Overview

» Australian mineral exploration spending in 2005–061 rose by 20.6% to a record $1240.7 million2 of which 36.9% was spent on the search for new deposits1.

» Western Australia dominated with 47.6% of Australian mineral exploration spending while South Australia, New South Wales, Victoria and Queensland had record expenditure and Tasmanian spending rose by 172%.

» Gold remained the main target but its share of spending was eroded by growth in copper, iron ore, coal and uranium exploration.

» Exploration results were announced for a wide range of commodities from across the country including Gullivers and Cooljarloo North (mineral sands), Saxon (nickel), Tekapo (gold-copper), Tandarra (gold), Cuttaburra (base metals), Swan (copper-gold-uranium), Rocklands (copper) and Tropicana (gold).

Exploration review

Australian mineral exploration expenditure rose by 20.6% to $1240.7 million in 2005–06 according to the Australian Bureau of Statistics (ABS). This was a record for annual current dollar expenditure for Australia. In 2005–06 constant dollars, expenditure rose by 16.9% (Figure 1) to reach 85.7% of the previous peak expenditure in 1996–97.

Spending increased in all jurisdictions except Western Australia where a 3% fall occurred. However, Western Australia was still dominant attracting $399.2 million. Record spending was reported in: Queensland, up 31% to $218.8 million; South Australia up 119% to $146.5 million; New South Wales up 55% to $114 million and Victoria up 44% to $74.1 million. Spending increased by 34% in the Northern Territory to $74.7 million and in Tasmania it rose by 172% to $22.6 million.

Gold remained the major target in 2005–06 but its share of total exploration spending fell to 32% ($399.7 million) due to growth in spending on base metals, iron ore, mineral sands, coal and uranium. Base metal spending rose to $356.6 million—copper $139.5 million (up 96%), zinc-lead-silver $71.1 million (up 128%) and nickel $145.9 (down 8%).

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2. All monetary references in this paper are to Australian dollars unless otherwise stated.
3. Exploration spending on the search for new deposits covers exploration for previously unknown mineralisation or exploration on known mineralisation which is not yet classified as a resource.
ABS survey data of spending showed that, nationally, 37% of spending was on exploration for new deposits, compared to 39% in 2004–05. Western Australia (46%) had the highest proportion of its exploration directed to the search for new deposits while New South Wales had the lowest at 25%. The national share of exploration for new deposits is slightly lower than the Metals Economics Group (MEG) world survey of non-ferrous minerals exploration budgets for 2006 which found that 38% of exploration budgets in Australia was for grassroots exploration.

In 2005–06, ABS reported that exploration drilling totalled 6.837 million metres, an increase of 53,000 metres from 2004–05. A reduction of 165,000m occurred in drilling in search of new mineralisation with 2.62 million metres drilled (38% of all exploration drilling).

The MEG survey of world non-ferrous mineral exploration budgets for 2006 reported an increase of 47% to an estimated record total budget of US$7.5 billion. Of this, US$753.5 million was directed to exploration in Australia, the highest since the peak year of 1997. However, Australia’s share of global non-ferrous mineral exploration budgets fell to 10.6%, the lowest yet recorded. Australia retained its position as the country with the second highest share of budgets after Canada (19%).

According to the MEG survey, 53.8% of the 2006 non-ferrous mineral exploration budgets for Australian-based companies was for exploration in Australia. The survey included 330 companies with non-ferrous exploration budgets of more than US$100 000 that were exploring in Australia, an increase of 22 over 2005. Budgets for Australian non-ferrous mineral exploration included: gold (US$373.9 million), base metals (US$292.5 million) and diamonds (US$21.8 million).

Some 75 initial public offerings on the Australian Stock Exchange in 2006 were fully or partially for exploration in Australia. An estimated $350 million was raised by these companies for Australian exploration.

**GOVERNMENT PROGRAMS**

The Australian, State and Northern Territory governments continued to support the sector with programs designed to help reduce the inherent risk in exploration.

**GEOSCIENCE AUSTRALIA**

The Australian Government, as part of a broader energy security initiative, is providing $58.9 million to Geoscience Australia for new geoscience data acquisition and research to better understand the geological potential of onshore Australia for minerals and petroleum. The research will apply the latest geophysical imaging and mapping technologies to assist in discovery of new mineral and petroleum resources, and will also examine the potential for geothermal energy from high heat producing terrains under cover. A major program of deep crustal seismic reflection transects in the...
Mt Isa and Georgetown regions (in partnership with the Geological Survey of Queensland) and a continent-wide airborne radiometric and magnetic tie-line survey are already under way under this initiative with AEM, seismic and other surveys in targeted regions planned for 2007.

NEW SOUTH WALES

EXPLORATION NSW is a $30 million, seven-year (2000–2007) program supporting minerals and petroleum exploration and it has been extended to 2008 with an additional $8 million, for ‘New Frontiers’ projects. It aims to provide world-class geoscience information to assist explorers with on-line access to data. The current focus is on frontier terrains and the 3rd dimension, targeting the Thomson Orogen and extensions to the Stawell/Bendigo zones. Data coverage includes gravity, seismic, geochemistry, solid geology, modelling and drilling.

