WEST ROCK RESOURCES PTY LIMITED

ABN 95 150 296 923

2018

MINING MANAGEMENT PLAN

FOR

BORROLOOLA WEST PROJECT

Authorisation 0758-01

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CONTENTS

APPENDICES

AMENDMENTS

Section	Amendment
	This MMP is based on the approved MMP submitted by Sandfire Resources NL for their Borroloola Project and the approved MMP submitted by West Rock Resources Pty Ltd in 2017.
2.3. History of Development and current status	Updated
2.4. Proposed Activities	An amended diamond drilling and RC program is proposed
4.6. Identification of Environmental Aspects and Impacts	Updated sections on weed management, drilling (spill kits), waste management and erosion management
4.7. Emergency Procedures and Incident Reporting	Updated reference to Mining Management Act
4.9 Environmental Performance Reporting	Information on works and rehabilitation during 2017
5.0. Exploration rehabilitation	Updated, schedule of rehabilitation, timeframes

1.1 OPERATOR DETAILS

Operator Name:	West Rock Resources Pty Limited
Key Contact Person/ Responsible Officer:	Simon Noon
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1.2 ORGANISATIONAL STRUCTURE / CHART

A copy of the West Rock Resources Pty Ltd Organisational Structure is attached at Appendix 11.

1.3 WORKFORCE

The field operations workforce for the Borroloola West Project in 2016 is shown below. West Rock Resources Pty Ltd personnel and contractors will operate on a fly in – fly out roster.

Exploration Workforce

Description	Number of Positions	Employee/Contractor
Geologists	3	Employee/Contractor
Helicopter Pilots	TBA	Contractor
Earthmoving	1	Contractor
Drilling Contractors	TBA	Contractor
Administration	1	Employee

2.1 PROJECT DETAILS

Project Name:	Borroloola West Project
Location:	The Borroloola Project is centered about 660 km southeast of Darwin in the "Gulf Country" of the Northern Territory, Australia. On the eastern boundary are the township of Borroloola and the McArthur River Mine. To the south is Cape Crawford and to the northwest is Lorella Springs Station (Figure 1). The project covers a total area of approximately 1,967.46 square kilometers and consists of 12 granted Exploration Licences, one Mining Lease and one Exploration Licence under application.
Site Access:	Access to the Project area is good with sealed roads from Darwin, by travelling about 590 km southwards along the Stuart Highway to Hi-Way Inn and then 270km eastwards along Carpentaria Highway to Cape Crawford, and then to Borroloola. The unsealed Nathan River and Ryan's Bend Roads cross the Project area. However, access deteriorates significantly in the north. Multiple creek crossings need to be navigated and are poorly maintained. Each wet season results in substantial damage to most creek crossings.
Mining Interest/s:	EL26938, EL26939, EL28508, EL28534, EL28540, EL28541, EL28657, EL28658, EL28659, EL30157, EL30305, EL30302 and MLN624.

Title holder/s:	The titles in the project are all held by Sandfire Resources NL. Under a farm-in agreement, West Rock Resources Pty Ltd is the operator for the Borroloola West Project. Exploration Licence 26938- granted 09/06/2009 Exploration Licence 26939- granted 09/06/2009 Exploration Licence 28508- granted 20/07/2011 Exploration Licence 28534- granted 07/09/2011 Exploration Licence 28540- granted 07/09/2011 Exploration Licence 28541- granted 07/09/2011 Exploration Licence 28657- granted 27/10/2011 Exploration Licence 28658- granted 27/10/2011 Exploration Licence 28659- granted 27/10/2011 Exploration Licence 30157- granted 09/06/2009(split off from EL26837) Exploration Licence 30305- granted 09/06/2009 (split off from EL26939) Exploration Licence 30302- granted 09/06/2009 (split off from EL26938) Mineral Lease Northern 624- granted 01/01/2007 TIS title details are attached at Appendix 1. The location of the tenement can be seen at section 2.1.

2.2 MAP OF SITE LOCATION AND LAYOUT

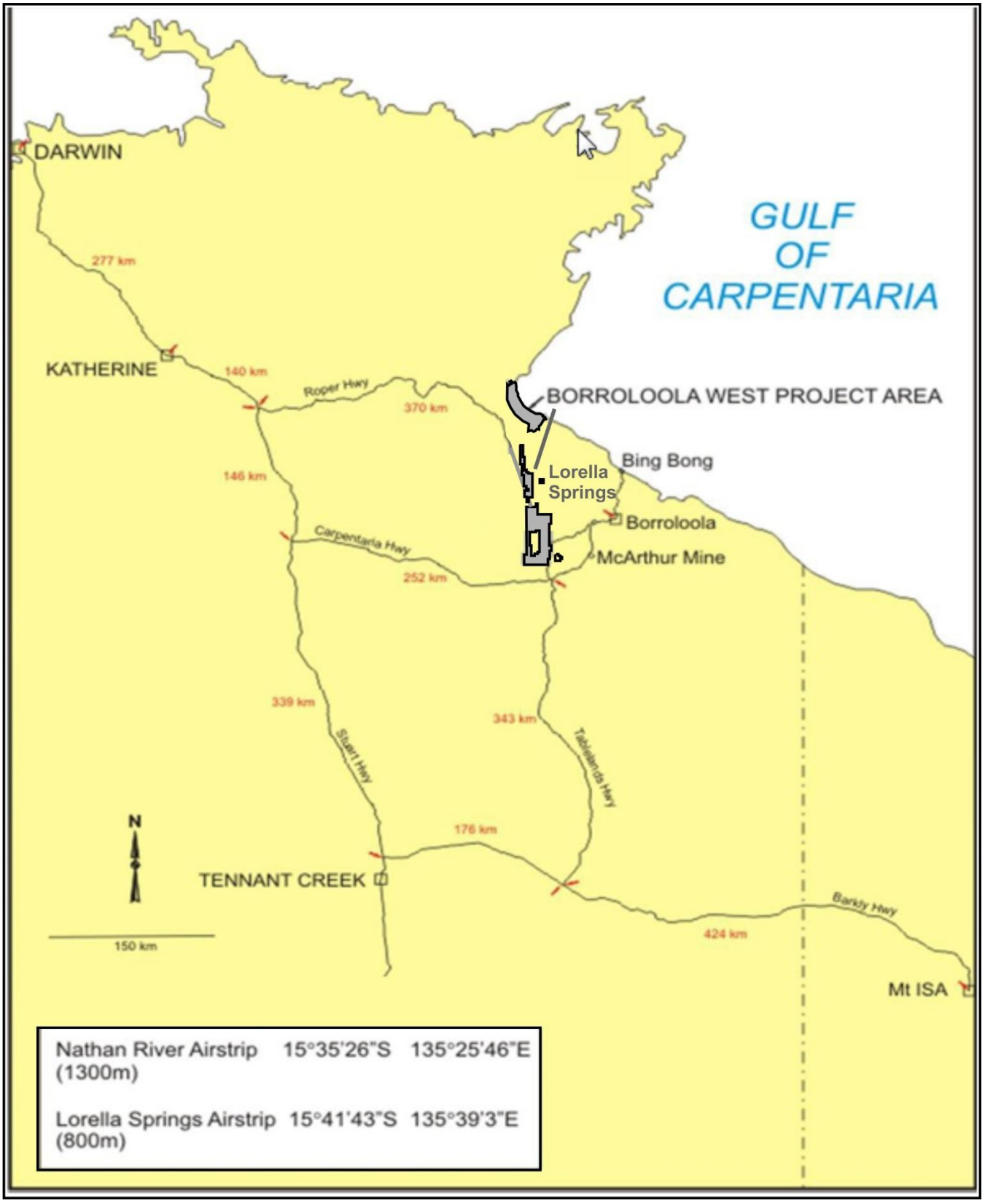


Figure 1: Location Map

2.3 HISTORY OF DEVELOPMENT AND CURRENT STATUS

Historical Mining/Exploration

Between 2004 and 2013, Sandfire Resources NL conducted exploration activities that consisted of upgrading or establishing access tracks, drilling holes and establishing campsites. Disturbances resulting from exploration operations have all been rehabilitated. Under an agreement between Sandfire and the landholder, a number of cleared tracks are still in use and have been left open at the request of the Lorella Springs Station owner. All campsites have been cleared.

In 2012, Sandfire proposed activities on ELs24401, EL26831, EL26835 and EL26555. Not all the proposed activities were conducted and an amendment to the Sandfire MMP was lodged. Details of the amended activities proposed for EL24401 (Bing Bong) and EL26555 (Hells Gate) are listed in the table headed "Amended Activities 2012".

In 2013, West Rock Resources Pty Ltd proposed to operate on ELs 24401, 26587, 26939 and 26837. Details of the activities proposed for 2013 are listed in the table headed "Amended Activities 2013". Not all of the 2013 proposed activities were conducted, only one Aircore drill hole was completed (13TAC4) on EL26587; five Aircore drill holes were completed on EL26837 (13TAC1,-7); and six aircore drill holes (of 8 planned) were completed on EL26939.

In 2014, West Rock Resources Pty Ltd proposed to operate on EL24401. None of the proposed activities were conducted.

In 2015, West Rock Resources Pty Ltd proposed to operate on EL's 24401, ML624 and EL28508. Details of the proposed activities are listed in the table "Proposed Activities 2015". Not all the proposed activities were conducted. Two combination RC/ diamond holes were drilled on EL 24401 (BBD01 and BBD02). One RC hole (CCR01), one combination RC/ diamond hole (CCD02) and one diamond hole (CCD03) were drilled on ML624. An additional activities proposal was submitted in July 2015 to operate on EL 26938. Not all the proposed activities were conducted. One diamond drill hole (CCD04) was completed (of 7 planned).

In 2016 West Rock Resources Pty Ltd proposed to operate on EL's 28658, 26938, 30302 and 28508. Details of the proposed and undertaken activities are listed in the table "Proposed and Actual Activities 2016". Five RC holes were drilled on EL28658 (FMR01 to 05), seven RC holes were drilled on EL26938 (CCR05 to 07, MNR01 to 04), one RC hole was drilled on EL30302 (JTR01) and 3 RC holes were drilled on EL28508 (BJR01 to 03). Not all the proposed activities were conducted.

In 2017 West Rock Resources Pty Ltd proposed to operate on EL's 26938 and 28508. Details of the proposed and undertaken activities are listed in the table "Proposed and Actual Activities 2017". Four diamond holes were drilled on EL26938 (CCR09, CCR10, MND05, MND06), and one diamond hole was drilled on EL28508 (BJD04). Not all the proposed activities were conducted.

Proposed activities for 2018 are listed in the table 'Proposed Activities 2017".

