SPRING HILL PROJECT
NORTHERN TERRITORY

ANNUAL REPORT
FOR THE PERIOD ENDING
31 DECEMBER 1997

MLNs 789, 799, 800, 801, 802, 803, 834, 870, 871, 939

MCNs 14, 93, 130, 142, 176, 177, 178, 187, 229, 299,302, 318, 420, 421, 422, 434, 509, 596, 597, 677, 741, 742, 752, 858, 859, 896, 967, 3709 3715, 3717, 3718, 3719, 3965-3968, 4033-4066, 4195, 4196

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Date: March 1998

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ROSS MINING NL

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1. INTRODUCTION

The Spring Hill Project is approximately 150 km south of Darwin in the Northern Territory (Figure 1). The prospect is situated approximately 27 km north-north-west of the township of Pine Creek and is accessed via the Stuart Highway, then along the unsealed Spring Hill Road.

The tenements that comprise the Spring Hill Project consist of 72 MCNs and 10 MLNs (Table 1). They have a total area of 1,470 hectares and cover the Spring Hill gold deposits and their immediate environment (Figure 2).

The tenements are situated in the southern part of the Pine Creek Geosyncline, which consists of Early Proterozoic metasedimentary rocks overlying a gneissic and granitic Archaean basement. A regional shear zone, the Pine Creek Shear, extends from Pine Creek in the south and passes immediately east of the Spring Hill area. The Pine Creek Shear has been a major focus for the passage of gold-bearing fluids and is spatially related to the majority of gold occurrences in the Pine Creek Geosyncline.

Historically, high-grade lodes at Spring Hill were mined in the early part of this century. More recently the tenements have been the subject of extensive exploration by Territory Resources NL, Billiton Australia ("Billiton"), and Ross Mining NL ("Ross Mining") for bulk tonnage-low grade gold deposits.

Gold mineralisation at Spring Hill is typical of the Pine Creek Geosyncline being situated on the western limb of an anticline. Mineralisation is mostly present as sheeted veins that form regular and often extensive sheeted systems such as the Hong Kong zone. Anticline-related tension fill veins, bedding parallel veins, and saddle reefs are less common but comprise a major part of the gold mineralisation in the Main and East lodes.

In 1995, Ross Mining carried out a gold resource estimate using geostatistical block modelling. The global gold resource at Spring Hill was estimated using full indicator kriging. The total gold resource including dump leach material at Spring Hill is 12.75 mt @ 0.80 g/t Au, contained gold being 328,000 ounces. The resource estimate was fully report in the 1996 Annual Report to the Department of Mines and Energy (DME).

With falling gold prices throughout 1997, no decision was made on the future of the gold resource at Spring Hill. Work on the mining tenements was restricted to care and maintenance in 1997, mainly in the form of drill hole sites.

Direct exploration costs by the Billiton/Ross Mining joint venture and the subsequent ongoing expenditure by Ross Mining on the Project has totalled $4.2 million. This covers the period from inception of the joint venture in 1988, up until the end of 1997. Acquisition costs, which have resulted in Ross Mining's 100 per cent control of the Project, have been $2.51 million.

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PINE CREEK INLIER
LOCATION AND REGIONAL GEOLOGY

LEGEND

- Mine or major deposit (gold unless noted otherwise)
- Fault
- Shear zone
- Younger cover
- Granitoids
- Burrell Creek Formation — FINNISS RIVER
- Gerowie Tuff Unit and Mt. Bonnie Formation — SOUTH ALLIGATOR GROUP
- Koolpin Formation — SOUTH ALLIGATOR GROUP
- Wildman Formation — MT. PARTRIDGE GROUP

DARWIN

Arnhem Hwy

Stuart Hwy

Rustler's Roost

Woodcutters (Pb, Zn)

