

Gawler Craton Exploration: Commercial Issues for Junior Explorers

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SUMMARY

The Gawler Craton is a geological province in South Australia that has generated a substantial amount of interest amongst exploration companies over the last five years. Junior exploration companies (less than \$50 million market capitalisation) dominate landholdings in the central portion of the Gawler Craton, primarily as they were the first to acquire ground following the South Australian Exploration Initiative conducted by the State government. One of the consequences of this Junior domination has been a high profile for the Gawler "exploration play" on the stock market and in the media, resulting in a market "boom" for Gawler Juniors in late-1996. This boom period has now passed, resulting in a substantial reduction of exploration expenditure in the Gawler.

The Gawler Craton remains one of Australia's most highly prospective and under-explored regions. Although it is an early stage in the exploration of the Gawler, several significant discoveries have been made and there is potential for many more deposits to be found. Financing of exploration is proving difficult for the Junior explorers in the current financial environment and this situation is unlikely to change for at least 12-18 months. Nevertheless, every depressed period such as the one we are now experiencing is followed by another up-swing and market sentiment can change very rapidly, particularly following a significant discovery. The Juniors will remain at the forefront of exploration in the Gawler, with increasing participation by Majors through joint ventures and strategic alliances.

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THE GAWLER CRATON

The Gawler Craton is a province of Archaean to Proterozoic aged rocks that stretches from the Yorke Peninsula to Oodnadatta in the north of South Australia, covering a total area of about 550,000 square kilometres. As a consequence of extensive surficial cover resulting in poor exposure of the basement rocks, geological knowledge of the Gawler Craton has been severely limited in the past.

Mineral occurrences on the Gawler Craton are restricted to a few historic gold mines in the Tarcoola and Kokatha areas, iron ore in the Middleback Ranges and copper at Moonta and Mt Gunson. The world class Olympic Dam copper-gold-uranium deposit was discovered by WMC in 1975, hosted by Gawler Craton aged rocks beneath the Stuart Shelf sediments. This discovery sparked a surge in exploration during the late 1970s throughout the Stuart Shelf, but only limited exploration was conducted further to the west on the Gawler Craton. Exploration activity continued to subside during the 1980s and early 1990s and was predominantly restricted to mineral sand and uranium exploration within the surficial cover sequence of the Gawler Craton.

In 1993 the South Australian State government completed the first phase of an extensive regional program including geological studies, drilling and, most importantly, aeromagnetics. This program is called the South Australian Exploration Initiative (SAEI) and its objective was to highlight the prospectivity of the largely unexplored Gawler Craton and attract the interest of exploration companies. The program has been an outstanding success, resulting in a major resurgence of exploration activity in South Australia and in particular the Gawler Craton.

GAWLER CRATON EXPLORATION

Landholdings dominated by Junior explorers

More than any other recent gold play, exploration of the Gawler Craton has been dominated by junior exploration companies ("Juniors" - a nominal market capitalisation of less than \$50 million). Juniors commenced serious exploration of the Gawler Craton in 1993, with Dominion Mining Ltd being one of the first to follow up the initial work of the SAEI. Other junior explorers, such as Equinox Resources NL and Helix Resources NL applied for tenements in late 1993 and by mid-1994 most of the central portion of the Gawler Craton had been pegged. By this time only, a few major mining companies ("Majors") held tenements in the Gawler and most of these, like North Ltd, had originally held the ground for other commodities such as mineral sands.

In mid-1995 the Dominion-Resolute joint venture announced the discovery of significant gold mineralisation at Challenger, providing further impetus to the gold "boom" in the Gawler which reached a peak in late-1996 with the Tunkillia discovery of Helix.

Tenement holdings in the central portion of the Gawler Craton remain dominated by Junior explorers who control about 74 per cent of the area. This scenario is now starting to change with Majors gaining access to the Gawler through the structuring of joint ventures with the Junior tenement holders. Currently about 38 per cent of the area of the Gawler is subject to such joint ventures or owned directly by Majors.

