.gov.au/documents/Exploration_Rehab_Activities_Dec07.pdf*

9.1 Environmental Management and Methods of Minimising Disturbance

- ☐ Use of raised blade for clearing tracks & drill pads
- ☒ Using existing tracks where available
- ☒ Avoiding significant vegetation e.g. large trees, thickets
- ☒ Vegetation stockpiled separately for use in rehabilitation when constructing drill pads
- ☒ Topsoil and vegetation stockpiled separately for use in rehabilitation when constructing sumps and/or costeans
- ☒ Excavations (sumps, costeans etc.) appropriately ramped to allow fauna egress.
- ☒ Use of liners and drip trays under rigs to minimise risk of hydrocarbon spillage
- ☒ Use of sumps of appropriate size to contain all water and sediment encountered during drilling (sump to be located away from significant vegetation, and water courses)
- ☒ Use of appropriate machinery to minimise impacts (excavator instead of bulldozer, wheeled machinery instead of tracked, specialist drill rig etc...)
- ☒ Vehicle hygiene maintained to prevent the spread of plant pathogens (e.g. *Phytophthora sp.*) and/or invasive species. (check requirements of tenement conditions for specific management, e.g. Dieback Management Plan)
- ☒ Other (please specify) All activities will be undertaken in accordance with the Exploration Environmental Management Plan (E-PL-EN-0002_Rev 5).

9.2 Rehabilitation Practices and Timing *(tick where applicable)*

- ☒ Drill holes plugged immediately
- ☒ Drill holes securely plugged below ground at minimum depth of 400mm within 6 months of drilling (If not using concrete, conical plugs, please specify type:
- ☒ Excavations (e.g. sumps, costeans etc.) backfilled and respread with topsoil and cleared vegetation
- ☒ Ripping of compacted areas on the contour
- ☒ Blocking access to tracks
- ☒ Drill sample piles rehabilitated or buried
- ☒ Sample bags removed within 6 months of drilling
- ☒ All rubbish removed from site (including any hydrocarbon spills)
- ☒ Other (please specify) All activities will be rehabilitated in accordance with the Exploration Environmental Management Plan (E-PL-EN-0002_Rev 5).

Tenement conditions require that all rehabilitation must be completed within 6 months of drilling. **Any extension of this timeframe requires the written approval of an Environment Officer before the six month period expires.**

9.3 Describe Existing Environment and Vegetation

(E.g. Mulga scrublands, Eucalypt / saltbush woodland, Spinifex grassland, Jarrah forest, Farmland, etc.)

Predominantly Spinifex covered grassland with minor low shrubs and scarce Snappy Gums and Mulga trees. Some isolated Eucalyptus trees occur in major creeks (away from proposed exploration activities). 155

9.4 Describe Landform

(E.g. flat alluvial plain, greenstone, range, creek/drainage lines, hillsides etc.)

The landforms are predominantly a series of wide open valleys (1 – 2 Kilometres in width) between steep hills and ridges. Braided and shallow ephemeral streams dissect the valleys with no sites of permanent water known to exist. Exploration activities are not targeted over any major landforms such as gullies or major flowing creeks.

9.5 Do the proposed activities occur on isolated hills / ranges in the Midwest or Yilgarn (banded iron formations) (BIF)?

☐ Yes ☒ No

If yes advice from the DEC may be sought and a flora survey may be required.

9.6 Is your exploration program likely to encounter Radioactive Material?

☐ Yes ☒ No

If YES

Prior to submitting this Programme of Work application, you must submit a Radiation Management Plan (RMP) with the Resource Safety Division (RSD) at DMP for assessment and approval.

The RMP is to be submitted to the State Mining Engineer, Resource Safety Division, Department of Mines and Petroleum, 303 Sevenoaks Street, Cannington WA 6107.

The RMP must be consistent with the Managing Naturally Occurring Radioactive Material (NORM) in mining and mineral processing–guidelines available at: *http://www.dmp.wa.gov.au/documents/Guidelines/NORM-2-1_Preparation_of_a_radiation_management_plan-explorat.pdf*

Please consult with a Senior Scientific Officer (Radiation), Health Management Branch of RSD at DMP and the Radiological Council *(http://www.radiologicalcouncil.wa.gov.au/)* in the preparation of the RMP. For enquiries, call (08) 9358 8086.

Have you submitted and received approval for the Radiation Management Plan from the Resources Safety Division, DMP?

☐ Yes ☒ No

If YES

Please attach a copy of the RMP that you have submitted to RSD and the letter of approval from RSD.

If NO

You must lodge the RMP to RSD. Your Programme or Work will not be approved until the RMP has been assessed and approved by RSD.

9.7 Is your exploration programme likely to encounter fibrous materials such as asbestos?

☐ Yes ☒ No

If YES

Please confirm that the following safety procedures will be undertaken:

☐ Drilling will be wet to control dust and will use sumps to contain **hazardous** materials

☐ Use of sample bags to prevent dispersion of drill samples into the environment

☐ Drill spoil/samples to be buried 1.0m below surface level

- ☐ Planning drilling to avoid water courses wherever possible
- ☐ Drill holes plugged immediately after drilling
- ☐ Cleaning down machinery before leaving site
- ☐ Other

If an Asbestos Management Plan is required please attach.

NOTE: *Depending on the scope of activities to be undertaken an Asbestos Management Plan may be required. It is suggested you consult with the Health Management Branch of RSD at the Department of Mines and Petroleum, Contaminated Sites Branch of the Department of Environment and Conservation; and the Department of Health Department (DOH).*

9.8 Does the proposed activity interfere with the Beds and/or Banks of a watercourse?

☒ Yes ☐ No

If YES

Is the interference related to the taking of or accessing water?

☐ Yes ☒ No

IF Yes; Please attach information from the DoW regarding a section 17 permit issued under the *Rights in Water and Irrigation Act 1914.*

NOTE: *The Department of Water (DoW) does not require a section 17 permit to interfere with the beds and banks of watercourses located within granted mining tenements except if that interference is related to the taking of water. If you are unsure please contact your regional DoW office for advice.*

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10. Does this Programme of Works relate to any other existing or parent application currently lodged with DMP? *(for example is this POW related to an existing Mining Proposal or Tenure application)*

☐ Yes ☒ No

If YES

Mineral Titles (eMits).	**If yes;** Application ID	and date lodged:
Petroleum Geothermal Register (PRG)	**If yes;** Application ID	and date lodged:
Resource & Safety Division (RSD)	**If yes;** Application ID	and date lodged:

Our Ref: 100-EN-0018

Your Ref:

Fortescue
The New Force In Iron Ore

23 January 2012

The Environmental Officer
Environment Division
Department of Mines and Petroleum
100 Plain Street
EAST PERTH WA 6004

Dear Sir/Madam

PROGRAMME OF WORK APPLICATION FOR MINERAL EXPLORATION ACTIVITIES IN THE NEWMAN PROJECT AREA

Fortescue Metals Group Limited (Fortescue) proposes to undertake a reverse circulation (RC) drilling programme in the Newman exploration prospect, located approximately 84 kilometres northeast of the town of Tom Price in the Pilbara region of Western Australia. The drilling programme consists of six drill holes with a maximum depth of 300 metres and is designed to test and evaluate the region for large tonnage iron ore deposits.

SUPPORTING INFORMATION

The supporting information listed in Table 1 has been enclosed to facilitate this application's assessment.

Table 1: Supporting information attached to this application.

Attachment	Contents
Attachment 1	The locations of the proposed activities.
Attachment 2	Aboriginal Heritage Inquiry System report for E47/1398.

TENURE

The proposed activities will be undertaken on exploration licence E47/1398. The current holder of this tenement is FMG Pilbara Pty Ltd, a wholly owned subsidiary of the Fortescue Metals Group Limited. Both companies are located at the same address; Level 2, 87 Adelaide Terrace, East Perth WA 6004.

The proposed activities will be undertaken within the boundaries of the Mount Florence pastoral lease. The leaseholders of the Mount Florence pastoral lease will be notified of the proposed activities prior to their commencement.

Fortescue Metals Group Limited ABN 57 002 594 872 ACN 002 594 872
ADDRESS Level 2, 87 Adelaide Terrace, East Perth, Western Australia 6004
POSTAL ADDRESS PO Box 6915, East Perth, Western Australia 6892
TEL +61 8 6218 8888 FAX +61 8 6218 8880 EMAIL fmgl@fmgl.com.au

AREA DISTURBANCE

Drill Pads

The proposed drill holes will be constructed on drill pads 20 metres in length and width. These drill pads will be situated on flat terrain and the construction of cut and fill drill pads will not be required to support the drilling programme.

Fortescue anticipates that the proposed drill holes will intercept groundwater. To prevent groundwater discharged during drilling activities from entering the surrounding environment where further impacts such as erosion and sedimentation may result, sumps 6 metres in length, 3 metres in width and 1.5 metres in depth will be constructed within the drill pad areas. Groundwater contained in the sumps will be allowed to settle and disperse.

Laydown Area

A laydown area 200 metres in length and 100 metres in width will be constructed to support the drilling programme. The laydown area will contain a temporary camp which will accommodate Fortescue personnel and contractors taking part in the drilling programme. The laydown area will also be used to store vehicles, equipment, machinery and drilling supplies used to undertake the drilling programme along with samples obtained during the drilling programme.

Access Tracks

The construction of access tracks with a cumulative length of 4.3 kilometres and a width of four metres will be required to access the proposed drilling locations and laydown area. These tracks will be constructed on flat terrain and cut and fill methodology will not be employed during construction of the tracks.