13°00'S

Adelaide River

Howley Anticline

Brocks Creek

Burnside

Spring Hill

Union Reefs

Enterprise

Pine Creek

Pine Creek Shear Zone

Mt. Todd

Katherine

132°00'E

0 10 20 30 40 50km

SCALE 1:1,000,000

N

Map Area

Darwin

AUSTRALIA

Brisbane

Perth

Adelaide

Sydney

Melbourne

Hobart

PINECREEKINLIER.CDR7.APRIL 1998

FIGURE 1

Table 1 Spring Hill Tenements

Tenement Type	*Number*	*Name*	*Company*	*Expiry Date*	*Area (hectares)*	*Totals*
MCN	14	Spring Hill	Ross Mining	31-Dec-06	1	
MCN	93	Spring Hill	Ross Mining	31-Dec-07	3	
MCN	130	Spring Hill	Ross Mining	31-Dec-06	9	
MCN	142	Spring Hill	Ross Mining	31-Dec-05	9	
MCN	176	Spring Hill	Ross Mining	31-Dec-05	9	
MCN	177	Spring Hill	Ross Mining	31-Dec-06	9	
MCN	178	Spring Hill	Ross Mining	31-Dec-05	6	
MCN	187	Spring Hill	Ross Mining	14-Nov-06	27	
MCN	229	Spring Hill	Ross Mining	31-Dec-06	34	
MCN	299	Spring Hill	R M Biddlecombe	31-Dec-06	6	
MCN	302	Spring Hill	Ross Mining	31-Dec-07	12	
MCN	318	Spring Hill	Ross Mining	31-Dec-05	4	
MCN	420	Spring Hill	Ross Mining	31-Dec-05	7	
MCN	421	Spring Hill	Ross Mining	31-Dec-05	12	
MCN	422	Spring Hill	Ross Mining	31-Dec-05	2	
MCN	434	Spring Hill	Ross Mining	31-Dec-05	5	
MCN	509	Spring Hill	Ross Mining	31-Dec-05	7	
MCN	596	Spring Hill	Ross Mining	31-Dec-97 *	2	
MCN	597	Spring Hill	Ross Mining	31-Dec-05	16	
MCN	677	Spring Hill	Ross Mining	31-Dec-05	8	
MCN	741	Spring Hill	Ross Mining	31-Dec-07	1	
MCN	742	Spring Hill	Ross Mining	31-Dec-05	4	
MCN	752	Spring Hill	Ross Mining	31-Dec-05	8	
MCN	858	Spring Hill	Ross Mining	31-Dec-06	4	
MCN	859	Spring Hill	Ross Mining	31-Dec-06	4	
MCN	896	Spring Hill	Ross Mining	31-Dec-06	10	
MCN	967	Spring Hill	Ross Mining	25-Aug-99	5	
MCN	3709	Spring Hill	Ross Mining	03-Feb-06	37	
MCN	3715	Spring Hill	Ross Mining	03-Feb-06	37	
MCN	3717	Spring Hill	Ross Mining	03-Feb-06	37	
MCN	3718	Spring Hill	Ross Mining	03-Feb-06	37	
MCN	3719	Spring Hill	Ross Mining	03-Feb-06	37	
MCN	3965	Spring Hill	Ross Mining	03-Feb-06	37	
MCN	3966	Spring Hill	Ross Mining	03-Feb-06	37	
MCN	3967	Spring Hill	Ross MIning	03-Feb-06	37	
MCN	3968	Spring Hill	Ross Mining	03-Feb-06	37	
MCN	4033	Spring Hill	Ross Mining	31-Dec-05	28	
MCN	4034	Spring Hill	Ross Mining	31-Dec-05	13	
MCN	4035	Spring Hill	Ross Mining	31-Dec-05	4	
MCN	4036	Spring Hill	Ross Mining	31-Dec-05	11	
MCN	4037	Spring Hill	Ross Mining	31-Dec-05	23	
MCN	4038	Spring Hill	Ross Mining	31-Dec-05	18	
MCN	4039	Spring Hill	Ross Mining	31-Dec-05	12	
MCN	4040	Spring Hill	Ross Mining	31-Dec-05	24	
MCN	4041	Spring Hill	Ross Mining	31-Dec-05	36	
MCN	4042	Spring Hill	Ross Mining	31-Dec-05	26	
MCN	4043	Spring Hill	Ross Mining	31-Dec-05	39	
MCN	4044	Spring Hill	Ross Mining	31-Dec-05	37	
MCN	4045	Spring Hill	Ross Mining	31-Dec-05	36	
MCN	4046	Spring Hill	Ross Mining	31-Dec-05	38	
MCN	4047	Spring Hill	Ross Mining	31-Dec-05	21	
MCN	4048	Spring Hill	Ross Mining	31-Dec-05	30	
		* renewal applied for		*Subtotal*		*988*

Tenement Type	Number	Name	Company	Expiry Date	Area (hectares)	Totals
				Carried forward		*988*
MCN	4049	Spring Hill	Ross Mining	31-Dec-05	35	
MCN	4050	Spring Hill	Ross Mining	31-Dec-05	31	
MCN	4051	Spring Hill	Ross Mining	31-Dec-05	35	
MCN	4052	Spring Hill	Ross Mining	31-Dec-05	14	
MCN	4053	Spring Hill	Ross Mining	18-Mar-06	12	
MCN	4054	Spring Hill	Ross Mining	14-Nov-06	31	
MCN	4055	Spring Hill	Ross Mining	18-Mar-06	28	
MCN	4056	Spring Hill	Ross Mining	18-Mar-06	2	
MCN	4057	Spring Hill	Ross Mining	14-Nov-06	3	
MCN	4058	Spring Hill	Ross Mining	31-Dec-05	15	
MCN	4059	Spring Hill	Ross Mining	31-Dec-05	29	
MCN	4060	Spring Hill	Ross Mining	31-Dec-05	33	
MCN	4061	Spring Hill	Ross Mining	31-Dec-05	15	
MCN	4062	Spring Hill	Ross Mining	31-Dec-05	29	
MCN	4063	Spring Hill	Ross Mining	31-Dec-05	35	
MCN	4064	Spring Hill	Ross Mining	31-Dec-05	26	
MCN	4065	Spring Hill	Ross Mining	31-Dec-05	32	
MCN	4066	Spring Hill	Ross Mining	31-Dec-05	21	
MCN	4195	Spring Hill	Ross Mining	31-Dec-05	1	
MCN	4196	Spring Hill	Ross Mining	31-Dec-05	4	
MLN	789	Spring Hill	Ross Mining	31-Dec-01	8	
MLN	799	Spring Hill	Ross Mining	31-Dec-99	9	
MLN	800	Spring Hill	Ross Mining	31-Dec-99	9	
MLN	801	Spring Hill	Ross Mining	31-Dec-05	9	
MLN	802	Spring Hill	Ross Mining	31-Dec-05	9	
MLN	803	Spring Hill	Ross Mining	31-Dec-05	9	
MLN	834	Spring Hill	Ross Mining	13-Dec-98	10	
MLN	870	Spring Hill	Ross Mining	31-Dec-00	7	
MLN	871	Spring Hill	Ross Mining	31-Dec-00	7	
MLN	939	Spring Hill	Ross Mining	31-Dec-02	9	
		* renewal applied for		*Total Hectares*		*1470*

131°43'

131°44'

To Ban Ban Homestead

N

MCN 4064 | MCN 4065 | MCN 4066 | MCN 3965 | MCN 3717 | MCN 3718

MCN 4060 | MCN 4063 | MCN 3966 | MCN 3967 | MCN 3719

MCN 4059 | MCN 4058 | MCN 677 | MCN 596 | MCN 4061 | MCN 742 | MCN 4055 | MCN 14 | MCN 752 | MCN 896 | MCN 4062 | MCN 3709 | MCN 3968 | MCN 3715