Sandfire Resources Proposed Activities August 2012

Mining Interests (i.e. titles)	**EL 24401**	**EL 26831 - Not part of Borroloola West Project**	**EL 26835 - Not part of Borroloola West Project**	**EL 26555 - Not part of Borroloola West Project**
Prospect Name	Bing Bong	Alice	Rosie Creek North	Hells Gate
What time of the year will exploration occur?	August – Nov : Postponed	August – November	August – November	August – November
How long is exploration expected to occur?	1 month	1 month	2 month	1 month
Type of drilling (i.e. RAB, RC, Diamond, aircore)	Diamond (DD)	Diamond	Diamond & RC	Reverse Circulation (RC)
Target commodity	Cu-Pb-Zn	Cu-Pb-Zn	Cu-Pb-Zn & Water	Fe
Is drilling likely to encounter radioactive material?	No	No	No	No
Number of proposed drill holes	DDH x 1-2	DDH x 3	DDH x 5 & RC x 3	[1]RC x 22
Maximum depth of holes	250m	400m	800m & 250m	160m
Number of drill pads RC: Length: 18m x Width: 15m (0.0108) [3 RC = 0.081ha] DDH: Length: 35m x Width: 18m	DD x 2 [0.1260]	DD x 3 [0.1890]	RC x 3 [0.081] DD x 5 [0.3150]	N/A
Is drilling likely to encounter groundwater? (Y, N,	unsure	unsure	unsure	unsure
Number of sumps Length:6mx Width: 3m x Depth:1m (0.0018) RC: 1 per hole [3 sumps = 0.0054ha]	DD x 4 [0.0072]	DD x 6 [0.0108]	RC x 3 [0.0054] DD x 10 [0.018]	N/A
Length of line / track clearing (Kilometres: 32.45km x Width: 4m = 12.98ha)	8.3km [3.32] upgd 2.7km [1.08] new	3.8km [1.52]	10.6km [4.24]	Area2 only 7.0km [2.80]
Number of costeans: (Length: x Width: x Depth: m)	None	None	None	None
Total bulk sample (tonnes): (Length: x Width: x Depth: m)	None	None	None	None
Will topsoil be removed for rehabilitation purposes?	Unknown	Unknown	Unknown	Unknown
Previous disturbance yet to be rehabilitated on title (ha) if known	0.0	TBA (2007 2008, 2011)	TBA (2008 2010, 2011)	0.0
Camp: (Existing Exploration 100m x 200m = 0.450ha) (DDH1: Length: 50m x Width:	may be required DDH1 [0.225]	may be required DDH1 [0.225]	re-use 2011 site or new DDH1 [0.225]	^equivalent site to DDH1 [0.225]
Total area disturbed (hectares) =14.6124ha Clearing for pads and sumps = 0.7758ha Clearing for camps = 0.90ha	0.1260 0.0072 4.4000 0.2250 =4.7582	0.1890 0.0108 1.5200 0.2250 =1.9448	0.3960 0.0234 4.2400 0.2250 =4.8844	2.8000 0.2250 =3.0250
Other:				[1]RC approval of 26 drill holes 2010 MMP 0234-03 ^ other contractor camp equivalent size to DDH1

Sandfire Resources Amended Activities 2013

Mining Interests (i.e. titles)	**EL 24401**	**EL 26555 - Not part of Borroloola West Project**	EL 26555 (previous MMP) - **Not part of Borroloola West Project**
Prospect Name	Bing Bong	Hells Gate	Hells Gate
What time of the year will exploration occur?	July – August 2013: Postponed	July – August 2013	2010 & 2012
How long is exploration expected to occur?	1 month	1 month	
Type of drilling (i.e. AirCore, RAB, RC, Diamond)	Diamond (DD)	Reverse Circulation (RC)	Reverse Circulation (RC)
Target commodity	Cu-Pb-Zn	Fe	Fe
Is drilling likely to encounter radioactive material?	No	No	No
Number of proposed drill holes	DDH x 1-2	RC x 23	[1]RC x 28
Maximum depth of holes	250m	160m	160m
Number of drill pads **RC: Length: 15m x Width: 15m (0.0225)** **DDH: Length: 15m x Width: 20m (0.0300)**	 DD x 2 [0.1260]	RC x 23 [0.5175]	[1]RC x 28 [0.7560]
Is drilling likely to encounter groundwater? (Y, N, unsure)	unsure	unsure	Unsure
Number of sumps Length:6mx Width: 3m x Depth:1m (0.0018) **RC: 1 per hole [3 sumps = 0.0054ha]** **DDH: 2 per hole [20 sumps = 0.0198ha]**	 DD x 4 [0.0072]	RC x 23 [0.0414]	[1]RC x 28 [0.0504]
Length of line / track clearing **(Kilometres: 32.45km x Width: 4m = 12.98ha)**	8.3km [3.32] upgd 2.7km [1.08] new	Figure 19 16.0km [6.40]	[1]Area1 9.5km [3.80] [2]Area2 7.0km [2.80]
Will topsoil be removed for rehabilitation purposes?	Unknown	Unknown	Unknown
Previous disturbance yet to be rehabilitated on title (ha) if known	0.0	0.0	0.0
Camp: (Exploration Fly Camp 30m x 30m = 0.09ha) **(Contractor: Length: 50m x Width: 45m = 0.225ha)**	(use existing base camp) 1 [0.225]	1 [0.090] 1 [0.225]	(use existing base camp) [2]1 [0.225]
Clearing for pads **Clearing for sumps** **Clearing for tracks** **Clearing for camps** **Total area undisturbed (hectares)**	0.1260 0.0072 4.4000 0.2250 =4.7582	0.5175 0.0414 6.4000 0.3150 =7.2739	0.7560 0.0504 6.6000 0.2250 =7.6314
Other:			[1] approval for 28 RC drill holes 2010 MMP 0234-02 [1]Area1 tracks 2010 MMP [2]Area2 tracks 2012 MMP

West Rock Resources Pty Ltd - Amended Activities for 2013

Mining Interests (i.e. titles)	**EL 24401**	**EL 26939**	**EL 26587**	**EL 26837**
Prospect Name	Bing Bong	Lorella	Towns East	Towns
What time of the year will exploration occur?	August – November: postponed	August – November	August – November	August – November
How long is exploration expected to occur?	2 month	1 month	2 month	1 month
Type of drilling (i.e. RAB, RC, Diamond, Aircore)	Aircore (AC)	Aircore (AC)	Aircore (AC)	Aircore (AC)
Target commodity	Cu, Mn	Cu, Mn	Cu, Mn	Cu, Mn
Is drilling likely to encounter radioactive material?	No	No	No	No
Number of proposed drill holes	AC – 7(Never drilled)	AC – 8 (7 x AC drilled)	AC – 2 (1 x AC drilled)	AC – 5 (drilled)
Maximum depth of holes	150m	150m	150m	150m
Number of drill pads **AC: Length: 8m x Width 5m (0.004)** **RC: Length: 18m x Width: 15m (0.0108)** **DDH: Length: 35m x Width: 18m (0.063)**	AC x 7 [0.028ha]	AC x 8 [0.03ha]	AC x 2 [0.01ha]	AC – 5 [0.02ha]
Is drilling likely to encounter groundwater? (Y, N, unsure)	unsure	unsure	unsure	Unsure
Number of sumps **Length:6mx Width: 3m x Depth:1m (0.0018)** **RC: 1 per hole** **DDH: 2 per hole**	None	None	None	None
Length of line / track clearing **(Kilometres x Width: 4m)**	10.07km [4.02]	9.3km [3.85ha]	1.95km [0.78ha]	0
Number of costeans: **(Length: x Width: x Depth: m)**	None	None	None	None
Total bulk sample (tonnes): **(Length: x Width: x Depth: m)**	None	None	None	None
Will topsoil be removed for rehabilitation purposes?	Unknown	Unknown	Unknown	Unknown
Previous disturbance yet to be rehabilitated on title (ha) if known	Unknown	Unknown	Unknown	Unknown
Camp: **(Length: 50m x Width: 45m = 0.225ha)**	1 [0.225ha]	Re-use existing SFR camp	1 [0.225ha]	1 [0.225ha]
Total area disturbed (hectares) =9.42ha **Clearing for pads and sumps = 0.09ha** **Clearing for tracks = 8.65ha** **Clearing for camps = 0.68ha**	0.028 4.02 0.225 =4.27	0.03 3.85 =3.88	0.010 0.780 0.225 =1.02	0.020 0.2250 =0.25
Rehabiltation	Postponed no camp or clearing undertaken	Pads rehabilitated. Camp removed and rehabilitated by Sandfire end 2013. Permission to leave access track open from landowner Rhett Walker (station track)	Pads rehabilitated, access track rehabilitated in 2016. Camp never cleared or constructed	Pads rehabilitated No access tracks cleared. Camp never cleared or constructed

West Rock Resources Pty Ltd - Amended Activities for 2014

Mining Interests (i.e. titles)	**EL 24401**
	Proposed
Prospect Name	
What time of the year will exploration occur?	August – November Postponed
How long is exploration expected to occur?	2 months
Type of drilling (i.e. RAB, RC, Diamond, Aircore)	Diamond (DD)
Target commodity	Cu, Mn
Is drilling likely to encounter radioactive material?	No
Number of proposed drill holes	DD- 2
Maximum depth of holes	250m
Number of drill pads **AC: Length: 8m x Width 5m (0.004)** **RC: Length: 18m x Width: 15m (0.0108)** **DDH: Length: 35m x Width: 18m (0.063)**	DD x 2 [0.1260]
Is drilling likely to encounter groundwater? (Y, N, unsure)	unsure
Number of sumps **Length:6mx Width: 3m x Depth:1m (0.0018)** **RC: 1 per hole** **DDH: 2 per hole**	DD x 4 [0.0072]
Length of line / track clearing **(Kilometres x Width: 4m)**	10.07[4.02]
Number of costeans: **(Length: x Width: x Depth: m)**	None
Total bulk sample (tonnes): **(Length: x Width: x Depth: m)**	None
Will topsoil be removed for rehabilitation purposes?	Unknown
Previous disturbance yet to be rehabilitated on title (ha) if known	Unknown
Camp: **(Length: 50m x Width: 45m = 0.225ha)**	1 [0.225ha]
Total area disturbed (hectares) 4.76 **Clearing for pads and sumps 0.13** **Clearing for tracks 4.40** **Clearing for camps 0.23**	0.1260 0.0072 4.4000 0.2250 =4.7582
Other:	Not carried out

