MINEMAKERS LIMITED
ABN 48 116 296 541

Titleholder	Minemakers Australia Pty Ltd
Operator	Minemakers Australia Pty Ltd
Tenement	ML 27244
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Corporate author	Minemakers Australia Pty Ltd
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100,000 mapsheet	Wonarah, Joildung, Ranken and Barry Caves
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ABSTRACT

ML 27244 forms part of the Wonarah Phosphate Project (along with EL 9979, EL 26584, EL 26585, EL 26586, EL 26589, EL 24607, EL 26185, EL 28233, EL 26451 and EL 26452), and is located approximately 240km east-southeast of Tennant Creek. Minemakers Australia Pty Ltd is seeking to develop a large sedimentary phosphate deposit within the Georgina Basin. The model for phosphate deposition requires upwelling, cold phosphate-saturated water depositing phosphate into a restricted environment on the continental shelf where the postulated required narrow pH range is locally present. Post-depositional reworking and replacement of carbonate facies by phosphatic mineralisation is probably an important factor in upgrading phosphorite grades to economic levels. The project area has two principal areas of exploration focus; Main Zone and Arruwurra. The geology of the Main Zone comprises basement granite of Palaeoproterozoic age, unconformably overlain by basalt of the Helen Springs Volcanics. The volcanics are unconformably overlain by dolomitic rocks of the Thorntonia Limestone equivalent in part. The overlying phosphate-bearing Upper Gum Ridge Formation is divided locally into five main units; the Transitional Phosphorite, the Transition Sediments, the Chert Breccia Phosphorite, the Mudstone Phosphorite (main phosphate bearing unit) and the Convolute Mudstone. The Wonarah Formation overlies the Upper Gum Ridge Formation and consists of mudstone, siltstone and sandstone. The geology of Arruwurra is essentially similar with some minor differences. An RC drilling program comprising 6 holes for 339m and 85 assays (including checks) was conducted in 2011. A program of yttrium analysis using RC chips using a portable XRF machine was also completed. An update of the 2009 completed Mineral Resource estimation for Main Zone was completed with a total of 252Mt Indicated at 18.2% P_2O_5 (10% P_2O_5 % cut-off) and 395 Mt Inferred (18% P_2O_5 cut-off). The resource lies mostly within ML 27244 but extends onto other Minemakers' tenements. Other reports completed by consultants comprised a review of metallurgical test work, enabling feasibility study, rehabilitation procedures manual and an exploration activities site audit. The 2011 drill program increased the Main Zone JORC combined Inferred and Indicated Resource by 25% at 10% P_2O_5 cut-off to 647Mt at 18% P_2O_5. Hand-held XRF sampling to date has not delineated any significant zones of yttrium mineralisation.

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1. INTRODUCTION

1.1 Location, accessibility, climate and topography

ML 27244 is located 240km east-southeast of Tennant Creek and the nearest town is Camooweal in western Queensland, approximately 180km to the east (Figure 1). The tenement is on the 1:250,000 Alroy, Frew River, Ranken and Avon Downs and the 1:100,000 Wonarah, Joildung, Ranken and Barry Caves map sheets.

Access to the project is via the Barkly Highway, the main paved freight link between Queensland and the Northern Territory, which runs along the northern boundary of ML 27244. Access within the tenement is via a network of dozed tracks suitable for 4WD only.

The topography relief is very gentle and the area is semi-desert with generally sparse tree and shrub cover.

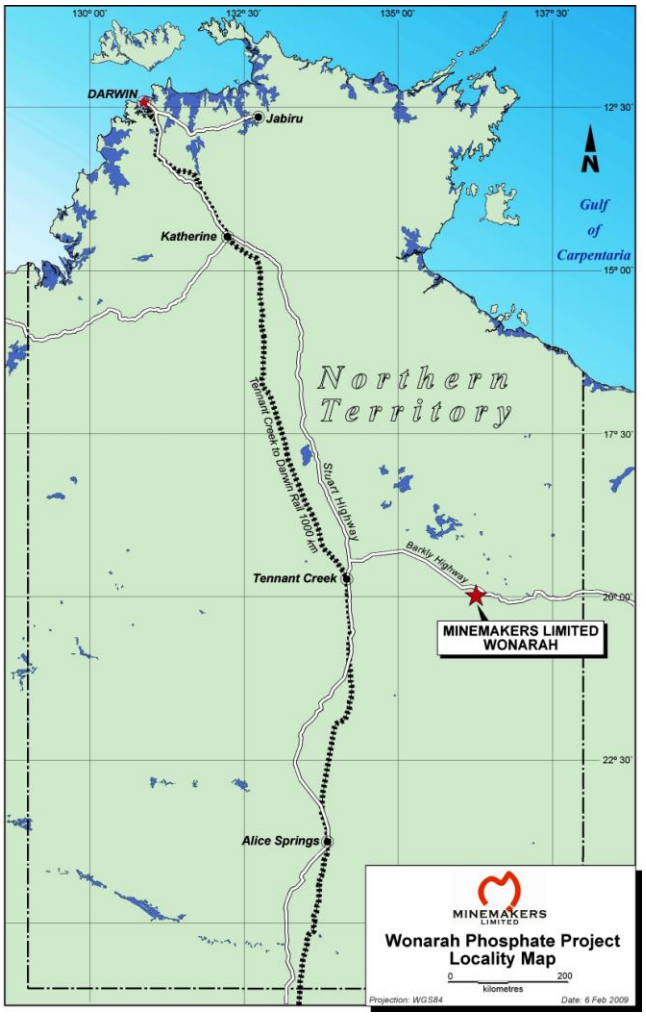

Figure 1. Location of Wonarah Project

1.2 Tenure

ML 27244 covers 10,800 ha and was applied for on 23 March 2009 and granted on 18 February 2010 to Minemakers Australia Pty Ltd (MAPL) for a period of 20 years, expiring on 17 February 2035. The tenement is located on NT Freehold Land (NT Portions 03747-03756) owned by the Arruwurra Aboriginal Corporation.

MAPL has obtained sacred site clearances through the Central Land Council: Sacred Site Clearance Certificate C2008-008, C2008-087, C2009-003 and C2010-032. The tenements are shown in Figure 2.