13°36'

MCN 4033

MCN 4056 | MCN 967 | MCN 4057 | MCN 597 | MCN 434 | MCN 4053 | MCN 4054 | MLN 871 | MCN 176 | MLN 789 | MCN 177 | MLN 802 | MCN 4195 | MAIN LODE | MLN 799 | MLN 800 | MAIN ADIT | MLN 939 | EAST LODE | MCN 741 | MCN 299 | MCN 93 | MCN 302 | MCN 4051 | MCN 4052 | MCN 4196 | MLN 870 | MLN 801 | MLN 803 | WEST LODE EXTENSION | MCN 178 | MCN 4034 | MCN 142 | SOUTH ADIT | MLN 834 | MCN 229 | MCN 130 | MCN 858 | NEW ERA | MCN 4035 | MCN 420 | MCN 859 | MCN 422 | MCN 4049 | MCN 4050 | MCN 4048 | MCN 187 | MCN 628 | PAY ME WELL | MCN 421 | MCN 4036 | MCN 4047 | MCN 4046 | MCN 509 | MCN 4045 | MCN 4039 | MCN 4037 | MCN 4038 | MCN 4044 | MCN 4040 | MCN 4041 | MCN 4043 | MCN 4042

SPRING HILL STAMP BATTERY PROPOSED HERITAGE SITE

North Australian Railway

To Pine Creek

To the Stuart Highway

13°38'

LEGEND

- Working
- Adit
- Road
- Railway

0 500 1000m

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SPRING HILL
BASE PLAN

FIGURE 2

SHILL.CDR7.APRIL 1998

2. REGIONAL GEOLOGY

The Spring Hill area is located in the southern part of the Pine Creek Geosyncline, which contains Early Proterozoic metasedimentary rocks resting on a gneissic and granitic Archaean basement. The geosynclinal sequence is dominated by mudstones, siltstones, greywackes, sandstones, tuffs, and limestones. The Pine Creek Geosyncline was folded and metamorphosed up to the amphibolite facies from ±1870-1899 ma. Transitional igneous rocks, including pre-tectonic dolerite sills and syn- to post-tectonic granitoid plutons and dolerite lopoliths and dykes, intrude the geosynclinal sequence. Detailed geology of the Pine Creek Geosyncline is discussed by Nicholson, Ormsby, and Farrar (1994).

Stratigraphy in the central Pine Creek Geosyncline has been simplified by Nicholson, Ormsby, and Farrar (1994) into the Batchelor, Frances Creek, and Finniss River Groups. The Batchelor Group consists of shallow water coarse clastics and crystalline carbonates, which are conformably overlain by the Frances Creek Group. The Frances Creek Group is subdivided into the Whites Formation, Acacia Gap Quartzite/Mundogie Sandstone, Koolpin Formation, Gerowie Tuff, and Mount Bonnie Formation. The Gerowie Tuff is a basin-wide mudstone-rich sequence with interbeds of diagenetically altered distal tuff, which is overlain by greywacke, mudstone, chert, and ironstone of the Mount bonnie Formation. The Finniss River Group overlies the Frances Creek Group and consists of a thick flysch sequence of greywacke and mudstone.

Two major phases of deformation that pre-date granitoid intrusions have been recognised in the Pine Creek Geosyncline. The earliest widely recognised structures in the Pine Creek Geosyncline are bedding-concordant fabrics and breccia zones (D1). The second phase of deformation produced the north to north-west trending folds dominant today (D2). The folds vary from open and upright to overturned and isoclinal, and were accompanied by the development of a penetrative slaty cleavage.

The Pine Creek Fault Zone is a 300 km long structure that can be mapped from Darwin to Katherine. The fault zone trends north-north-west and consists of a number of sub-parallel faults, over a 5 km corridor, with apparent sinistral movement of up to 2 km. The Pine Creek Fault Zone postdates D2 and the granite intrusions.

3. SPRING HILL GEOLOGY

Both major phases of deformation that pre-date granitoid intrusions are present in Early Proterozoic sedimentary rocks in the Spring Hill area (Melville, 1994). The older phase is represented by tight to isoclinal folds (F1) that trend north to north-west. A major anticlinal fold of this generation, the Spring Hill Anticline, is the dominant structure in the tenements.

All rocks exposed at Spring Hill belong to the Gerowie Tuff, Mount Bonnie Formation, and Burrell Creek Formation. The Mount Bonnie formation hosts all the known significant gold mineralisation and consists dominantly of massive greywacke with minor siltstone interbeds, interbedded silts and shales, and minor chert and laminated iron formations.