NORTHERN TERRITORY

As part of its four year, $15.2 million, “Building the Territory’s Resource Base” initiative, the Northern Territory Government acquired 2km spaced ground-based gravity data over extensive areas of the eastern Arunta Region of central Australia, and flew a detailed airborne magnetic and radiometric survey over the Tiwi Islands. Major reports were released on the Territory’s uranium deposits and the geology of the Rum Jungle mineral field. A Territory-wide regolith map was produced in collaboration with the Cooperative Research Centre for Landscape, Environment and Mineral Exploration.

QUEENSLAND

The Queensland Government’s four-year, $20 million SMART EXPLORATION initiative, begun in mid-2005, will provide new geological and geophysical data for the Mount Isa region, the Bowen, Surat and Drummond Basins and the Mount Rawdon region. An additional $29.08 million, four-year SMART MINING – FUTURE PROSPERITY program was launched in 2006. It includes funding for collaborative drilling with explorers, acquisition of new geoscientific data, improving land access, and encouraging women into the exploration and mining industry. A $19 million program will allow the acquisition of new geoscientific data in the Charters Towers, Cape York and Cooper Basin regions.

SOUTH AUSTRALIA

The Plan for Accelerating Exploration (PACE), launched in 2004, is a five-year $22.5 million initiative that aims to increase exploration and mineral production in South Australia, as well as ensuring that the state is showcased as a premier destination for resource exploration and investment. Planning and procurement processes are underway for further regional geophysical acquisition to be completed under PACE. In its third year, PACE Theme 2 (Drilling Collaboration) provided round 4 funding to 32 companies. PACE Theme 7, stage 1 upgrade of SARIG was completed with layers being updated and new data layers added.

TASMANIA

TasExplore is a four-year $5.05 million program consisting of $4.1 million for new geoscientific information and $0.95 million for promotion of opportunities. Aeromagnetic and radiometric data will be acquired over NE Tasmania and the Furneaux Group and mapping will be undertaken in the central north. The aim of the project is an upgraded 3-D geological model of Tasmania.

VICTORIA

The Victorian Government announced the $5 million, four-year, Rediscover Victoria initiative. It will target drilling, in conjunction with industry, and the development of a world-class 3-D geological map of Victoria to assist explorers. Rediscover Victoria will complement the Victorian Government’s other geoscience programs including the Victorian Initiative for Minerals and Petroleum (VIMP) and Developing Gold Undercover which is a $9 million initiative over three years from 2006 aimed at delivering new geoscience data and information to aid discovery of concealed gold resources.

WESTERN AUSTRALIA

The Western Australian Government provided an additional $13.4 million over four years from 2004–05 to the Geological Survey of Western Australia to stimulate exploration spending. The program consists of the scanning and release on the web of all remaining (21,000) open file company mineral exploration reports, including those that can now be released under the provisions of the sunset clause of the Mining Amendment Act 2004 that allows for a reduced (five year) confidentiality period. Work is also focussed on the acquisition and release of new regional geophysical information, particularly in greenfield regions of the State.
Exploration resulted in significant increases in resources at known deposits and a substantial number of drill intersections of economic interest. Gold was the main target but its share of spending was eroded by growth in base metal, iron ore, coal and uranium exploration. Amongst the more significant exploration results reported in 2006 include Gullivers mineral sands (South Australia), Saxon nickel, (Tasmania), Tekapo gold-copper (Northern Territory), Tandarra gold (Victoria), Cuttaburra base metals (New South Wales), Rocklands copper and Swan copper-gold-uranium (Queensland) and the Cooljarloo North mineral sands and Tropicana gold (Western Australia). These and other exploration results for 2006 are briefly reviewed below.

GOLD
New South Wales
- Reconnaissance drilling at the McPhillamys prospect, 35km SE of Orange, by Alkane Exploration Ltd discovered mineralisation including 24m @ 2.03g/t Au from 4m including 5m @ 5.69g/t Au and 17m @ 1.50g/t Au while later drilling returned 77m @ 1.65g/t Au from 140m and 31m @ 1.64% Zn, 12g/t Ag and 0.18g/t Au from 64m.
- Drilling at the Booths Reward prospect, 25km SE of Cootamundra, returned encouraging intersections. Moly Mines Ltd reported results including 10m @ 3.51g/t Au, 3m @ 9.1g/t Au and 4m @ 4.64g/t Au.
- Goldminco Corporation released a revised resource estimate for the Discovery Ridge project, near Blayney, of 4.2Mt @ 1.2g/t Au in the indicated category and 2.4Mt @ 1.4g/t Au of inferred resources for an aggregate 0.272Mozs Au.

Northern Territory
- Tanami Gold NL discovered the Tekapo mineralisation in an unexplored area of its Lake Mackay project 400km NW of Alice Springs. Intersections of 16m @ 3.4g/t Au from 29m, 3m @ 1.79g/t Au from 10m and 2m @ 2.01g/t Au from 22m were reported. Later drilling yielded copper mineralisation including 4m @ 2.67% Cu, 2m @ 0.83% Cu and 4m @ 0.60% Cu.