Groundwater bore construction

A groundwater bore which will provide water to support the drilling programme will be established within the laydown area. As this groundwater bore will be established within the laydown area, a separate drill pad will not need to be cleared to facilitate the construction of the groundwater bore.

A sump 10 metres in length and width and 1 metre in depth will be established to prevent groundwater discharged during both the construction of the groundwater bore and the pump testing of the groundwater bore entering the surrounding environment. The earthen material excavated to construct the sump will be pushed up to form walls one metre high on three sides of the sump. The side of the sump closest to the bore will feature a lower wall to allow water discharged during the bores construction and pump testing to enter the sump. Groundwater contained in the sump will be allowed to settle and disperse. Once the construction and test pumping of the groundwater bore has been completed, the sump will no longer be required and will be backfilled. The sump will be rehabilitated when the laydown area it will be situated on is no longer required to support mineral exploration activities.

Both the construction of the groundwater bore and the abstraction of groundwater from the groundwater bore will not commence until licences approving these activities under the *Rights in Water and Irrigation Act 1914* have been issued. Applications for the required licences were submitted on 17 January 2012 to the Department of Water (DoW) for processing.

Area Disturbance Breakdown

A breakdown of the area disturbance which will result from the proposed activities is contained in Table 2.

Table 2: Breakdown of the area disturbance which will result from the proposed activities.

Tenement Number	E47/1398
Type of drilling rig which will be used to undertake the drilling activities.	Reverse circulation (RC).
Minerals exploration activities are being undertaken to locate.	Iron ore.
The number of drill holes proposed.	Seven (six RC drill holes and one groundwater bore).
Maximum depth of drill holes.	300 metres.
How far apart are the drill holes (metres)?	450 metres x 500 metres.
Does this application require construction of cut & fill pads or tracks?	No.
Tonnage which will be disturbed for the construction of cut & fill pads and/or tracks.	N/A.
The number of drill pads which will be constructed.	Six drill pads 20 metres in length and width.
Are the drilling activities likely to encounter groundwater?	Yes.
Number of sumps which will be constructed to support the drilling programme.	Seven (six sumps six metres in length, three metres in width and 1.5 metres in depth and one sump 10 metres in length and width and one metre in depth).
Length of track clearing.	4.3 kilometres.
Other areas which will be cleared to support this drilling programme.	One laydown area (200 metres in length and 100 metres in width).
Total area which will be disturbed to facilitate the drilling programme.	Four hectares.
Total tonnage which will be disturbed to facilitate the drilling programme.	160 tonnes.

TONNAGE DISTURBANCE

Fortescue anticipates that the construction of the proposed sump will disturb approximately 160 tonnes of earthen material. This tonnage disturbance will not breach the 1,000 tonne disturbance limit on exploration licence E47/1398. Hence, no approvals for excess tonnage disturbance will be sought on this tenement to facilitate the proposed activities.

DURATION OF ACTIVITIES

Fortescue anticipates that the drilling programme will commence in April 2012 and be complete by the end of April 2013. Should the proposed activities need to continue beyond this timeframe, Fortescue will submit an application to the Department of Mines and Petroleum (DMP) requesting the rehabilitation timeframe for the activities proposed in this application be extended.

ABORIGINAL HERITAGE

The proposed activities will be undertaken within the Yindjibarndi Native Title Claim. Fortescue has consulted with the Yindjibarndi People since 2007 and regularly conducts heritage surveys in collaboration with the Yindjibarndi People, as represented by the Wirlu-Murra Yindjibarndi Aboriginal Corporation (WYAC). In addition, Fortescue continues to provide the Yindjibarndi Aboriginal Corporation (YAC) with the opportunity to both participate in heritage surveys and consult over heritage matters.

A search of the Department of Indigenous Affairs (DIA) Aboriginal Heritage Inquiry System (AHIS) has been undertaken for exploration licence E47/1398. This search found that three registered Aboriginal heritage sites exist within E47/1398. None of these sites will be intersected by the drilling programme.

The proposed disturbance area has not been surveyed for sites of Aboriginal heritage significance. However both archaeological and ethnographic surveys will be conducted over the disturbance area prior to ground disturbance activities commencing. Should sites of Aboriginal heritage significance be identified in the disturbance area, the proposed activities will be amended to avoid these sites.

In addition, Fortescue personnel and contractors are required to attend Fortescue's Heritage Induction program. This training program provides personnel and contractors with an understanding of Aboriginal heritage concerns, Aboriginal people and their country. This training program also informs Fortescue personnel and contractors of Fortescue's obligations under the *Aboriginal Heritage Act 1972* and the mechanisms Fortescue uses to ensure these obligations are met.

IMPACT ASSESSMENT

A search of the Department of Environment and Conservation's (DEC) Native Vegetation map viewer has been undertaken for the proposed disturbance area. This search found that no environmentally sensitive areas exist in the proposed disturbance area.

A search of the DEC's Nature Map resource has been undertaken for the proposed disturbance area. This search found that no flora or fauna species of conservation significance have been recorded in the proposed disturbance area.

A search of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) protected matters search tool has been undertaken for the proposed disturbance area. This search found that the conservation significant species listed in Table 3 could potentially occur in the proposed disturbance area.

Table 3: Species of conservation significance which could occur in the disturbance area.

Fauna			
Species Name	**Conservation Status**		
	Pursuant to the *Environment Protection and Biodiversity Conservation Act 1999*	**Listed under the *Wildlife Conservation Act 1950***	**DEC Priority Listing**
Northern Quoll (*Dasyurus hallucatus*)	Endangered	Schedule 1	N/A
Pilbara Leaf-nosed Bat (*Rhinonicteris aurantia*)	Vulnerable	Schedule 1	N/A
Pilbara Olive Python (*Liasis olivaceus barroni*)	Vulnerable	Schedule 1	N/A
Fork-tailed Swift (*Apus pacificus*)	Migratory	Schedule 3	N/A
Great Egret (*Ardea alba*)	Migratory	Schedule 3	N/A
Cattle Egret (*Ardea ibis*)	Migratory	Schedule 3	N/A

Fauna			
Species Name	**Conservation Status**		
	Pursuant to the *Environment Protection and Biodiversity Conservation Act 1999*	**Listed under the *Wildlife Conservation Act 1950***	**DEC Priority Listing**
White-bellied Sea-Eagle (*Haliaeetus leucogaster*)	Migratory	Schedule 3	N/A
Rainbow Bee-eater (*Merops ornatus*)	Migratory	Schedule 3	N/A
Oriental Plover (*Charadrius veredus*)	Migratory	Schedule 3	N/A
Flora			
Species Name	**Conservation Status**		
	Pursuant to the Environment Protection and Biodiversity Conservation Act 1999	**Listed under the Wildlife Conservation Act 1950**	**DEC Priority Listing**
Hamersley Lepidium (*Lepidium catapycnon*)	Vulnerable	Schedule 1	N/A

The potential impact of the proposed drilling programme on the species listed in Table 3 has been discussed due to the conservation significance of these species and their potential to occur in the disturbance area.

Northern Quoll

Fortescue do not anticipate that the Northern Quoll will be adversely impacted by the proposed activities. The proposed activities will not result in the disturbance of potential habitat critical to the survival of this species as defined by the *Environment Protection and Biodiversity Conservation Act 1999 referral guidelines for the endangered Northern quoll, Dasyurus hallucatus* (Department of Sustainability, Environment, Water, Population and Communities (DSEWPC), 2011). Additionally, no more than 4 hectares of potential foraging and dispersal habitat for this species, as defined by the above guidelines, will be disturbed by the drilling programme. Hence, the proposed activities do not require referral to DSEWPC. Additionally, the disturbance area represents a small portion of this species potential foraging and dispersal habitat and it is not anticipated that the distribution of this habitat will be adversely impacted by the proposed activities. Therefore, Fortescue anticipates that the conservation status and distribution of this species will not be adversely impacted by the proposed activities.

Pilbara Leaf-nosed Bat

Potential exists for the Pilbara Leaf-nosed Bat to occur within the undulating terrain found in the environment surrounding the proposed disturbance area. Such terrain may contain caves which could provide dry season roosting habitat for this species. Should this species occur within the undulating terrain found in the environment surrounding the proposed disturbance area, the proposed activities are unlikely to adversely impact this species as the drilling programme will be undertaken on flat terrain rather than on hillsides where caves serving as habitat for this species may be located.

Additionally, the drilling programme will be short term in nature and blasting activities will not be undertaken to facilitate the drilling programme. Hence, it is unlikely noise and vibration emissions capable of causing this species to abandon any roosts it may occupy in the surrounding region will be generated by the drilling programme.

Pilbara Olive Python

Fortescue do not anticipate that the Pilbara Olive Python will be adversely impacted by the proposed activities. Individuals of this species are capable of leaving areas experiencing disturbance and moving into areas of suitable habitat in the surrounding environment (Ecologia, 2010). Furthermore, the disturbance area represents only a small portion of this species potential habitat and it is unlikely the distribution of this habitat type will be adversely impacted by the proposed activities. Therefore, Fortescue anticipates that the conservation status and distribution of this species will not be adversely impacted by the proposed activities.

Migratory Species

Fortescue do not anticipate that any migratory species will be impacted by the proposed activities as these species are highly mobile in nature and widespread in the region.

Lepidium catapycnon

Fortescue do not anticipate that the proposed activities will adversely impact the conservation status or distribution of *Lepidium catapycnon*. A search of the DEC's Florabase resource found that this species occurs within skeletal soils on hillsides. As this habitat type does not exist within the disturbance area, it is unlikely individuals of this species will be present in the disturbance area.