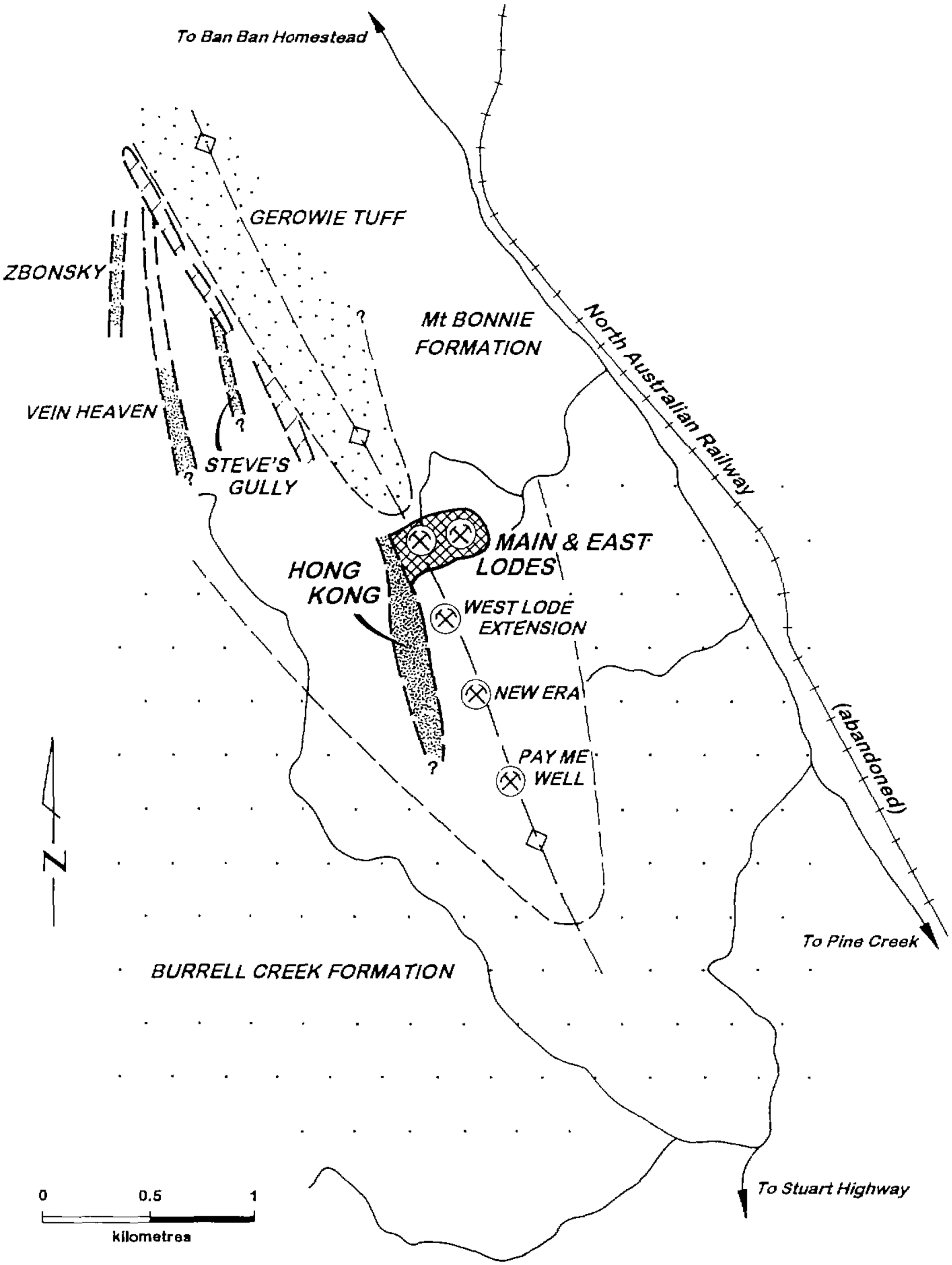
Gold mineralisation at Spring Hill has been recognised to occur in quartz veins that are present in several styles. Veining at Spring Hill has been classified into three main types (Sheldon, Scrimgeour, and Edwards; 1994):

1. Sheeted veins comprising extensive systems of parallel veins
2. Leader veins, which form individual thicker veins
3. Bedding parallel veins

Dark brown alteration selvages are commonly associated with veining. The selvages are due to flooding of the wall rock during veining with resulting enrichment Fe and minor K, As, P, and Zn.

Previous mining at Spring Hill was concentrated on the high grade lodes (Main, Eastern, Western, and Anticlinal Lodes). More recently sheeted veins that together comprise low-grade, bulk tonnage targets have been the focus of exploration (Hong Kong sheeted vein system). Refer to Figure 3 of this report.

Detailed geology for the Spring Hill prospect can be found in Melville (1994) and Sheldon, Scrimgeour, and Edwards (1994).



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SPRING HILL
Generalised Geology + Prospect Locations

FIGURE 3

4. PROGRAMME TO DATE

4.1 1988-1993

The current group of 80 mineral tenements covers an area previously occupied by Exploration Licences 4793 and 4873 (see Figure 2). A joint venture between Ross Mining as owner and Billiton as operator commenced over these tenements in October 1988.

During the period up until relinquishment in October 1990, the ELs were subjected to stream sediment sampling and reconnaissance mapping and rock chip sampling. Aeromagnetic coverage was purchased as part of a multi-client survey carried out by Aerodata Holdings. Reference to this work is made in the final reports for these tenements by CR Mackay dated November 1990 for EL 4873 and EL 4793.

An ongoing programme from 1988 is in progress, initially on 15 MCNs and 8 MLNs within the then current exploration licences. Further pegging in relinquished areas and the exercising of option agreements with other tenement holders in the Project area has produced the current tenement holding.

The work conducted by Billiton until December 1991, as Ross Mining's joint venture partner, is documented in Billiton Australia Report numbers 08.4169 (Hellsten, 1989), 08.5200 (MacKay, 1990) and 08.5793 (MacKay, 1991), as referenced at the end of this report.

During this period, Billiton established a grid over the mineralised trend and carried out soil sampling, geological mapping, rock chip sampling, costeaning, diamond and reverse circulation drilling, metallurgical testing, petrological analysis, a TEM survey and structural mapping and modelling.

Billiton Australia undertook five drilling campaigns (Phases I-V) from 1989 to 1991. This included ten diamond core holes (SHDH001-010, 709 metres) and 88 reverse circulation holes (SHRC001-088, 5,322 metres) for an aggregate 6, 031 metres. Five reverse circulation drill holes (SHRC003, SHRC007, SHRC052, SHRC072, and SHRC077) were precollars for diamond core drill holes.

4.2 1993-1994

In 1993 and 1994, Ross Mining contracted Eupene Exploration Enterprises to carry out further exploration on the Spring Hill tenements, under the supervision of Ross Mining.