- GBS Gold International Inc. released new drill intersections from exploration at the Fountain Head deposit, 70km NW of Pine Creek. Intersections included 17m @ 4.4g/t Au, 6m @ 5.0g/t Au and 29m @ 4.8g/t Au. The Company will mine the deposit as part of its Union Reefs operation.

Queensland
- Extensions to the high-grade mineralisation in the Kilkenny structure at Cracow were reported by Sedimentary Holdings Ltd. Intersections included 49m (28.3m estimated true width) @ 4.8g/t Au from 766m and 9.3m (7.2m estimated true width) @ 21g/t Au. Kilkenny is 400m from and readily accessible by the Crown decline being developed to access the Crown Shoot.
- At the Agate Creek prospect, 80km S of Georgetown, Renison Consolidated Mines NL reported thick, near-surface mineralisation in the Zig-Zag Fault. Intersections included 61m @ 0.9g/t Au including 26m @ 1.5g/t Au. Renison is undertaking a feasibility study into open pit mining at Agate Creek based on a total resource of 13.2Mt @ 1.0g/t Au (0.428Moz).
- BMA Gold Ltd reported that drilling at its Twin Hills 309 mine targeted a structure about 100m beneath the current resource. A hole intersected 4m @ 10.5g/t Au including 1m @ 36.6g/t Au. BMA also reported mineralisation immediately east of the deposit with intersections including 33m @ 5.7g/t Au and 5m @ 14.3g/t Au.
» At the Northcote and Tregoora projects, 110km W of Cairns, Republic Gold Ltd delineated total resources of 8.183Mt @ 1.8g/t Au (556,700oz).

» At the Mount Carlton project, Conquest Mining Ltd discovered high-grade mineralisation. Intersections including 85m @ 3.39g/t Au, 17.4g/t Ag, and 0.24% Cu from 79m, 36m @ 9.93g/t Au, 32.7g/t Ag and 0.4% Cu from 92m, and 21m @ 186g/t Ag and 3.52% Cu from 54m. Project resources were revised to 6.646Mt at 1.47g/t Au (313,410oz).

South Australia

» Drilling by Minotaur Exploration Ltd at the Tunkillia deposit, 145km NE of Ceduna, intersected significant gold mineralisation in the supergene and primary zones and lower grade gold in the oxide zone. Better intersections included 7m @ 7.7g/t Au, 3m @ 8.5g/t Au and 6m @ 3.9g/t Au. Later drilling appears to confirm the presence of a coherent oxide zone and intersections included 10m @ 4.2g/t Au and 5m @ 5.9g/t Au from above bedrock mineralisation and 12m @ 15.8g/t Au and 5m @ 12.1g/t Au peripheral to known bedrock mineralisation.

» Trafford Resources Ltd reported good intersections from its Weedsman prospect, 100km WNW of Whyalla, including 36m @ 5.71g/t Au, 32m @ 3.44g/t Au and 8m @ 2.01g/t Au.

» At the old Bird-in-Hand gold mine near Woodside, Maximus Resources Ltd reported high-grade gold mineralisation with an intersection of 6m (estimated at 4.2m true width) @ 23.5g/t Au, including 1.5m @ 78.2g/t Au.

Tasmania

» Deep drilling by Lefroy Resources Ltd at the Lefroy project, 40km N of Launceston, identified the South Pinafore mineralisation 150m S of the Pinafore Reef. South Pinafore occurs under basalt and intersections included 2m @ 14.5g/t Au from 101m.

» Frontier Resources Ltd intersected gold in the 666 Lode that parallels and lies 100m NE of the Higgins deposit near Moina. Intersections of 31.9m @ 21.2g/t Au and 2.0m @ 14.8g/t Au were reported from separate holes.

» Frontier Resources Ltd reported encouraging intersections from drilling at its Panama prospect, 25km NE of Launceston, including 0.5m @ 7.5g/t Au and 0.5m @ 5.83g/t Au, both from 16m below surface.

Victoria

» Leviathan Resources Ltd announced high-grade gold intersections at the Tandarra prospect 40km N of Bendigo. Exploration targeted gold deposits under cover along an interpreted major crustal corridor which includes the Ballarat and Bendigo goldfields. Drilling confirmed quartz veining beneath 40–90m of sediment cover with intersections including 1m @ 160g/t Au from 104m, 1m @ 24.7g/t Au from 84m and 4m @ 1.3g/t Au from 70m.

» Perseverance Corporation Ltd discovered a new zone of sulphide mineralisation at its Fosterville project. It reported that the mineralisation is analogous to the main mineralisation at Fosterville and intersections of 5.1m @ 5.0g/t Au, 4.0m @ 6.1g/t Au and 10.4m @ 2.2g/t Au were returned.

» Encouraging drill results were reported by Panaegis Gold Mines Ltd from drilling at its Nagambie project. An intersection of 26.7m @ 5.0g/t Au and 8.8% Sb included two zones of higher-grade mineralisation — 7.0m @ 7.7g/t Au and 13.8% Sb from 110.0m and 10.7m @ 6.1g/t Au and 10.6% Sb from 122.1m.