Reasons for Junior domination

There are a number of reasons for the apparent domination of the Gawler by Juniors. Fundamentally these reasons relate to the willingness and ability of such companies to take risks. Juniors were not necessarily the first to recognise the potential of the Gawler Craton following the completion of the SAEI aeromagnetic survey, but they were the first to act. This highlights the critical advantage that Juniors have over Majors – rapid decision-making ability and the prompt implementation of such decisions.

A further critical factor in this regard is motivation. In most cases, employees of Juniors, particularly senior management, have a significant shareholding in the company. This incentive provides motivation to perform in the highly competitive environment of a new exploration play such as the Gawler.

Consequences of Junior domination

There are a number of significant consequences of the Junior domination of the Gawler exploration acreage as ground was taken up very rapidly in a "pegging rush" between competing companies. As Juniors are dependent on stock market financing for exploration funds, promoters generated a substantial amount of stock market and media interest (ably assisted by the State government promoting the success of the SAEI for political/social reasons). This has facilitated significantly more information being disseminated to the public than in a normal exploration play dominated by Majors, who are notoriously reticent to release information. Consequently the Gawler Craton has received substantially more media coverage than any other regional exploration play.

Pressures on Junior companies to perform

There are substantial pressures on Juniors to perform, including pressure to:

- meet PIRSA (Primary Industry and Resources South Australia) expenditure commitments (set at double the normal rate for two years after the completion of phase one of the SAEI);
- sustain a sufficient level of exploration expenditure to achieve exploration success;

and related to this

- maintain stock market performance by company promotion.

Maintaining program momentum and enthusiasm is crucial in any exploration program, whether it be operated by a Junior or a Major. However it becomes particularly critical for a Junior dependent on the stock market to fund expenditure.

Limitations on the Junior's ability to fund the substantial exploration commitment required, particularly in a difficult stock market, has opened opportunities for the participation by Majors through:

- takeover acquisition;
- joint ventures or strategic alliances; or
- by waiting for ground to be relinquished as Juniors are unable to sustain expenditure commitments.

Alternatives for such financing alternatives are discussed in more detail later.

The other significant pressure on Junior companies active in the Gawler Craton is native title. Although the substantial delays resulting from native title affect all explorers, they are particularly amplified for Juniors who operate on short time frames due to funding limitations. Majors can afford to take a longer-term view and wait for ground availability (even if they would prefer not to). The severe problems that have been created by native title are discussed in more detail by Ewan Vickery in the next paper and so are not discussed further in this paper.

THE COST OF EXPLORATION IN THE GAWLER CRATON

To understand the funding requirements for a Junior company active in the Gawler Craton, it is important to have an appreciation of the levels of funding required. A typical early phase exploration program budget by a serious explorer is shown in Table 1.

Table 1: Typical Exploration Budget for 12 Month Program

	CATEGORY	EXPENDITURE (\$)
1.0	<i>Personnel Costs</i>	200,000
2.0	<i>Contractors Services</i>	
	2.1 Analytical	135,000
	2.2 Drilling	540,000
	2.3 Earthmoving	20,000
	2.4 Geophysical	25,000
	2.5 Aerial Photography/Remote Sensing	2,000
3.0	<i>Field Expenses</i>	100,000
4.0	<i>Field Office Expenses</i>	10,000
5.0	<i>Tenement Costs</i>	
	5.1 Tenement Fees	13,000
	5.2 Legal	30,000
	5.3 Native Title Costs	45,000
	5.4 Environmental Costs	10,000
6.0	<i>Overhead (15%)</i>	170,000
	TOTAL	1,300,000

As the program progresses from early phase exploration to advanced exploration, the annual budget, in particular the drilling component, will increase substantially and at feasibility, expenditures in the order of \$10 million or more are anticipated for a moderate scale project.