West Rock Resources Pty Ltd - Proposed Activities 2015

Mining Interests (i.e. titles)	EL 24401		ML 624		EL 28508	
	Proposed	Undertaken	Proposed	Undertaken	Proposed	Undertaken
Prospect Name	Bing Bong		Coppermine Creek		Berjaya	
What time of the year will exploration occur?	August – November		May – September		May - September	Postponed
How long is exploration expected to occur?	2 months		1 month		1 month	
Type of drilling (i.e. RAB, RC, Diamond, Aircore)	Diamond (DD)	Diamond with RC pre-collars	RC, Diamond	RC	RC, Diamond	
Target commodity	Cu, Mn		Copper		Zinc, lead, silver	
Is drilling likely to encounter radioactive material?	No		No		No	
Number of proposed drill holes	2	2	8	1	8	
Maximum depth of holes	400m	400m	400m	71m	400m	
Number of drill pads AC: Length: 8m x Width 5m (0.004) RC: Length: 18m x Width: 15m (0.027) DDH: Length: 35m x Width: 18m (0.063)	DD x 2 [0.1260]	DD x 2 [0.1260]	RC x 7 [0.189] DDH x 1 [0.063]	RC x 1 [0.027]	RC x 7 [0.189] DDH x 1 [0.063]	
Is drilling likely to encounter groundwater? (Y, N, unsure)	unsure		unsure		unsure	
Number of sumps Length:6mx Width: 3m x Depth:1m (0.0018) RC: 1 per hole DDH: 2 per hole	4 [0.0072]	4 [0.0072]	9 [0.0162]	1 [0.0018]	9 [0.0162]	
Length of line / track clearing (km x	10.07km [3.02]	10.07km [3.02]	0.74km [0.22]	0.065km[0.019]	2.4km [0.72]	
Will topsoil be removed for rehabilitation purposes?	Unknown		Unknown		Unknown	
Camp: (Length: 50m x Width: 45m = 0.225ha)	1 [0.225ha]	None, used existing road lay by	1 [0.225ha]	Used natural open space – no clearing	1 [0.225ha]	
(Actual in brackets) Proposed total area disturbed 5.304 ha (3.201ha) Clearing for pads and sumps 0.669ha (0.162ha) Clearing for tracks 3.96ha (3.039ha) Clearing for camps 0.675ha (0ha)	0.1260 0.0072 3.0200 0.2250 =3.3782	0.1260 0.0072 3.0200 =3.1532	0.252 0.016 0.220 0.225 =0.713ha	0.027 0.002 0.019 =0.048ha	0.252 0.016 0.72 0.225 =1.213ha	
Status of Rehabilitation		None - Permission from Wurrunburru Association for cleared tracks and pads to remain open		None – program is ongoing, and may require to reuse pad and access		

West Rock Resources Pty Ltd - Additional Activities for 2015

Mining Interests (i.e. titles)	EL26938	
	Proposed	**Undertaken**
Prospect Name	Coppermine Creek	
What time of the year will exploration occur?	July – October	
How long is exploration expected to occur?	1 month	
Type of drilling (i.e. RAB, RC, Diamond, Aircore)	Diamond	Diamond
Target commodity	Copper	
Is drilling likely to encounter radioactive material?	No	
Number of proposed drill holes	7	3
Maximum depth of holes	500m	474m
Number of drill pads **AC: Length: 8m x Width 5m (0.004)** **RC: Length: 18m x Width: 15m (0.027)** **DDH: Length: 35m x Width: 18m (0.063)**	DDH x 7 [0.441]	DDH x 3 [0.189]
Is drilling likely to encounter groundwater? (Y, N, unsure)	unsure	
Number of sumps **Length:6mx Width: 3m x Depth:1m (0.0018)** **RC: 1 per hole** **DDH: 2 per hole**	14 [0.025]	8 [0.014]
Length of line / track clearing **(Kilometers x Width: 3m)**	2.0km [0.6]	1.65 [0.495]
Will topsoil be removed for rehabilitation purposes?	Unknown	
Previous disturbance yet to be rehabilitated on title (ha) if known	Unknown	
Camp: **(Length: 50m x Width: 45m = 0.225ha)**	N/A	Used previous drill pad CCR01 for camp
Total area disturbed (hectares) **Clearing for pads and sumps** **Clearing for tracks**	1.066 Ha 0.466 Ha 0.6 Ha	0.698 (remains 0.218) 0.203 (remains 0.203) 0.495 (remains 0.015)
Status of Rehabilitation		1 pad and 500m track not rehabilitated for possible reuse. The rest rehabilitated 2016

West Rock Resources Pty Ltd - Proposed and Actual Activities 2016

Mining Interests (i.e. titles)	EL 28658		EL 26938 (1)		EL 26938 (2)	
	Proposed	Undertaken	Proposed	Undertaken	Proposed	Undertaken
Prospect Name	Four Mile		Coppermine Creek		Mariner	
What time of the year will exploration occur?	Aug – November		Aug – November		Aug – November	
How long is exploration expected to occur?	1 week		1 week		1 week	
Type of drilling (i.e. RAB, RC, Diamond, Aircore)	RC		RC		RC	
Target commodity	Cu, Pb, Zn, Ag		Cu, Pb, Zn, Ag		Cu, Pb, Zn, Ag	
Is drilling likely to encounter radioactive material?	No		No		No	
Number of proposed drill holes	9	5 drilled	3	3 drilled	6	4 drilled
Maximum depth of holes	200m		200m		200m	
Number of drill pads RC: Length: 50m x Width: 50m (0.25)	RC x 9 [2.25]	RC x 9 [2.25]	RC x 3 [0.75]	RC x 3 [0.75]	RC x 6 [1.5]	RC x 6 [1.5]
Is drilling likely to encounter groundwater? (Y, N, unsure)	unsure		unsure		unsure	
Number of sumps Length:6mx Width: 3m x Depth:1m (0.0018) RC: 1 per hole DDH: 2 per hole	9 [0.016]	9 [0.016]	3 [0.0054]	3 [0.0054]	6 [0.011]	RC x 6 [1.5]
Length of line / track clearing (Kilometres x Width: 3m)	4.0 km [1.200]	4.0 km [1.200]	1.8 km [0.54]	1.8 km [0.54]	4.2 km [1.26]	4.2 km [1.26]
Number of costeans: (Length: x Width: x Depth: m)	None		None		None	
Total bulk sample (tonnes): (Length: x Width: x Depth: m)	None		None		None	
Will topsoil be removed for rehabilitation purposes?	Yes		Yes		Yes	
Previous disturbance yet to be rehabilitated on title (ha) if known	Unknown	None	Unknown		Unknown	
Camp: (Length: 50m x Width: 45m = 0.225ha)	None		None		None	
	2.25 0.016 1.200 =3.466	2.25 0.016 1.200 =3.466	0.75 0.005 0.540 =1.295	0.75 0.005 0.540 =1.295	1.5 0.011 1.26 =2.771	1.5 0.011 1.26 =2.771
Status of rehabilitation:		Rehabilitated in 2017		New pads and access tracks all rehabilitated in 2016		Drill sites rehabilitated 2017, access track left open (4.2km [1.26ha)

West Rock Resources Pty Ltd - Proposed and Actual Activities 2016 (continued)

Mining Interests (i.e. titles)	EL 30302		EL28508	
	Proposed	Undertaken	Proposed	Undertaken
Prospect Name	Johnstons		Berjaya	
What time of the year will exploration occur?	Aug – November		Aug – November	
How long is exploration expected to occur?	1 week		1 week	
Type of drilling (i.e. RAB, RC, Diamond, Aircore)	RC		RC	
Target commodity	Cu, Pb, Zn, Ag		Cu, Pb, Zn, Ag	
Is drilling likely to encounter radioactive material?	No		No	
Number of proposed drill holes	2	1	6	3
Maximum depth of holes	200m		200m	
Number of drill pads RC: Length: 50m x Width: 50m (0.25)	RC x 2 [0.5]	RC x 2 [0.5]	RC x 6 [1.5]	RC x 3 [0.75]
Is drilling likely to encounter groundwater? (Y, N, unsure)	unsure		unsure	
Number of sumps Length:6mx Width: 3m x Depth:1m (0.0018) RC: 1 per hole DDH: 2 per hole	2 [0.004]	2 [0.004]	6[0.011]	3[0.06]
Length of line / track clearing (Kilometres x Width: 3m)	0.5 km [0.15]	0.5 km [0.15]	3.4 km [1.02]	2.5 km
Number of costeans: (Length: x Width: x Depth: m)	None		None	
Total bulk sample (tonnes): (Length: x Width: x Depth: m)	None		None	
Will topsoil be removed for rehabilitation purposes?	Yes		Yes	
Previous disturbance yet to be rehabilitated on title (ha) if known	Unknown	No	Unknown	
Camp: (Length: 50m x Width: 45m = 0.225ha)	None		None	
Total area disturbed (hectares) = 10.717ha Clearing for pads and sumps 6.547ha Clearing for tracks 4.170ha Clearing for camps None	0.5 0.004 0.150 =0.654	0.5 0.004 0.150 =0.654	1.5 0.011 1.02 =2.531	0.750 0.060 2.500 =3.31
Other:		Rehabilitated in 2017		Rehabilitated in 2017

West Rock Resources Pty Ltd - Proposed and Actual Activities 2017

Mining Interests (i.e. titles)	**EL 28939**		**EL 26938 (1)**	
Prospect Name	Lorella		Coppermine Creek	
	Proposed	**Undertaken**	**Proposed**	**Undertaken**
What time of the year will exploration occur?	June – November	Postponed	June – November	
How long is exploration expected to occur?	2 weeks		5 weeks	
Type of drilling (i.e. RAB, RC, DD, Aircore)	RC		RC & DD	
Target commodity	Cu, Pb, Zn, Ag		Cu, Pb, Zn, Ag	
Is drilling likely to encounter radioactive material?	No		No	
Number of proposed drill holes	10		3	2
Maximum depth of holes	100m		400m	
Number of drill pads RC, diamond: Length: 50m x Width: 50m (0.25)	RC x 16 [4.0]	Sites not prepared	RC x 1 DD x 2 [0.75]	DD x 2 [0.75]
Is drilling likely to encounter groundwater? (Y, N,	unsure		Unsure	
Number of sumps Length:6m x Width: 3m x Depth:1m (0.0018) RC: 1 per hole, DDH: 2 per hole	16 [0.029]		5 [0.009]	4 [0.007]
Length of line track clearing (Kilometres x Width: 3m)	2.7 km [0.81]	2.7 km [0.81] Cleared in preparation	0.6 km [0.18]	0.25km [0.075)
Number of costeans: (Length: x Width: x Depth: m)	None		None	
Total bulk sample (tonnes): (Length: x Width: x Depth: m)	None		None	
Will topsoil be removed for rehabilitation	Yes		Yes	
Camp: (Length: 50m x Width: 45m = 0.225ha)	None		None	
	4.000 0.029 0.810 =4.839	0.81 =0.81	0.75 0.009 0.18 =0.939	0.75 0.007 0.075 =0.832
Rehabilitation:		New tracks left open for 2018		Rehabilitated 2017