To minimise and mitigate the risk of detrimental environmental impacts resulting from the activities proposed in this application, all activities will be undertaken in accordance with the *Exploration Environmental Management Plan* (E-PL-EN-0002_Rev 5).

Should you require further information, please contact Matthew Dowling on 9230 1301 or at mdowling@fmgl.com.au.

Yours sincerely
FORTESCUE METALS GROUP LIMITED

SEAN MCGUNNIGLE
Manager, Environmental Approvals

Enc.

Attachment 1: The locations of the proposed activities

Attachment 2: Aboriginal Heritage Inquiry System report for E47/1398.

References

Department of Sustainability, Environment, Water, Population and Communities (2011). *Environment Protection and Biodiversity Conservation Act 1999 referral guidelines for the endangered Northern quoll, Dasyurus hallucatus.* Commonwealth of Australia 2011.

Ecologia Environment (2010). *Fortescue Metals Group Ltd Solomon Project: Kings Area Vertebrate Fauna Assessment.* Report prepared for the Fortescue Metals Group Limited.

Attachment 1:

The locations of the proposed activities

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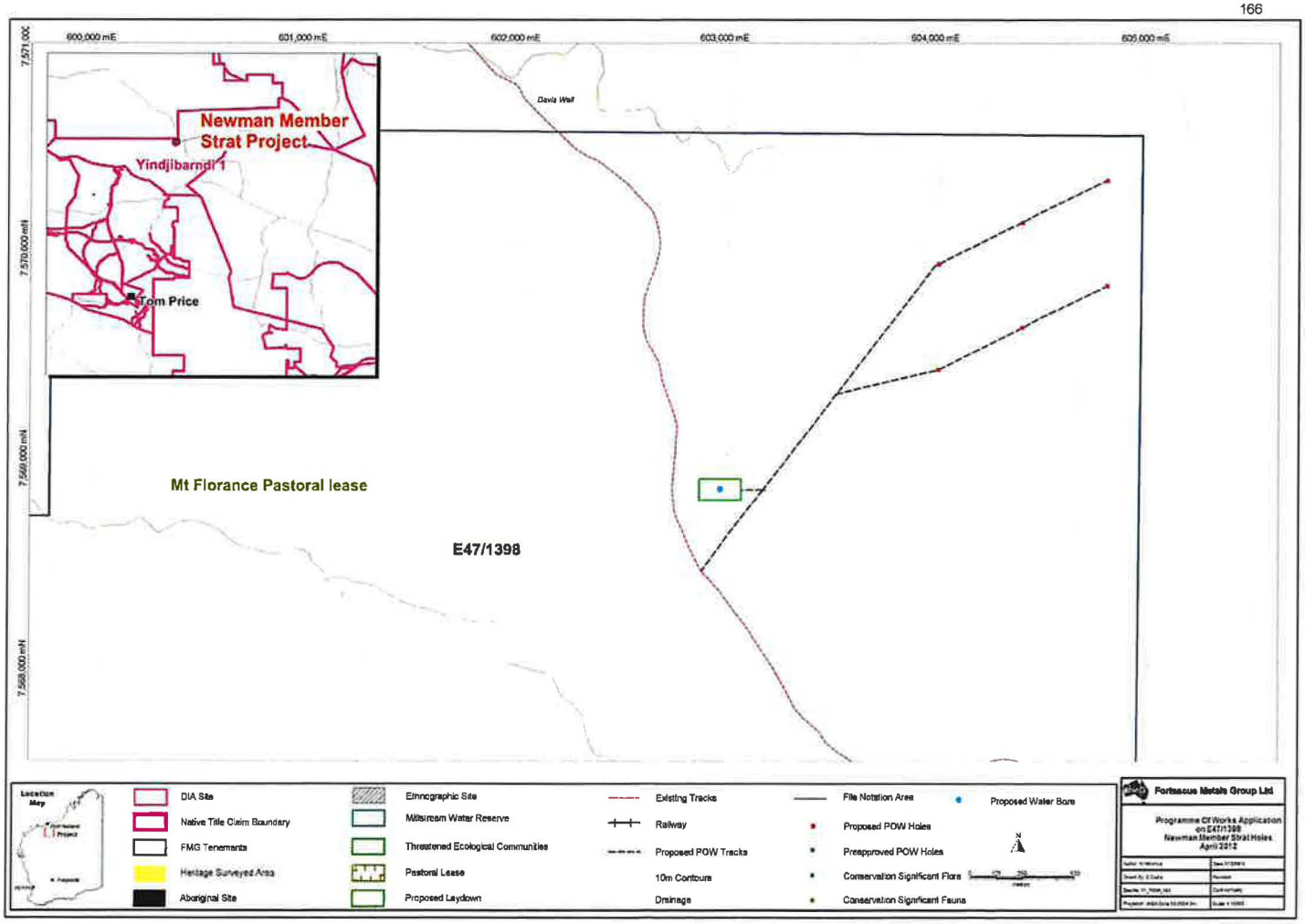
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7,568,000 mN
Davis Well
Newman Member Strat Project
Yindjibarndi 1
Tom Price
Mt Florance Pastoral lease
E47/1398
Location Map
DIA Site
Native Title Claim Boundary
FMG Tenements
Heritage Surveyed Area
Aboriginal Site
Ethnographic Site
Millstream Water Reserve
Threatened Ecological Communities
Pastoral Lease
Proposed Laydown
Existing Tracks
Railway
Proposed POW Tracks
10m Contours
Drainage
File Notation Area
Proposed POW Holes
Preapproved POW Holes
Conservation Significant Flora
Conservation Significant Fauna
Proposed Water Bore
N
Fortescue Metals Group Ltd
Programme Of Works Application on E47/1398 Newman Member Strat Holes April 2012

Attachment 2:

Aboriginal Heritage Inquiry System report for E47/1398

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Aboriginal Heritage Inquiry System

Aboriginal Sites Database

Search Criteria

3 sites in mining tenement 'E 4701398'.

Disclaimer

Aboriginal sites exist that are not recorded on the Register of Aboriginal Sites, and some registered sites may no longer exist. Consultation with Aboriginal communities is on-going to identify additional sites. The AHA protects all Aboriginal sites in Western Australia whether or not they are registered.

Copyright

Legend

Restriction		Access	
N	No restriction	C	Closed
M	Male access only	O	Open
F	Female access	V	Vulnerable

Coordinate Accuracy

Accuracy is shown as a code in brackets following the site coordinates.

[Reliable] The spatial information recorded in the site file is deemed to be reliable, due to methods of capture.

[Unreliable] The spatial information recorded in the site file is deemed to be unreliable due to errors of spatial data capture and/or quality of spatial information reported.

Status

L - Lodged	→	IA - Information Assessed	→	ACMC Decision Made
Information lodged, awaiting assessment		Information Awaiting ACMC Decision Assessment Only		**R - Registered Site** I - Insufficient information S - Stored Data

*Explanation of Assessment

Sites lodged with the Department are assessed under the direction of the Registrar of Aboriginal Sites. These are not the final assessment.

Final assessment and decisions will be determined by the Aboriginal Cultural Material Committee (ACMC).

Spatial Accuracy

Index coordinates are indicative locations and may not necessarily represent the centre of sites, especially for sites with an access code "closed" or "vulnerable". Map coordinates (Lat/Long) and (Easting/Northing) are based on the GDA 94 datum. The Easting / Northing map grid can be across one or more zones. The zone is indicated for each Easting on the map, i.e. '5000000:Z50' means Easting=5000000, Zone=50.

Sites Shown on Maps

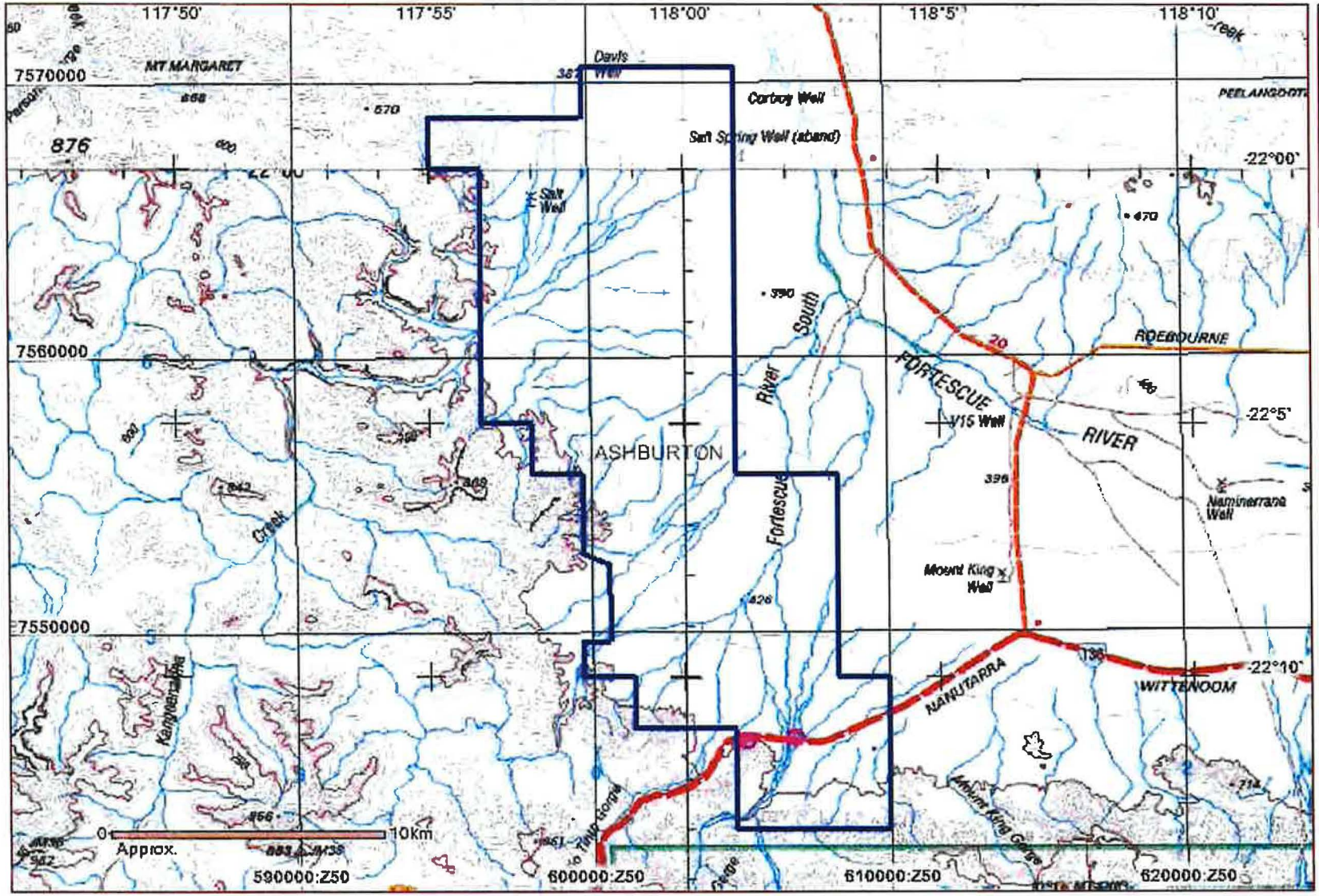
Site boundaries may not appear on maps at low zoom levels

