

TABLE OF CONTENTS

1.	PER STRUCTURE AND OBJECTIVES	ERROR! BOOKMARK NOT DEFINED.
1.1	PER OBJECTIVES.....	ERROR! BOOKMARK NOT DEFINED.
1.2	PER STRUCTURE.....	ERROR! BOOKMARK NOT DEFINED.
1.3	PER PROCESS.....	ERROR! BOOKMARK NOT DEFINED.
2.	INTRODUCTION	ERROR! BOOKMARK NOT DEFINED.
2.1	PROPONENT DETAILS	ERROR! BOOKMARK NOT DEFINED.
2.2	LOCATION	ERROR! BOOKMARK NOT DEFINED.
2.3	TENEMENTS.....	ERROR! BOOKMARK NOT DEFINED.
2.4	EXISTING LAND USE	ERROR! BOOKMARK NOT DEFINED.
3.	LEGISLATIVE CONSENT AND LICENSING REQUIREMENTS.....	ERROR! BOOKMARK NOT DEFINED.
3.1	COMMONWEALTH	ERROR! BOOKMARK NOT DEFINED.
3.1.1	<i>Bilateral Agreement.....</i>	<i>Error! Bookmark not defined.</i>
3.2	NORTHERN TERRITORY.....	ERROR! BOOKMARK NOT DEFINED.
3.2.1	<i>Environmental Impact Assessment.....</i>	<i>Error! Bookmark not defined.</i>
3.2.2	<i>Mining Management</i>	<i>Error! Bookmark not defined.</i>
4.	DESCRIPTION OF THE PROPOSED DEVELOPMENT	ERROR! BOOKMARK NOT DEFINED.
4.1	ORE RESERVES.....	ERROR! BOOKMARK NOT DEFINED.
4.2	OVERALL PROCESS DESCRIPTION.....	ERROR! BOOKMARK NOT DEFINED.
4.3	SITE LAYOUT	ERROR! BOOKMARK NOT DEFINED.
4.4	SITE PREPARATION	ERROR! BOOKMARK NOT DEFINED.
4.5	MINING.....	ERROR! BOOKMARK NOT DEFINED.
4.5.1	<i>Pit Characteristics</i>	<i>Error! Bookmark not defined.</i>
4.5.2	<i>Mining Methods</i>	<i>Error! Bookmark not defined.</i>
4.5.3	<i>Mining Schedule.....</i>	<i>Error! Bookmark not defined.</i>
4.5.4	<i>Future Extensions</i>	<i>Error! Bookmark not defined.</i>
4.6	ORE PROCESSING AND TAILINGS MANAGEMENT	ERROR! BOOKMARK NOT DEFINED.
4.7	WASTE ROCK MANAGEMENT	ERROR! BOOKMARK NOT DEFINED.
4.8	WATER USE.....	ERROR! BOOKMARK NOT DEFINED.
4.8.1	<i>Water Balance.....</i>	<i>Error! Bookmark not defined.</i>
4.8.2	<i>Water Management.....</i>	<i>Error! Bookmark not defined.</i>
4.9	TRANSPORT	ERROR! BOOKMARK NOT DEFINED.
5.	WORKFORCE.....	ERROR! BOOKMARK NOT DEFINED.
5.1	REHABILITATION AND DECOMMISSIONING	ERROR! BOOKMARK NOT DEFINED.
5.2	PROJECT SCHEDULE	ERROR! BOOKMARK NOT DEFINED.
6.	PROJECT OBJECTIVES, ALTERNATIVES AND JUSTIFICATION.....	ERROR! BOOKMARK NOT DEFINED.
6.1	OBJECTIVES.....	ERROR! BOOKMARK NOT DEFINED.
6.2	ALTERNATIVES CONSIDERED	ERROR! BOOKMARK NOT DEFINED.
6.3	PROJECT BENEFITS.....	ERROR! BOOKMARK NOT DEFINED.
7.	EXISTING ENVIRONMENT	ERROR! BOOKMARK NOT DEFINED.
7.1	CLIMATE	ERROR! BOOKMARK NOT DEFINED.

