# **Biotechnology 2007 - The Year Ahead**



23 January 2007

### All You Need Is Love

## **Summary**

- Following 2 years of being the most unloved sector in the Australian market, the biotechnology stocks are starting to show signs of life again.
- We believe the sector is ripe for a re-rating across the board due to:
  - 1. Unfactored Progress: in many cases the achievement of development milestones and/or value of acquisitions over the past 2 years have not been fully factored into prices
  - 2. Strong Calendar of Events: across the sector, we are expecting significant announcements with respect to major clinical trials and marketing approval for a number of products
  - Resources Downturn: softening of the resources market has speculative investors looking towards the biotech sector for new investment opportunities
- The end of 2006 saw a number of companies undertaking capital raisings either through private placements or SPPs. In addition, several companies, including PGL, BLT, PXS, EGX, AVX, MSB, MBP and PTD experienced significant increases in share price over the past 3 months.
- Having reviewed the majority of listed companies, in this note, we look at 16 biotech stocks which we believe offer interesting opportunities for investors in the sector.
- Our best buy recommendations remain Acrux (ACR), ChemGenex (CXS) and Alchemia (ACL). These three companies have products in advanced stages of development (and consequently a lower risk of failure) which are close to market.
- We also identify companies who we believe should be close to establishing a
  licensing or partnership deal (NEU, PXL, SPL), near-term trading
  opportunities (MBP, BTA, PTD), low priced stocks with good prospects
  (VSG, IMI) and other stocks that have already experienced significant gains
  but are based on good technologies (PXS, AVX, EGX, CYT, PYC).
- We believe that if the current positive sentiment towards the biotech sector remains, these stocks should provide good exposure for speculative investors.

#### **DISCLAIMER**

- Patersons Securities acted as Underwriter for a Renounceable Rights Issue that raised \$3.5m at 1.2 cents per share for Visiomed Group Limited. It received a fee for this service.
- Patersons Securities Limited aced as Co-Manager for a Placement that raised \$6.4m at \$0.53 for Neuren Pharmaceuticals Limited In December 2005. It received a fee for this service.
- Patersons Securities Limited acted as Lead Manager to a Share Placement that raised \$12m at \$0.51, and as Underwriter to a Share Purchase Plan that raised \$3m at \$0.51 per share for Starpharma Holdings Ltd in November 2005. Patersons Securities Limited also provided Corporate Advisory Services in relation to the acquisition of Dendritic Nanotechnologies Incorporated by Starpharma Holdings Limited. It received fees for all of these services.
- Patersons Securities Limited acted as Lead Manager and Underwriter to the Initial Public Offering for Proteome Systems Limited which
  raised \$20.0m at \$1.20 per share in September 2004. Patersons Securities Limited received a fee for this service as disclosed in the
  Prospectus

#### Analyst

Analyst: Matthijs Smith
Phone: (+61 3) 8803 0146
Email: msmith@psl.com.au



## **Summary**

We have reviewed the listed biotechnology companies and categorised our recommendations into 5 groups as set out below:

**Best Buys:** these remain our best recommendations with well-developed products that are getting close to market which we believe still have significant upside

**On The Brink:** these stocks have had a lacklustre performance over the past 12-months but we believe the companies are well-positioned to put in place commercial arrangements in the near future which could trigger a significant re-rating

**Trading Ideas:** while these companies are trading to what we estimate is a reasonable valuation, there are near term events that we believe could trigger further interest from the market

**Penny Darlings:** these are smaller companies with low-priced shares but are about to show good revenue growth that could significantly lift their price from its current low level

**Ones To Watch:** these are high quality companies in the sector that have compelling technologies and products under development. While the market has already put a premium on these stocks (relative to the rest of the sector), they remain good stocks to be in for longer term positions.