The above budget is proposed for a tenement area of about 3,000 sq km and so is equivalent to an expenditure rate of about \$433 per sq km (compared to a PIRSA commitment of about \$110 per sq km). In 1997 expenditure by most Juniors substantially exceeded these levels, however current expenditure by many Junior explorers in the Gawler is significantly lower (Table 2).

Table 2: Junior Explorers – Annual Expenditure per square kilometre

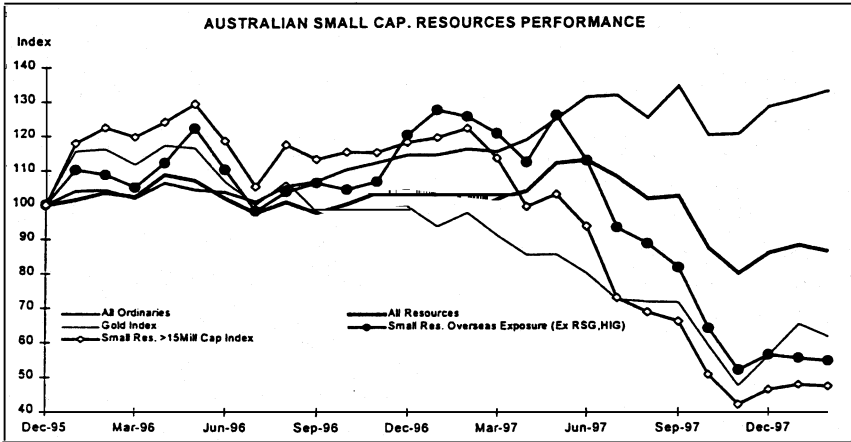
Company	Tenement Holdings (sq kms)	Annual Expenditure (Total \$000s)	Annual Expenditure (\$ per sq km)
Adelaide Resources	4,090	400	98
Craton Resources	810	800	988
Dominion Mining	19,990	3,188	159
Equinox Resources	13,100	1,600	122
Gawler Gold	3,120	1,836	588
Goldstream	2,340	2,000	855
Grenfell Resources	3,190	1,400	439
Helix Resources	4,040	2,200	545
Merritt Mining	9,810	400	41
Minotaur	6,810	240	35
Pima	9,670	108	11
TOTAL	76,970	14,172	184 (average)

Projected annual expenditures are calculated as four times the reported budgets for the June Quarter 1998. Note that these figures do not include funding provided by joint venture partners which may be significant, particularly in the cases of Adelaide Resources, Goldstream and Helix. The "\$ per sq km" figures for Dominion and Equinox are somewhat distorted by their exceptionally large landholdings, having been amongst the first explorers into the Gawler. Also note that some companies such as Dominion, Equinox and Helix fund significant programs outside the Gawler Craton.

THE "MARKET" – CURRENT STATE OF THE JUNIOR RESOURCES SECTOR

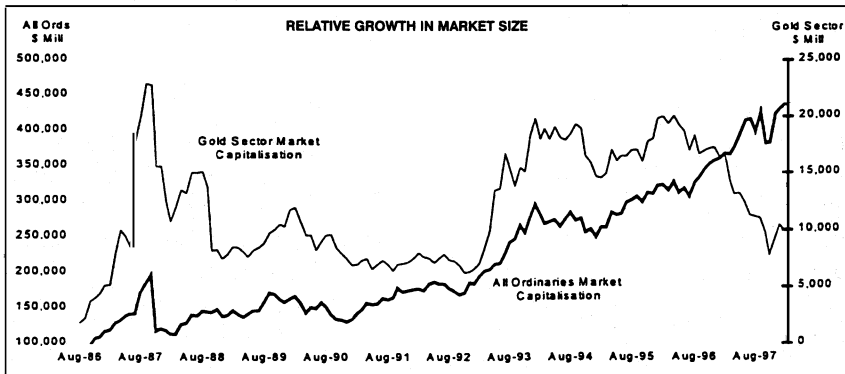
Junior resources companies are currently experiencing a very difficult period on the stock market – indeed many analysts suggest the most difficult period since the end of the "Nickel Boom" in the early 1970s.