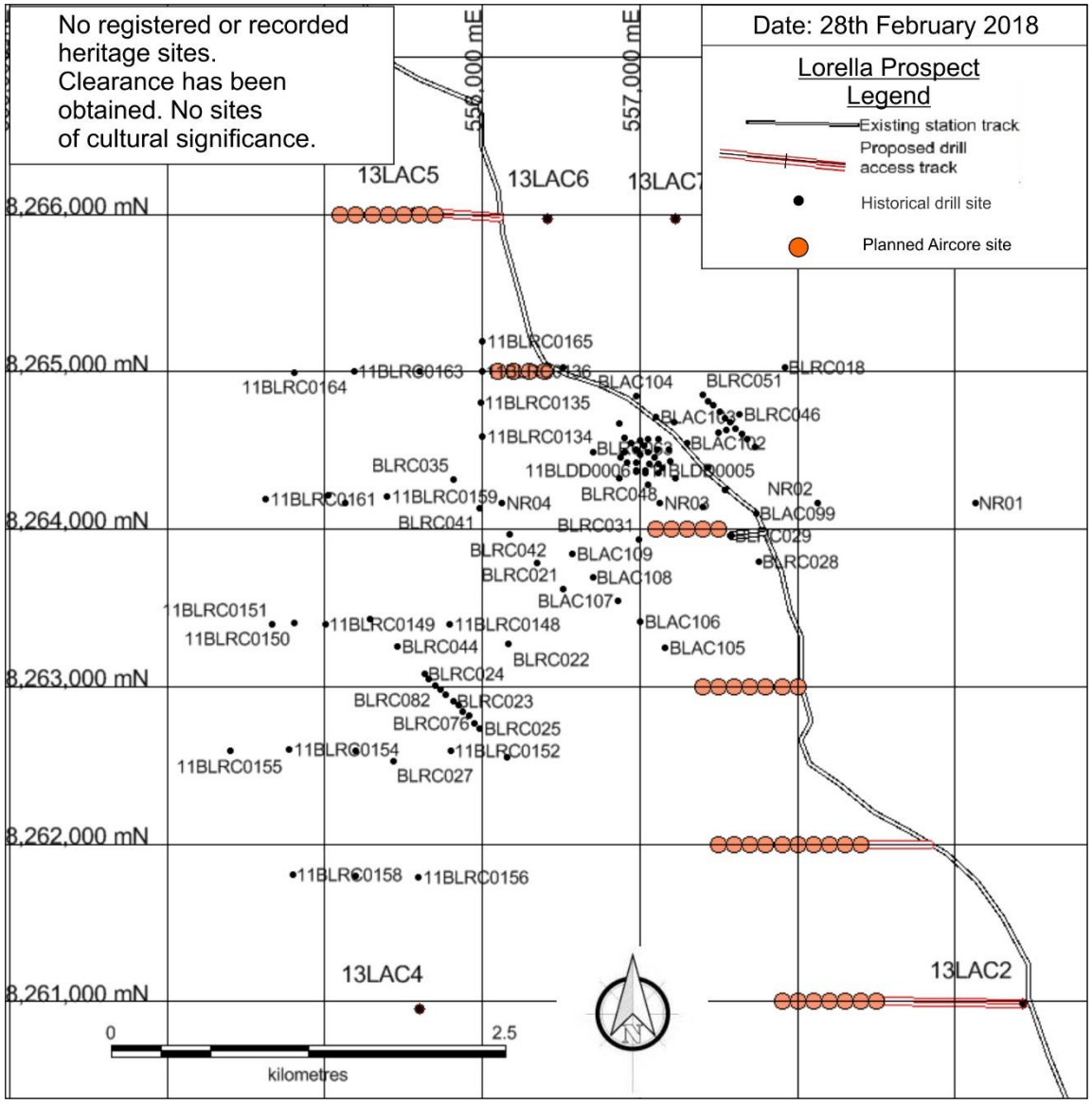
West Rock Resources Pty Ltd - Proposed and Actual Activities 2017 (continued)

Mining Interests (i.e. titles)	**EL 26938 (2)**		**EL28508**	
Prospect Name	Mariner		Berjaya	
	Proposed	**Undertaken**	**Proposed**	**Undertaken**
What time of the year will exploration occur?	June – November		June – November	
How long is exploration expected to occur?	4 weeks		2 weeks	
Type of drilling (i.e. RAB, RC, DD, Aircore)	DD		DD	
Target commodity	Cu, Pb, Zn, Ag		Cu, Pb, Zn, Ag	
Is drilling likely to encounter radioactive material?	No		No	
Number of proposed drill holes	2	2	1	1
Maximum depth of holes	200m		200m	
Number of drill pads RC, diamond: Length: 50m x Width: 50m (0.25)	DD x 2 [0.5]	DD x 2 [0.5]	DD x 1 [0.25]	DD x 1 [0.25] rehabiltated
Is drilling likely to encounter groundwater? (Y, N,	unsure		unsure	
Number of sumps Length:6m x Width: 3m x Depth:1m (0.0018) RC: 1 per hole, DDH: 2 per hole	4 [0.007]	4 [0.007]	2[0.004]	2[0.004] rehabilitated
Length of line track clearing (Kilometres x Width: 3m)	3.1 km [0.93]	0.9km [0.27]	1.4 km [0.480]	1.4 km [0.480]
Number of costeans: (Length: x Width: x Depth: m)	None		None	
Total bulk sample (tonnes): (Length: x Width: x Depth: m)	None		None	
Will topsoil be removed for rehabilitation	Yes		Yes	
Camp: (Length: 50m x Width: 45m = 0.225ha)	None		None	
Clearing for pads and sumps 5.549 ha (1.518ha) **Clearing for tracks 2.390 ha (1.635ha)** **Clearing for camps None** **Total area disturbed (hectares) = 7.939 ha (3.153ha)**	0.5 0.007 0.930 =1.437	0.5 .007 .27 =0.777	0.25 0.004 0.480 =0.734	0.25 0.004 0.480 =0.734
Other:		To be rehabilitated 2018		Drill Site rehabilitated Track to be rehabilitated 2018

2.4. PROPOSED ACTIVITIES 2018 – Activities are proposed for the titles listed below only. No activity is proposed for the remaining titles in the Authorisation

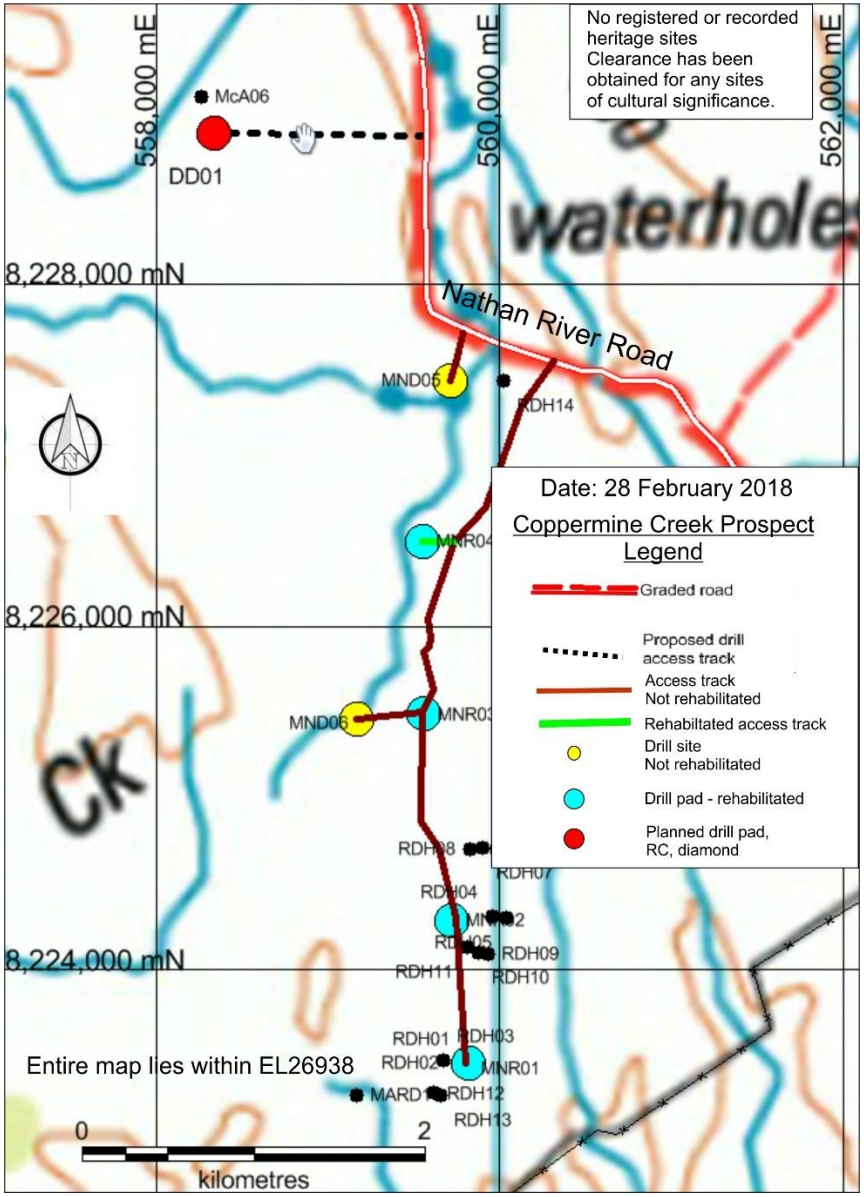
Mining Interests (i.e. titles)	EL 28939		EL 26938 (2)	
Prospect Name	Lorella		Mariner	
What time of the year will exploration occur?	April-June		June – November	
How long is exploration expected to occur?	2 weeks		2 weeks	
Type of drilling (i.e. RAB, RC, DD, Aircore)	Aircore		DD	
Target commodity	Cu, Pb, Zn, Ag		Cu, Pb, Zn, Ag	
Is drilling likely to encounter radioactive material?	No		No	
Number of proposed drill holes	40		1	
Maximum depth of holes	80m		400m	
Number of drill pads RC, diamond: Length: 50m x Width: 50m (0.25)	None, track sufficient		DD x 1 [0.25]	
Is drilling likely to encounter groundwater? (Y, N,	unsure		unsure	
Number of sumps Length:6m x Width: 3m x Depth:1m (0.0018) RC: 1 per hole, DDH: 2 per hole			2 [0.004]	
Length of line track clearing (Kilometres x Width: 3-4m)	6.3 km [2.52] (4m width)		1.2 km [0.36] (3m width	
Number of costeans: (Length: x Width: x Depth: m)	None		None	
Total bulk sample (tonnes): (Length: x Width: x Depth: m)	None		None	
Will topsoil be removed for rehabilitation	Yes		Yes	
Camp: (Length: 50m x Width: 45m = 0.225ha)	None		None	
Clearing for pads and sumps 0.254 ha Clearing for tracks 2.25ha Total area disturbed (hectares) = 2.504 ha	2.52 =2.52		0.25 0.004 0.36 =0.72	
Other:				