7.2	LANDFORM.....	ERROR! BOOKMARK NOT DEFINED.
7.3	SOILS.....	ERROR! BOOKMARK NOT DEFINED.
7.4	GEOLOGY	ERROR! BOOKMARK NOT DEFINED.
7.4.1	<i>Regional Geology.....</i>	<i>Error! Bookmark not defined.</i>
7.4.2	<i>Site Geology.....</i>	<i>Error! Bookmark not defined.</i>
7.4.3	<i>Waste Rock Characterisation.....</i>	<i>Error! Bookmark not defined.</i>
7.5	GROUNDWATER	ERROR! BOOKMARK NOT DEFINED.
7.5.1	<i>Regional Hydrogeology</i>	<i>Error! Bookmark not defined.</i>
7.5.2	<i>Groundwater Quality.....</i>	<i>Error! Bookmark not defined.</i>
7.5.3	<i>Local Hydrogeology.....</i>	<i>Error! Bookmark not defined.</i>
7.6	SURFACE WATER	ERROR! BOOKMARK NOT DEFINED.
7.6.1	<i>Catchment Description</i>	<i>Error! Bookmark not defined.</i>
7.6.2	<i>Downstream Water Users</i>	<i>Error! Bookmark not defined.</i>
7.6.3	<i>Average and Flood Flows.....</i>	<i>Error! Bookmark not defined.</i>
7.6.4	<i>Regional Water Quality</i>	<i>Error! Bookmark not defined.</i>
7.6.5	<i>Project Area Water Quality</i>	<i>Error! Bookmark not defined.</i>
7.7	FLORA	ERROR! BOOKMARK NOT DEFINED.
7.7.1	<i>Mt Porter Flora.....</i>	<i>Error! Bookmark not defined.</i>
7.7.2	<i>Species of Conservation Significance</i>	<i>Error! Bookmark not defined.</i>
7.7.3	<i>Introduced Species.....</i>	<i>Error! Bookmark not defined.</i>
7.8	FAUNA.....	ERROR! BOOKMARK NOT DEFINED.
7.8.1	<i>Mt Porter Fauna</i>	<i>Error! Bookmark not defined.</i>
7.8.2	<i>Conservation Significance</i>	<i>Error! Bookmark not defined.</i>
7.8.2.1	<i>Birds.....</i>	<i>Error! Bookmark not defined.</i>
7.8.2.2	<i>Bats</i>	<i>Error! Bookmark not defined.</i>
7.8.2.3	<i>Mammals</i>	<i>Error! Bookmark not defined.</i>
7.8.3	<i>Introduced Species.....</i>	<i>Error! Bookmark not defined.</i>
7.9	AIR QUALITY AND NOISE.....	ERROR! BOOKMARK NOT DEFINED.
8.	EXISTING SOCIAL ENVIRONMENT.....	ERROR! BOOKMARK NOT DEFINED.
8.1	NATIVE TITLE	ERROR! BOOKMARK NOT DEFINED.
8.2	EUROPEAN HERITAGE	ERROR! BOOKMARK NOT DEFINED.
8.3	ABORIGINAL HERITAGE.....	ERROR! BOOKMARK NOT DEFINED.
8.4	SOCIAL ENVIRONMENT	ERROR! BOOKMARK NOT DEFINED.
8.5	VISUAL AMENITY.....	ERROR! BOOKMARK NOT DEFINED.
8.6	BITING INSECTS.....	ERROR! BOOKMARK NOT DEFINED.
9.	POTENTIAL IMPACTS AND MANAGEMENT.....	ERROR! BOOKMARK NOT DEFINED.
9.1	LANDFORM AND SOILS	ERROR! BOOKMARK NOT DEFINED.
9.1.1	<i>Potential Issues and Impacts.....</i>	<i>Error! Bookmark not defined.</i>
9.1.2	<i>Management and Mitigation Measures</i>	<i>Error! Bookmark not defined.</i>
9.1.2.1	<i>Sensitive Areas and Ground Disturbance</i>	<i>Error! Bookmark not defined.</i>
9.1.2.2	<i>Topsoil Management</i>	<i>Error! Bookmark not defined.</i>
9.1.2.3	<i>Erosion</i>	<i>Error! Bookmark not defined.</i>
9.1.2.4	<i>Soil Contamination</i>	<i>Error! Bookmark not defined.</i>
9.1.2.5	<i>Rehabilitation.....</i>	<i>Error! Bookmark not defined.</i>
9.1.3	<i>Impact Assessment</i>	<i>Error! Bookmark not defined.</i>
9.2	WASTE ROCK MANAGEMENT	ERROR! BOOKMARK NOT DEFINED.
9.2.1	<i>Potential Issues and Impacts.....</i>	<i>Error! Bookmark not defined.</i>
9.2.2	<i>Management and Mitigation Measures</i>	<i>Error! Bookmark not defined.</i>
9.2.3	<i>Impact Assessment</i>	<i>Error! Bookmark not defined.</i>
9.3	GROUNDWATER	ERROR! BOOKMARK NOT DEFINED.