» Drilling by Beaconsfield Gold Ltd at the Fair View prospect in its Stavely project, 45km SW of Ararat, reported intersections up to 9m @ 3.0 g/t Au and 3m @ 3.9 g/t Au in a 4.8km long gold-in-soil anomaly.

» Goldstar Resources NL advanced the Walhalla project with underground development, bulk sampling and drilling at the Eureka and Tubal Cain prospects. Encouraging drill results included 1.05m @ 1,869g/t Au.

» Drilling by Castlemaine Goldfields Ltd at its Chewton Anticline prospect, 265m E of the Wattle Gully mine, returned results including 0.5m @ 25.59g/t Au and 0.7m @ 28.93g/t Au from the same hole.

Western Australia

» Successful exploration continued to be reported by Avoca Resources Ltd from its Trident deposit at Higginsville. Wide zones of high-grade mineralisation were identified 100–150m below the Western Zone mineralisation including 25m @ 4.0g/t Au and 14m @ 4.7g/t Au. Drilling in the Athena Lodes at Trident returned 3m @ 63g/t Au, 3m @ 18.2g/t Au and
4m @ 8.3g/t Au. Avoca reported that resources at its Higginsville project were 8.7Mt @ 4.0g/t Au (1.11 Moz) of which 4.3Mt @ 6.2g/t Au was in the Trident mineralisation.

» Drilling at the Independence Group NL and AngloGold Ashanti Ltd joint venture at Tropicana, E of Laverton, continued to yield results that suggest potential for a large deposit. Indicative intersections reported included, from the Tropicana Zone, 30m @ 3.0g/t Au and from the Havana Zone 63m @ 3.0g/t Au, 7m @ 3.9g/t Au and 11m @ 3.4g/t Au. At the Rusty Nail prospect 5m @ 3.4g/t Au was reported.

» At the Doolgunna project, 150km N of Meekatharra, Sandfire Resources NL reported encouraging intersections from the Old Highway prospect including 8m @ 2.81g/t Au, 24m @ 3.22g/t Au which included 12m @ 6.42g/t Au and 48m @ 5.90g/t Au which included 16m @ 11.28g/t Au. The discovery of the Cow Hole Bore mineralisation with intersections of 4m @ 5.50g/t Au and 4m @ 7.43g/t Au was announced as was an intersection of 14m @ 10.40g/t Au from the East Shed Well prospect.

» Dioro Exploration NL continued exploration in the Mist Lode at Frog’s Leg NW of Kalgoorlie. High-grade intersections reported included 16m @ 4.60g/t Au from 60m and 24m @ 6.62g/t Au from 36m. Also at Frog’s Leg, Dioro discovered high-grade intersections in the Tinker Deeps shoot including 11m @ 5.61g/t Au which included 4m @ 10.39g/t Au.

» At the Brilliant prospect, 75km ENE of Kalgoorlie, Shannon Resources Ltd reported high-grade intersections including 52m @ 5.44g/t Au including 7m @ 25.14g/t Au and 29m @ 5.28g/t Au including 3m @ 30.63g/t Au.

» New near-surface mineralisation was reported by Westonia Mines Ltd from its Greenfinch prospect, a westerly extension of the Westonia mineralisation, near Westonia. Intersections reported included 4m @ 25.91g/t Au from 8m, 7m @ 4.04g/t Au from 17m and 24m @ 5.42g/t Au from 46m.

» Gleneagle Gold Ltd reported a discovery at its joint venture with Jackson Gold Ltd in the Peak Hill goldfield, 12km south of the Fortnum plant. Intersections reported from the Forest Gimp prospect included 19m @ 1.3g/t Au from 1m depth and 28m @ 2.02g/t Au from 53m.

» In the East Kimberley region, Northern Star Resources Ltd reported encouraging intersections from drilling at its Range prospect 130km N of Halls Creek. Intersections included 4m @ 15.06g/t Au and 21m, including 1m @ 57.15g/t Au and 15.70g/t Ag. Other results included 4m @ 2.05g/t Au and 1.31g/t Ag and 1m @ 3.50g/t Au and 1.80g/t Ag, 26.3g/t Au from 24m, 1m @ 26.2g/t Au from 39m and 2m @ 21.2g/t Au from 28m.

» Agincourt Resources Ltd’s drilling adjacent to the main East Lode at its Wiluna open pit found a new high-grade lens which is expected to improve the economics of a cutback option for the East Pit. Intersections included 56m @ 10.8g/t Au and 24m @ 13.4g/t Au, both true width. Agincourt also reported the discovery of high-grade mineralisation, Henry 5, between its Calais and Woodley systems at Wiluna with an 18m (estimated true width of 9.0m) intersection @ 10.42g/t Au and 8.8m @ 18.7g/t Au. At Calais, high-grade intersections were reported from outside the reserve envelope including 10.5m @ 31.3g/t Au, 23.0m @ 11.4g/t Au and 14.5m @ 14.9g/t Au.

» Apex Minerals NL announced that initial drilling at Apollo Hill, 50km SE of Leonora, returned encouraging results including 11.97m @ 4.48g/t Au from 186m, 10m @ 6.51g/t Au from 256m and 2m @ 30.93g/t Au from 146m. The first two intersections are in the Main Zone mineralisation while the third is in the Eastern Zone.