Lorella, EL 26939, Aircore drill sites (no clearing required) and access clearing



Planned Aircore Hole	East (WGS 84)	North (WGS 84)	Planned Aircore Hole	East (WGS 84)	North (WGS 84)
AC01	555100	8266000	AC21	557800	8263000
AC02	555200	8266000	AC22	557900	8263000
AC03	555300	8266000	AC23	558000	8263000
AC04	555400	8266000	AC24	557500	8262000
AC05	555500	8266000	AC25	557600	8262000
AC06	555600	8266000	AC26	557700	8262000
AC07	555700	8266000	AC27	557800	8262000
AC08	556100	8265000	AC28	557900	8262000
AC09	556200	8265000	AC29	558000	8262000
AC10	556300	8265000	AC30	558100	8262000
AC11	556400	8265000	AC31	558200	8262000
AC12	557100	8264000	AC32	558300	8262000
AC13	557200	8264000	AC33	558400	8262000
AC14	557300	8264000	AC34	557900	8261000
AC15	557400	8264000	AC35	558000	8261000
AC16	557500	8264000	AC36	558100	8261000
AC17	557400	8263000	AC37	558200	8261000
AC18	557500	8263000	AC38	558300	8261000
AC19	557600	8263000	AC39	558400	8261000
AC20	557700	8263000	AC40	558500	8261000

Mulholland, EL 26938, Diamond drill site



Planned Hole – Mulholland	East (WGS 84)	North (WGS 84)
DD01	558330	8,228,880

3.0 CURRENT PROJECT SITE CONDITIONS – Reports for the Bioregions are attached at Appendix 6

Site Conditions	Description
Geology	Geomorphology and geology is described in the 1:250 000 Geological Map Series Explanatory Notes for Bauhinia Downs SE53-03 and Mt Young SE53-04. The geomorphology of the project area has regions characterised by a series of linear sandstone ridges which cross the direction of drainage causing the accumulation of sediment and the formation of broad shallow valleys such as the Lorella Pocket, with gentle erosion slopes off the coastward side of the ridges. Erosion is in most areas slow to moderate. The McArthur Basin is a large sedimentary basin with an exposed area of about 180,000 km². Most of it lies within the north-eastern Northern Territory, and it extends over the border into the state of Queensland. Thick marine and non-marine sedimentary rocks were deposited from the late Palaeoproterozoic to the early Mesoproterozoic (1800-1430 Ma). The Borroloola West Project area lies within the Batten Fault Zone where sediments of the Tawallah, McArthur and Roper Groups rest unconformably on the Scrutton Volcanics, and are partially concealed by Cretaceous and Tertiary sediments. Commodities sought are copper, lead, zinc, silver, uranium, diamonds, manganese, and iron ore. As a base metals target, the McArthur Basin contains volcanic rocks and related intrusive igneous rocks and is a prime target area for SEDEX type economic sulphide deposits. This type of deposit provides 50% of the world's zinc and lead reserves, and make up around 25% of world zinc and lead production. The McArthur Basin hosts the world-class McArthur River (HYC) zinc-lead-silver deposit. In the north of the Borroloola West Project tenements, a target exists for uranium where the McArthur Basin basal sediments overlie, in part, coeval sequences of acid volcanics and granites, elsewhere host settings for major unconformity-related uranium deposits. Diamonds have been the target of previous exploration over the area covered by the southern part of the Borroloola West Project; here there has been recovery of multiple macrodiamonds, as well as microdiamonds and kimberlitic indicator minerals from alluvial samples. The diamonds and indicators were recovered from creeks surrounding a remnant Cretaceous plateau within surrounding McArthur Group sediments. This situation is analogous to the Merlin Kimberlite cluster where Devonian-aged kimberlite pipes may occur beneath Cretaceous cover rocks.

	During the Cretaceous Period, around 90 to 100 million years ago, the coastal areas along the Gulf of Carpentaria were inundated by a shallow sea. Manganese accumulations were formed in embayments close to the shoreline of this sea in a series of depositional episodes. The largest of these is on Groote Eylandt, a large island located within the Gulf of Carpentaria, 130kms northeast of Sandfire Resources' tenements. This style of manganese occurrence is the target of exploration in the northern part of the Borroloola West Project.
Hydrology	Numerous large permanent water holes exist within the Borroloola West Project tenements and site areas. The drainage associated with many of these has been observed to still be flowing above ground as late in the dry season as July. No water is drawn from surface water for domestic purposes. For the Lorella Springs Exploration Camp water was drawn from a previous drill hole BLWB05. In 2010, two samples #1 taken from the tap after the dual filtering system and #2 direct from the bore before the filter, were analysed for physicals, i.e., turbidity, hardness etc, and metals content by chemical analyses by the Northern Territory Environmental Laboratories (NTEL), and for bacterial contamination by the DME Water Microbiology Unit in Darwin. Total domestic water use is estimated to be less than 1000l/ field day. Water for drilling purposes may be drawn at each prospect either from capped bores from previous field seasons or from exploration RC drill holes established by the drilling contractors at the beginning of each new field season.

Flora and Fauna	Vegetation is typical of savannah grass and woodlands in the region. Extensive areas of outcropping rock are sparsely vegetated. There is evidence that the area is subject to fires, probably annual, resulting mainly from the activities of other land users. A desktop Fauna and Flora survey, including weeds, has been undertaken during 2012 using the NRETAS website by EcOz Environmental Surveys (EcOz Sandfire - Flora and Fauna Desktop Review 2012 (SAN00121613), and is included in Appendix 2. The EcOz report it is outlined that the Borroloola area is significant for its environmental attributes which include ten threatened faun species, including the restricted range Carpentarian Grasswren (Amytornis dorotheae) and one plant species endemic to the Site (Stylidium stenophyllum) and nine plant species endemic to the NT. Some of the common native flora that can be found in the licence area include Melaleuca viridiflora, M. nervosa and Callitris intratropica. Solanum carduiforme is a threatened flora species within the Borroloola region. Weeds are also widespread throughout the Borroloola region. Some common weeds include Star Burr (Acanthospermum hispidum) and Mossman River grass (Cenchrus echinatus). Some of the common native fauna in the Borroloola area include Carpentarian Grasswren (Amytornis dorotheae) and the Canefield Rat (Rattussordidus). The Carpentarian Grasswren (Amytornis dorotheae) is also a threatened species within the region. Numerous and widespread pest fauna species are also present in the region. Some of the most common include Cane Toad (Bufo marinus), Feral Cat (Felis catus) and Feral Pig (Sus scrofa).

Land Use	The Cadastral details shown at Appendix 3 indicates the types of land occupancy and use in the Borroloola region by aboriginal groups on freehold and leased properties, pastoralists, and mining companies. Details of landholders are included in Appendix 3. All work sites and tenements are subject to native title. Land use by local indigenous people includes accessing such sites for cultural activities, fishing, camping, hunting and travel across the land. Numerous sites of cultural significance have been identified within the Borroloola Project area through the NT Aboriginal Areas Protection Authority (AAPA). Pacifico avoids these sites of cultural significance and does not work in their vicinity. Also the indigenous groups responsible for the areas in which Pacifico is working have been identified, and a cultural clearance is obtained before undertaking clearing or drilling. Limmen National Park: All but one of the tenements are within the Limmen National Park and there has been consultation and agreement with NT Parks and Wildlife rangers regarding exploration activities within its boundary. Lorella Springs Station/Tourist Park: Both stock mustering and tourism activities are conducted on Lorella Springs Pastoral Lease, on which the Sandfire Resources Exploration camp was located during the 2008, 2010, 2011 and 2012 field seasons. There have been consultations with the manager, Rhett Walker, regarding the use of existing tracks, and retention of exploration tracks. All correspondence has been included in previous Sandfire MMP submissions. McArthur River Station, owned by Glencore: all activities are coordinated with the station manager and physical details of work carried out are communicated to Glencore legal staff.

Historical, Aboriginal, Heritage Sites	An inspection of the register for recorded and registered sacred sites was undertaken through Aboriginal Areas Protection Authority. These searches have identified numerous recorded and registered sacred sites and restricted work areas within the boundaries of the work areas, as shown on AAPA Report & MAP in Appendix 4. West Rock Resources Pty Ltd will comply with any of the constraints imposed by traditional owners, and the AAPA recorded and registered sacred sites and restricted work areas, with regard to working in the vicinity of any cultural sites. The prospects that occur in EL 26938, fall in the southern part of the Limmen National Park that is the subject of a Native Title Claim. We have met with the Native Title claimants, and their representatives have accompanied us in the field and checked for the existence of unrecorded sites of cultural significance before we undertake any significant work (ie clearing or drill pad construction). We do not proceed until we are completely satisfied that there is no risk of interfering with a cultural heritage site. We have not applied for an Authority Certificate from the AAPA. The prospect, Berjaya, that falls in EL28508 is within a restricted work area and contains a recorded heritage site. Native Title has been granted. We applied to the AAPA for information on the conditions of the restricted area. We were able to identify the correct group that 'speaks' for the area, and with their representatives obtained a field clearance, indicating that we would not be working in the vicinity of any site of cultural significance. One planned drill site was cancelled to comply with this intention. A search of the National Native Title Register was also undertaken, and the results included in Appendix 5.

4.0 ENVIRONMENTAL MANAGEMENT

Environmental Management Plan

Under the conditions of the farm-in agreement and with the consent of Sandfire, West Rock Resources Pty Ltd will utilise the Sandfire Environmental procedures and practices. Copies of the documents are attached at Appendix 9**.**

The procedures and practices detail the protection and minimizing of impacts on these resources through the development of sufficient knowledge of the resources, the inter-relationships in the natural environment and the related interaction with stakeholders.

4.1 ENVIRONMENTAL POLICY AND RESPONSIBILITIES

West Rock Resources Pty Ltd is committed to:

- The development and implementation of an Environmental Management System to encourage environmental protection through proactive environmental management and compliance with statutory requirements;

- The development of Environmental Standards for use across all Company activities including design, exploration, planning, development, operations, and closure decommissioning;

- Providing appropriate training and communication to employees and contractors on matters related to Environmental Management and the importance of natural resource protection including soils, vegetation, water, energy, waste and mineral products / by-products;

- Engaging with stakeholders in good faith around issues of common and shared interest;

- Undertaking rehabilitation and recovery of disturbed areas in a timely manner, consistent with industry standards, regulatory requirements and relevant guidelines;

- Providing opportunity for the development and implementation of innovative and sustainable options through a process of continuous improvement through completing the following targets:

  1) Monitor on a regular basis the environmental performance of contractors during the programmes.
  2) To conduct a joint meeting after each programme, with the West Rock Resources Pty Ltd supervisors, earth contractors and drillers to list those things that could improve environmental consequences in following programmes.
  3) After each programme and rehabilitation work is completed, review all environmental and safety aspects specific to the programme to identify areas for further improvement.