	Price	Market Cap	Rationale		
Doot Divis	(\$)	(\$m)			
Best Buys	_	٠			
ACR	\$0.78	\$106.5	Evamist and deal opportunities around multi-product portfolio		
CXS	\$0.65	\$98.6	Clinical data and completion of Ceflatonin registration trials		
ACL	\$0.88	\$118.5	New partner for synthetic heparin and FDA approvals for additional indications for Arixton		
On The Brink					
NEU	\$0.52	\$68.2	Commence Phase-3 for Glypromate and licensing deals around rest of portfolio		
PXL	\$0.31	\$47.0	Prototypes of two diagnostic tests near completion and licensing of Eukaryon compounds		
SPL	\$0.47	\$78.0	Deals around DNT portfolio particularly for siRNA transfection agent		
Trading Ideas					
MBP	\$1.06	\$318.1	Further market support in anticipation of Phase-2b data for obesity drug in March		
ВТА	\$1.59	\$286.1	Strong cashflow from Relenza royalty expected over the next 12 months		
PTD	\$1.55	\$254.3	Currently trading at cash/royalty with reasonable early stage pipeline		
Penny Darlings					
VSG	\$0.013	\$7.9	Revenues from Breath-A-Way and sales of Funhaler expected		
IMI	\$0.022	\$21.0	Strong growth in sales of Intelliheart monitors with attached annuity stream		
Others To Watch					
PXS	\$2.99	\$530.3	Progress in clinical development of Bronchitol and commencement of Aridol sales		
EGX	\$0.75	\$104.3	Potential takeover target with fee-for-service revenues and internal products		
AVX	\$0.46	\$112.4	Data from Phase-2b for HIV drug in 1Q with Phase-3 at end of year		
CYT	\$0.69	\$50.4	Phase-1 trial for CYT997 in progress, stock is yet to gain market support		
PYC	\$0.50	\$60.8	Validation of Phylomer technology platform will result in significant re-rating		

Source: Patersons Analysis



## **Best Buys**



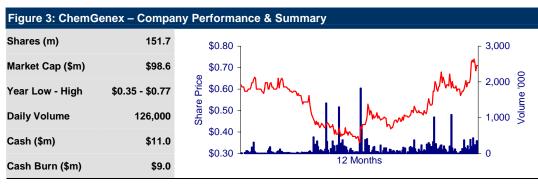


Source: IRESS

- We believe ACR is set to have a very positive year with its most advanced product, Evamist, set to receive marketing approval from the FDA in 2H CY07 and a robust pipeline of products that offer multiple opportunities to establish new commercial partnerships.
- The granting of marketing approval will trigger a US\$3.0m payment from its current licensee VIVUS. However, this partnership is currently under review and may be renegotiated if VIVUS is unable to deliver on the expected commercial outcomes from the product.
- ACR also has several products under development that are ripe for licensing deals including Fentanyl (pain relief), testosterone (male and female applications), contraception, RoW rights for Evamist and development of animal health applications through Elanco (USA).

### ChemGenex (CXS)

(\$0.65)



Source: IRESS

- CXS's lead anticancer product, Ceflatonin, will be completing clinical testing for the treatment of CML patients who have developed resistance to the current mainline treatment Gleevec as a result of the T315I mutation.
- The clinical data for Ceflatonin so far has been outstanding with several patients showing a complete hematologic or cytogenic response. CXS has several, open-label trials for Ceflatonin in progress that will provide ongoing clinical results throughout the year.
- CXS is expected to complete filing approval for the T315I-resistance with the FDA under the
  recently granted Fast Track program by the end of CY07. However, the clinical data to date
  strongly supports several additional clinical applications for Ceflatonin







Source: IRESS

- ACL's share price has shown some recovery since the announcement in August 2006 that
  its partnership with Abraxis was likely to be terminated but still remains lower than its
  historical trading levels.
- While the termination of the Abraxis partnership has introduced a 1 year delay to filing the ANDA, the fundamentals of ACL's synthetic heparin product and the commercial opportunity it provides remain unchanged. We believe the company will be able to secure a new commercial partnership during the year and, with further clinical data expected this year from Arixtra trials, the potential clinical applications may well be expanded.
- In addition to synthetic heparin, ACL is expected to be reporting clinical trial data for HyCAMP, which it acquired as part of Meditech, during 1Q CY07 which could provide further support for the stock.

### On The Brink

Neuren (NEU) (\$0.52)



Source: IRESS

- NEU is well-positioned to deliver strong news-flow on both its clinical development programs and on commercialisation of non-core elements of its intellectual property portfolio. While the stock has experienced limited support over the past 12-months, if the company achieves the anticipated news-flow, we believe interest in NEU will be renewed.
- NEU has filed its IND application for Glypromate with the FDA and a 520 patient Phase-3 trial for neurological protection during CABG is expected to commence in mid-1H CY07. In addition, Phase-2 trials for the follow-on drug, NNZ2566 are expected to start during CY07.
- NEU has engaged Burrill & Company (USA) to assist with identifying out-licensing opportunities for four of its programs.