9.3.1	Potential Issues and Impacts.....	Error! Bookmark not defined.
9.3.2	Management and Mitigation Measures	Error! Bookmark not defined.
9.3.3	Impact Assessment	Error! Bookmark not defined.
9.4	SURFACE WATER	ERROR! BOOKMARK NOT DEFINED.
9.4.1	Potential Issues or Impacts.....	Error! Bookmark not defined.
9.4.2	Runoff and Contaminant Management	Error! Bookmark not defined.
9.4.3	Water Discharge	Error! Bookmark not defined.
9.4.4	Extreme Rainfall Events.....	Error! Bookmark not defined.
9.4.5	Monitoring	Error! Bookmark not defined.
9.4.6	Impact Assessment	Error! Bookmark not defined.
9.5	FLORA	ERROR! BOOKMARK NOT DEFINED.
9.5.1	Potential Issues or Impacts.....	Error! Bookmark not defined.
9.5.2	Management and Mitigation Measures	Error! Bookmark not defined.
9.5.2.1	Vegetation Clearing	Error! Bookmark not defined.
9.5.2.2	Weed Management	Error! Bookmark not defined.
9.5.2.3	Rehabilitation.....	Error! Bookmark not defined.
9.5.3	Impact Assessment	Error! Bookmark not defined.
9.6	FAUNA.....	ERROR! BOOKMARK NOT DEFINED.
9.6.1	Potential Issues or Impacts.....	Error! Bookmark not defined.
9.6.2	Management and Mitigation Measures	Error! Bookmark not defined.
9.6.3	Impact Assessment	Error! Bookmark not defined.
9.7	AIR QUALITY AND NOISE.....	ERROR! BOOKMARK NOT DEFINED.
9.7.1	Potential Issues or Impacts.....	Error! Bookmark not defined.
9.7.2	Greenhouse Gases	Error! Bookmark not defined.
9.7.3	Management and Mitigation Measures	Error! Bookmark not defined.
9.7.4	Impact Assessment	Error! Bookmark not defined.
9.8	WASTE AND HAZARDOUS MATERIALS.....	ERROR! BOOKMARK NOT DEFINED.
9.8.1	Potential Impacts	Error! Bookmark not defined.
9.8.2	Management and Mitigation Measures	Error! Bookmark not defined.
9.8.3	Impact Assessment	Error! Bookmark not defined.
9.9	CULTURAL ENVIRONMENT	ERROR! BOOKMARK NOT DEFINED.
9.9.1	Potential Issues or Impacts.....	Error! Bookmark not defined.
9.9.2	Management and Mitigation Measures	Error! Bookmark not defined.
9.9.3	Impact Assessment	Error! Bookmark not defined.
9.10	SOCIO ECONOMIC.....	ERROR! BOOKMARK NOT DEFINED.
9.10.1	Potential Issues and Impacts.....	Error! Bookmark not defined.
9.10.2	Management and Mitigation Strategies.....	Error! Bookmark not defined.
9.10.3	Impact Assessment	Error! Bookmark not defined.
9.11	TRANSPORT	ERROR! BOOKMARK NOT DEFINED.
9.11.1	Potential Issues and Impacts.....	Error! Bookmark not defined.
9.11.2	Management and Mitigation Measures	Error! Bookmark not defined.
9.11.3	Impact Assessment	Error! Bookmark not defined.
9.12	VISUAL AMENITY.....	ERROR! BOOKMARK NOT DEFINED.
9.12.1	Potential Issues or Impacts.....	Error! Bookmark not defined.
9.12.2	Management and Mitigation Measures	Error! Bookmark not defined.
9.12.3	Impact Assessment	Error! Bookmark not defined.
9.13	BITING INSECTS.....	ERROR! BOOKMARK NOT DEFINED.
9.13.1	Potential Issues or Impacts.....	Error! Bookmark not defined.
9.13.2	Management and Mitigation Measures	Error! Bookmark not defined.
9.13.3	Impact Assessment	Error! Bookmark not defined.