Figure 2. Tenement plan

2. REGIONAL AND LOCAL GEOLOGY

2.1 Deposit style and model

MAPL is seeking to develop a large sedimentary phosphate deposit within the Georgina Basin. The Georgina Basin is an extensive late Proterozoic to early Palaeozoic basin that extends from northwestern Queensland through much of the eastern Northern Territory area and which hosts several large sedimentary phosphate deposits. A map representing the regional geological setting is presented in Figure 3.

Sedimentary phosphate deposits are restricted in their occurrence globally. The model for phosphate deposition requires upwelling, cold phosphate-saturated water depositing phosphate onto the continental shelf where the required narrow pH range is locally present. Co-deposition with carbonate occurs at slightly higher pH values. Carbonate deposition becomes dominant at higher pH. Post-depositional reworking and replacement of carbonate facies by phosphatic mineralisation is probably an important factor in upgrading phosphorite grades to economic levels.

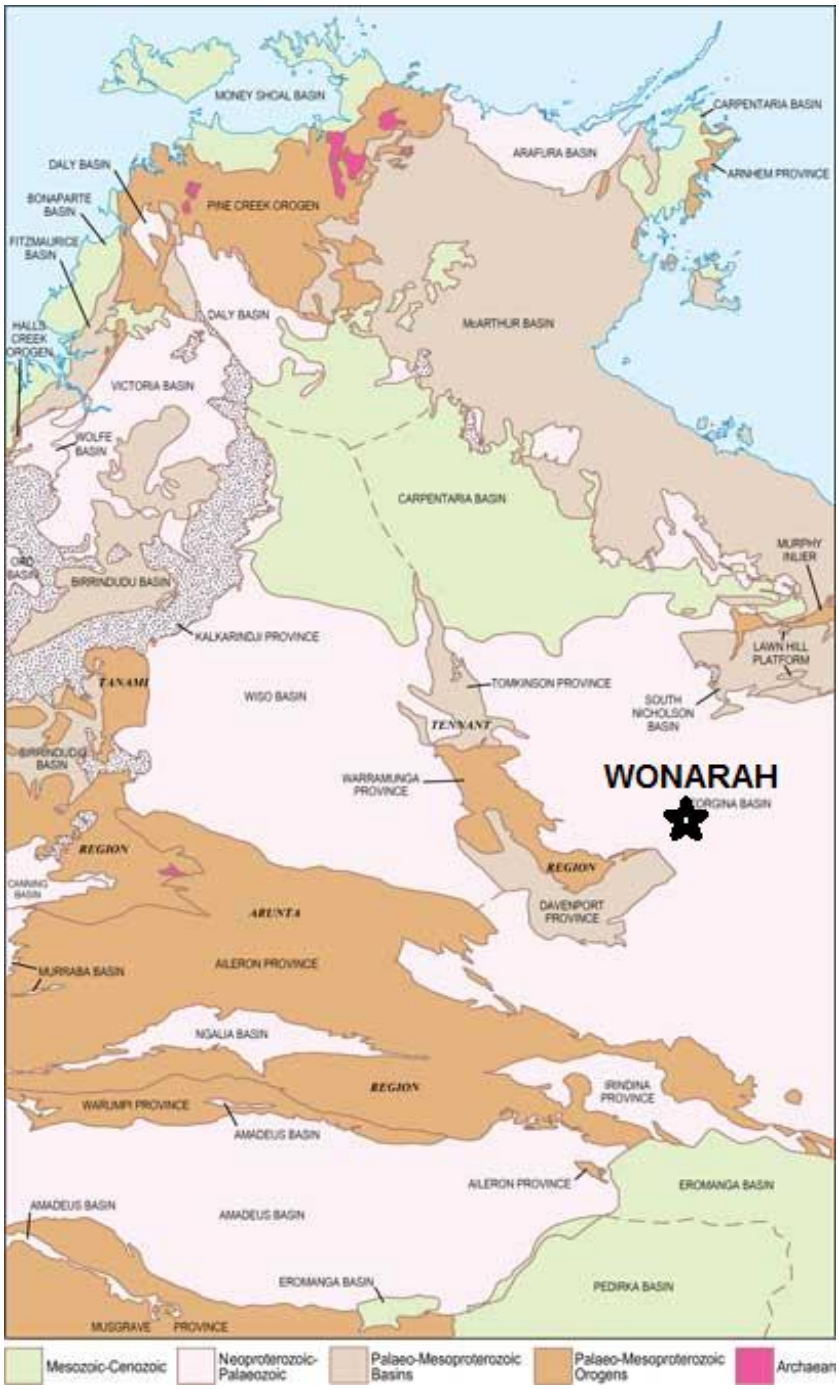

Figure 3. Regional geological setting

2.2 Regional geology

The Wonarah phosphate project is situated in the central western Georgina Basin, a large late Proterozoic to early Palaeozoic basin that extends from northwestern Queensland through much of the eastern Northern Territory.

Basement rocks in this part of the Georgina Basin are comprised of granites of unknown age. They are possibly correlates of the Palaeo-proterozoic rocks of the Tennant Creek region. Mesoproterozoic sediments and volcanics are overlain by the Early Cambrian Helen Springs Volcanics (formerly Peaker Piker Volcanics). A northeast-southwest trending basement high runs through the Wonarah project area.

Overlying Middle Cambrian sediments are divided into two basin-wide sequences. Sequence One deposited clastics, carbonates, organic shales and minor phosphorites during gradual transgression which was abruptly terminated by rapid regression. In the Wonarah region, basement highs are flanked by on lapping dolomitic rocks equivalent to the Thorntonia Limestone. An erosional unconformity is represented by the development of a karst surface.

Sequence Two deposited shallow clastics, carbonates, grainstones, peritidal phosphorites and phosphatic limestones in a transgressive tract system. At Wonarah dolostone, mudstone and phosphorite of the lower Middle Cambrian Upper Gum Ridge Formation overlie Sequence One rocks and basement highs. This formation contains major phosphorite mineralisation and is equivalent to the Beetle Creek Formation on the eastern Margin of the basin which hosts Phosphate Hill and Lady Annie-D-Tree phosphate deposits. The overlying Wonarah Beds are Middle Cambrian mudstone, siltstone and dolostones. Silcrete, ferricrete and calcrete regolith are extensively developed and large areas are covered by stabilised aeolian sand.