Eupene Exploration's work is documented in the report "Exploration Report for Spring Hill 1994" by T. Sheldon, I. Scrimgeour and D. Edwards. The work involved included re-establishing the 1989 grid, stream sediment sampling along the western side of the Project area and grid based soil sampling. A total of 84 reconnaissance, 95 geological and 16 x 25 metre channel samples were collected.

Throughout this period, 267 hectares of surface were geologically mapped at a 1:1000 scale, with 13 rock samples submitted for petrographic analysis.

In the area of old underground workings, the Main Adit was reopened to 390 metres and the South Adit completely reopened to 140 metres (see Figure 2). Mapping and sampling were undertaken along the adits, with 343 samples taken.

Three phases of drilling were carried out during this period. In 1993, thirteen reverse circulation holes were drilled (SHRC089-101). These thirteen drill holes were all 99 metres deep, for an aggregate of 1,287 metres.

Exploration in 1994 was carried out in two phases. Phase I involved mostly exploration drilling, to extend the resource in the Hong Kong area. Forty-five reverse circulation holes (SHRC102-146) were drilled during this period, for an aggregate 6,309 metres. Phase II included infill and twin drilling in the Hong Kong and the Main and East Lode areas, and exploration drilling throughout the Spring Hill tenements including Vein Heaven, Vindication Hill, and Steve's Gully. This phase of drilling included 87 reverse circulation (SHRC147-234, 9,051 metres) and nine diamond core (SHDH011-019, 949 metres) for an aggregate 10,000 metres.

4.3 1995

During 1995, the Project moved from pre feasibility water quality monitoring through to environmental investigations metallurgical testwork, resource/reserve estimations and scoping studies.

During the period from February to August 1995, AMMTEC Ltd of Perth carried out test work on a series of mineralised samples that represented the oxide, transition and sulphide zones of various Spring Hill lodes. Half HQ size core from 1994 drill holes was used for the test work and a series of reports produced.

The agitation leach tests on the six oxide and four transition zone samples returned between 95% and 99% gold extraction. The seven sulphide samples gave gold recoveries between 80% and 98%.

These tests showed that the gold bearing sulphide mineralisation can be classed as free milling. The column leach tests carried out (AMMTEC Ltd, 1995) further determined the leach characteristics of this deeper mineralisation. The results show that, unlike the oxide and transition material, the sulphide material is not suited to heap leach processing techniques.

Following an extensive infill drilling campaign in 1994, a traditional manual polygon on section gold resource was calculated. This estimate outlined a resource of 5.00 mt @ 1.64 g/t gold for 263 000 ounces of contained gold, using a 0.7 g/t Au cutoff (Richmond, March 1995).

To facilitate pit optimisation studies and a provisional mine design, a three dimensional geostatistical block model of gold grades at Spring Hill was generated in September 1995 (Richmond, September 1995). The global gold resource at

Spring Hill was estimated using full indicator kriging. The **gold resource** at Spring Hill **is 5.74 Mt @ 1.29 g/t Au, using a 0.7 g/t Au cutoff**. If dump leach mining methods are used, then the **total gold resource** at Spring Hill for **a 0.2 g/t Au cutoff is 12.75 Mt @ 0.80 g/t Au.**

With metallurgical characteristics having been established during 1995, some preliminary scoping studies were undertaken as for the best processing route for the Spring Hill mineralisation.

A final decision remains to be made, subject to a pit optimisation for the three dimensional block model.

During 1995, baseline studies were initiated, including a general survey of the landscapes and biota of the Project area by W A Low Ecological Services. Another study completed was an archaeological survey conducted by Heritage Surveys. Background geochemical and water quality surveys were conducted by EPA Environmental Services Pty Ltd.

4.4 1996

During 1996, baseline studies were carried out at Spring Hill.

Although a decision to mine at Spring Hill has not yet been made, baseline studies continued throughout 1996. Much of this work was reported in the Spring Hill Annual Report for 1995. These studies were commenced in 1995 but were not completed until the first half of 1996. As the 1995 Annual Report was not submitted until May 1996, the consequent reports produced from the studies were able to be included therein.

Those reports included were:

1. "Environmental Studies of Landscape, Flora and Fauna of the Proposed Spring Hill Project Area" by W A Low Ecological Services, April 1996.
2. "A Survey of Heritage Sites at the Proposed Spring Hill Gold Mine, Northern Territory" by Heritage Surveys, June 1995.
3. "Water Quality Report" by ERA Environmental Services, May 1996.

Follow up work was carried out in the second half of 1996 by W A Low Ecological Services. This involved a field visit, which primarily focussed on estimating the use of an old mine adit at Spring Hill by Orange Horseshoe Bats. The visit took place in August or mid dry season when the bats take advantage of the higher humidity and temperature available in caves and cave-like shelters. However, with the number of roosting bats estimated at 25 to 30 there was no increase in the population previously estimated by W A Low Ecological Services in the late wet season (April 1995). The report on this visit by W A Low Ecological Services forms Appendix A of the 1996 Annual Report.

5. CURRENT ACTIVITIES

With the prevailing low gold prices, no decisions on the future of this Project have been made and the consequent activities in 1997 have been on a care and maintenance basis. These activities have included the evaluation of a heritage site within the Project area, capping of drill hole collars and the rehabilitation of drill hole sites.

5.1 Heritage Site

An on-site meeting with Barbara Pedersen of the Department of Lands, Planning and Environment was held on 13 August 1997 to inspect the proposed Heritage Site over the old Spring Hill battery and environs. The purpose of the visit was for Ross Mining to determine if the proposed site would have any impact upon any further exploitation of the Company's defined gold resource at Spring Hill.

The site is located within and close to the western corner of MLN 939 (see Figure 2). It occupies an area of approximately 1 hectare close to the base of the eastern side of Spring Hill, downslope from where an adit has been driven into the hill.