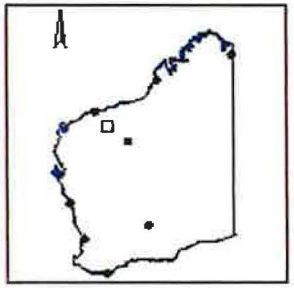
List of 2 Registered Aboriginal Sites with Map

Site ID	Status	Access	Restriction	Site Name	Site Type	Additional Info	Informants	Coordinates	Site No.
6613	R	O	N	Rio Tinto Gorge.	Artefacts / Scatter	Archeological Deposit, Rockshelter, [Other: ?]		605138mE 7546054mN Zone 50 [Reliable]	P06358
7065	R	O	N	Hamersley Gorge Engraving	Man-Made Structure, Painting, Engraving, Artefacts / Scatter			606788mE 7546204mN Zone 50 [Reliable]	P05897

Aboriginal Heritage Inquiry System

Aboriginal Sites Database





Legend

Selected Heritage Sites

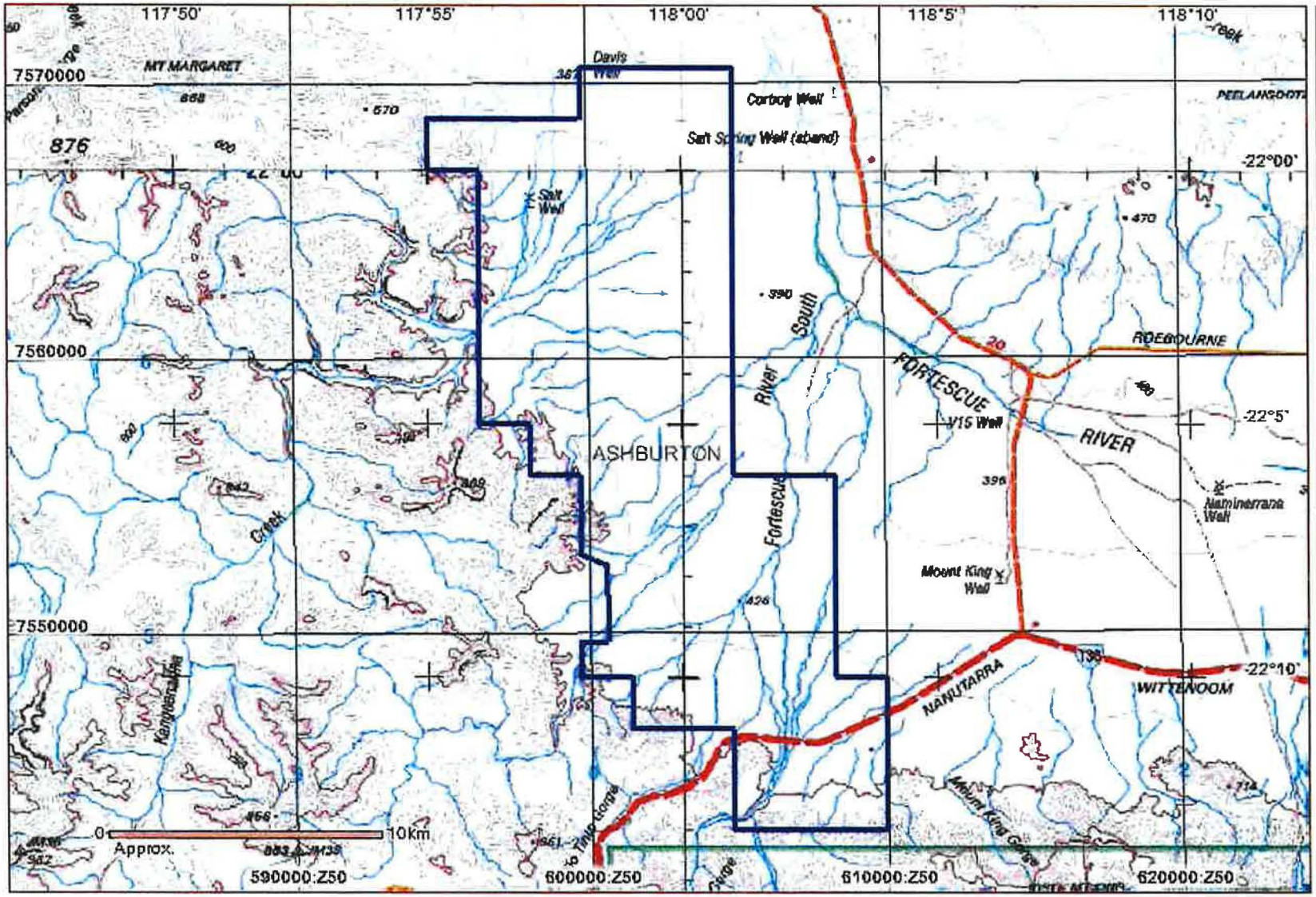
- Registered Sites
- Town
- Map Area
- Search Area

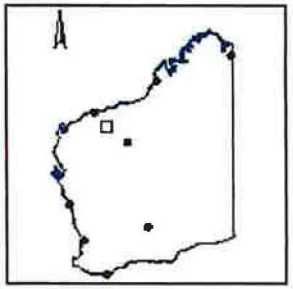
List of 1 Other Heritage Places with Map

Site ID	Status	Access	Restriction	Site Name	Site Type	Additional Info	Informants	Coordinates	Site No.
30492	IA	O	N	Yin10-039	Artefacts / Scatter		*Registered Informant names available from DIA.	600677mE 7552054mN Zone 50 [Reliable]	