- Communicating with stakeholders, regulatory authorities, employees and community on environmental performance and progress in activities.

West Rock Resources Pty Ltd commits to ensuring responsible environmental management through a series of sensible precautions and procedures in which unnecessary damage to the environment is minimised, and where possible, early rehabilitation takes place to allow the short growing season of the region to have optimum benefit.

The company's environmental management procedures are based on four approaches:

- Awareness – Personnel are made aware of potential impacts and expected to use this awareness to avoid impact.

- Impact reduction – Notwithstanding the practical and financial constraints under which the Company operates, work must always be conducted in a manner that causes the least environmental impact.

- Rehabilitation – All ground disturbances are to be rehabilitated to the standards set by the DME guidelines.

- Review/audit – Rehabilitation progress is to be internally monitored and reviewed. Information gathered should be used to inform future work and rehabilitation program planning. External audits are to be facilitated.

West Rock Resources Pty Ltd Environment Responsibilities

Level Within Organisation	Responsibilities
Responsible Officer	Ensures that the organisation meets the environmental commitments set.
Managers	Managers plan, schedule and control all work and must ensure that the environmental commitments set out in the MMP are met.
Supervisors – Senior Geologists	Supervisors control of the day to day work in the field under the guidance of the manager.
Employees	Employees are required to complete their work in a manner that does not put themselves, others or the environment at risk.

David Pascoe, Project Geologist for the Borroloola West Project, is the Responsible Officer and Manager in charge of Environmental commitments.

The Responsible Officer is the person responsible for the conduct of environmental activities within the organisation.

- The Responsible Officer will prepare a schedule for environmental monitoring of disturbances, the performance of rehabilitation activities and the monitoring of rehabilitated areas for soil stability and to assess the regrowth of vegetation on the areas.

- Will undertake a review of the Environmental Systems every 12 months.

Managers have responsibility in their areas of control to:

- Managers may be delegated the responsibilities for training employees, for establishing schedules to perform rehabilitation activities and to conduct monitoring activities of rehabilitated areas.

- Managers will be responsible for the oversight of delegated responsibilities to the supervisor.

- Carry out their roles and responsibilities as detailed in the MMP.

- Ensure all risks to the environment are identified, assessed and effectively controlled by regular monitoring of activities on the site and scheduling regular site meetings.

- Equip employees with the necessary skills, training and equipment to safely undertake their work.

Supervisors-Senior Geologists with supervisory responsibilities have a responsibility to:

- Supervisors may be delegated the responsibilities for training employees to ensure that employees have the necessary skills and knowledge to conduct activities in accordance with Pacifico's environmental policy and the environmental commitments in the MMP.
- Implement relevant environmental policies and procedures in their areas of control.
- Provide the necessary information, instruction and training to workers under their control.
- Ensure workers carry out their jobs effectively and safely.

Employees have a responsibility to:

- Follow reasonable instructions and have regard to training in the performance of West Rock Resources Pty Ltd activities on the site, the observance of work directions and the conduct of rehabilitation activities as directed by the Supervisor or Manager.
- Protect their own health and safety and to avoid adversely affecting the health and safety of other persons in the workplace.
- Report any environmental incident or accident to the supervisor as soon as possible after the event.
- Ensure that all equipment is used correctly.
- Report or make recommendations to management to avoid, eliminate or minimize any hazards of which they are aware regarding working conditions or methods.
- Keep their work area tidy.

4.2 STATUTORY REQUIREMENTS

- *Mineral Titles Act & Regulations;*
- *Mining Management Act & Regulations;*
- *Water Act;*
- *Work Health and Safety (National Uniform Legislation) Act 2011 and Regulations;*
- *Heritage Conservation Act;*
- *Native Title Act;*
- *Waste Management and Pollution Control Act;*
- *Environmental Protection and Biodiversity Conservation Act;*
- *Environmental Assessment Act;*
- *Soil Conservation and Land Utilisation Act;*
- *Bushfires Act;*

- *Water Act;*
- *Weeds Management Act;*
- *NT Aboriginal Sacred Sites Act;*
- *NT Aboriginal Land Rights Act;*
- *Waste Management and Pollution Control Act;*
- *Control of Roads Act;*
- MMA Authorisation conditions; and
- Lease conditions.

4.3 NON-STATUTORY REQUIREMENTS

Liaison with all Stakeholders is outlined in Section 4.4.

4.4 IDENTIFIED STAKEHOLDERS AND CONSULTATION

- Australian Mining and Exploration Title Services (AMETS);
- Aboriginal Areas Protection Authority (Authority certificate and registerinspections);
- Billengarrah Native Title Claim FC#: NTD6030/00.
- Bone Lagoon Outstation – access to Bing Bong on EL24401 and Warramana on EL26833 to the east of gained across their land
- Lorella Downs Native Title Claim FC#: NTD6016/00.
- Northern Land Council St Vidgeon Crown Lease in Perpetuity 346 N.T. Portion 00819
- Department of Mines and Energy Mining Environmental Compliance Division;
- Borroloola Community;
- Limmen Bight Fishing Camp owner and operator - Stephen Barret;
- Leila Creek Station (Contact: Chris Schilling 08 8975 9574);
- Northern Land Council Nathan River Native Title Claim;
- Northern Land Council Billengarah Native Title Claim;
- Wurrunburru Association Incorporated Crown Lease in Perpetuity #429 N.T. Portion 02432;
- Lorella Springs Station Maximus No. 82 Pty. Ltd and Landmark Developments Pty Ltd (Manager: Rhett Walker 08 8983 3728);
- McArthur River Station Mt Isa Mines Ltd (Contact: Dave Daniell 08 8975 9996);
- NT WorkSafe (1800 019 115).

Consultation with Landholders

Regular communication will be undertaken with the Pastoral Lessees and other authorised users of the site to inform them of proposed activities. Details of mobilisation and demobilisation of each phase of drilling activities will be notified to these users in advance.

Accordingly, West Rock Resources Pty Ltd will advise Landholders of its proposed exploration activities in accordance with regulation No. 71 for section 32(1) or 49 of the Mineral Titles Act. Landholder details are included in Appendix 3.

Mining Environmental Compliance Division of the DME will be notified annually of previous exploration work, and rehabilitation carried out, and proposed activities over the project area.

Regular communications with the NT Bushfires Council can be established to monitor fire risk within the area.

4.5 INDUCTION AND TRAINING

All employees and contractors will be required to undertake a site induction prior to commencing work on a West Rock Resources Pty Ltd site. Copies of the EcOZ environmental reports and weed information documents (at Appendix 2) will be provided to the inductees. Copies of environmental Policy and Procedures (at Appendix 9) will be distributed to the inductees.

The induction will cover:

- Environmental responsibilities of the company;
- Environmental responsibilities of the individual;
- Environmental awareness;
- Responsible operating practices;
- Rules of behavior while on-site;
- Reporting procedure;
- Familiarisation, recognition and management of sacred and culturally significant sites.

The names of employees and contractors who have participated in and completed the induction process will be recorded. Records will be stored at the company's offices.

Training topics covered both in the induction and as additional training include:

- Incident reporting;
- Site inspections;
- Weed identification;
- Emergency procedures and emergency response training;
- Any other issues that may be raised during toolbox meetings, such as fire extinguisher training and modifying procedures to suit specific requirements may be the subject of further group training.

West Rock Resources Pty Ltd employees and contractors who have not been inducted on to the site will not be permitted to enter the worksite.

4.6 IDENTIFICATION OF ENVIRONMENTAL ASPECTS AND IMPACTS

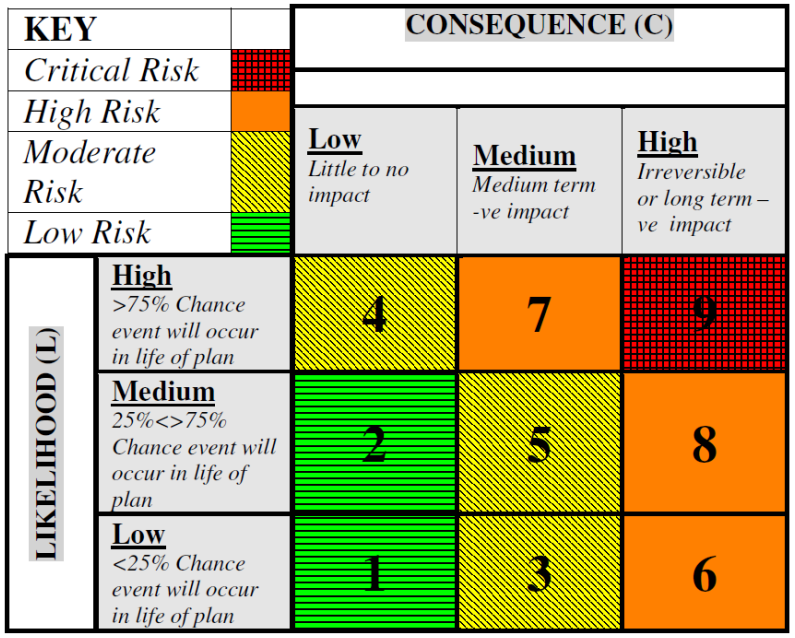
Aspect	Impact	Risk Rating	Management measures (prevention)	Management measures (remediation)
Clearing for drill pads/ tracks/ camps	Possible loss of native flora and habitat for fauna	Medium	Leave the area of the drip line of a tree's canopy untouched to protect the tree's root ball. If drill pads are required, clear the smallest possible area using blade–up technique. Re-establish / clear tracks using blade–up technique. Establish camps in cleared areas.	Close/ cap drill holes as soon as possible after exploration activities have ceased. Re-spread topsoil over pads; monitoring every 6 months will determine if re-seeding is required. Remove all rubbish from camp areas for disposal at an approved facility. If a threatened species is identified prior to clearing it should be properly identified described and reported, and an alternative site planned well away from the threatened species.
Weed management	Spread of weeds	Medium	The driver of the vehicle (Pacifico staff or contractors) will visually inspect the outside and underside of vehicles prior to entry and exit from the project area, remove any plant material. Statutory obligations under the Northern Territory Weed Management Act 2001 - To prevent the land being infested with a declared weed, and to prevent a declared weed from spreading to other land. Incidences of new weed species on site will be reported to DLRM and DME.	Establish a monitoring regime to ensure that the measures that are in place are effective. Areas affected by clearing will be examined for weed species every 6 months. Class A weeds to be eradicated, Class B weed – growth and spread to be controlled, Class C weed – introduction to the Northern Territory is to be prevented.