Figure 4 of this report is a photograph of the ten head stamp battery and Figure 5 shows the water tank and boiler upslope from the battery. The locations of these pieces of equipment from the old treatment plant are shown on the Heritage Site Plan as provided by the Department of Lands, Planning and Environment. This plan is included in this report as Plate 1.

Ross Mining has concluded that the proposed heritage site will not impact upon any future development and mining of its defined gold resource at Spring Hill. The Department of Lands, Planning and Environment has consequently been informed that Ross Mining has no objections to the heritage site.

5.2 Mining Tenement Maintenance

During 1997, MCN 596 was transferred from Biddlecombe and Sime to Ross Mining, brining the total number of mining tenements held by Ross Mining at Spring Hill to 81. Transfer papers for and additional Biddlecombe and Sime tenement MCN 299 are to hand. This additional transfer will be applied for in early 1998.

In October and November of 1997, all boundaries of these 82 tenements were re-traversed to ensure that all data were legible and all corner posts, lockspits and intermediate posts were still standing and in compliance with Regulation 19(8) of the Mining Regulations. Fawcett Cattle Company of Adelaide River was contracted to carry out this work. Two experienced mineral claim peggers carried out this work, most boundaries being required to be walked out due to rugged terrain. All boundaries were successfully re-established to comply with the regulations.

Figure 4 Heritage Site - Ten Head Stamp Battery

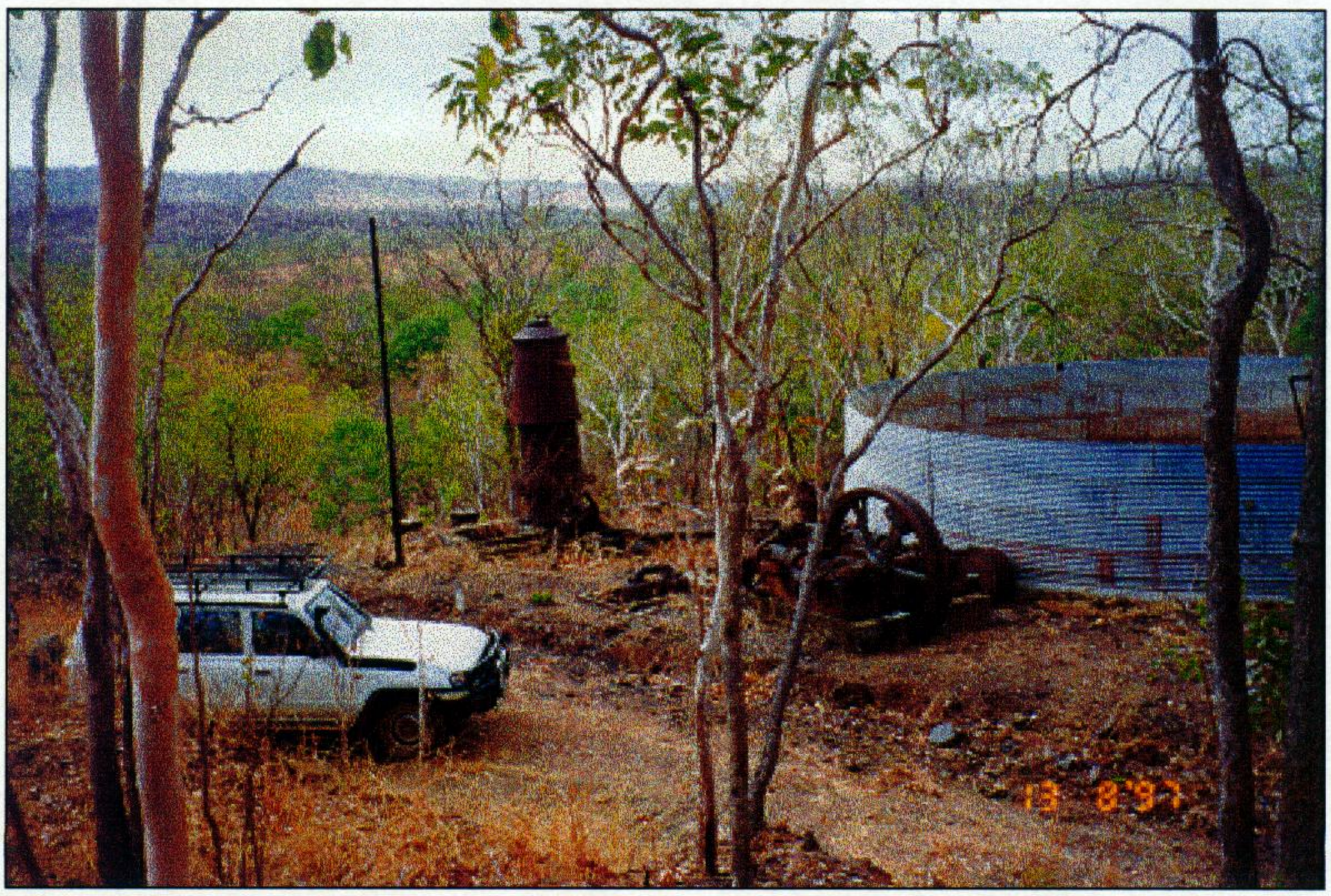

Figure 5 Heritage Site - Vat and Equipment Above Stamp Battery

5.3 Rehabilitation – Drill Holes

An inspection of drill collars at Spring Hill in August of 1997 revealed that many of the drill holes were not capped or had become uncapped in the intervening years since the completion of the last major phase of drilling in 1994/1995. Capped holes had above ground caps.

In order to follow best practice, it was decided to apply below ground caps to all visible drill collars, capped or not.

This has now been completed, using the technique of cutting the PVC collars 0.3 metres below surface with a diamond masonry blade equipped brush cutter. The on-site camera shot of this method being used forms Figure 6 of this report. Figures 7 and 8 show the insertion of a PVC cap and the completed rehabilitation of the drill hole.