### **Proteome Systems (PXL)**

(\$0.31)

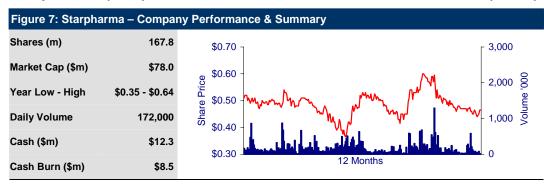


Source: IRESS

- PXL is expected to complete the development of its prototype test for diagnosis of active tuberculosis and for prostate cancer in 1H CY07. This will allow the rapid validation of these tests on large numbers of clinical samples prior to development of the final test format.
- At the prototype-test stage, either of these technologies may attract the interest of potential licensees to take the validation and clinical development forward.
- In addition, PXL has a number of drug candidates in development for protection from radiation and neurological damage from the Eukaryon acquisition in 2005 which provide further opportunities for near-term licensing deals that should provide more support for PXL.

### Starpharma (SPL)

(\$0.47)



Source: IRESS

- Since completing the acquisition of the US nanotechnology company DNT in October last year, SPL's price has been under pressure which we believe is primarily due to the announcement regarding delays on the clinical development of VivaGel for HIV.
- We remain positive on the commercial opportunity that DNT may provide and believe this
  was a valuable acquisition for SPL that was achieved at an attractive price. However, the
  market has historically appeared to place little value on SPL's holding in DNT and been
  unable to quantify the commercial value of its intellectual property portfolio.
- In view of this, we believe the key, near term trigger for SPL will be the establishment of a
  commercial arrangement based on DNT's portfolio. We are anticipating that such an
  arrangement may come from DNT's siRNA transfection agent PrioFect that potentially could
  enter the market in 1H CY07.



## **Trading Ideas**

Metabolic (MBP) (\$1.06)



Source: IRESS

- While MBP has expanded its pipeline through the acquisition of a candidate anti-pain drug, extension of application for AOD9064 to osteoporosis and several earlier stage projects, much of the perceived value comes from the weight reduction properties of AOD9064.
- Data from the second Phase-2b trial should be announced in March. This trial has a 3x greater number of subjects than the previous trial (which did not have sufficient statistical power to confirm an effect) and, given the previous data also, used lower doses of the drug.
- There is little doubt that the outcome of this trial will have a significant impact on MBP's price (either positive or negative). However, in the interim, we believe the shareprice will continue to get support in the lead up to the results announcement providing investors with a good trading opportunity. MBP reached \$2.19 in the lead up to Phase-2 results in 2004.

Biota (BTA) (\$1.59)



Source: IRESS

- With GSK's expanding its capacity for the production of Relenza and government stockpile
  orders starting to be fulfilled, we are expecting BTA to provide a strong cash result this year
  that is likely to result in profitability.
- BTA reported sales of Relenza in 1Q FY07 entitle the company to approximately \$5.3m in royalty payments. Based on the current stockpiling orders, we expect that the Relenza royalty revenue for each of the remaining quarters are likely to equal or exceed this figure.
- The company will also receive further payments under its licensing arrangements with MedImmune and Boehringer Ingelheim. We expect that strong revenue growth will lead to further support for BTA particularly if the sector continues to gain the attention of speculative investors.





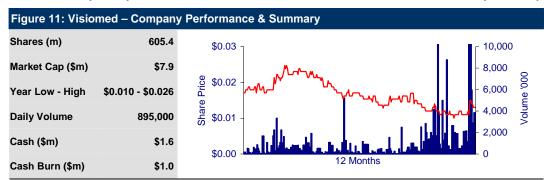


Source: IRESS

- PTD experienced a significant re-rating in December 2006 with the announcement that GSK purchased their 33% stake in Domantis (UK) for A\$178m. With the proceeds from this transaction, a royalty stream from its TNF patents worth \$60m-\$80m and a pre-transaction cash balance of close to \$40m, we believe PTD is currently trading at below cash value.
- PTD's product pipeline is still relatively early however its anti-TNF domain antibody PN0621
  is expected to enter clinical development in 2Q CY07 and the anti-C5a receptor drug
  PMX53 from the Promics acquisition is expected to enter Phase-2 for AMD.
- In addition to these and other R&D projects, PTD has an Animal Health division with two
  products in market which is likely to be divested at some stage. We believe that this or
  progress with its R&D portfolio should bring PTD above its current cash-backed price.