2.3 Project Geology

2.3.1 Main Zone

Basement in the Main Zone area is alkali feldspar granite of Palaeo-proterozoic age. Zircons were obtained from the granite and a 207 Pb/206 Pb age of 1838±12 Ma was estimated using LA-ICPMS at the University of Tasmania. Gravity and magnetics indicate that non-granitoid basement is also likely to be present within the licence area. The granite is unconformably overlain by the Helen Springs Volcanics. The top of the basalt is extremely weathered and a ferruginous and manganiferous duricrust is developed locally. Where less weathered, the basalt is vesicular, amygdaloidal and irregularly porphyritic. Dolomitic rocks of the Thorntonia Limestone equivalent are present above the basalt at the southeastern extremity of the Main Zone. To the east and the south the carbonate rocks are developed extensively.

The overlying phosphate-bearing Upper Gum Ridge Formation is divided into five main units: a basal, indurated high grade phosphorite; muddy to sandy, clay-rich transitional sediments; chert breccia phosphorites; a mudstone phosphorite; and a convolute mudstone.

The basal Transitional Phosphorite is a laterally discontinuous high grade indurated phosphorite up to 3m thick developed throughout the eastern and southern part of the Main Zone.

The Transition Sediments (TUN) are laterally continuous, 4-6m thick and comprised of clay-rich mudstone and siltstone with minor phosphorite, dolomite, sandstone and basal epiclastic.

The Chert Breccia Phosphorite forms a distinctive, laterally continuous horizon, 1-10m thick, and comprised of yellow, grey or pink, variably friable or indurated, low to high grade phosphorite with abundant dark grey chert. Chert averages 50-60%.

The Mudstone Phosphorite is the main phosphate-bearing unit at Wonarah and is comprised of 1-10m of yellow and pink mudstone phosphorite with trace to minor dark grey chert. The mineralogy is dominated by (carbonate)-fluorapatite – $Ca_5(PO_4,CO_3)_3F$. The MPH is variably friable or indurated with the indurated phosphorite typically being high to very high grade (30-40% P_2O_5).

The Convolute Mudstone is a 1-10m thick unit of white, light grey and yellow clay-rich variably convolute mudstone with minor siltstone and fine sandstone interbeds. It generally contains minor (<10%) P_2O_5.

The Wonarah Beds overlie the Convolute Mudstone and are comprised of mudstone and siltstone with minor chert, the Hangingwall Mudstone. The Wonarah Beds thicken towards the east and south away from the basement high that defines the western fringe of the Main Zone. Dolomitic units, the Hangingwall Dolostone, are present east and south of the Main Zone.

Regolith is extensively developed throughout the Main Zone with silcrete and ferricrete present in most holes. Low silcrete ridges are prominent features. Colluvial and alluvial deposits are common and extensive stabilised aeolian deposits cover much of the regolith.

The phosphatic units thin and peter out towards the basement high which trends in a northeast-southwest direction towards Arruwurra. To the east and south the phosphatic units, although still present with grade and thickness, are too deep to be of economic interest at this time.

A stratigraphic column and schematic section are presented in Figure 4 and Figure 5, respectively.