5.4 Rehabilitation – Drill Hole Sites and Tracks

A small bulldozer was brought onto the Project area in December 1997, to complete the programme of rehabilitation. This involved the following work as illustrated by the series of photographs inserted herein as Figures 9-16.

(1) Drill sites

Other than open drill holes, the main concern for drill sites were bags of percussion hole drill samples, as shown in Figures 9 and 11. Where necessary, compacted soil and clay were ripped (Figure 13) and redistributed over the site to bury decomposing sample bags and prepare the site for re-seeding (Figure 14).

Figures 10 and 12 show the Figures 9 and 11 sites completed, ready for re-seeding.

(2) Costeans

A series of costeans, such at that shown in Figure 15, were backfilled to overfull to allow for settling.

(3) Access Tracks

Although Ross Mining requires tracks to remain open for future work, areas where water flows have been eroding along tracks were addressed. Roll-overs and drains were placed to remove water flows from tracks, as shown in Figure 16.

(4) Re-seeding

Re-seeding of rehabilitated drill sites and costeans was completed in early December 1997, using a mixture of tropical grass seeds purchased in Darwin.

Figure 6 Cutting Drill Collar for Below Surface Capping

Figure 7 Inserting Below Surface Cap

Figure 8 Completed Below Surface Drill Hole Cap

Figure 9 Percussion Drill Hole Samples to be Buried

Figure 10 Samples Bags Buried and Site Ready for Re-seeding

Figure 11 Series of Layouts of Percussion Chip Sample Bags

Figure 12 Sites of Figure 11 Ready for Re-seeding

Figure 13 Ripping Soil and Clay on Drill Site

Figure 14 Redistributing Ripped Soil and Clay on Drill Site

Figure 15 Open Costean

Figure 16 Water Diversion Culvert to Stop Further Erosion Down Track

6. FORWARD PROGRAMME

Further feasibility studies will be essential prior to a decision to mine. The following steps will need to be implemented.

6.1 Mining

As previously mentioned in Section 4.3, the next requirement will be to undertake a pit optimisation programme from the current three dimensional block model. When a pit design has been accepted, a geotechnical assessment will be required to test pit wall stabilities.

6.2 Plant Design

Even by assuming at this stage that the less complex heap leach/CIL method will be the chosen processing route, it will still be necessary to select and sterilise, by soil or RAB sampling, the CIL plant site and associated infrastructure. This will include the leach pads and processing ponds.

6.3 Waste

The selection of waste dumps will involve a waste management programme and site sterilisation and geotechnical assessment. The chemical characteristic of the waste will also need to be evaluated.

6.4 Water Balance

This part of the feasibility study will involve computations on water usage, evaporation and piping.

6.5 Water Storage

A water storage dam site will be selected and a volumetric assessment made. Prior to a final design, a geotechnical assessment involving RC drilling of the dam sites and possibly digging some backhoe pits in the catchment area will be carried out.

6.6 Roads

An access road route will be selected which will involve geotechnical work such as sediment slump for water run off. A haul road design will involve gradient/distance calculations and digging backhoe pits to determine ease of cutting and stability.

6.7 Power

Options based on processing plant consumption will be assessed and the preferred option costed out.

6.8 Government Approvals

If a decision to proceed to mining is made, then we will seek approval for a rationalisation of our tenement holdings. This will involve the re-surveying of boundaries to form a single, or a small group of larger mining leases appropriate

to an operational mine of the size envisaged. All other submissions required by the Department of Mines and Energy, such as a plan of operations and an environmental impact statement will be attended to.

7. REFERENCES

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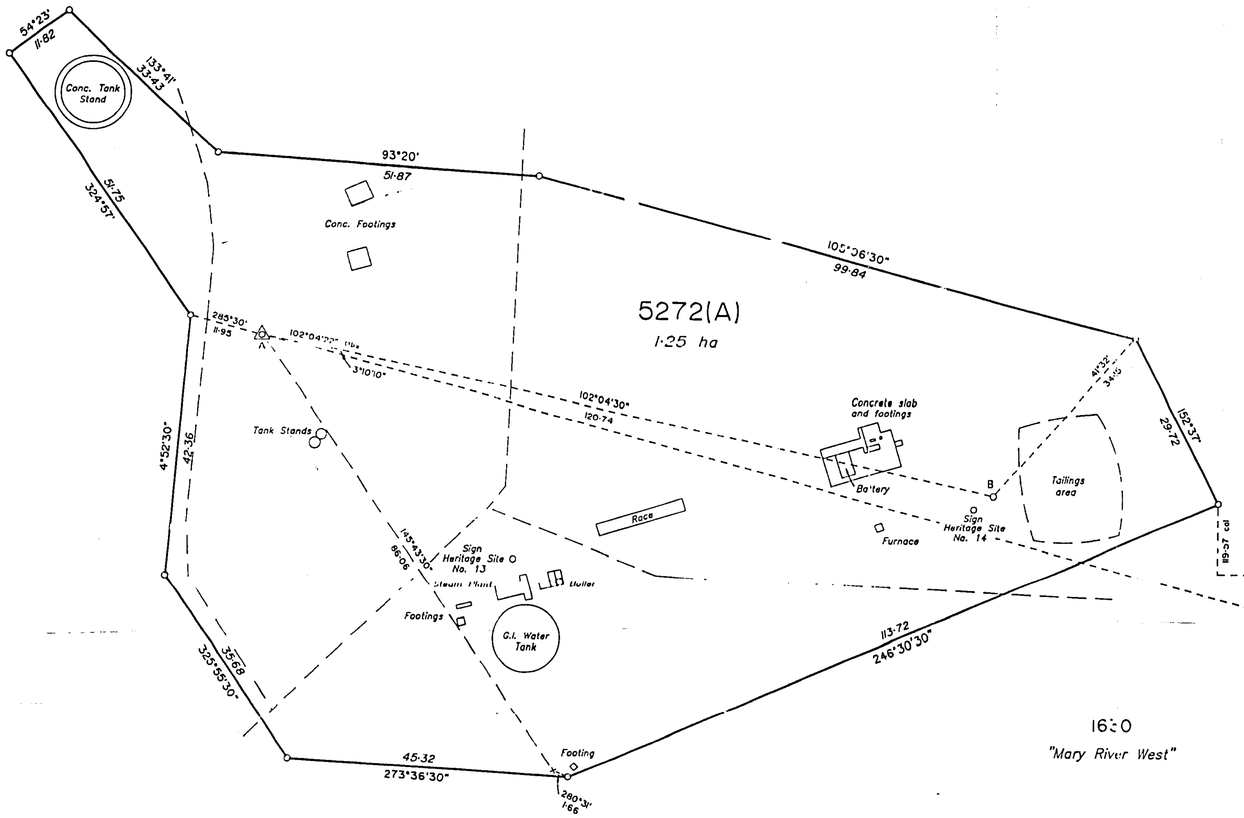