## **Penny Darlings**

### Visiomed (VSG) (\$0.013)

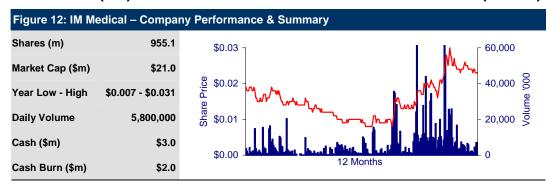


Source: IRESS

- With the re-tooling for manufacture of the paediatric asthma Funhaler spacer completed and the acquisition of Breath-A-Way in November, VSG is set to generate good earnings in the next 12 months.
- The new manufacturing of the Funhaler spacer has significantly reduced production costs and times and will enable the company to achieve gross margins of around 70%. The initial run of spacers sold rapidly and the company has distribution arrangements in place in Australia and access to the worldwide market through a licensing deal with Respironics.
- Breath-A-Way is expected to contribute over \$1.6m in revenue from sales and royalty payments in CY07. We anticipate that the company may report a profit in the next 12months that would warrant a significant lift in valuation.



IM Medical (IMI) (\$0.022)



Source: IRESS

- IMI is in the rollout stage for its Intelliheart devices that provide non-invasive diagnostic information on cardiovascular function. The rollout appears to be exceeding initial forecasts with 60 devices in place at the end of December 2006 and, with interstate rollout commencing in 1Q CY07, a further 60 expected by the end of CY07.
- IMI provides its machines under two arrangements, either a straight sale (with maintenance contract) or sells the services and reports generated from the machines. Thus the install base establishes an annuity stream for IMI from the machines.
- With a large potential market and good uptake to date, we expect IMI to garner greater support from the market as its product rollout progresses.

### Ones To Watch





Source: IRESS

- With a market cap of over \$500m, it cannot be said that the market has failed to recognise
  the potential for Pharmaxis. The company's asthma management product, Aridol, has
  marketing approval in Australia and Europe with US approval expected by the end of the
  year. Bronchitol is currently in multiple clinical trials for cystic fibrosis and bronchiectasis.
- In addition to sales of Aridol, during CY07 the company will be reporting data from its European Phase-3 trial for bronchiectasis and commencement of Phase-3 trials for bronchiectasis in the US and for cystic fibrosis.
- With a strong management team, excellent products and a good cash position, PXS is one
  of the highest quality company's in the sector. We believe it will continue to do well and
  investors should consider accumulating the stock, particularly on any share price weakness.







Source: IRESS

- Phase-2b data for AVX's lead product, apricitabine (previously called AVX754), is expected
  to be announced in 1Q CY07. Assuming these data are positive, the company is aiming to
  commence a Phase-3 clinical trial by the end of the year.
- Apricitabine was licensed from Shire in 2005 and is a modified version of an existing
  nucleoside reverse transciptase inhibitor (NRTi) called 3TC and is active against resistant
  strains of the HIV retrovirus. To date, the drug has shown good safety data and, given it is
  the 2nd generation of an existing drug, the development risks are considerably reduced.
- AVX has had a positive start to the year and is likely to get further support on positive results from the Phase-2b trial. However, we would expect the company to raise additional funds to support the Phase-3 trial.

## Evogenix (EGX) (\$0.75)



Source: IRESS

- With a technology platform that focuses on the optimisation and humanisation of antibodies, EGX is well positioned to capitalise on the current global interest in therapeutic antibodies.
   While the company is developing its own therapeutics as well as undertaking fee-for-service research project, we believe the company is likely to represent an attractive takeover target which could provide near term capital gains for shareholders.
- In both Europe and US, there have been several acquisitions of antibody platform companies by big pharma that have been done at high premiums (Domantis, Abmaxis, Cambridge Antibody Technologies).
- While EGX has had a significant share price growth over the past 3 months, we believe there may still be additional upside if it becomes subject to a takeover bid.



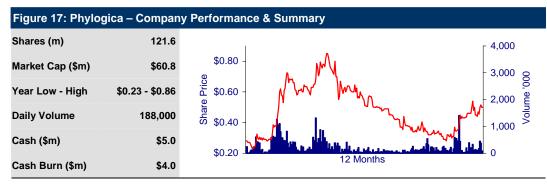
Cytopia (CYT) (\$0.69)



Source: IRESS

- CYT gained the market's attention in mid-CY07 with the announcement of a significant license and research agreement with Novartis based on the company's JAK3 intellectual property. In the lead up to the announcement, CYT's price reached \$1.08 but has since declined steadily despite the company making good progress.
- The company's oral anti-cancer drug, CYT997, commenced a Phase-1 clinical trial which is expected to be complete in 3Q CY07. CYT also has further programs targeting JAK2 and a preclinical compound that will enter the clinic in late '07 or early '08.
- While CYT's pipeline is still early, the company has a number of high potential programs in
  progress and has yet to benefit from the renewed interest in the biotech sector. As CYT will
  remain a pooled development fund until 30 June 2007, investors may be able to gain some
  tax benefits on capital gains from CYT up until that time.