Aboriginal Heritage Inquiry System

Aboriginal Sites Database





Legend

Selected Heritage Sites

Other Heritage Places

Town

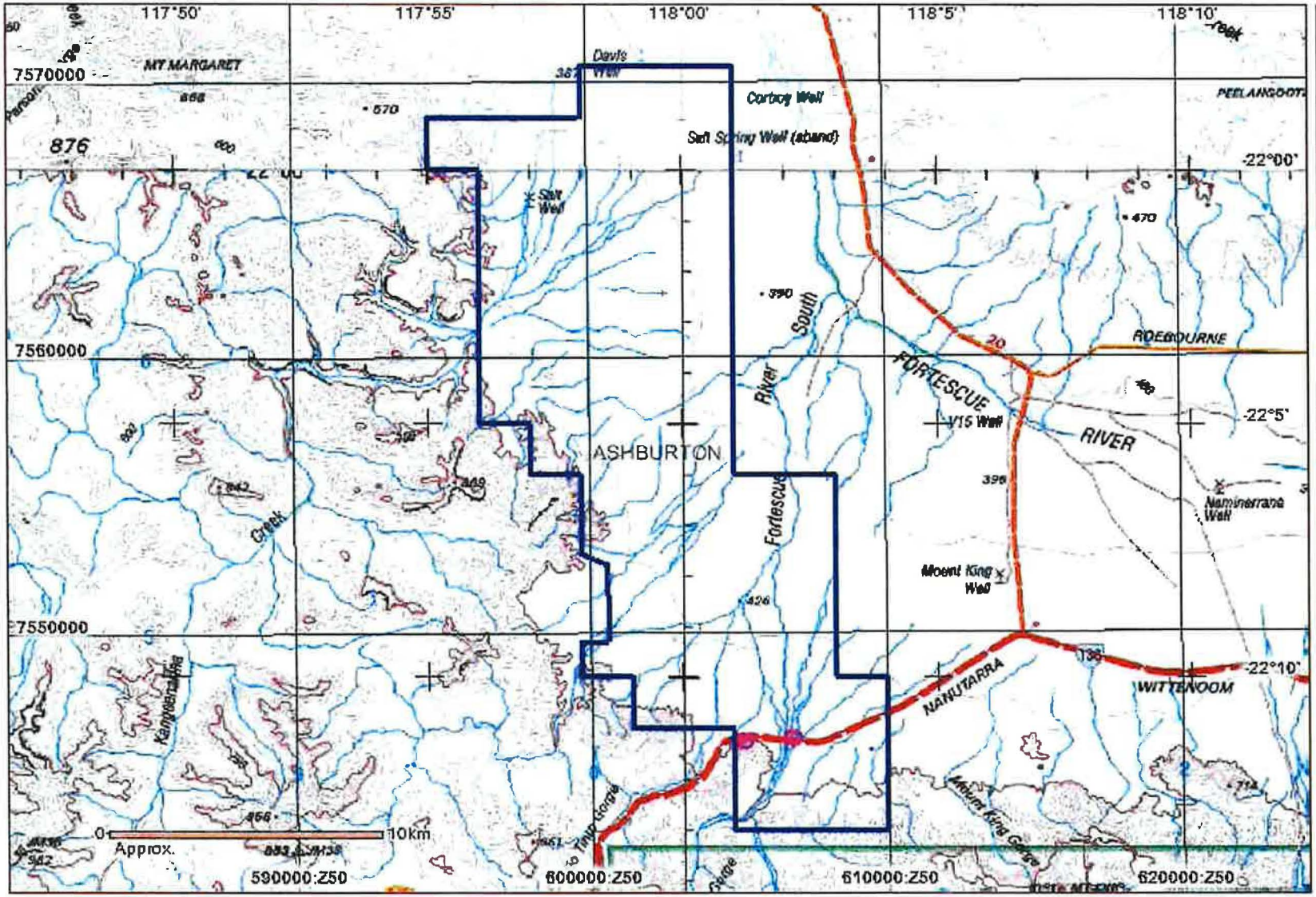
Map Area

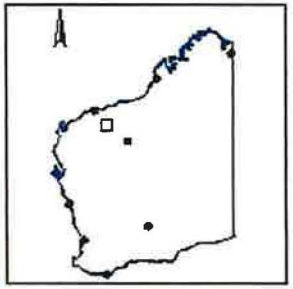
Search Area

Map Showing Registered Aboriginal Sites and Other Heritage Places

Aboriginal Heritage Inquiry System

Aboriginal Sites Database





Legend

Selected Heritage Sites

- Registered Sites
- Other Heritage Places
- Town
- Map Area
- Search Area

"SJB-4"

WAD 37 of 2022

Federal Court of Australia

District Registry: Western Australia

Division: General

YINDJIBARNDI NGURRA ABORIGINAL CORPORATION RNTBC

Applicant

STATE OF WESTERN AUSTRALIA & ORS

Respondents

This is the annexure marked "**SJB-4**" referred to in the affidavit of Stuart James Badock sworn on 10 July 2023.

Signature of witness

a legal practitioner who has held
a practice certificate for at least
2 years and who holds a current
practice certificate.

Land Use Certificate

LUC ID: LUC-00339
Application Date: 25/08/2017
Proposed Start Date: 12/08/2017
Responsible Team: Solomon Res Def
LUC Short Name: Garnagee West

Type: Ground Disturbing

Expiry Date: 31/08/2018
Approval Date: 31/08/2017
Proposed End Date: 31/10/2017

Contacts	Name / Company	Contact Details
Applicant	Zena Jolly	Work : Mobile : Email : zjolly@fmgl.com.au
Secondary Contact	Blaiz Mcmeechan	Work : Mobile : Email : bmcmeechan@fmgl.com.au
Secondary Contact	Paolo Calafa	Work : Mobile : Email : pcalafa@fmgl.com.au
Site Responsible Contact 1	Russell Boyd	Work : Mobile : Email : rboyd@fmgl.com.au

Summary of Works

Work Category	Sub Category	Estimated Disturbance (ha)
Exploration	Exploration (Tracks and Drillpads)	8.5
TOTAL Estimated Disturbance		**8.5**

Detailed Scope of Works:
Tracks and pads for exploration drilling 20mx20m pads 6m wide tracks topsoil to be stored in the windrows Clearing under POW 1120

Topsoil Disturbance: YES

Disturbed Top Soil be kept at location of clearing?: NO
Estimated Topsoil Volume (m3): 1600

Topsoil Storage Location(s):

LUC ID	Short Name

Infrastructure to be constructed: NO

Underground Services to be laid: NO

Standard Conditions (additional Approver conditions listed below): 180

1. Persons conducting any work associated with a Land Use Certificate (LUC) must be aware of the approval conditions.
2. Any person conducting work associated with this LUC is required to have ready access to an electronic copy, or a hard copy, of the LUC whilst undertaking the work.
3. All works defined by the LUC scope must occur within the LUC Approved Area.
4. Refer to the FMG Incident Management Procedure (100) following any breaches of this LUC (non-compliance with **LUC Conditions**; working outside of **LUC Approved Area**; working after **LUC Expiry Date**).
5. If a potential burial or human skeletal material are discovered, stop work immediately and contact the Heritage team: Aaron Rowley (0417 141 398) or Max Coyne (0428 746 279).
6. Access to the LUC Approved Area should only occur using existing tracks/roads or those established under an alternate LUC.
7. LUC activity may be audited for compliance.

Endorsements

Activity Area	Date	Endorser	Contact Details
Solomon	28/08/2017	FMG\plaird	

Tenure Approver:

Date	Approver	Contact Details
29/08/2017	Shane Gibson	shgibson@fmgl.com.au

Mining Tenure
E47/1319
E47/1447

Tenure Conditions:

No.	Condition	Tenement(s)
1	All disturbances to the surface of the land made as a result of exploration, including costeans, drill pads, grid lines and access tracks, being backfilled and rehabilitated to the satisfaction of the Environmental Officer, Department of Mines and Petroleum (DMP). Backfilling and rehabilitation being required no later than 6 months after excavation unless otherwise approved in writing by the Environmental Officer, DMP.	E47/1319
2	All waste materials, rubbish, plastic sample bags, abandoned equipment and temporary buildings being removed from the mining tenement prior to or at the termination of exploration program.	E47/1319 , E47/1447
3	Unless the written approval of the Environmental Officer, DMP is first obtained, the use of drilling rigs, scrapers, graders, bulldozers, backhoes or other mechanised equipment for surface disturbance or the excavation of costeans is prohibited. Following approval, all topsoil being removed ahead of mining operations and separately stockpiled for replacement after backfilling and/or completion of operations.	E47/1319
4	All costeans and other disturbances to the surface of the land made as a result of exploration, including drill pads, grid lines and access tracks, being backfilled and rehabilitated to the satisfaction of the Environmental Officer, Department of Industry and Resources (DoIR). Backfilling and rehabilitation being required no later than 6 months after excavation unless otherwise approved in writing by the Environmental Officer, DoIR.	E47/1447
5	Unless the written approval of the Environmental Officer, DoIR is first obtained, the use of scrapers, graders, bulldozers, backhoes or other mechanised equipment for surface disturbance or the excavation of costeans is prohibited. Following approval, all topsoil being removed ahead of mining operations and separately stockpiled for replacement after backfilling and/or completion of operations.	E47/1447
6	The development and operation of the project being carried out in such a manner so as to create the minimum practicable disturbance to the existing vegetation and natural landform.	E47/1447
7	All topsoil and vegetation being removed ahead of all mining operations and being stockpiled for later respreading or immediately respread as rehabilitation progresses	E47/1447

No.	Condition	Tenement(s)
8	All rubbish and scrap is to be progressively disposed of in a suitable manner.	E47/1481

Heritage Approver:

Date	Approver	Contact Details
28/08/2017	Lisa Maher	61-08-6218 8054 61-0417958650 lmaher@fmgl.com.au

Heritage Conditions:

No.	ID	Condition
1.	H/SC-0005	Please ensure that clearing works are completed as per the clearing SWIs: EX-WI-EX-0001 (Clearing gridlines and pads); or, EX-WI-EX-0007 (Clearing Gridlines and pads (Without EEMIS)).
2.	H/SC-0006	Known Heritage Places exist adjacent to the LUC Approved Area; ensure current Heritage Places data set is sourced from Y:\GIS_Data_Warehouse\GIS_Exports prior to commencing works.
3.	H/SC-0008	Ensure the Heritage department is contacted if proposed work start date is brought forward, to allow Heritage Place demarcation/fencing to be audited.
4.	H/SC-0011	Do not remove, relocate or interfere with any object that may be considered cultural material, including stone, wooden or historic artefacts.
5.	H/SC-0012	Do not take photos of potential or known heritage places or objects including rock paintings, engravings, grinding areas.

Environment Approver:

Date	Approver	Contact Details
30/08/2017	Aaron Lindsay	aalindsay@fmgl.com.au

Environment Approvals:

ELP ID	Expiry Date	Instrument ID	Permit Title
ELP-1120	30/09/2019		PoW Application for clearing and RC drilling Solomon East, E Tenements (E47/1319, E47/1447, E47/1333, E47/1334, E47/1011 and E47/1532).

Environment Conditions:

No.	Type	ID	Condition
1.	Other		• LUC is within an area of known Northern Quoll and Pilbara Olive Python populations.
2.	Other		• Significant care must be taken to mitigate any impacts to Northern Quoll and Pilbara Olive Python. This is to include: - Cautious driving during dawn and dust. - Reporting of any sightings to the Environment Department promptly. - Reducing speed limits where practical. - Minimising all ground disturbing activities as much as practical.
3.	Other		• LUC and associated maps are to be kept on machines carrying out clearing works at all times.
4.	Other		• The Supervisor or delegate is to ensure all personnel carrying out ground disturbing works understand and comply with all LUC conditions.
5.	Other		• The LUC boundary is to be clearly delineated prior to any disturbance.
6.	Other		• No clearing is to occur outside of the LUC area.