Driving between drill sites / tenements	Spread of weed pest species	Medium	Establish inspection areas near the exit from the project area to assist in removing weeds and seeds from plant and equipment. Incidences of new weed species on site will be reported to DLR and DME.	Consider establishing a spraying campaign to control weed infestation or hand pull weeds from small areas where infestation has taken hold.
Drilling	Hydrocarbon spills – risk of contamination of soil, surface and ground water Dust and noise emission – disturbance to flora and fauna	Medium	Sumps to be lined with a heavy polyurethane membrane where appropriate. All drilling fluids used in sumps are to be biodegradable. Diesel fuel will be delivered to the drill rigs via a 2200 litre fuel tank loaded aboard a light truck and transferred via electric pump. Spill kit will be on hand at transfer point. Disturbance to flora and fauna will be minimal due to sensitive clearing of drill pads. Noise and dust emissions will be managed with mandatory noise and dust reduction equipment on plant and machinery. PPE will be issued to personnel to minimize exposure to dust and noise.	Diesel fuel is delivered to the drill rigs via a 2200 litre fuel tank loaded aboard a light truck and transferred via electric pump. Spill kit will be on hand at transfer point. Future contracts with drillers will specify that spillkit specifications need to be provided, and that amounts must be appropriate to the volumes of fuel being handled. Topsoil will be re-spread as soon as possible after cessation of drilling.
Hydrology	Water encountered during drilling/ surface water	Medium	If water is encountered, it will be diverted into drill sumps or settlement ponds.	If water to be diverted onto surrounding land will first be diverted into a sump or a silt trap. The water will have deposited its silt load into the sump/trap before being allowed to flow out.

Waste Management	Human waste, kitchen waste and food scraps can attract animal pest species	Medium	Covered bins will be used for the collection and storage of rubbish. All rubbish and waste to be taken off-site and disposed of in dedicated rubbish tips at Cape Crawford or Borroloola.	All personnel will be instructed in correct waste management during their site induction. Any industrial waste will be removed and disposed of at an appropriate disposal facility.
Erosion Management	Un-rehabilitated drill pads and drill holes can become eroded. Risk of impact on flora and fauna.	High	Rehabilitate drill pads and cap drill holes to DME specifications as soon as possible if no further down hole activity is planned. Maintain uniform surface contouring on area. DME Advisory notes attached at Appendix 8.	Establish a monitoring regime to ensure that rehabilitated areas are not subject to erosion. Areas affected by clearing will be examined for erosion every 6 months. Temporary cap immediately on completion of drilling. Removal of samples bags and sealing (collars cut off or removed and holes plugged at a minimum depth of 400mm) of drill holes within 6 months Complete rehabilitation of drill site within 12 months

Sacred Site Intrusion	Possible destruction of sacred site	High	The operator has received abstracts from the register of sacred sites confirming that there are registered sites within the project area. If the intention is to drill in near the identified sites, the operator can request a Clearance Certificate from AAPA to clearly identify the areas in which the sites occur. The operator has received maps from AAPA to identify the areas on which the sites occur. Registered and recorded Aboriginal sites will be recorded on field maps to ensure that the areas remain undisturbed.	Knowledge of the precise location of sacred sites on the project area will enable the proponent to remove any risk of intruding on registered or unregistered sites.

Risk Matrix from MMP Advisory Structure Guide



4.7 EMERGENCY PROCEDURES AND INCIDENT REPORTING

An environmental emergency on the project area will most likely arise from a hydraulic oil or fuel spill. The quantities of fuel that will be kept on the work site and the oil in the storage tanks of plant and machinery poses a risk to the environment. The emergency procedure that the proponent has in place to manage such a threat is as follows:

- Alert co-workers and report the incident/or accident to the immediate supervisor;
- Trap any liquid if possible by bunding the area to prevent it from reaching waterways;
- Without placing the safety of the individual at risk, identify the source of the leak if possible and determine if it can safely be stopped;
- The site manager/ supervisor must then report the incident/ accident in accordance with the section 29 of the Mining Management Act (MMA);
- Manage any threat of fire by having different types of fire extinguishers that can deal with oil based fires and grass fires;
- Any contaminated soil and material such as rags and blankets must be disposed of at an approved facility
- Ensure that reporting details and the occurrence of the incident/ accident have been noted in the site diary reporting details and the occurrence of the incident/ accident have been noted in the site diary.

Fire is also a risk while conducting works on the project. West Rock Resources Pty Ltd will implement the following management measures to reduce the risk of fire generation during exploration activities:

- Exploration personnel will be trained in the use of fire extinguishers and fire prevention measures.
- Vehicles will be fitted with an appropriate fire extinguisher at all times.
- Highly flammable substances will be appropriately stored during all exploration activities.
- Personnel involved in exploration will be made aware of the risk of bushfires and the precautions implemented to minimise risks associated with fires, including knowledge of escape routes.
- In areas of substantial vegetation cover and/or fuel loads, no welding, grinding, soldering or cutting will be carried out during a declared total fire ban unless appropriate fire fighting equipment is present and a spotter allocated to the job.

4.8 ENVIRONMENTAL AUDITS AND INSPECTIONS

The manager/ supervisor will conduct a walk-through inspection of the work site prior to work commencing every day. The inspection and its results will be noted in the site diary.

A formal inspection of the site will be conducted prior to the initial commencement of work and following that at 6 monthly periods. The frequency of audits will be annual.

Assistance from DME may be requested depending should the proponent require guidance on operational matters.

Upon completion of rehabilitation of drill sites and drill-holes, the results will be documented in an inspection report accompanied by photographs illustrating the rehabilitation activities. Photographs will also be taken before work is commenced for comparison. It is understood that the prerequisite for the return of an amount lodged as security is a rehabilitation report accompanied by photographs. The inspection report will therefore serve the two purposes.

4.9 ENVIRONMENTAL PERFORMANCE REPORTING

Exploration carried out during the year includes reconnaissance geology and 5 diamond drill holes: four holes were drilled on EL26938 (CCD9, CCD10, MND05, MND06), and 1 diamond hole was drilled on EL28508 (BJD04).

EL 26938

At Coppermine Creek 2 diamond holes were drilled (CCD09, CCD10). The collars have been cut, and the sites and access rehabilitated during 2017.

A short stretch of access track at Coppermine Creek and the pads at CCR01 and CCD03 have been left open for future work, as reported previously.

MNR02 pad – rehabilitated 2017

At Mariner reverse circulation holes MNR01 to 04, drilled in 2016, were rehabilitated in 2017, as well as the access tracks off the main access track. The main access track through the prospect has been left open.

Two diamond holes were drilled, MND05 and MND06. The sites and access tracks will be rehabilitated in early 2018.

EL28658

At Four Mile, from the 2016 reverse circulation drill program, four unused pads were rehabilitated, as well as 5 drill hole sites, FMR01 to 05, during 2017.

FMR02 pad – rehabilitated 2017

FMR05 pad – rehabilitated 2017

EL30302

At the Johnstons prospect one unused pad was rehabilitated and one drill hole site from the 2016 reverse circulation drilling program, JTR01 was rehabilitated during 2017. The access track was also rehabilitated.

JTR01 pad – rehabilitated 2017

EL28508

At Berjaya, 3 pads from the 2016 RC drilling program, and their access tracks were rehabilitated during 2017, BJR01 to 03.

BJD04 was drilled during 2017. The site and sump has been rehabilitated. The access track will be rehabilitated during early 2018.

We have written permission from Glencore, owner of the McArthur River Station, to conduct exploration subject to the conditions in this MMP (Appendix 14).

EL26939

A letter is attached (Appendix 17) from Rhett Walker, owner of Lorella Station, requesting that the drill access track remains open (it was a previously existing used station track in any case).

Access tracks for a proposed RC drill program have been cleared. The drill program was postponed to 2018.

Limmen National Park

The proposed exploration, apart from EL28508, lies within the Limmen National Park (previously Billengarah Station). A letter consenting to exploration, subject to MMP conditions, is attached (Appendix 15).

For all licences

No weeds were identified that required management.
Monitoring programs are ongoing.
No new weed species were identified.
There were no incidents regarding hydrocarbon spills.
Environmental targets are being met, with rehabilitation of the previous year's drill program being undertaken the following year, at the same time as preparation for the current year.
Revegetation and closure objectives are being met, both as a company obligation, and to reduce the required environmental bond.
The provisions for dust management were applied during the drill programs.
There are no outstanding pollution or waste management issues.
Pacifico continues to actively reduce the amount of environmental damage during track construction by efficient route design and minimizing tree and scrub destruction.
No radioactive material was encountered by drilling.

Now that significant rehabilitation was carried out in 2016, these areas will be systematically monitored for regrowth during the present year.

Water Management

No water will be drawn from surface water for domestic purposes. Water for drilling purposes may be drawn either from capped bores from previous field seasons or from exploration RC drill holes established at the beginning of each field season. All drilling fluids are initially contained in plastic-lined sumps.

Hydrocarbon Management

Hydrocarbon storage, if required, will be in bunded tanks. To this stage no hydrocarbon storage has been required or will be required for the 2018 proposed program. As we have only conducted limited drilling programs with only one rig drilling at any one time, fuel is delivered to the drill rigs via a 2200 litre fuel tank loaded aboard a light truck and transferred via electric pump. A spill kit is on hand at transfer point.

Driller's spill kits consist of (Appendix 16):

Laydown Areas	Drilling Sites	Refuelling Facilities
• Dust Pan and Broom • 2 by 20kg bags of absorbent • 2 bags of 50 absorbent mats • 2 bags of drum top absorbent mats • 3 by 2m absorbent rolls	• 1 bag of garbage bags • 1 bag of 20kg absorbent • 2 bags of absorbent mats	• Dust Pan and Broom • 2 by 20kg bags of absorbent • 2 bags of 50 absorbent mats • 3 by 2m absorbent rolls

Waste from servicing of drill rigs, loaders, equipment including generators, waste oil, rags, grease and cartridges will be collected and disposed of off-site, in accordance with statutory regulations. In 2010 all waste oils and hydrocarbons were collected in 1000L storage pods and returned to the Katherine recycling facility at the end of the program. For 2011 and 2012, these fluids were returned to a Darwin facility. West Rock Resources Pty Ltd follows the same procedure when disposing of hydrocarbon waste.

Invasive Species Management

All personnel will be advised during their induction that equipment (including vehicles) is inspected on entering the site and is washed down prior to leaving site to avoid weed infestation. Kitchen waste, rubbish and food scraps will be disposed of in waste receptacles for disposal by burning or burying.

Environmental training is provided to employees at induction with EcOz Sandfire - Significant Species ID Booklet 2012 at Appendix 2, Flora & Fauna and the topics covered in section 4.5 of the MMP – Induction & Training.