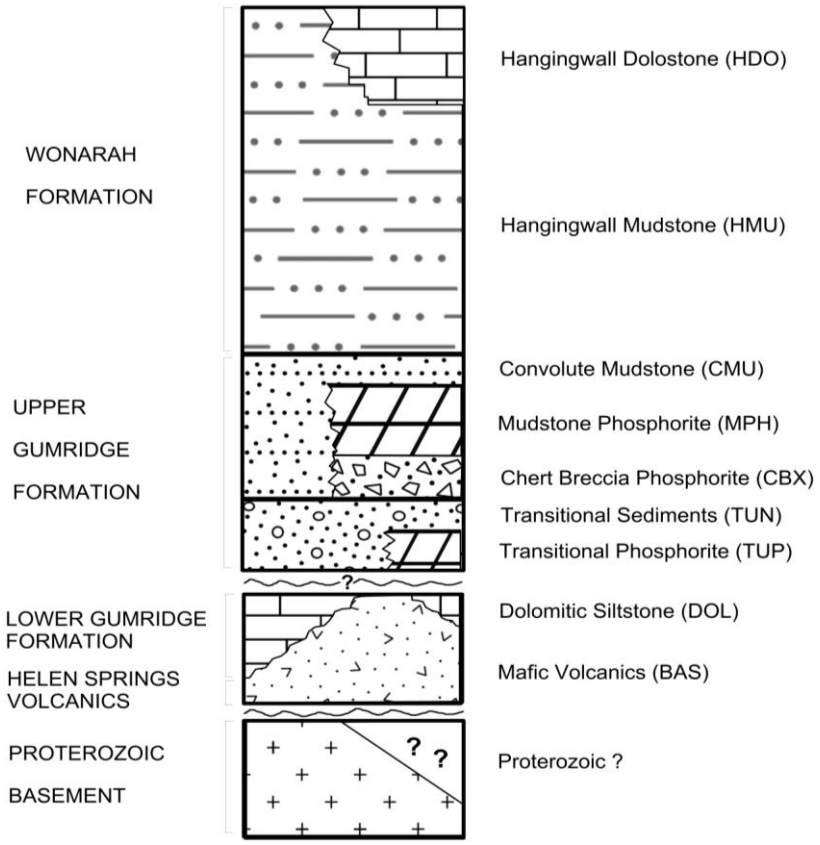

Figure 4. Regional stratigraphic column

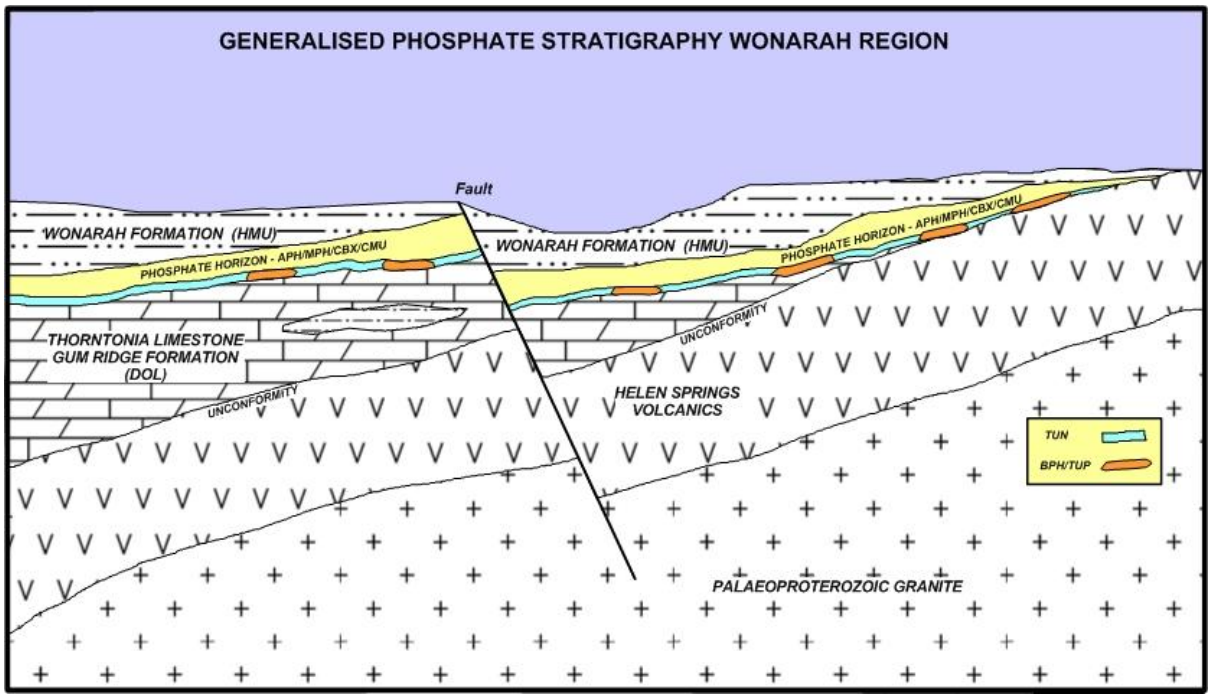

Figure 5. Schematic regional geology section.

2.3.2 Arruwurra

At Arruwurra, the economic phosphate mineralisation occupies a broad northeast-southwest trending shelf sloping gently to the southwest. The shelf drops away sharply at the western end and along the southeastern edge. Mineralisation outcrops in the northeast before petering out against the basement high to the north.

Basement at Arruwurra is similar to the Main Zone and comprised of alkali feldspar granite of possible Palaeo-proterozoic age. This is overlain by the Helen Springs Volcanics which are similar in character to Main Zone. Thorntonia Limestone equivalent dolomites and dolostones overlay the basalt along the southeastern and southern margin of the deposit. An abrupt change in lithology and depth to basalt basement indicates a probable fault which has thrown the deposit side upwards. A karst surface is present on the dolomite.

The Upper Gum Ridge Formation at Arruwurra is somewhat attenuated in comparison to the Main Zone. The stratigraphic equivalent of the high grade Transitional Phosphorite is called the Basal Phosphorite at Arruwurra and is the main unit of economic importance. It is a strongly indurated, very high grade brown phosphorite mudstone which averaged approximately 2m in thickness and is developed throughout the north-eastern part of Arruwurra. The overlying Transitional Sediments are thinner than in the Main Zone and are comprised of 1-3m of mudstone, siltstone and phosphorite. The Chert Breccia Phosphorite is absent at Arruwurra and the overlying Arruwurra Phosphorite (APH) is the stratigraphic equivalent of the Mudstone Phosphorite. The Arruwurra Phosphorite is grey to yellow and is more chert-rich that the Mudstone Phosphorite at the Main Zone. The unit varies in thickness from 1 to 6m and is thickest along a north-east trending axis through the centre of the deposit. The Arruwurra Phosphorite is overlain by and, near surface, interdigitates with a limestone carbonate unit in the northeastern part of the deposit area. Outcropping high grade phosphorites occur in this area.

The Convolute Mudstone is not logged at Arruwurra. The Hangingwall Mudstone unit is similar to the Main Zone except in the far east of Arruwurra where dolomitic and calcareous units, the Hangingwall Dolomite, are present.

Stabilised aeolian sand covers much of the area and is underlain by ferricrete, silcrete, and, above the carbonate unit in the northeast, calcrete and black soil.

3. REVIEW OF PREVIOUS WORK

3.1 Prior ownership

IMC Development Corporation was granted PL 1802 over the Wonarah region on 18 July 1967 covering a total area of 3309 square miles (8570.31km^2) (CR19680030). The tenure converted to PA 2161 Wonarah (CR19690022) on renewal on 12 December 1968 due to conditions governing the expiry and renewal of prospecting Licenses in NT. The area was relinquished and declared Ministerial Reserve No 819 by the Northern Territory Government.

EL1084 was granted to ICI Australia Ltd and Australian Fertilizers Ltd on 8 May 1976 for an area of 410 square miles (1061.9km^2) north and adjacent to the Barkly Highway. The adjacent EL1083, located south of the Barkly Highway, was granted in February 1978 for a total area of 848.5km^2 (CR19780059).

The area to the south of the Ministerial Reserve 819 was taken up by CRA Exploration Pty Ltd (CRAE) and EL3571 was granted on 25 May 1983. The project was abandoned in April 1985.

In September 1997 Rare Earths and Minerals Pty Ltd and Pilbara Chemical Corporation NL applied for four exploration Licenses, covering the Wonarah phosphate deposit and adjacent areas including the former CRAE tenure.

In January 1998 AKD entered into an exclusive option with REM/PCC to acquire the project and subsequently EL 9976 was applied for by AKD Ltd (Australian Kimberley Diamonds N/L, changed to INDO Mines Ltd in 1996) which was granted on 6 February 1998. In March 1999 Rio Tinto Exploration Pty Limited (RTE) entered into a farm-in and joint venture agreement for EL 9976 with Indo Mines (AKD N/L). RTE was the manager of this tenement. EL's 22167 and 22168 were applied for by RTE on 31 August 1999 and granted on 4 August 2000 (CR2001-0280). RTE withdrew from the joint venture in November 2002 due to a determination that the project was NPV negative.

The underlying land tenure is Arruwurra Aboriginal Corporation NT freehold. Tenure information was extracted from the Consultant Geologists' report within the Minemakers Prospectus where reports are not cited.