» Exploration by Monarch Gold Mining Co Ltd at the Davyhurst project returned high-grade intersections including new mineralisation 600m W of the Lady Bountiful pit. A reported intersection of 4m @ 132.3g/t Au from 55m confirmed high-grade mineralisation reported earlier (2m @ 78.4g/t Au which included 1m @ 153.9g/t Au). At the Sunraysia deposit drilling returned 4m @ 10.37g/t Au, 4m @ 6.06g/t Au and 5m @ 5.86g/t Au.

» In drilling aimed at defining resources to supplement resources at its Yagahong deposit at Gabanintha, 45km SE of Meekatharra, Reward Minerals Ltd reported intersections of 5m @ 14.57g/t Au and 6m @ 5.00g/t Au from the Golden Hope North prospect.

» South Boulder Mines Ltd intersected shallow supergene mineralisation at its Riccaboni prospect in the Duketon project, 120km N of Laverton. Assays reported included 8m @ 16.3g/t Au from 20m, 4m @ 6.54g/t Au from 24m and 4m @ 2.91g/t Au from 28m.

» Drilling at Wombola Dam, 45km SE of Kalgoorlie, by Cortona Resources Ltd suggested potential to add to the existing resource of 0.3Mt @ 2.7g/t Au in the Wombola Pit. Intersections included 4m @ 26.3g/t Au from 24m, 1m @ 26.2g/t Au from 39m and 2m @ 21.2g/t Au from 28m.

» Northwest Resources Ltd announced high-grade intersections from the Golden Spec deposit about 18km E of Nullagine. Results included 2.8m @ 77.6g/t Au and 7.2% Sb from 190m down-hole, 23m @ 75.7g/t Au and 7.66% Sb and 1.4m @ 91.3g/t Au. The company also reported high-grade intersections from drilling targeting depth extensions to the Blue Spec deposit. These include 1m @ 94.60g/t Au (0.45m true width), 6.2m @ 27.70g/t Au (2.8m true) and 6.3m @ 9.5g/t Au (3.3m true).
Intersections of 10m @ 2.1g/t Au and 25m @ 4.3g/t Au were also reported from 400m east of the known Blue Spec resource. Drilling at the Green Spec deposit returned encouraging results including 15m @ 20.2g/t Au, 11m @ 6.4g/t Au and 4m @ 11.0g/t Au.

**COPPER-GOLD**

**New South Wales**

- Golden Cross Resources Ltd announced a new resource for its Copper Hill deposit near Molong with indicated resources increasing to 79.9Mt @ 0.36% Cu and 0.35g/t Au and an inferred resource of 56.1Mt @ 0.30% Cu and 0.27g/t Au (total contained metal of 455,000t Cu and 1.4Moz Au). Ongoing exploration located mineralisation 400m N of Copper Hill at Copper Hill North where intersections included 188m @ 0.39% Cu and 0.16g/t Au and 184m @ 0.43% Cu and 0.15g/t Au.

- Goldminco Corporation reported intersections at the Estoril prospect at Temora including 150m @ 0.31g/t Au and 0.21% Cu which included 60m @ 0.5g/t Au and 0.26% Cu. Another intersection was 123m @ 0.19g/t Au and 0.16% Cu including 42m @ 0.25g/t Au and 0.18% Cu.

- At The Dam deposit, 14km NNW of Temora, Goldminco Corporation reported an indicated resource of 20.2Mt @ 0.6g/t Au and 0.41% Cu and an inferred resource of 7.5Mt @ 0.53g/t Au and 0.37% Cu. The Dam is 1km E of the old Gidginbung mine which yielded 0.7Mozs Au.

**Queensland**

- Drilling by Ivanhoe Mines Ltd at the Amethyst Castle and Swan prospects, 100km S of Cloncurry, yielded IOCG type mineralisation and initial results from Swan included 79m @ 1.45% Cu and 0.99g/t Au from 83m, and 115m @ 0.965% Cu and 0.86g/t Au from 65m. Later results included 13m @ 1.94% Cu, 0.56g/t Au and 401ppm U and 32m @ 0.96% Cu, 0.53g/t Au and 171ppm U.

- Universal Resources Ltd reported that drilling by Xstrata Copper at Cabbage Tree Creek, immediately N of the Little Eva deposit (Roseby project), intersected copper-gold mineralisation beneath a thick cover of younger rocks. The discovery hole returned 14m @ 2.00% Cu and 0.46g/t Au from 393m including 6m @ 3.19% Cu and 0.81g/t Au from 393m. The same hole had 4m @ 0.66% Cu and 0.15g/t Au from 424m and 14m @ 1.30% Cu and 0.29g/t Au from 451m.

- Malachite Resources NL reported encouraging copper grades from drilling at its Mount Lidster project between Mount Isa and Cloncurry. Two holes returned 6m @ 4.19% Cu, 0.37g/t Au and 0.10% Co and 4m @ 5.29% Cu, 0.23g/t Au and 0.07% Co respectively.