10. ENVIRONMENTAL PROTECTION AND BIODIVERSITY CONSERVATION ACT TRIGGERSERROR! BOOKMARK NOT DEFINED.

10.1	WORLD HERITAGE	ERROR! BOOKMARK NOT DEFINED.
10.2	LISTED THREATENED SPECIES	ERROR! BOOKMARK NOT DEFINED.
10.2.1	<i>Orange Horseshoe Bat</i>	Error! Bookmark not defined.
10.2.2	<i>White-striped Sheathtail Bat</i>	Error! Bookmark not defined.
10.2.3	<i>Short-eared Rock Wallaby</i>	Error! Bookmark not defined.
10.2.4	<i>Gouldian Finch</i>	Error! Bookmark not defined.
10.2.5	<i>Partridge Pigeon</i>	Error! Bookmark not defined.
10.2.6	<i>Red Goshawk</i>	Error! Bookmark not defined.
10.2.7	<i>Masked Owl</i>	Error! Bookmark not defined.
10.3	LISTED MIGRATORY SPECIES.....	ERROR! BOOKMARK NOT DEFINED.
10.3.1	<i>Saltwater Crocodile</i>	Error! Bookmark not defined.
10.3.2	<i>Migratory Wetland Bird Species</i>	Error! Bookmark not defined.
10.3.3	<i>Migratory Terrestrial Bird Species</i>	Error! Bookmark not defined.
11.	REHABILITATION AND CLOSURE.....	ERROR! BOOKMARK NOT DEFINED.
11.1	OVERVIEW	ERROR! BOOKMARK NOT DEFINED.
11.2	OBJECTIVES.....	ERROR! BOOKMARK NOT DEFINED.
11.3	REHABILITATION METHODOLOGIES	ERROR! BOOKMARK NOT DEFINED.
11.3.1	<i>Open Pit</i>	Error! Bookmark not defined.
11.3.2	<i>Waste Rock Stockpile</i>	Error! Bookmark not defined.
11.3.3	<i>Infrastructure Areas</i>	Error! Bookmark not defined.
12.	HAZARDS AND RISKS.....	ERROR! BOOKMARK NOT DEFINED.
12.1	RISK ASSESSMENT	ERROR! BOOKMARK NOT DEFINED.
12.2	SAFETY MANAGEMENT.....	ERROR! BOOKMARK NOT DEFINED.
12.3	EMERGENCY RESPONSE	ERROR! BOOKMARK NOT DEFINED.
12.4	INDUCTION AND TRAINING	ERROR! BOOKMARK NOT DEFINED.
13.	ENVIRONMENTAL MANAGEMENT	ERROR! BOOKMARK NOT DEFINED.
13.1	ENVIRONMENTAL MANAGEMENT SYSTEM.....	ERROR! BOOKMARK NOT DEFINED.
13.2	ENVIRONMENTAL MANAGEMENT PLAN.....	ERROR! BOOKMARK NOT DEFINED.
13.2.1	<i>Objectives</i>	Error! Bookmark not defined.
13.2.2	<i>Structure and Scope</i>	Error! Bookmark not defined.
13.2.3	<i>EMP Review</i>	Error! Bookmark not defined.
14.	PUBLIC INVOLVEMENT AND CONSULTATION.....	ERROR! BOOKMARK NOT DEFINED.
15.	SUMMARY OF COMMITMENTS.....	ERROR! BOOKMARK NOT DEFINED.
16.	GLOSSARY	ERROR! BOOKMARK NOT DEFINED.
17.	REFERENCES.....	ERROR! BOOKMARK NOT DEFINED.

FIGURES

Figure 1:	Mt Porter Location	Error! Bookmark not defined.
Figure 2:	Mt Porter Project Tenement and Haul Route Location	Error! Bookmark not defined.
Figure 3:	Site Layout.....	Error! Bookmark not defined.
Figure 4:	Cross-sectional View of Open Pit	Error! Bookmark not defined.
Figure 5:	Land Unit Distribution in the Mt Porter Area	Error! Bookmark not defined.
Figure 6:	Local Water Catchments Surrounding the Mt Porter Project Area	Error! Bookmark not defined.
Figure 7:	Site Catchments and Sample Locations	Error! Bookmark not defined.
Figure 8:	Archaeological sites in Mt Porter Project Area	Error! Bookmark not defined.
Figure 9:	Water Management Measures and Monitoring Locations	Error! Bookmark not defined.