Source: IRESS

- Phylogica has a technology platform that utilises non-mammalian peptide fragments (nicknamed "phylomers") as potential therapeutic agents. While there is a sound rationale for why this may be a particularly interesting approach for identifying novel drug candidates, at this stage a phylomer drug lead candidate has yet to enter advanced preclinical development.
- PYC has been very active in establishing partnerships (Opsana, Johnson&Johnson, Baker Institute, University of Melbourne, McComb Foundation) as well as undertaking its own screening programs in order to maximise the exposure of its libraries to as many therapeutic targets as possible.
- We believe the identification of a therapeutically active phylomer by either PYC or one of its partners would provide real validation of the company's intellectual property and be a significant inflection point with respect to valuation.

#### Research

Mark Simpson – Head of Research	Phone:	(+61 8) 9263 1678	Email:	msimpson@psl.com.au			
Resources							
Simon Oaten - Oil & Gas Analyst	Phone:	(+61 3) 8803 0144	Email:	soaten@psl.com.au			
Alex Passmore – Head of Metals & Mining	Phone:	(+61 8) 9263 1239	Email:	apassmore@psl.com.au			
Levi Spry – Resources Analyst	Phone:	(+61 8) 9263 1610	Email:	lspry@psl.com.au			
Josh Welch - Resources Analyst	Phone:	(+61 8) 9263 1668	Email:	jwelch@psl.com.au			
Mark Savich – Assistant Analyst	Phone:	(+61 8) 9263 1144	Email:	msavich@psl.com.au			
Industrials							
Robert Gee – Industrial Analyst	Phone:	(+61 8) 9263 1637	Email:	rgee@psl.com.au			
Julia Griffiths – Industrial Analyst	Phone:	(+61 8) 9263 1151	Email:	jgriffiths@psl.com.au			
Matthijs Smith - Healthcare & Biotechnology Analyst	Phone:	(+61 3) 8803 0146	Email:	msmith@psl.com.au			
Steve Suleski – Industrial Analyst	Phone:	(+61 8) 9263 1189	Email	ssuleski@psl.com.au			
Mark Topy – Banking & Finance Analyst	Phone:	(+61 3) 8803 0117	Email:	mtopy@psl.com.au			
Russell Wright - Retail Analyst	Phone:	(+61 2) 8238 6219	Email:	rwright@psl.com.au			
Jonathan Kriska – Property Analyst	Phone:	(+61 2) 8238 6245	Email"	jkriska@psl.com,au			
David Gibson – Assistant Analyst	Phone:	(+61 8) 9263 1664	Email	dgibson@psl.com.au			
Institutional Dealing							
Phil Schofield	Phone:	(+61 2) 8238 6223	Email:	pschofield@psl.com.au			
Michael Brindal	Phone:	(+61 2) 8238 6274	Email:	mbrindal@psl.com.au			
Dan Bahen	Phone:	(+61 2) 8238 6237	Email:	dbahen@psl.com.au			
Paul Doherty	Phone:	(+61 3) 8803 0108	Email:	pdoherty@psl.com.au			
Alastair Gordon	Phone	(+61 2) 8238 6244	Email:	agordon@psl.com.au			
Trent Foxe	Phone	(+61 2) 8238 6265	Email	tfoxe@pls.com.au			
Andrew Frazer	Phone:	(+61 8) 9263 1241	Email:	afrazer@psl.com.au			
Jason Lal	Phone:	(+61 2) 8238 6276	Email:	jlal@psl.com.au			
Jeremy Nugara	Phone:	(+61 3) 8803 0166	Email:	jnugara@psl.com.au			
Trevor Pike	Phone:	(+61 3) 8803 0110	Email:	tpike@psl.com.au			
Sandy Wylie	Phone:	(+61 8) 9263 1232	Email:	swylie@psl.com.au			

Important Notice: Copyright 2006. The contents contained in this report are owned by Patersons Securities Limited ("Patersons") and are protected by the Copyright Act 1968 and the copyright laws of other countries. The material contained in this report may not be copied, reproduced, republished, posted, transmitted or distributed in any way without prior written permission from Patersons. Modification of the materials or use of the materials for any other purpose is a violation of the copyrights and other proprietary rights of Patersons.