3.2 Historical exploration

Pre-Minemakers

During the period of 1967 to 1971 IMC Development Corporation drilled 139 vertical rotary-percussion holes within PA2161, accompanied by mapping of photo patterns and soil types, radiometric traverses, analysis of B.M.R. gravity data and radiometric logging of open water bore holes. The drill pattern was spaced at 1 hole per 5.5km^2 with no two holes less than 1.2km apart (CR2000071). IMC described a common phosphorite association within silt-chert, with the main chert concentration located above the phosphorite, and an extensive but non-DSO Phosphorite was defined using the widely spaced drilling pattern. The phosphorite was located at depths of 17 m to 45m and reached a maximum thickness of 18m at the eastern end of the deposit.

Beneficiation studies (CR19690022) were undertaken on 6 samples taken from samples of clayey-siltstone-chert. The study produced a high-grade beneficiated product with an overall BPL recovery of 45-48%. Flotation concentrate of the samples yielded 77.8% BPL, 7.8% Insol, 2.8% total I & A and a CaO/P_2O_5 ratio of 1.32.

Following completion of the 139 open hole rotary percussion series, (total of 18,733ft or 5709.8m) calculations of the phosphorite were reported in CR19700038 as 669 million short tons (606.8Mt) averaging 15.73% P_2O_5, calculated at a cut off average at 10% P_2O_5. A total of 532 million short tons (482.5Mt), using a cut-off of 14% P_2O_5 averaging 16.74% P_2O_5 and 307 million short tons (278.4Mt) averaging 18.98% P_2O_5 indicated using a cut-off average of 18% P_2O_5. Restrictions applied included limitation of phosphorite reserves to 2000ft (6096m) beyond a drill hole on the margins of the deposit.

IMC's second calculation of reserves was made extending the limit of phosphorite to 4000ft (1219m) beyond a hole. Calculations were reported as : at 10%, 14% and at 18% P_2O_5 cut-off reserves were 970 million short tons (879.8Mt) at 15.71% P_2O_5, 771 million short tons (699.3Mt) at 16.46% P_2O_5 and 418 million short tons (379.1Mt) at 18.96% P_2O_5 respectively. Calculations were undertaken using the polygon method, with consideration to the widely spaced drilling. Mining-related limiting factors were not accounted for in the calculations.

At that time, conditions did not allow for an economic deposit.

Between 1976 and 1979, ICI and AFL tenure was marked by problematic re-location of IMC drilling and a rotary percussion drilling program (CR19780059) on the eastern side of the mineralisation, of 10 rotary-percussion holes (9 holes for 514m and a 5m hole abandoned). The program intersected phosphorite at depth, accompanied by drilling difficulties that plagued IMC in the same area. Drilling results indicated a thickening of the phosphorite on the eastern edge of the Wonarah volcanic high and confirmed the depths and phosphate grades, and indicated reasonable continuity of the phosphorite bed over an area of some 6 square kilometres at overburden ratios of less than 7/1" (CR197800007). Results from a 1979 metallurgical investigation were not cited.

In 1983-1984 CRAE carried out a low-level aeromagnetic survey, to define the volcanic basement, however internal review of commodity targets and lack of transport infrastructure closed the project in 1985.

In 1992-1993 the area was explored for diamondiferous diatremes based on airborne magnetic and radiometric surveys. A program of loam sampling was undertaken and in 1993 one hole was drilled to test a ground magnetic anomaly, within EL 9976, which intersected a thin phosphatic claystone unit overlying mafic volcanic.

In January 2000, Rio Tinto Technical Services conducted a Prefeasibility Study using available data, which identified a "global resource estimate of 1955 Mt at 14.4% P_2O_5" (CR20000071), at depths ranging from 30 and 50m, with a maximum assayed grade of 28.6% P_2O_5.

During 2000-2001, RTE drilled three phases of mainly RC holes (120 holes, 6215.5m), minor PAB (2 holes, 130m) and 12 diamond holes for 296.1m core and 368.1m of pre-collar, with accompanied down-hole gamma ray logging. A gravity survey was undertaken to define basement highs, with limited success. The drilling program focused upon ground with no previous drilling and placed a series of closely spaced holes within the well mineralised region in the southern area of the mineralisation identified by IMC, enabling them to define an Inferred Resource.

A 23 square kilometre resource, that mainly excludes the area drilled by IMC, was delineated within mudstone phosphorite, but did not include the underlying lower grade chert breccia phosphorite, which runs poorer lateral continuity. The inferred mineral resource was reported as 115Mt at 22% P_2O_5 at a cut-off grade of 15%.

Following additional infill drilling, a recalculation and delineation of an inferred resource in December 2001 was reported as 72Mt at 23% P_2O_5, at a cut-off of 15%. The drill density and pattern was noted as uneven with some holes up to 1800m apart and the author of the resource report advised caution if this category was to be considered in economic studies.

Rio Tinto carried out beneficiation tests to determine the potential of upgrading the Wonarah ore, based upon tests limited to washing and screening. The deleterious elements were reduced but the process failed to give a major increase in grade.

A combination of reduced estimate size and failure to upgrade the mineralisation economically lowered the projects potential and after RTE initiated a reverse economic study, indicating that the project was then NPV negative, withdrew from the joint venture in 2002.

Exploration also included field work on the outcropping phosphorite beds at Arruwurra, where rock chip sampling indicated that the grade was high but of unknown extent. Joint venture exploration activity also included interpretation of Landsat 5 Thematic Mapping of regolith types, petrological study of core samples and the Arruwurra outcrop and soil sampling.

Historical exploration information was extracted from the Consultant Geologists' report within the Minemakers Prospectus where reports are not cited.

Minemakers

Minemakers commenced field work at Wonarah in February 2008.