No.	Type	ID	Condition
7.	Other		• Breaches to any LUC conditions, in particular any disturbance outside of the LUC boundary, must be reported as an incident within 24 hours in BMS.
8.	Other		• Ensure disturbed areas are utilised wherever possible to minimise disturbance of uncleared areas.
9.	Other		• Avoid mature (habitat) trees and termite mounds where possible.
10.	Other		• Where available, topsoil is to be removed to a maximum depth of 200mm.
11.	Other		• Topsoil from exploration or resource definition clearing for tracks and pads, can be stockpiled around pads at a height no greater than 2m. Stockpiled material can then be spread and ripped over the pad to assist with rehabilitation.
12.	Other		• If any weed species are identified during the ground disturbing activities contact the Environmental Team as soon as practical.
13.	Other		• Impact to creek lines and areas of sheet-flow to be minimised wherever possible.
14.	Other		• No topsoil or vegetation is permitted to be stored within creek lines.
15.	Other		• If relevant, all works and rehabilitation is to be conducted in accordance with the requirements described in the applicable PoW.

Water Infrastructure Approver:

Date	Approver	Contact Details
28/08/2017	Chris Tan	chtan@fmgl.com.au

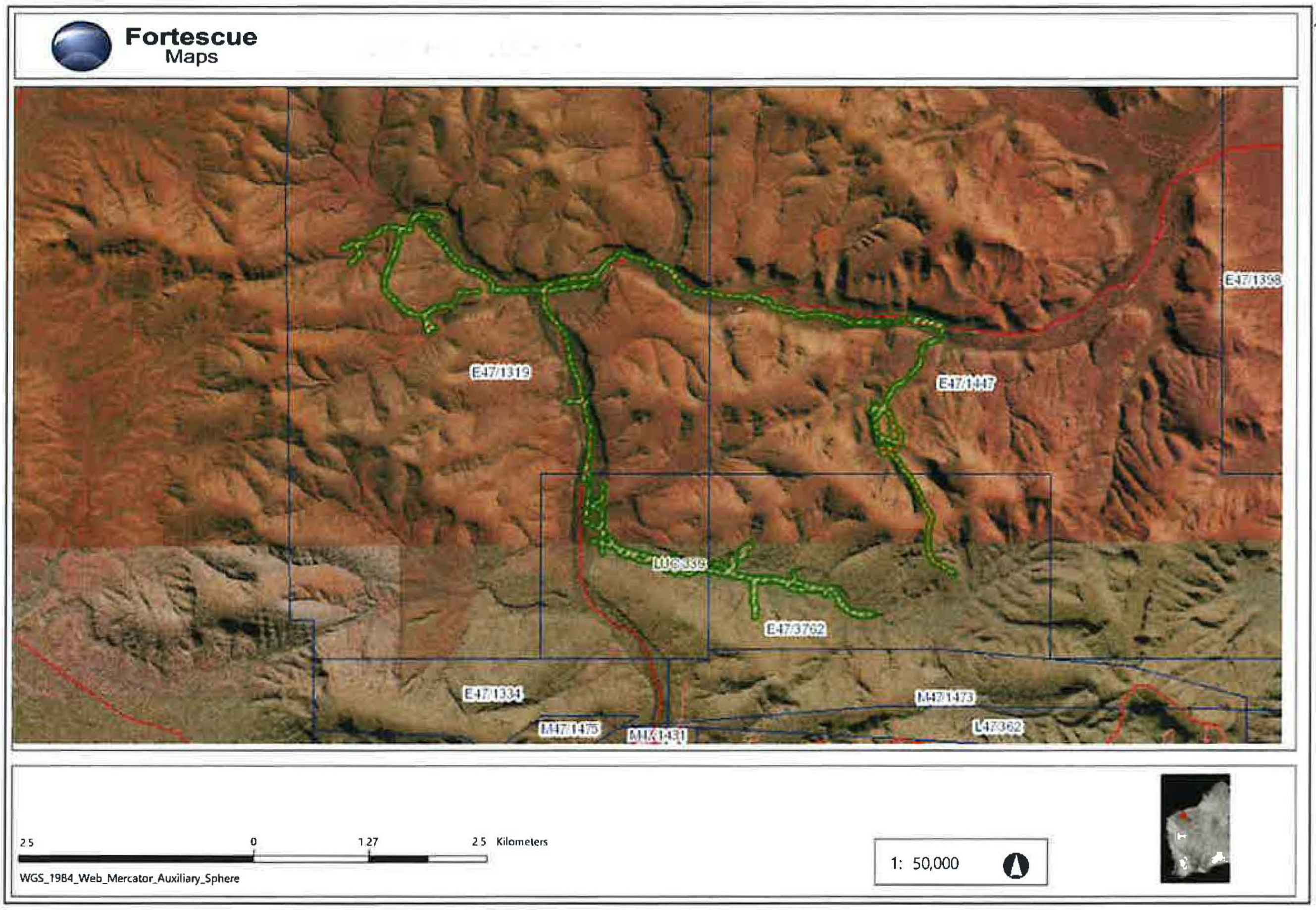
Water Infrastructure Conditions:

No.	ID	Condition
1.	WI/SC-0001	No existing water bores, monitoring sites (weather, ground or surface water) or water infrastructure in the application area.
2.	WI/SC-0003	The proposed works shall be reviewed and confirmed using the following GIS layers: • EnviroSys Bores • FMG Water Distribution System
3.	WI/SC-0004	For Solomon only, the proposed works shall also be reviewed and confirmed using the following Vulcan water infrastructure layers: • sol-bores-and-pipes.dgd; and • sol_master_services_model.dgd
4.	WI/SC-0005	All identified water bores, monitoring sites (weather, ground or surface water) and water infrastructure is to be field verified prior to start of work.
5.	WI/SC-0006	Offsets/buffers from identified and existing water bores, monitoring sites (weather, ground or surface water) and water infrastructure shall be used, detailed as follows: • Minimum 10m offset/buffer from any water bore including pumping plant (generator, panel, fuel pods). • Minimum 20m offset from any monitoring site (weather, ground or surface water) • Minimum 10m offset/buffer from any water pond, turkeys nest or storage tank including plant (pump, generator, panel, fuel pod and standpipe). • Minimum 5m offset/buffer from any water infrastructure including pipelines and fittings. • All of the above shall be increased to a minimum 50m if work includes Drilling/Blasting.
6.	WI/SC-0007	If work is required to be completed within the specified offsets/buffers, contact Water Services/Dewatering/Hydrology department for direction.
7.	WI/SC-0008	Any impact or damage to water bores, monitoring sites (weather, ground or surface water) and water infrastructure shall be reported to Water Services/Dewatering/Hydrology department immediately and incident reporting procedure initiated.
8.	WI/SC-0009	If water bores, monitoring sites (weather, ground or surface water) or water infrastructure found or located during works, contact Water Services/Dewatering/Hydrology department for direction.

No.	ID	Condition
9.	WI/SC-0010	If the application includes any type of activity over buried water pipes, such as running HVs over the buried services to access the work area (even if the buried pipes are not directly located in the proposed area) the suitability of the buried services for crossing or any other activity shall be checked and confirmed by Water Services/Dewatering/Hydrology department.
10.	WI/SC-0011	Proposed works shall not impede function of existing drainage culverts or diversion drains, unless authorisation is given from the Surface Water department.
11.	WI/SC-0012	The proposed work shall not permanently block access tracks/points to the water infrastructure. If the access tracks/points are blocked during the work, they are to be returned to their original state or a similar alternative access provided after completion of work. Temporary blockage of access tracks/points during the work is to be communicated to the Water Services/Dewatering/Hydrology department.

Pastoral Access Approver:

Date	Approver	Contact Details
28/08/2017	Vince George	61-08-6218 8618 61-0407 775 014 vgeorge@fmgl.com.au


Fortescue
Maps
E47/1398
E47/1319
E47/1447
E47/3762
E47/1334
M47/1473
M47/1475
L47/362
2.5
0
1.27
2.5 Kilometers
WGS_1984_Web_Mercator_Auxiliary_Sphere
1: 50,000

Legend

LUC Area Status

- Pending
- Returned
- Conditional
- Active
- Expired
- Completed
- Cancelled
- Withdrawn