Disclaimer: Patersons believes that the information or advice (including any financial product advice) contained in this report has been obtained from sources that are accurate at the time of issue, but it has not independently checked or verified that information and as such does not warrant its accuracy or reliability. Except to the extent that liability cannot be excluded, Patersons accepts no liability or responsibility for any direct or indirect loss or damage caused by any error in or omission from this report. You should make and rely on your own independent inquiries.

If not specifically disclosed otherwise, investors should assume that Patersons is seeking or will seek corporate finance business from the companies disclosed in this report.

Warning: This report is intended to provide general securities advice, and does not purport to make any recommendation that any securities transaction is appropriate to your particular investment objectives, financial situation or particular needs. Prior to making any investment decision, you should assess, or seek advice from your adviser, on whether any relevant part of this report is appropriate to your individual financial circumstances and investment objectives.

Disclosure: Patersons, its director and/or employees may earn brokerage, fees, commissions and other benefits as a result of a transaction arising from any advice mentioned in this report. Patersons as principal, its directors and/or employees and their associates may hold securities in the companies the subject of this report, as at the date of publication. These interests did not influence Patersons in giving the advice contained in this report. Details of any interests may be obtained from your adviser. Patersons as principal, its directors and/or employees and their associates may trade in these securities in a manner which may be contrary to recommendations given by an authorised representative of Patersons to clients. They may sell shares the subject of a general "Buy" recommendation, or buy shares the subject of a general "Sell" recommendation.

Stock recommendations: Investment ratings are a function of Patersons expectation of total return (forecast price appreciation plus dividend yield) within the next 12 months. The investment ratings are Buy (expected total return of 10% or more), Hold (-5% to 45% total return) and Sell (> 5% negative total return). In addition we have a Speculative Buy rating covering higher risk stocks that may not be of investment grade due to low market capitalisation, high debt levels, or significant risks in the business model. Investment ratings are determined at the time of initiation of coverage, or a change in target price. At other times the expected total return may fall outside of these ranges because of price movements and/or volatility. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management.

This Document is not to be passed on to any third party without our prior written consent.

Patersons Securities Limited ABN 69 008 896 311 AFSL No. 239 052 Participant of ASX Group Securities & Derivatives Industry Association Principal Member Financial Planning Association Principal Member

#### Western Australia

Perth - Head Office: Level 23, Exchange Plaza, 2 The Esplanade, Perth, Western Australia 6000 Ph: (+61 8) 9263 1111 Fax: (+61 8) 9325 6452 Email: patersons@psl.com.au West Perth Office: Level 2, 34 Colin Street, West Perth Western Australia 6005 Ph: (+61 8) 9482 0900 Fax: (+61 8) 9482 0999 Email: patersons@psl.com.au Albany Office: Level 2, Middleton Centre, 184 Aberdeen Street, Albany, Western Australia 6330 Ph: (+61 8) 9842 4700 Fax: (+61 8) 9841 4211 Email: albany@psl.com.au Bunbury Office: Arrio Building, 7 Stirling Street, Bunbury, Western Australia 6230

Ph: (+61 8) 9791 7133 Fax: (+61 8) 9721 2599 Email: bunbury@psl.com.au Busselton Office: Suite 1, 72 Duchess Street, Busselton Western Australia 6280 Ph: (+61 8) 9754 0700 Fax: (+61 8) 9754 4333 Email: busselton@psl.com.au

Kalgoorlie Office: 63 Hannan Street, Kalgoorlie, Western Australia 6430 Ph: (+61 8) 9021 1422 Fax: (+61 8) 9021 8133 Email: kalgoorlie@psl.com.au

Mandurah Office: Suite 10, 55 Mandurah Terrace, Mandurah, Western Australia 6210 Ph: (+61 8) 9534 8422 Fax: (+61 8) 9534 8466 Email: mandurah@psl.com.au



#### **New South Wales**

Sydney Office: Level 27, 264 George Street, Sydney New South Wales 2000 Ph: (+61 2) 8238 6222 Fax: (+61 2) 8238 6266 Email: sydney@psl.com.au

#### Victoria

Melbourne Office: Level 18, 90 Collins Street, Melbourne Victoria 3000 Ph: (+61 3) 8803 0100 Fax: (+61 3) 8803 0199 Email: melbourne@psl.com.au

#### **ACT**

Canberra Office: Level 4, 53 Blackall Street, Barton ACT 2600 Ph: (+61 2) 6120 2222 Fax: (+61 2) 6273 3433 Email: canberra@psl.com.au