Chart 1¹



Most gold stocks and Junior resources companies are currently trading at levels close to their low points following the “1987 Crash”. This has been “achieved” within a stock market environment in which record highs have been attained by most major indices such as the ASX All Ordinaries indices.

Chart 2²

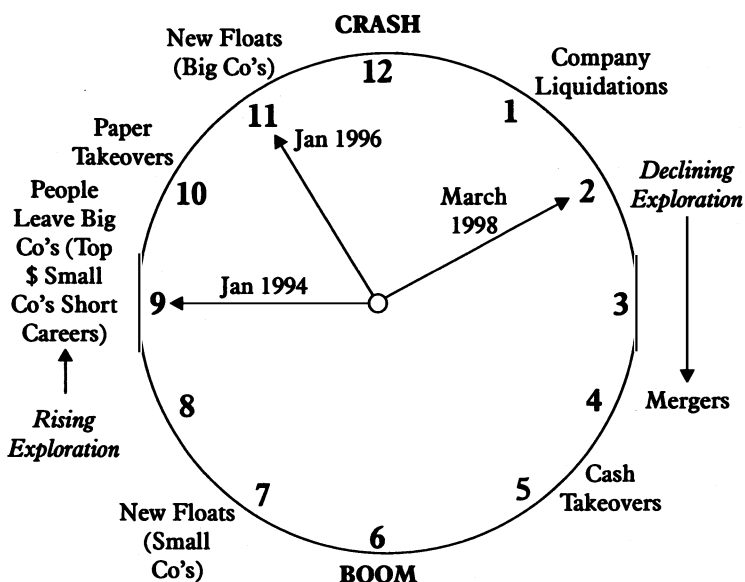


¹ JB Were Research Dept.
² Ibid.

During the last 12 months, the key influences on the Junior resources sector have been:

- Gold price and base metal weakness.
- The Asian crisis affecting general investor confidence and in particular overseas investor confidence in Australia (as part of Asia).
- A dramatic decline in investor confidence in Juniors as a consequence of the Bre-X fraud.
- Limited exploration success by Juniors over the last 12 months – partially a consequence of reduced budgets.
- Continuing concerns over land access as a result primarily of native title.

Exploration Clock³



These influences have resulted in a market environment in which financing opportunities for Junior resources are severely limited. This situation is succinctly shown by J B Were's "Exploration Clock".

Ironically, the time frame of the Clock is difficult to estimate, however it is clear that the difficult financing environment is likely to continue for at least 12 months. The Junior explorers in the Gawler Craton are relatively well funded (Table 3) by comparison to many Junior resources companies operating elsewhere in Australia.

³ Ibid.

Table 3: Gawler Juniors – Financial Status

Company	Market Capitalisation Jun 98 (\$000s)	Working Capital March98 (\$000s)	Annual Expenditure (Jun-98 Qtr 4) (\$000s)	Years Operating (on current expenditure)
Adelaide Resources	3,083	3,577	400	8.9
Craton Resources	1,400	1,979	800	2.5
Dominion Mining	24,356	11,300	3,188	3.5
Equinox Resources	9,832	4,461	1,600	2.8
Gawler Gold	4,080	6,862	1,836	3.7
Goldstream	17,956	5,728	2,000	2.9
Grenfell Resources	8,665	6,590	1,400	4.7
Helix Resources	11,810	8,524	2,200	3.9
Merit Mining	2,308	1,784	400	4.5
Minotaur	2,383	1,462	240	6.1
Pima	4,532	382	108	3.5

However, exploration expenditure in the Gawler is being dramatically reduced by the explorers (Table 4) reducing their budgets to ensure survival until the market recovers and financing environment improves.