During the year ended January 2009 the following work was carried out:

- 220 reverse circulation percussion holes were completed for 10,500m
- 40 PQ, HQ and NQ sized diamond cored holes were competed for 1,990m
- 4,973 split RC samples were submitted for XRF analysis of major oxide elements
- 109 crushed core samples were submitted for XRF analysis of major oxide elements
- The majority of metres drilled were tested for magnetic susceptibility and gamma radiation by hand-held instruments
- Metallurgical test work was carried out at Optimet Laboratories in Adelaide to determine optimal beneficiation pathways for phosphorite ore
- An airborne EM survey was carried out by Fugro Airborne Surveys Corporation Ontario, with the purpose of providing information that could be used to map the geology and structure of the surveyed area as part of program to delineate potential ground water resources
- A scoping study was commenced and then terminated in December prior to commencement of a full feasibility study

During the year ended January 2010 the following work was carried out:

- 1,066 reverse circulation percussion holes were completed for 52,491m
- 58 PQ and HQ-sized diamond cored holes were competed for 1,326m
- 19,712 split RC samples were submitted for XRF analysis of major oxide elements
- 599 crushed core samples were submitted for XRF analysis of major oxide elements
- The majority of metres drilled were tested for magnetic susceptibility and gamma radiation by hand-held instruments

- A full feasibility study was conducted into mining "direct shipping ore" DSO from the Arruwurra deposit

During the year ended January 2011 the following work was carried out:

- Completion of a full feasibility study into mining at the Arruwurra deposit
- Conversion of the part of SEL 26452 containing the majority of the JORC-compliant resources to ML status
- 100 reverse circulation percussion holes were completed for 4,347m
- 1,462 samples split RC samples were submitted for XRF analysis of major oxide elements
- All RC samples were tested for gamma radiation and a number were tested for magnetic susceptibility
- 20 samples from the mineralised zones (drilled in previous years) were submitted for REE content by ICP-MS
- 92 soil samples were collected for analysis using a proprietary Ionic leach method
- A ground magnetic survey to better define some magnetic anomalies

4. WORK COMPLETED DURING THE REPORTING PERIOD

4.1 Geological

4.1.1 RC Drilling

The drilling program was designed to infill an area within the southern central part of Main Zone which had not been drilled out on at the minimum 500m grid required for a JORC-compliant Inferred Resource.

An RC drilling program was conducted in June 2011 comprising 6 holes for 339m with depth ranges from 50-62m. Location of holes is shown in Figure 6.

The drilling was carried out by Kennedy Drilling, Kalgoorlie using a KD 150 RCA rig mounted on a MAN 6x6 truck with a Sullair 1150cfm x 350psi auxiliary compressor and a 1400cfm x 700psi Hurricane 636-41B booster. The hole diameter was 4¾" diameter.

Table 1. Summary drilling table

Hole Type	Hole number range	No. of holes	Total metres
RC	WNRC1658-1663	6	339
TOTAL		**6**	**339**

Table 2. Significant intersections summary table

Hole ID	Dip (-^{0})	Azimuth (^{0})	MGA East (m)	MGA North (m)	Sample Interval (m)	From (m)	Cut-off 10% P_2O_5	Total depth (m)	Comments
WNRC1658	-90	360	653252	7785742	1	33	9m @ 24.2% P_2O_5	50	Incl. 3m @ 35% P_2O_5 from 34m
WNRC1659	-90	360	653755	7785748	1	40 45 48	3m @ 25.5% P_2O_5 1m @ 10.6% P_2O_5 1m @ 10% P_2O_5	50	
WNRC1660	-90	360	654248	7785750	1	42	4m @ 17.13% P_2O_5	59	
WNRC1661	-90	360	654743	7785746	1	47 49	1m @ 11.7% P_2O_5 7m @ 13.7% P_2O_5	59	
WNRC1662	-90	360	655250	7785748	1	54	3m @ 10.5% P_2O_5	62	Incl. 1m @ 30.1% P_2O_5 from 55m
WNRC1663	-90	360	655750	7785748	1	54	1m @ 19.2% P_2O_5	59	