- Drilling of the Ivanhoe Prospect, 80km SSE of Mount Isa, by the Goldminco Corp-Barrick Gold Corp joint venture reported potentially economic mineralisation over a 200m strike length, with significant intercepts of 7m @ 2.8% Cu and 0.42g/t Au from 11m and 17m @ 1.0% Cu and 0.08g/t Au from 52m, including 8m @ 1.6% Cu.

- Kings Minerals NL reported wide zones of Cu-Mo-Au-U mineralisation at the Kalman Prospect 15km SE of Mount Isa. Intersections included 329m @ 0.46% Cu, 0.23% MoS$_2$, 0.22g/t Au and 0.01% U$_3$O$_8$ from 193m and 339m @ 0.54% Cu, 0.11% MoS$_2$, 0.29g/t Au and 0.02% U$_3$O$_8$ from 181m.

**South Australia**

- Oxianna Ltd released initial results from near-mine drilling at Prominent Hill which highlights potential for increased resources. Copper-gold and gold-only mineralisation was intersected 400–500m beneath the current resource and mineralisation is open at depth. Better copper-gold intersections from chalcocite and bornite mineralised hematite breccias include 28m @ 2.1% Cu and 0.6g/t Au, 17m @ 1.8% Cu and 0.6g/t Au and 135m @ 1.5% Cu and 1.0g/t Au. Wide intervals of 1–2g/t Au-only mineralisation occur in, and peripheral to, the copper-gold system.

- Hillgrove Resources Ltd continued drilling at its Kanmantoo project and holes adjacent to the Kanmantoo open pit yielded, from the North East zone, 37m @ 1.77% Cu and 0.21g/t Au; from the Eastern Zone 25m @ 1.52% Cu and 0.14g/t Au and from the South East Zone 25m @ 1.52% Cu and 0.13g/t Au.

- In October 2006, Monax Mining reported intersecting IOCG style alteration and copper mineralisation at their Punt Hill prospect 25km S of the Carrapateena IOCG prospect.

**Western Australia**

- Significant drill intersections continued to be returned at Batavia Mining Ltd’s Deflector deposit at Gullewa. Intersections included 5.00m @ 43.53g/t Au and 2.1% Cu, 1.34m @ 25.74g/t Au and 2.1% Cu and 12.13m @ 5.70g/t Au and 0.5% Cu (all downhole depths). The total resource at Deflector is 2.65Mt @ 6.04g/t Au and 1.23% Cu.

- Copper-gold mineralisation was reported by Crescent Gold Ltd adjacent to the Admiral Hill gold prospect near Laverton. Results included 41m @ 0.6% Cu, 0.7g/t Au and 5.9g/t Ag which included 3m @ 4.5% Cu, 4.2g/t Au and 59.9g/t Ag and 25m @ 0.5% Cu, 0.1g/t Au and 0.6g/t Ag including 3m @ 1.8% Cu, 0.1g/t Au and 0.1g/t Ag.
COPPER, ZINC, LEAD, SILVER

New South Wales

» A greenfields discovery in the Thompson Orogen was announced by Compass Resources NL at the Cuttaburra and Yancannia prospects (Compass Resources NL 80%, Bohuon Resources Pty Ltd 20%), approximately 130km NE of Wilcannia. The intersections were from nine magnetic anomalies identified in the potentially prospective Lower Palaeozoic basement sequence beneath Cretaceous and younger sediments. A single hole was drilled into each of two anomalies and both intersected a rock sequence similar to the Cobar Basin sequence beneath some 75m of cover rocks. Both holes intersected pyrite and/or pyrrhotite mineralisation and the Cuttaburra hole returned up to 0.11% Cu, 0.18% Zn, 0.41% W and 40g/t Ag. Assays from Yancannia were not available at year’s end.

» Ongoing exploration at the Hera prospect, near Nymagee, by Triako Resources Ltd, extended the high-grade mineralisation. Results included 10.6m @ 14.5g/t Au, 0.6% Cu, 12.3% Pb, 16.4% Zn and 56g/t Ag from 358m and 14.7m @ 6.6g/t Au, 0.6% Cu, 5.6% Pb, 6.3% Zn and 31g/t Ag from 353m which included 4.9m @ 14.3g/t Au, 0.2% Pb and 0.1% Zn from 353m and 5.3m @ 8.9g/t Au, 1.2% Cu, 13.1% Pb, 14.8% Zn and 70 g/t Ag from 362.4m.

» At Koonenberry, 100km E of Broken Hill, Black Range Minerals Ltd reported encouraging drill intersections from its Peveril prospect. These included 11m @ 2.04% Cu and 6.30g/t Ag, 5m @ 2.28% Cu and 5.28g/t Ag and 5m @ 2.02% Cu and 5.94g/t Ag. The company confirmed high-grade copper mineralization extends over more than 1km and is open at depth and along strike. Peveril is 2km along strike from the Grasmere copper deposit.

» Malachite Resources NL reported high-grade silver intersections from drilling at its Conrad project, 20km S of Inverell. They included 3.1m @ 383g/t Ag, 0.68% Cu, 5.97% Pb, 0.26% Zn, 0.94% Sn and 22g/t In from 217.6m and 1.4m @ 712g/t Ag, 2.32% Cu, 8.23% Pb, 5.46% Zn, 2.66% Sn and 63g/t In from 111.1m.