CHARTS

Chart 1:	Burrundie Railway Station Monthly Rainfall Data (1889-1974)	Error! Bookmark not defined.
Chart 2:	Soluble Metals in Soils Collected From Four Sites Within the Mt Porter Mineral Lease	Error! Bookmark not defined.
Chart 3:	Total Metals in Soils Collected From Four sites within the Mt Porter Mineral Lease	Error! Bookmark not defined.
Chart 4:	Mean, Decile 9 and Maximum Monthly Runoff per square kilometre of Catchment for Harriet Creek (downstream El Sherana Road) and McKinlay River (Burrundie) Catchments.	Error! Bookmark not defined.

TABLES

Table 1:	Daily Water Balance.....	Error! Bookmark not defined.
Table 2:	Likely Employment During Operations	Error! Bookmark not defined.
Table 3:	Planned Construction Schedule	Error! Bookmark not defined.
Table 4:	Rainfall Average Data for Burrundie Railway Station (62 years record)	Error! Bookmark not defined.
Table 5:	Stream Gauging Data Summary	Error! Bookmark not defined.
Table 6:	Water Quality Characteristics of 40 sites in the Mary River Catchment	Error! Bookmark not defined.
Table 7:	Metal Concentrations (µg/L) at 42 sites in the Mary River Catchment	Error! Bookmark not defined.
Table 8:	Surface Water Quality - Mt Porter Filtered Samples 20 June 2006	Error! Bookmark not defined.
Table 9:	Surface Water Quality - Mt Porter Unfiltered Samples 19 April 2005	Error! Bookmark not defined.
Table 10:	Surface Water Quality - Mt Porter Unfiltered Samples 2005 Early Wet Season	Error! Bookmark not defined.
Table 11:	Fauna Species of Conservation Significance That May Occur in the Mt Porter Area	Error! Bookmark not defined.
Table 12:	Percent Distribution by Age Groups in Urban Areas	Error! Bookmark not defined.
Table 13:	Potential Pest Mosquitoes of the Frances Creek Area	Error! Bookmark not defined.
Table 14:	Estimated Annual Flow Volumes for Mt Porter Catchments	Error! Bookmark not defined.

Table 15:	Estimated Peak Flow Rates for Mt Porter Catchments	Error! Bookmark not defined.
Table 16:	Land Clearing Requirements	Error! Bookmark not defined.
Table 17:	Emissions from Combustion Engines	Error! Bookmark not defined.
Table 18:	Hazardous Materials Storage Requirements	Error! Bookmark not defined.
Table 19:	Hazardous Waste Materials Likely to be Generated	Error! Bookmark not defined.
Table 20:	Species Listed as Threatened under the EPBC Act 1999 and NPWC Act 2000 That May Occur Within the Mt Porter Project Area	Error! Bookmark not defined.
Table 21:	Migratory Species Listed under the EPBC Act 1999 That May Occur Within the Mt Porter Project Area.....	Error! Bookmark not defined.
Table 22:	Qualitative Measures of Likelihood	Error! Bookmark not defined.
Table 23:	Qualitative Measures of Consequence	Error! Bookmark not defined.
Table 24:	Risk Matrix and Prioritisation	Error! Bookmark not defined.
Table 25:	Risk Definitions (AS/NZS 4360:1999)	Error! Bookmark not defined.
Table 26:	Environmental Issues and Risk Assessment.....	Error! Bookmark not defined.
Table 27:	Prioritisation of Environmental Issues	Error! Bookmark not defined.
Table 28:	Summary of Consultation Undertaken to Date	Error! Bookmark not defined.
Table 29:	Summary of Arafura's Commitments for the Mt Porter Project	Error! Bookmark not defined.

APPENDICES

Appendix 1:	Mt Porter Public Environmental Report Guidelines
Appendix 2:	DEH Referral Outcome
Appendix 3:	Waste Characterisation.
Appendix 4:	Hydrological Report
Appendix 5:	Surface Water Report
Appendix 6:	Water Monitoring Data
Appendix 7:	Flora and Fauna Survey
Appendix 8:	AAPA Certificates
Appendix 9:	Archaeological Survey
Appendix 10:	Draft EMP