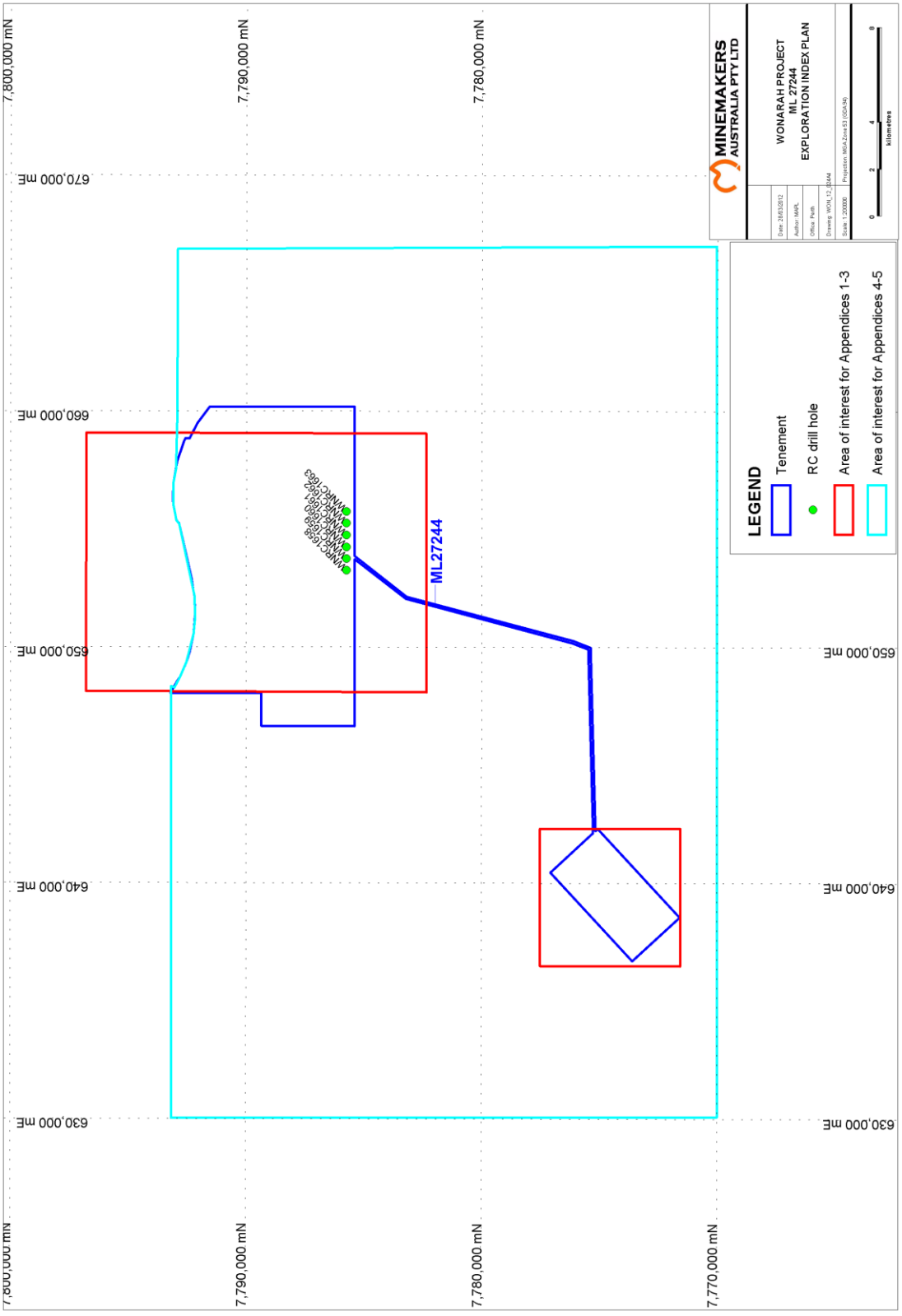

Figure 6. Exploration Index Plan and drill hole status

4.2 Geochemical

4.2.1 Drilling

A total of 85 samples, including originals, duplicates, standards and blanks were sent for laboratory analysis. All RC samples were submitted to Amdel in Mt Isa. Samples were dried at 105-110^{0}C then crushed in a Boyd crusher. A nominal 100g sample was rotary split from the bulk then pulverised in a tungsten-carbide mill to minimise iron contamination. A sub-sample of the analytical pulp was fused with lithium metaborate to form a glass disc which was then analysed by XRF for the following oxides:P_2O_5, Al_2O_3, CaO, K_2O, Total Fe as Fe_2O_3, MgO, MnO, Na_2O, SiO_2, TiO_2 (lower detection limit of 0.01% for each.) A minimum laboratory repeat rate from the pulp sample of 1 in 20 samples is carried out.

4.2.2 Yttrium sampling

A hand held portable XRF machine was used to determine yttrium values over selected one metre intervals from chip trays. The target intervals were from within the target horizon within the ore zone up to the probable unconformity. The yttrium readings are interpreted to reflect the mineral xenotime.

4.3 Mineral Resource Estimation Update

MAPL engaged the services of Hellman and Schofield Pty Ltd, Perth to complete an updated Mineral Resource estimation for the Wonarah project. The original Mineral Resource estimate for Wonarah and Arruwurra study was completed in 2009.

This update incorporates drilling results from the Main Zone during 2011 and since there has been no additional sampling at Arruwurra since the 2009 estimate, the estimates for Arruwurra remain unchanged.

Table 3. Wonarah Mineral Estimate at 10% P_2O_5 cut-off

Deposit	Category	Tonnes (Million)	P_2O_5%
Main Zone	Indicated	252	18.2
	Inferred	395	18
Arruwurra	Indicated	51	18.3
	Inferred	84	16
Combined	Indicated	303	18.2
	Inferred	479	18

Hellman and Schofield used Ordinary Kriging of one metre drill hole composites within mineralised domains using Vulcan, Gemcom and GS3 software to complete the estimation. Bulk densities of 1.7 to 2.0t/bcm were derived from immersion measurements of MAPL's diamond core.

The full report is provided as Appendix 1.

4.4 Review of Metallurgical Testwork

MAPL commissioned KEMWorks, Florida, to review metallurgical data and test programs conducted at Wonarah, a review of preliminary engineering data completed by Lycopodium and a critique of the mineralogical report by AMMTEC.

The full report is provided as Appendix 2.

4.5 Enabling Feasibility Study

KEMWorks, Florida, were commissioned to complete an Enabling Feasibility Study examining two process routes and one plant location and the associated logistics.

The first process route uses the conventional Wet Acid Process (WAP) to create merchant Grade phosphoric acid (52% P_2O_5) by reacting phosphate rock with sulphuric acid. The sulphuric acid is formed by burning sulphur. The phosphoric acid is reacted with ammonia to produce granular DAP (Di-ammonium phosphate) or MAP (Mono-ammonium phosphate) fertiliser. The phosphate ore is then beneficiated utilising crushing, grinding, washing, screening and froth flotation.

The second route uses the Improved Hard Process (IHP) to make Superphosphoric Acid (70% P_2O_5) using a kiln fed with lower-grade phosphate rock, silica and petroleum coke. The Superphosphoric Acid is very pure and requires a source of High MER (Minor Element Ratio) Acid (HMA) with impurities normally found in Merchant Grade Acid to enable it to be granulated into DAP/MAP fertiliser.

The full report is provided as Appendix 3.

4.6 Rehabilitation Procedure Manual

Coffey Environments Australia Pty Ltd, Darwin was commissioned to provide a Rehabilitation Procedure Manual for the Wonarah Project. The principal components to be addressed were the rehabilitation of exploration drill pads, tracks and any sumps or costeans.

The full manual is provided as Appendix 4.

4.7 Exploration Activities Site Audit

Coffey Environments Australia Pty Ltd, Darwin was commissioned to provide an Exploration Activities Site Audit to satisfy requirements specified in the Exploration Operations Management Plan (EOMP) and to assess the effectiveness of the environmental management of the project.

The scope of the audit was to assess the compliance with the EOMP, assess compliance with government guidelines and the consideration of best practice environmental management for mineral exploration activities.

The full audit is provided as Appendix 5.

5.0 ENVIRONMENT

5.1 Environmental disturbance

A total of 7 RC holes were drilled during the year on pre-existing access tracks and drill pads. The 7 holes were cut off below ground level, capped and buried at the end of the drill season. During the course of the project, 1232 RC holes and 99 diamond holes have been drilled on ML 27244. The status of rehabilitation is as follows:

Table 4. Rehabilitation status RC drilling

Rehabilitation Record to End of 2011 – RC	Total	% Complete	Number Remaining
Total RC holes drilled	1232		
Total Drill Pads	1225		
Holes permanently capped and buried to 0.3m	1231	*99.9*	0
Holes with Plastics removed from site	1225	*99.4*	7
Holes with RC material removed	658	*53.4*	574

Table 5. Rehabilitation status diamond drilling

Rehabilitation Record to End of 2011 – Diamond	Total	% Complete	Number Remaining
Total Diamond holes drilled	97		
Total Diamond only Pads	22		
Total sumps excavated	62		
Holes permanently capped and buried to 0.3m	97	*100.0*	0
Sumps filled in	59	*95.2*	3

A significant number of access tracks were put in predominantly before the granting of ML 27244 on EL 26452. We have not calculated the exact amount of track kilometres that are now on ML 27244 but hope to complete that during the current field season.