LUC Area Type

- Access
- Ground Disturbing
- Retrospective
- Maintenance
- Rehabilitation

FMG 3RD Mines Prospects

- Fortescue Metals Group
- BHP Billiton
- Rio Tinto Limited
- Other

ESS

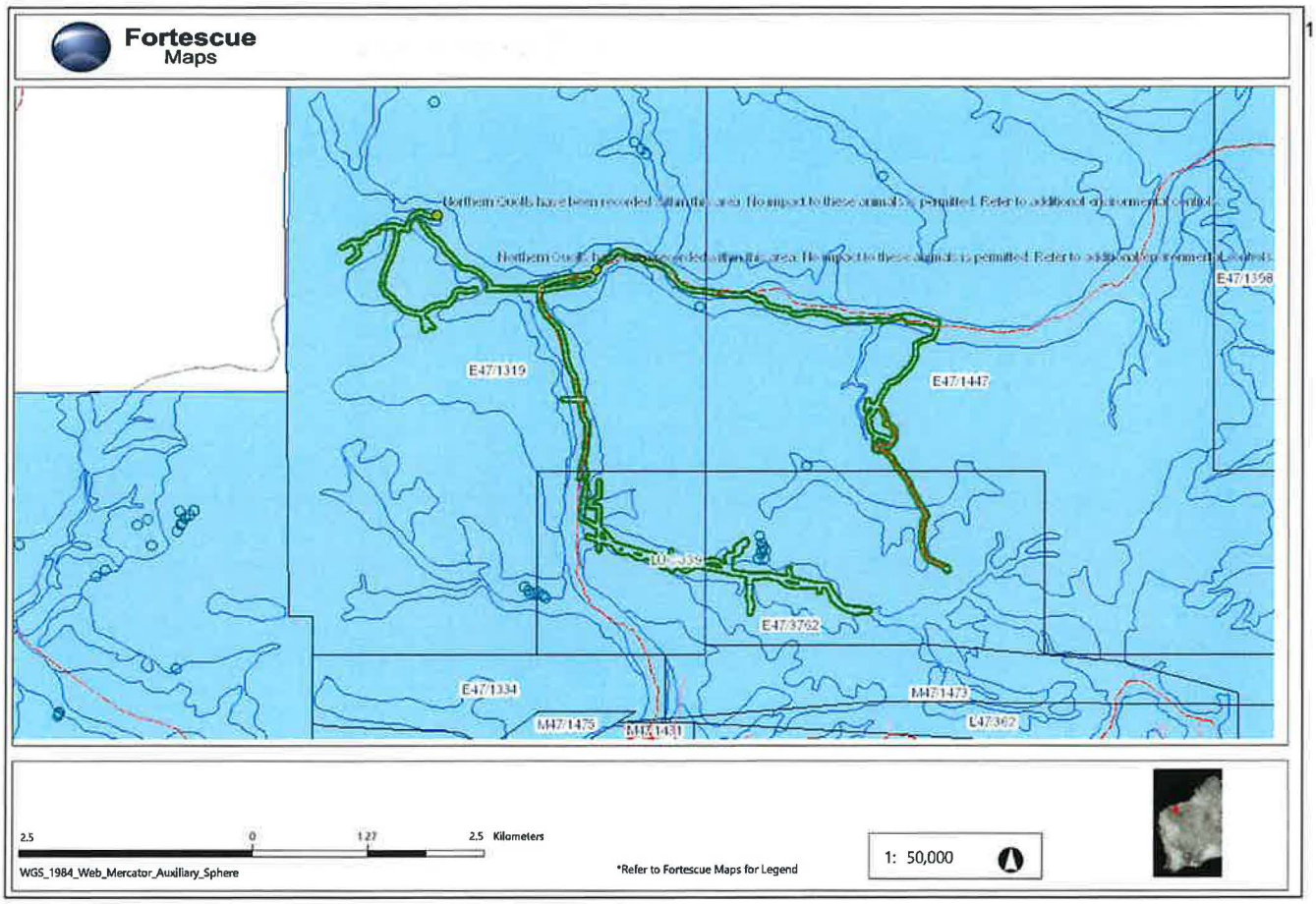
- Ambulance
- Christmas Creek Emergency Services
- Cloudbreak Emergency Services
- Fire Trailer
- Hi-Rail Ambulance
- Hospital
- Medical Centre
- Medical Centre (0600-1800)
- Muster Point
- Police
- Port Emergency Services
- Projects Ambulance
- Security
- Solomon Emergency Services
- St Johns

Towns

- Major Town / City
- Town
- Village

- Highway
- Road
- Haul Road
- Major Track
- Minor Track
- Drill Line
- 4WD Track
- Unclassified
- Proposed Tracks
- Popular Access Routes
- Rail Localities
- Major Chainage Labels
- Alignments
- FMG WA Managed Tenements
- FMG WA Non Managed Tenements

Cilations


Fortescue
Maps
E47/1319
E47/1447
E47/3762
E47/1334
M47/1475
M47/1431
M47/1473
L47/362
2.5
0
1.27
2.5 Kilometers
WGS_1984_Web_Mercator_Auxiliary_Sphere
*Refer to Fortescue Maps for Legend
1: 50,000

"SJB-5"

WAD 37 of 2022

Federal Court of Australia

District Registry: Western Australia

Division: General

YINDJIBARNDI NGURRA ABORIGINAL CORPORATION RNTBC

Applicant

STATE OF WESTERN AUSTRALIA & ORS

Respondents

This is the annexure marked "**SJB-5**" referred to in the affidavit of Stuart James Badock sworn on 10 July 2023.

Signature of witness

a legal practitioner who has held
a practice certificate for at least
2 years and who holds a current
practice certificate.

Fortescue

Our Ref: DOC CONTROL: E_EX_0236.01
Your Ref: REG ID: 33954

The Environmental Officer
Environmental Division
Department of Mines, Industry Regulation and Safety
100 Plain Street
EAST PERTH WA 6004

8 September 2022

Dear Sir / Madam,

Notification of Rehabilitation of Registration ID - 33954

This letter is to inform you of the rehabilitation work carried out by Fortescue Metals Group Ltd (Fortescue) on our Sheila project, which lies approximately 82km northwest of Auski Roadhouse in the Pilbara region of Western Australia.

A summary of rehabilitation works has been provided in Table 1. Fortescue wishes to advise this POW is no longer required and all rehabilitation was undertaken in accordance with DMIRS guidelines, tenement conditions and Fortescue's *Exploration Environmental Management Plan* (E-PL-EN-0002) and *Drill Hole Stabilisation and Site Rehabilitation Procedure* (E-PR-EN-0010).

A map outlining the location of rehabilitation is shown in Attachment A, and the rehabilitation works undertaken are further outlined in Attachment B (Rehabilitation Submission Form). All associated access tracks and drill lines have been rehabilitated, and this POW has been closed off on our systems.

Table 1. Summary of Rehabilitation

Reg ID 33954								
Tenement	**Pads cleared**	**Pads rehabbed**	**Tracks cleared (km)**	**Tracks rehabbed (km)**	**Total Hectares Rehabbed**	**Excess tonnage approved**	**Excess tonnage disturbed**	**Rehab Status**
E47/1398	1	1	4.3	4.3	**1.75**	160	NA	Final

Should you require further information, please contact Rosalyn Sloan on 08 9230 1830 or at rsloan@fmgl.com.au.

Yours sincerely
FORTESCUE METALS GROUP

STUART BADOCK
Manager Exploration Iron (WA)

Enc.

Attachment A	Rehabilitation Map
Attachment B	Rehabilitation Submission Form

Attachment A


602,000
603,000
604,000
605,000
606,000
607,000
608,000
7,572,000
7,571,000
7,570,000
7,569,000
7,568,000
7,567,000
E47/1398
RIVER
LOCATION MAP
Karratha
Port Hedland
Marble Bar
Rehabilitation Location
Auski Roadhouse
Tom Price
Paraburdoo
Newman
LEGEND
Rehabbed Pads
Tracks 2011
FMG Tenements
N
0
0.5
1
Kilometres
Rehabilitation Map
Sheila Valley (Reg ID: 33954)
Requested By: DMIRS
Drawn By: Eliza Stewart
Revised By: I650554
Approved By
Scale: 1:30,000
Coordinate System: GDA 1994 MGA Zone 50
Document Name: Reg ID 33954 Rehabilitation Map
Date: 31/08/2022
Size: A4L
Revision: 0
Confidentiality: 0
Data Source(s):
GOV 250K Raster Geology
Fortescue Metals Group Ltd
The New Force in Iron Ore

Fortescue

Attachment B

Government of **Western Australia**
Department of **Mines, Industry Regulation and Safety**

GUIDANCE
Programme of Work Rehabilitation Report

PoW Registration Number	Required Action Reference Number (if applicable)
3 3 9 5 4	RA – –

Report Stage: **PROGRESSIVE** **FINAL** ●

This form should be used to report your Programme of Work (PoW) rehabilitation activities.

It is a requirement that rehabilitation of prospecting and exploration activities is undertaken within six months of completion of ground disturbance activities that have been approved under a PoW, or following an approved extension period.

Please include the following to complement the information provided in this form:

1) A map of disturbed and rehabilitated areas.
2) Before and after photos of your rehabilitation including a significant landmark for comparison purposes, with a brief description including location, date and photo content.
3) Other supporting information you consider relevant (e.g. areas to be rehabilitated, your own rehabilitation reports, etc.).

Completed forms can be submitted either:

Over the counter at any DMIRS Office

OR

Online via DMIRS Submissions
http://www.dmp.wa.gov.au/Environment/Programmes-of-Work-5966.aspx

or posted to the offices listed below:

PERTH INSPECTORATE DMIRS – Resource and Environmental Compliance Division Locked Bag 100 EAST PERTH WA 6892 TEL: (08) 9222 3535	**KALGOORLIE INSPECTORATE** DMIRS – Resource and Environmental Compliance Division Locked Bag 405 KALGOORLIE WA 6433 TEL: (08) 9021 9494

Operator Details

Operator Name				
Fortescue Metals Groups Ltd.				
Title	**Contact First Name**	**Contact Surname**		
Ms	Eliza	Stewart		
Mailing Address			**State**	**Postcode**
PO BOX 3379 Hay Street East Perth			WA	6004
Email			**Telephone / Mobile**	
eliza.stewart@fmgl.com.au, rsloan@fmgl.com.au			08 9230 1830	

PoW Details

Your Reference (if applicable)	Commencement Date	Completion Date
Sheila Valley	01/03/2012	08/06/2020

	Tenement Number(s) *If there are more than 4 tenements please attach a separate table*			
	E47/1398			
Hectares Approved	4			
Hectares Disturbed	1.75			
Hectares Rehabilitated	1.75			
Tonnage Approved	160			
Tonnage Disturbed	0			