» At the Gundaroo prospect, S of Cobar, Cobar Consolidated Resources Ltd reported mineralisation at the Ridge anomaly near the De Nardi zone (inferred resource of 2.7Mozs Ag). Intercepts included 6m @ 6.4% Zn, 1.3% Cu, and 170g/t Ag. Drilling is testing a 3km strike length silver-lead-zinc geochemical anomaly.

» Following drilling at its Pulganbar project, 36km NW of Grafton, Central West Gold NL reported cobalt and copper enrichment in discrete mineralised zones including 6m @ 0.44% Co and 0.14% Cu, 7m @ 0.34% Co, 0.22% Cu and 1.5m @ 0.41% Co, 0.61% Cu.

Northern Territory

» Compass Resources NL undertook deep drilling at the Browns and Browns East deposits 80km S of Darwin. At Browns, intersections included 50m @ 0.87% Cu, 3.28% Pb, 0.11% Zn, 0.154% Co and 0.119% Ni from 393m and included 3m @ 0.31% Cu, 4.72% Pb, 0.02% Zn, 0.98% Co, 0.083% Ni from 411m and 13m @ 0.58% Cu, 7.34% Pb, 0.02% Zn, 0.208% Co and 0.155% Ni from 430m. At Browns East, an intersection of 55m @ 0.92% Cu, 4.68% Pb, 0.87% Zn, 0.367% Co and 0.285% Ni was recorded from 223m and included 26m @ 0.11% Cu, 8.46% Pb, 1.82% Zn, 0.152% Co and 0.118% Ni from 233 m.

» Westgold Resources NL reported drilling at Explorer 108 in the Rover project, 100km WSW of Tennant Creek, intersected encouraging mineralised zones. An initial intersection of 70m @ 5.4% Zn, 2.7% Pb and 17.2g/t Ag from 282m was followed, in a second hole, by 183m @ 2.3% Zn, 1.3% Pb and 13.4g/t Ag from 255m.

» Drilling by Tennant Creek Gold Ltd at its Manbarrum project, 70km NE of Kununurra, returned high-grade lead intersections including 11m @ 12.80% Pb, 0.32% Zn and 47.5g/t Ag, 16m @ 12.67% Pb, 0.84% Zn and 52.3g/t Ag and 18m @ 9.64% Pb, 1.9% Zn and 24.8g/t Ag.

Queensland

» Encouraging results were reported from the Rocklands project at Cloncurry by CuDeco Ltd. Results included 57m @ 2.02% Cu from 69m, 17m @ 2.15% Cu and 68m @ 1.1% Cu. A later intersection reported by CuDeco was 22m @ 5.17% Cu which included 17m @ 6.79% Cu. Core from a diamond drill hole returned 40m (downhole thickness) with substantial native copper and chalcocite. CuDeco reported that 1m, 1kg random samples of native copper zones returned grades of up to 45.60% Cu.

» At the Chloe prospect near Einasleigh, Copper Strike Ltd reported encouraging intersections from Chloe East, including 26m @ 6.1% Zn, 2.9% Pb, 60.4g/t Ag and 0.2% Cu from 173m. Other intersections included 7.0m @ 6.7% Zn, 2.6% Pb, 36g/t Ag from 175m and, in the same hole, 7m @ 4.4% Zn, 2.4% Pb and 54g/t Ag from 188m.

» Breccia pipe mineralisation was tested by Macmin Silver Ltd at its Tally Ho Prospect, 50km SW of Mackay. Intersections included 20m at 292g/t Ag, 1.74% Zn and 0.25% Cu from 56m, 10m @ 115g/t Ag, 0.14g/t Au, 1.42% Zn, 0.16% Cu and 0.33% Pb from 70m, and 6m @ 109g/t Ag, 1.36g/t Au, 2.18% Zn and 0.27%Cu from 112m.

» Perilya Ltd announced an increased resource at its Mount Oxide deposit, 140km N of Mount Isa, following a re-interpretation of the geology and re-logging of core. The inferred resource was 3.7Mt @ 2.7% Cu for 100,000t of contained copper.
Infill drilling by CopperCo Ltd at Mount Clarke Extended and Flying Horse Extended returned further high-grade intersections including 27m @ 3.05% Cu from 15m, 19m @ 3.10% Cu from 29m and 17m @ 1.81% Cu from 25m.

Copper Strike Ltd reported an inferred resource of 6.5Mt at 0.6% Cu, 1.6% Pb, 2.1% Zn, 25g/t Ag and 0.07% Co for the Walford Creek Prospect, 315km NNW of Mount Isa.

Glengarry Resources Ltd announced an inferred resource of 1.6Mt @ 1.29% Cu for the Maitland prospect located 55km W of Greenvale.

Kagara Zinc Ltd announced a doubling of resources at its King Vol deposit 40km NW of Chillagoe. The deposit has an indicated resource of 1.3Mt @ 0.8% Cu, 1.1% Pb, 14.0% Zn and 43g/t Ag and an inferred resource of 1.97Mt at similar grades.