The total kilometres of tracks on EL 26452 are 458.6 (137.6 ha) and the majority of these are now on ML 27244. A significant amount of the tracks are now impassable due to natural vegetation regrowth and during the 2012 field season an audit of the tracks will determine what percentage is now effectively rehabilitated.

Programmed rehabilitation during the 2011 field season did not take place for several reasons including the extended wet and problems with a contractor engaged to carry out the work. The contractor has now been terminated.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Drilling

The drilling program carried out during 2011 was a substituted program that was brought about by the extended and intense wet season preventing access to the areas where the original programs were proposed. It was intended to follow up on the good potential demonstrated by the 2010 drilling program in the north-western part of the project area where significant intervals of phosphate were intercepted at shallow depths. Because access to this area was not available until later in the 2011 season, after the contracted drill rig had departed, an alternative program was chosen. The program consisted of three parts; scout drilling within EL 26451 on a 2km grid, where accessible; JORC resource drilling on a 500m grid along the southern boundary of EL 26451 and adjacent to the Main Zone JORC resource on the other side of the Barkly Highway on EL26452; JORC resource drilling to drill out the "hole in the doughnut" in southern central part of the Main Zone resource. This program included 7 RC holes on ML 27244.

Results of the program in respect of ML 27244/EL 26452 were:

1. 30 RC holes were drilled on a 500m spaced grid to infill an area within the Main Zone resource that was excluded from the JORC resource because of sparse drilling. The drilling area was straddled the boundary between EL 26452 and ML 27244 and a total of 7 holes were drilled on ML 27244. The drilling confirmed the continuity of phosphatic mineralisation and added to the JORC resource. Best result was WNRC1658 which returned 9m @ 24.2% P_2O_5 from 33m depth including 3m @ 35.0% P_2O_5 from 34m depth.

New resource estimations for the Main Zone were made by Jon Abbott of Hellman and Schofield and the JORC compliant resource is now 647Mt at 18% P_2O_5 at 10% P_2O_5 cut-off.

In 2012, it is planned to conduct a 16 hole diamond program to recover more core for metallurgical test work.

6.2 Yttrium sampling

Minemakers commenced a program of analysis for yttrium within and above the phosphatic sediment interval at Wonarah, following the announcement of the occurrence of significant yttrium and other rare earth elements associated with phosphate mineralisation at the Korella deposit south of Mt Isa. This deposit is hosted in a similar stratigraphic setting to Wonarah and elevated yttrium had been previously noted at Wonarah. At Korella, the yttrium is contained within the mineral xenotime and the mineralisation occurs as a thin, coherent blanket (3-5m thick) draped over the main phosphate beds.

At Wonarah, RC dust samples are routinely collected for each metre of RC drilling and placed in chip trays. The chip trays are stored and are therefore available for subsequent analysis using a hand-held XRF unit. Hand-held analysis commenced late 2011 and is ongoing. A certified yttrium standard is used to calibrate the Omega XRF device. Results to date indicate that elevated levels of yttrium are present in the uppermost phosphate strata, generally associated with the waning stage of

phosphate mineralisation and within an interval that is likely to have been sub-aerially exposed based on the presence of lateritic phosphate minerals such as crandallite.

At this stage of the analytical program yttrium levels appear to be within a lower range than at Korella. 8 out of 3300 analyses have exceeded 1000ppm Y with a peak reading of 2068ppm. The majority of samples within the prospective stratigraphic horizon sit within the range of about 100-300ppm Y. By comparison, the JORC resource at Korella has a grade of 960ppm Y.

This analytical work will continue until the entire areal extent of the Wonarah mineralisation has been tested.

6.3 Environmental rehabilitation and audit

As noted in the Section 5, Minemakers had some issues with the rehabilitation contractor appointed in 2011 and has now suspended that appointment. The contractor was unable to meet targets set for rehabilitation and, in effect, a significant part of the rehabilitation planned for 2011 was not carried out. In the main this was to be the removal and disposal of RC material and the removal of plastics to Tennant Creek.

It is proposed that during site works for the 2012 program a significant amount of RC material removal and disposal will take place.

During 2011, an independent audit of the Wonarah Project was carried out by Coffey Environments Australia Pty Ltd. In regard to the main issues raised the following remedial actions have been implemented.

Major non-compliance

1. *Uncapped drill holes.* There was a breakdown in communication between field staff and management in regard to drill holes that had become a potential problem because of washouts or collapse. This has been rectified by making clear to all staff that no holes can be left in an uncapped state or in a potentially dangerous condition. Minemakers has now sourced a local bobcat to attend to any collars that collapsed subsequent to capping. These are rare events.

2. *Temporarily capped drill holes.* The situation arose in 2011 when the drill rig contracted used a narrower diameter casing that anticipated and the prefabricated plugs could not be inserted fully into the cap. Again, there was a lack of communication between field staff and management. This situation will not occur again.

Minor non-compliance

1. *Formal environmental emergency response plan needed*. This plan is in preparation and will be available for the 2012 season.

2. *Machinery wash-down before bringing to site.* This requires a register where a formal acknowledgment from the contractor bringing the equipment to site can be recorded as well as notation of an inspection by a Minemakers representative when the equipment arrives and leaves.

3. *Photographic record of all drill sites.* The number of photos taken will be increased to include photos before and immediately after drilling.

4. *Within six months of capping, final rehabilitation will take place*. Because of the scale of the drilling programs, rehabilitation is carried out in campaigns each year. In 2011, problems with the rehabilitation contractor and access to water-logged areas meant that no final rehabilitation took place.

5. *Prevent the establishment of weeds*. Weeding is undertaken around the camp and at Arruwurra mine site. Spraying will be conducted if necessary. Inspection of machinery is an important part of weed establishment prevention.

7. REFERENCES

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