Disturbance and Rehabilitation Activities

Disturbance	Rehabilitation	Yes	No	NA
		If 'No', please provide reasons in the Comments section		
☐ **Scraping, Detecting, Dry blowing**	• Windrows, stockpiles and dumps levelled off.	●		
☐ **Samples**	• Removed from surface of pad and buried. *Not required if material is non-hostile, similar colour to surrounds and not within Department of Biodiversity, Conservation and Attractions Managed Land or a water reserve.*	●		
	• Sample bags/bag farm removed.	●		
☐ **Drill Holes**	• Plugged 400mm below ground level.	●		
	• Backfilled above plug and mounded.	●		
	• Drill spoil removed or scarified.	●		
☐ **Drill Pads**	• Topsoil and vegetation re-spread. *Unless blade clean-up.*	●		
	• Scarified if required.	●		
☐ **Alluvial Wet Plant**	• Infrastructure removed.			●
	• Tailings rehabilitated.			●
☐ **Costean, Trenches, Sumps, Test Pits**	• Backfilled and mounded.	●		
	• Topsoil/vegetation respread.	●		
☐ **Access Tracks, Gridlines**	• Access closed off.	●		
	• Topsoil and vegetation re-spread. *Unless blade clean-up.*	●		
	• Scarified if required.	●		
☐ **Campsite**	• Concrete pads removed or broken and buried.			●
	• Other infrastructure removed.			●
	• Topsoil and vegetation re-spread.			●
	• Scarified if required.			●
☐ **All Activities**	• Surface water drainage lines reinstated.	●		
	• Erosion control implemented.	●		
	• Survey pegs and marker tape removed.	●		
	• Rubbish and temporary infrastructure removed.	●		
	• Cut & fill pads/tracks re-profiled to original slope.	●		
	• Pads revegetated with local provenance species.	●		
	• Weeds/invasive species present?		●	
	• Hydrocarbon spills/contaminated material removed and disposed of appropriately.			●

Comments

Use this section to:

1) **Add comments to support your Disturbance and Rehabilitation Activities answers on page 14.**
2) **Detail alternative or additional measures that have been undertaken.**
3) **Enter a brief description of other supporting information included as an attachment.**

Rehabilitation summary of E47/1398

1 pads were cleared and 1 pads have been rehabbed
4.3km (4m wide) tracks were cleared and rehabbed.

No excess tonnage has been disturbed.

Tenement Holder/Operator Declaration

I confirm that all rehabilitation commitments outlined in the tenement conditions and within the approved Programme of Work application have been completed.

Attachment checklist:

☑ Rehabilitation map ☐ Photographic evidence ☐ Other supporting information

Signature	Name and Title	Date
Eliza Stewart	Eliza Stewart, Reporting Geologist	08/09/2022

"SJB-6"

WAD 37 of 2022

Federal Court of Australia

District Registry: Western Australia

Division: General

YINDJIBARNDI NGURRA ABORIGINAL CORPORATION RNTBC

Applicant

STATE OF WESTERN AUSTRALIA & ORS

Respondents

This is the annexure marked "**SJB-6**" referred to in the affidavit of Stuart James Badock sworn on 10 July 2023.

Signature of witness

a legal practitioner who has held
a practice certificate for at least
2 years and who holds a current
practice certificate.

EXPLORATION LICENCES FOR WHICH COMPENSATION IS CLAIMED

1. Exploration licence E47/1319-I
2. Exploration licence E47/1333-I
3. Exploration licence E47/1334-I
4. Exploration licence E47/1398-I
5. Exploration licence E47/1399-I
6. Exploration licence E47/1447-I
7. Exploration licence E47/3205-I
8. Exploration licence E47/3464-I

"SJB-7"

WAD 37 of 2022

Federal Court of Australia

District Registry: Western Australia

Division: General

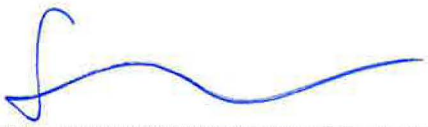
YINDJIBARNDI NGURRA ABORIGINAL CORPORATION RNTBC

Applicant

STATE OF WESTERN AUSTRALIA & ORS

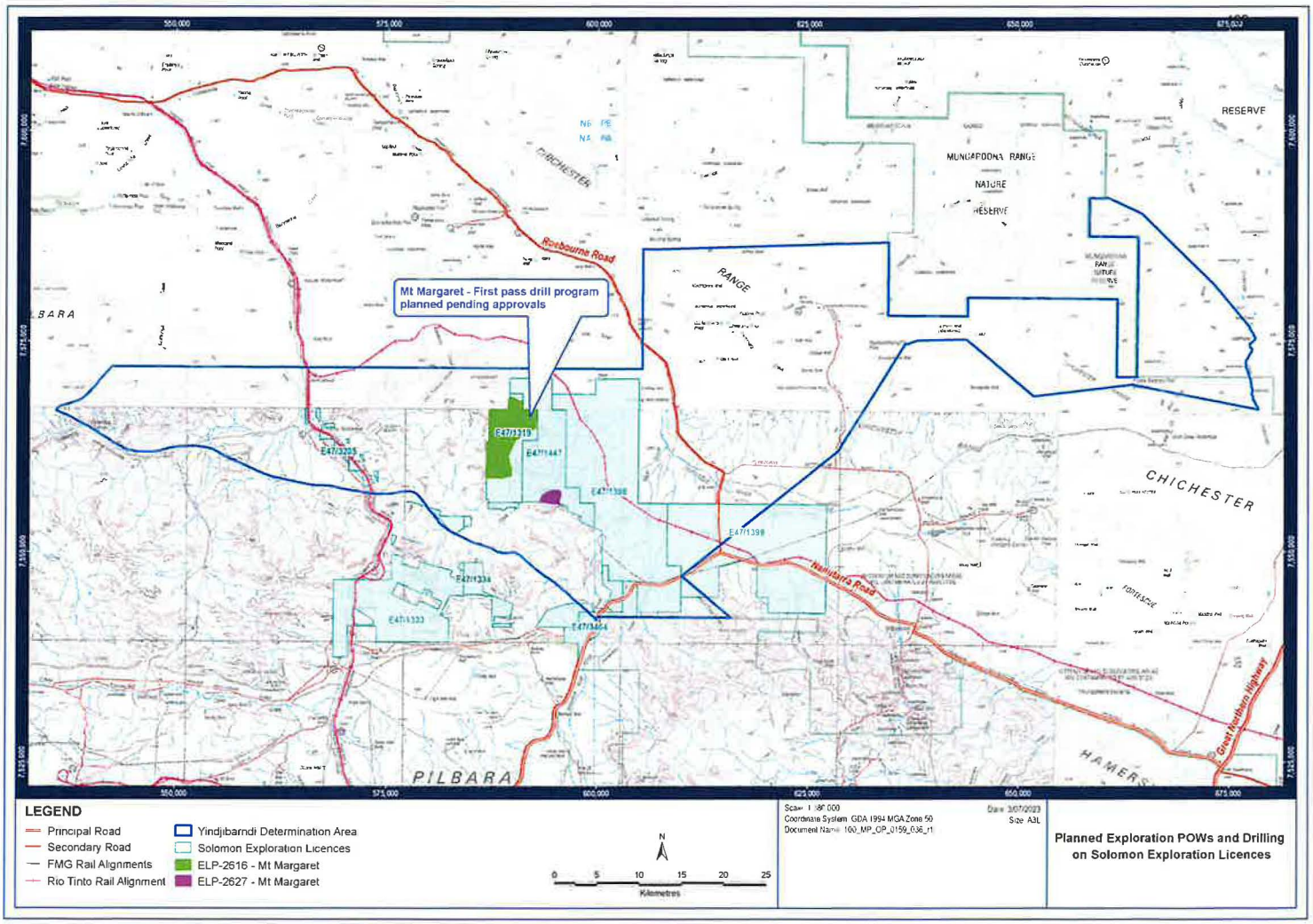
Respondents

This is the annexure marked "**SJB-7**" referred to in the affidavit of Stuart James Badock sworn on 10 July 2023.



Signature of witness

a legal practitioner who has held
a practice certificate for at least
2 years and who holds a current
practice certificate.



LEGEND

- Principal Road
- Secondary Road
- FMG Rail Alignments
- Rio Tinto Rail Alignment
- Yindjibarndi Determination Area
- Solomon Exploration Licences
- ELP-2616 - Mt Margaret
- ELP-2627 - Mt Margaret

N

0 5 10 15 20 25

Kilometres

Scale 1:80,000
Coordinate System GDA 1994 MGA Zone 50
Document Name 160_MP_OP_0159_036_r1

Date 3/07/2023
Size A3L

Planned Exploration POWs and Drilling on Solomon Exploration Licences

NOTICE OF FILING

Details of Filing

Document Lodged:	Affidavit - Form 59 - Rule 29.02(1)
Court of Filing	FEDERAL COURT OF AUSTRALIA (FCA)
Date of Lodgment:	10/07/2023 12:16:00 PM AWST
Date Accepted for Filing:	10/07/2023 12:16:09 PM AWST
File Number:	WAD37/2022
File Title:	YINDJIBARNDI NGURRA ABORIGINAL CORPORATION RNTBC (ICN 8721) AND STATE OF WESTERN AUSTRALIA & ORS
Registry:	WESTERN AUSTRALIA REGISTRY - FEDERAL COURT OF AUSTRALIA

Registrar

Important Information

This Notice has been inserted as the first page of the document which has been accepted for electronic filing. It is now taken to be part of that document for the purposes of the proceeding in the Court and contains important information for all parties to that proceeding. It must be included in the document served on each of those parties.

The date of the filing of the document is determined pursuant to the Court's Rules.