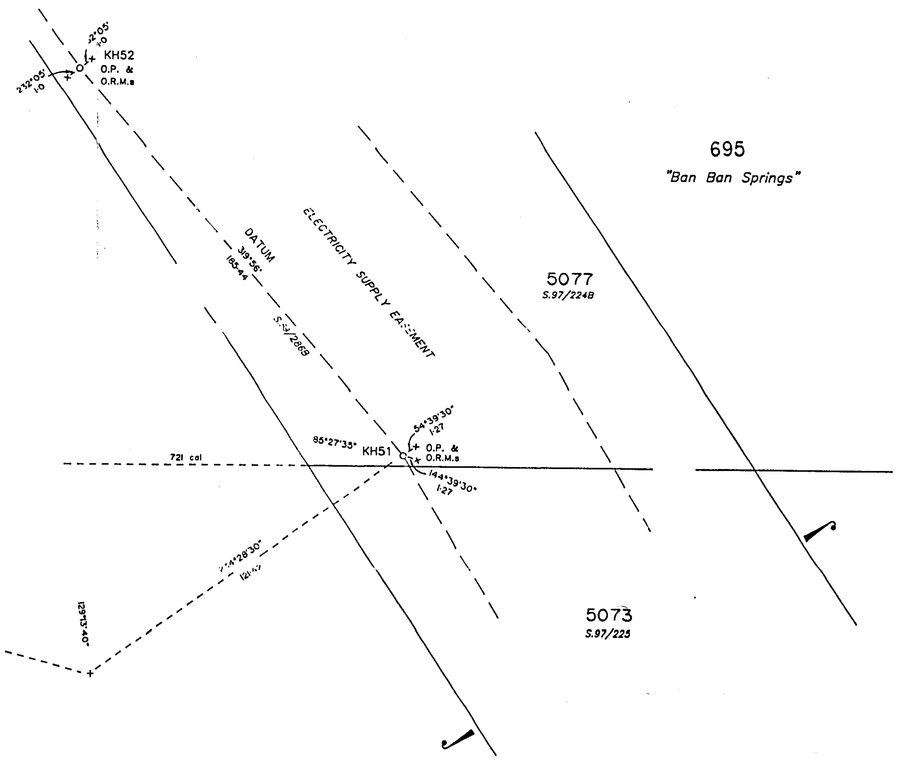

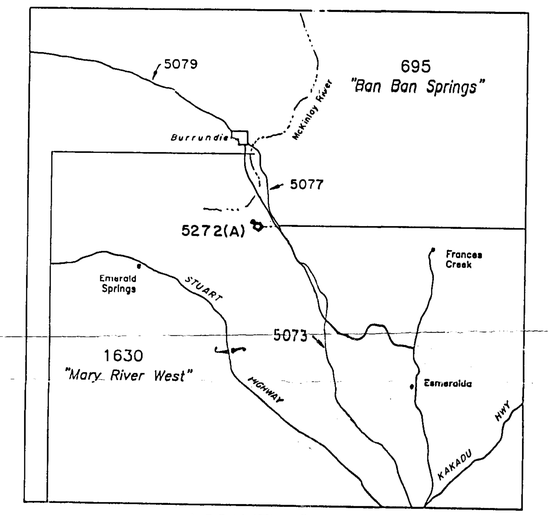

LOCALITY DIAGRAM
SCALE 1 : 250000

CR98/334

Department of Lands, Planning and Environment
Northern Territory

I, PHILIP ARTHUR VERRALL hereby certify that the survey represented on this plan was carried out by me or under my supervision and was completed on 4 OCTOBER 1997 and that this survey has been executed in accordance with the Licensed Surveyors Act and the Directions thereunder.

P.A. Verrall — Licensed Surveyor — 10.12.97 — Date

SURVEY APPROVED

PROVISIONAL PRINT — Surveyor-General — Date

AMENDMENTS			
Reference	Detail	Approved	Date

Notes :-

All boundary dimensions for NT Por 5272(A) are calculated.

Boundary corners marked with a tagged larg star iron.

Field Book: S.97/276

Drawn: P A Verrall (Project 9755)

Examined:

Map Reference: PINE CREEK 100000

True Mid ... Bearings

AZIMUTH

Assumed from S.89/2868

Observed at

LEGEND

Concrete Post ... □
Concrete Block ... ■
Peg or Wooden Post ... O
Reference Mark ... x
Lockspit ... ⋍
Fence Post ... ⊕

HERITAGE SITE NT PORTION 5272(A) PART OF NT PORTION 1630 MARY RIVER WEST LOCALITY

SCALE 1 : 500

10 0 10 20 30 metres

S.97/276

Plate 1