Table 4: Gawler Juniors - Expenditure Projections 1997 to 1998

Company	1997 Expenditure (\$000s)	1998 Projected Expenditure (Jun-98 Qtr 4) (\$000s)	% Change
Adelaide Resources	1,182	400	- 66
Craton Resources	206	800	+ 288
Dominion Mining	8,774	3,188	- 64
Equinox Resources	4,115	1,600	- 61
Gawler Gold	614	1,836	+ 199
Goldstream	1,651	2,000	+ 21
Grenfell Resources	3,074	1,400	- 54
Helix Resources	6,869	2,200	- 68
Merritt Mining	801	400	- 50
Minotaur	1,896	240	- 87
Pima	1,165	108	- 91
TOTAL	30,347	14,172	- 53

The companies showing an increase in expenditure either did not report a full year's expenditure having floated late in the 1997 financial year (Craton Resources and Gawler Gold) or in the case of Goldstream have access to alternative funding. Apart from these exceptions, the trend is for a very substantial reduction of expenditure in the Gawler Craton for the 1998 financial year. This may be partly offset by increased expenditure by Major companies through joint venture participation.

FUNDING ALTERNATIVES FOR GAWLER JUNIOR EXPLORERS

There are two main alternatives for the ongoing financing of Gawler exploration - either financing through the stock market or forming joint ventures with Majors. Neither of these alternatives are particularly attractive or achievable in the current investment climate.

Financing of exploration through Stock Market raisings

A number of Juniors took advantage of the market enthusiasm for the Gawler explorers in late 1996-early 1997 to raise funds through placements, issues and IPOs. This has placed many of the Gawler explorers in a reasonably sound financial position (Table 3) and should enable most of the Gawler Juniors to survive the stock market downturn by reducing expenditure until the market environment for equity financing recovers.

Financing by Gawler Juniors over the last two years has included the following issues:

Table 5: Gawler Junior Explorers Market Raisings

Company	Date of Issue	Share Price at Issue (\$)	Amount Raised (\$000s)	Type of Issue
Adelaide Resources	Aug-96	0.25	5,000	IPO
		0.38	1,045	Placement
Craton Resources	Apr-97	0.25	3,250	IPO
Equinox Resources	Nov-96	0.38	2,850	Placement
Gawler Gold	Jan-97	0.20	10,000	IPO
Goldstream	Apr-97	0.58	3,936	Placement
Grenfell Resources	Aug-96	0.19	1,140	Placement
	Dec-96	0.67	9,380	Placement
Helix Resources	Dec-96	3.25	13,650	Placement
Merritt Mining	Apr-97	0.20	1,000	Placement
Minotaur	Dec-96	0.30	1,320	Placement
Pima	Mar-98	0.06	358	Placement

This table emphasises the crucial timing of the above issues, during a period of unprecedented enthusiasm for exploration in South Australia. Although market sentiment can change very quickly, generally as a result of a significant discovery, it is unlikely that the market conditions of late 1996-early 1997 will return for a considerable time (refer to the Exploration Clock). Consequently market financing for Junior explorers will continue to be very difficult.

Joint ventures between Juniors and Majors

Joint ventures have generally been utilised as the primary source of funding of programs by Junior explorers. Companies such as Equinox and Dominion have applied the strategy of structuring joint ventures at an early stage of exploration, whereas other Juniors prefer to sole fund exploration while funds are available and farm-out as an option of last resort. Some examples of Gawler joint ventures are listed in Table 6.

Table 6: Examples of Gawler Craton Joint Ventures

Company	JV Date	JV Partner	JV Terms
Adelaide Resources	Nov-97	Cyprus	\$3.0m over 4 yrs to earn 51% \$1.5m over 1 yr to earn 60% Feasibility over 3 yrs to earn 70%
Dominion Mining	early-93	Resolute	\$1.5m to earn 50%
Equinox Resources	Sep-95	Phelps Dodge (now terminated)	\$5.0m over 5 yrs to earn 51% Free carry Equinox expend to completion of feasibility.
Equinox Resources	Mar-98	Aurora	\$0.70m over 4 yrs to earn 70%
Equinox Resources	Mar-98	Resolute/Dominion	\$0.70m over 5 yrs to earn 80%
Goldstream	Apr-97	Minorco	Strategic Alliance : placement to Minorco of 9.3% GDM discoveries < 1.5m ozs Au - GDM 75% discoveries > 1.5m ozs - GDM 30-40%
Helix Resources	Jan-98	Acacia	Acacia transferred 19.8% HLX shareholding to HLX and agreed to spend \$2m over 18 mths to earn 50%