Flora and Fauna Management

Wherever possible, care will be taken not to disturb the natural habitat. Clearings for drill pads will be kept to the absolute minimum consistent with operator and equipment safety. Vehicles will be thoroughly cleaned before entering and leaving the region to prevent the transport of weeds on or off-site.

Noise and Air Quality Management

The exploration activities will be conducted in remote areas where noise and dust have little impact on the environment or residents.

All machines used on site are fitted with adequate commercial noise suppression systems to meet normal residential /industrial use standards.

Noise levels are maintained below LAeq,8h of 85 dB(A) or an LC,peak of 140 dB(C). In addition earplugs and industrial ear muffs are available for staff and authorised visitors to use. Ear protection is obligatory for drilling workers and visitors to the drill rig.

Noise levels are monitored on a daily basis by Pacifico's representative during the course of a drilling program. Noise considered unreasonable or excessive can be reduced or eliminated as required by instructions to the contractor.

All machines are fuelled with diesel which burns to produce water, carbon dioxide, carbon and in most cases, some sulphur based emissions. These are not likely to cause significant problems in the remote open air environment of the Authorisation.

Operators of machinery will minimise risks associated with dust emissions and noise by wearing PPE and ensuring that the work area is located up wind during activities. Dust masks are provided for operators as a matter of standard equipment.

It is acknowledged that dust can impact on the flora and fauna within the area, therefore dust suppression of tracks is carried out either by spreading water with loaders or water carts where necessary.

Dust suppression on the access roads is carried out before visibility is affected and ahead of significant

vehicle movement. Water spraying is carried out as needed and frequency depends on the planned and actual vehicle usage.

As much of the dust generated by the drilling operation as possible will be collected via cyclone(s) into plastic bags for geological and geochemical sampling. Dust ensuing from the collar or the cyclone chimney will be kept to a minimum and will be directed well away from, and downwind of, personnel working in the vicinity of the drill.

Hazardous Materials and Hydrocarbon Management

Hazardous substances likely to be utilised during the drilling program are diesel fuel, engine oil, hydraulic oil, two-part drilling foam and water-soluble detergent-based lubricants for core bit.

Only experienced drilling personnel will be permitted to mix and apply the two-part drilling foam. Diesel will be stored in trailer/truck mounted tanks. Care will be taken to prevent spillage to ground during refuelling operations. All waste oils will be captured in approved receptacles and disposed of off-site in accordance with statutory regulations.

Material Safety Data Sheets which set out properties of the substance, precautions for use, hazard information, first aid requirements, storage and emergency response, so as the substance may be safely handled, stored and used in the workplace, will be held on the drill rig by the drilling contractor for each hazardous substance likely to be utilised during the drilling operations. All hazardous substances are to be stored in original containers and be clearly labelled.

An emergency response plan is provided by the drilling contractor where there is the likelihood of any spills whilst using a hazardous substance on the site.

Radiation Management Plan

A radiation management plan, 2010 NT Radiation Management Plan (SAN00031393) was developed for the project. A copy of the document is attached at Appendix 10. P will use the Plan to manage the risk posed from encountering radioactive material during the drilling program.

5.0 EXPLORATION REHABILITATION

West Rock Resources Pty Ltd has submitted details of rehabilitation conducted on the Borroloola Project to DME. West Rock Resources Pty Ltd has held a *Mining Management Act* Authorisation allowing the company to conduct exploration activities on the project area.

West Rock Resources Pty Ltd commits to the following practices:

RC percussion chips will be sub-sampled on site by automatic sampling equipment on the drill rig and by manual riffle sampling. RC assay samples will be removed from site for analysis at commercial laboratories at Katherine or Perth.

All drill collars will be temporally capped immediately after the completion of each hole. Collars will be cut off or removed and holes plugged, at a minimum depth of 400mm, within 6 months of completion of drilling of the hole.

Drill sumps will be back-filled as soon as practicable after the completion of all drilling operations. If possible, sufficient time will be allowed for the pits to largely dry up to prevent the overflow of drilling waste products at the time of rehabilitation.

All sample and reject bags will be removed from site within 6 months of completion of the hole.

Full rehabilitation of drill sites will be scheduled and completed at the beginning of each field season to coincide with new drill site and access preparation.

Drill pads will be restored as near as possible to original land form shape after they are of no further practical use. Access tracks will be protected against erosion by construction of appropriate whoa boys (subject to landowner not requesting they be left in usable condition). In conjunction with input for the pastoral lessee, appropriate channels and bunds will be constructed on pads and access tracks not rehabilitated before the next wet season to prevent erosion.

Prior to final exiting of the tenement, all remaining hole collars will be buried in accordance with DME guidelines.

Topsoil Management

Topsoil disturbance will be minimised. Original profiles will be maintained where possible. Closure Planning is covered extensively in the Drill Site Rehabilitation procedure.

The drill site preparation procedure covers aspects of closure including top soil management. Clearing will mainly be limited to the restoration of existing tracks and blade removal of vegetation only. Topsoil from sumps will be stockpiled for correct replacement on completion of activities.

Any topsoil removed is piled around the periphery of the drill pad or access track. The piles are less than 1m in height. The soil is re-spread when the access track and pad is no longer to be used, as part of the rehabilitation process.

Revegetation Methods

Disturbance involved in Air Core and RAB drilling programs is minimal as existing vegetation is avoided. RC and Diamond drilling requires clearance for access and pads; however it has been observed over a number of field seasons that natural re-colonisation of plants occurs over time particularly if the topsoil is replaced.

Fire Management

Consultation with the Bushfires NT will assist in ensuring all fire precautions are met. All vehicles and earthmoving equipment are fitted with fire extinguishers. No intentional burning off on the permit has been conducted or is envisaged.

Disturbance	Rehabilitation Activities	Schedule (Timing)	Closure Objectives / Targets	Monitoring Techniques
Drill holes	When samples have been analysed and there is no requirement to go back down-hole, the holes will be permanently plugged with plastic cones below ground level, backfilled and mounded as per DME Advisory Note AA7-029 attached at Appendix 8. If more down-hole activity is proposed temporary caps will be installed.	Holes will be permanently or temporarily capped following cessation of the drilling program at the end of each field season.	All holes will be permanently plugged/ capped as per DME Advisory Note AA7-029.	Rehabilitated drill sites will be inspected after 12 months to ensure that the site is safe and stable and that there have not been any hole failures. Remediation of any failures will be undertaken immediately.
Drill pads	Any topsoil that was removed will be re-spread over the pad. Any shrubs or trees that were removed will be placed over the area to provide habitat for small fauna. DME Advisory Note AA7-029 attached at Appendix 8.	The pad may not be rehabilitated immediately after drilling ceases if more down-hole is scheduled. If no further work is proposed the pad will be rehabilitated after drilling ceases as per DME Advisory Note AA7-029.	The drill pad will be rehabilitated after drilling ceases as per DME Advisory Note AA7-029. Drill pads will be left in a safe and stable condition as soon as possible after the end of drilling program at the end of each field season.	Rehabilitated drill pads will be inspected after 12 months to ensure that the site is safe and stable and that regrowth on the area is satisfactory.
Sumps	Sumps will not be filled until all water has been pumped out or evaporated. DME Advisory Note AA7-029 attached at Appendix 8.	If no further work is proposed the sump will be rehabilitated after drilling ceases as per DME Advisory Note AA7-029.	The sump will be rehabilitated after drilling ceases as per DME Advisory Note AA7-029. Sumps will be left in a safe stable condition as soon as possible after the end of drilling program.	Rehabilitated sumps will be inspected after 12 months to ensure that the site is safe and stable and that regrowth on the area is satisfactory.
Costeans	None proposed.			
Bulk sample pits	None proposed.			

Tracks / Gridlines	Some new tracks/ gridlines required. Existing tracks to be cleaned up if required using blade-up technique. If compaction occurs they will be ripped prior to closure of the site as per DME Advisory Note AA7-005, unless required to remain in place by landholder. DME Advisory Note AA7-005 attached at Appendix 8.	Tracks/ Gridlines will be rehabilitated as per DME Advisory Note AA7-005 upon closure of the Authorisation unless required to remain in place by the pastoralist.	Tracks will be rehabilitated as per DME Advisory Note AA7-005 unless required to remain in place by the pastoralist.	Rehabilitated tracks will be inspected at after 12 months to ensure that they remain safe and stable and that regrowth on the area is satisfactory.
Sample bags	Sample bags stored either on drill pad or at sample farm while drill cuttings are being analyzed. Upon completion of process drill cuttings will be either returned down-hole or buried at sample farm pit, and sample bags separately buried in sample farm pit.	Sample bags - rehabilitation will be completed within 6 months or at completion of assessment process, whichever occurs sooner.	Empty sample bags down-hole or and remove all bags from site for disposal at approved facility.	Rehabilitated drill pads will be inspected after 12 months to ensure that the site is safe and stable, free from sample bags and that regrowth on the area is satisfactory.
Camp	Other than base camp small campsites 30m x 30m only are proposed; tents to be established on open areas, no clearing proposed. Domestic rubbish will be removed and disposed of at an approved facility.	Camp site being vacated will be cleaned up prior to leaving the site.	The camp will be located on previously cleared area. The site will be left in "as found" condition.	Camp site will be inspected after 12 months to ensure that they remain safe and stable and that regrowth on the area is satisfactory.
Semi-permanent Camp	Semi-permanent camps would be established with dimensions 100m x 200m for exploration base, and 50m x 50m for contractors, using existing cleared areas and trees for shade and located away from surface water.	Camp site being vacated either at completion of contractor program or at end of the exploration field season will be cleaned up prior to leaving the site.	The camp will be located on previously cleared area. The site will be left clean in readiness for subsequent field seasons.	When contractor program or exploration field season finished site will be inspected after 12 months to ensure that it remained stable and that regrowth on the area is satisfactory.

6.1 PERFORMANCE OBJECTIVES

The environmental performance objectives that have been set by West Rock Resources Pty Ltd are outlined below. The information in the table details how West Rock Resources Pty Ltd intends to meet these environmental goals and how it will measure it effectiveness in meeting its stated goals.

Pacifico's performance objectives for the Borroloola West Project are:

- To minimise the risk to employees, contractors, the public and other third parties.
- To minimise disturbance and avoid contamination to soil by avoiding eroded areas, avoid establishing new tracks where possible and monitoring existing tracks for erosion, avoiding establishment of windrows where they may affect water flow and properly bunded fuel storage area.
- To avoid the introduction or spread of pest plants and animals and implement control measures as necessary.
- To minimise disturbance to drainage patterns and avoid contamination of surface waters and shallow round water resources.
- To avoid disturbance to sites of cultural and heritage significance.
- To minimise disturbance to native vegetation and native fauna.
- To remediate and rehabilitate operational areas to agreed standards.

The success and/ or progress of the above will be recorded and reported to DME in updated MMPs.

APPENDICES