There are essentially two main styles of joint venture deals that have been structured for the Gawler Craton explorers :

Conventional joint venture

Most of the joint ventures are structured in this manner. Typically the Major may earn a 51 per cent interest from the Junior by expending between \$0.5m-\$5.0m over periods of 2-5 years. The Junior may then have the option to contribute and maintain its 49 per cent interest, or permit the Major to earn a further 9-29 per cent by expending an additional amount. Some joint ventures reflect the Junior's limited ability to match expenditure with the Major at the advanced exploration stage by "free carrying" the Junior to completion of bankable feasibility (Adelaide Resources-Cyprus and Equinox-Phelps Dodge JVs). In most deals structured by Equinox, the company retains the right to convert its reduced contributing interest (typically 30 per cent) to a free carried interest equal to half of its contributing interest. In most instances, the critical aspects of the deal from the Junior perspective is to maximise expenditure prior to the requirement to contribute and protection against the Junior's limited ability to contribute at the advanced project phase of major expenditure. Project management in most cases is taken over by the Major, however where the Junior has demonstrated specific regional expertise, in some cases (Equinox-Phelps Dodge and Adelaide Resources-Cyprus) the Junior has retained operatorship during the exploration phase.

Strategic alliance

The "strategic alliance" style of joint venture is becoming an attractive structure for Junior-Major associations. The Goldstream-Minorco alliance is an excellent example of this style of joint venture structure. Under this agreement Minorco has injected \$3.9 million into Goldstream by a placement of 9.3 per cent of the issued capital of Goldstream, such funds to be used for exploration by Goldstream. Minorco may elect to participate in any Goldstream project by funding exploration through to pre-feasibility. If the project contains a measured resource of more than 1.5m ozs of gold, then joint venture interests are 70 per cent Minorco/30 per cent Goldstream but if a resource of less than 1.5m ozs of gold is defined, then the interests will be Minorco 25 per cent/Goldstream 75 per cent. Various other scenarios are also incorporated into the agreement depending on Minorco's election point to contribute or to reimburse Goldstream expenditure. The structure of this joint venture is a pointer to the future of Junior-Major alliances, allowing the Major to gain the benefit of an aggressive exploration effort operated by a Junior company, while retaining control of any major discoveries.

THE FUTURE OF EXPLORATION IN THE GAWLER CRATON

The Gawler Craton remains one of Australia's most highly prospective and under-explored regions. To put this into perspective, the Mount Isa-Cloncurry region has comparable geology to the Gawler Craton but good outcrop makes it much easier to explore. Nevertheless after 30-50 years exploration of the region, the Ernest Henry deposit was discovered near Cloncurry in 1991. By comparison, the Gawler Craton has been subjected to less than five years of serious exploration activity. Although it is an early stage in the exploration of the Gawler, several significant discoveries have been made and there is potential for many more deposits to be found.

But how do the Gawler explorers maintain the momentum of exploration activity in the Gawler Craton? Subsequent to the "Gawler Boom" in Junior exploration stocks during late 1996-early 1997, financing of exploration is proving difficult for the Junior explorers. In the current financial environment, this situation is unlikely to change for at least 12-18 months. Nevertheless, as the Exploration Clock shows, every depressed period such as the one we are now experiencing is followed by another up-swing and market sentiment can change very rapidly, particularly following a significant discovery. The Juniors will remain at the forefront of exploration in the Gawler Craton, with increasing participation by Majors through joint ventures and strategic alliances.