**South Australia**

- At the Parkinson Dam prospect, 60km W of Port Augusta, Tasman Resources NL reported high-grade lead and zinc. An initial assay from diamond drill core returned 1.66m @ 7.6% Pb, 10.5% Zn, 0.4% Cu, 1.20g/t Au and 120g/t Ag.

- Monax Mining Ltd reported zinc and lead mineralisation at its Bonaventura prospect 10km S of Stokes Bay on Kangaroo Island. Drilling confirmed mineralisation over 300m by 250m and included intersections of 16m @ 3.43% Zn and 0.66% Pb from 34m and 4m @ 3.94% Zn from 91m.

- At the Sloanes Hill prospect, about 30km S of the Prominent Hill deposit, Uranium Exploration Australia Ltd encountered significant, shallow silver mineralisation. A 15m intersection returned 31g/t Ag from 29m. This zone included 7m @ 58g/t Ag from 31m.

- At the Sloanes Hill prospect, about 30km S of the Prominent Hill deposit, Uranium Exploration Australia Ltd encountered significant, shallow silver mineralisation. A 15m intersection returned 31g/t Ag from 29m. This zone included 7m @ 58g/t Ag from 31m.

**Tasmania**

- Bass Metals Ltd reported that drilling on the Nico Lens at Que River identified a second lens of mineralisation. Intersections reported included 5.4m @ 10.8% Zn, 3.2% Pb, 109g/t Ag and 1.5g/t Au from 57.5m, 5.2m @ 6.1% Zn, 4.0% Pb, 60g/t Ag and 1.5g/t Au from 47.8m and, in the same hole, 5.9m @ 8.4% Zn, 5.2% Pb, 103g/t Ag from 66.2m.

- Stellar Resources Ltd reported an intersection of 22.25m @ 1.23% Cu, in a larger 95m intersection @ 0.46% Cu from the Alpine prospect, 10km south of Corinna. The mineralisation occurs in mixed brecciated and layered rocks and consists of chalcopyrite associated with pyrite, magnetite and hematite.

- Zinifex Ltd added 1.9Mt to the Rosebery resource in the year to 31 March 2006. Drill intersections had average widths of 8m and grades of 15% Zn, 4.8% Pb, 0.4% Cu, 156g/t Ag and 2.3g/t Au.

- Jaguar Minerals Ltd announced three separate intersections of Zn-Pb-Ag mineralisation in a drill hole at the Wilson River prospect, SW of Mount Bischoff. The best was 3m @ 5.2% Zn, 0.7% Pb and 21g/t Ag.

**Western Australia**

- Drilling by Fox Resources Ltd at the Ayshia prospect in its West Whundo project, 50km SSE of Dampier, yielded further high-grade intersections. Results reported included 18m @ 8.8% Zn, 31g/t Ag from 48m, 21m @ 6.5% Zn, 14g/t Ag from 60m and 2m @ 10.2% Zn, 23g/t Ag from 96m.

- At Koongie Park, 25km SW of Halls Creek, Anglo Australian Resources NL reported high-grade intersections from the Sandiego deposit. These included 41.6m @ 10.89% Zn, 0.34% Cu, 0.98% Pb, 288 ppm Co, 55g/t Ag and 0.28g/t Au and another of 4.45m @ 1.22% Cu, 0.36% Pb, 4.39% Zn, 19 ppm Co, 16g/t Ag and 0.05g/t Au.
Jabiru Metals Ltd announced an inferred resource for the Teutonic Bore deposit, 55km NNW of Leonora, of 1.66Mt @ 1.2% Cu, 0.09% Pb, 1.1% Zn and 27g/t Ag. Teutonic Bore was mined in the 1980s and is 4km from Jabiru's Jaguar mine.

Exploration by Oxiana Ltd at its Golden Grove mine, 55km S of Yalgoo, intersected mineralisation beneath known resources. Under the undeveloped Xantho zinc lens a 51m intersection @ 6.1% Cu, 1.8% Zn, 1.1g/t Au and 52g/t Ag was reported. Above this copper-rich zone, two zinc-rich intersections were reported — 2.5m @ 15% Zn and 1.6m @ 20.9% Zn. Deep drilling 400m below the Hougoumont deposit intersected 4.5m @ 12.8% Zn.

Metals Australia Ltd undertook re-sampling of drill intersections at its Manindi zinc prospect 20km SW of Youanmi to better define ore grade intercepts for a revised resource estimation. Intersections included 5m @ 13.3% Zn, 0.78% Cu and 12.6g/t Ag, 13m @ 19.82% Zn, 0.60% Cu and 12g/t Ag and 3m @ 15.13% Zn, 0.67% Cu and 10g/t Ag.

De Grey Mining Ltd reported what it believes to be a new VMS belt in its Turner River project area 60km S of Port Hedland. Intersections included, from the Discovery prospect, 17m @ 4.64% Zn, 1.84% Pb, 124g/t Ag, 0.8g/t Au and 0.17% Cu; from the Orchard Tank prospect, 21m @ 1.08g/t Au, 137g/t Ag, 0.8% Cu, 2.10% Pb and 4.65% Zn; from the Tabba Tabba prospect 6m @ 0.17g/t Au, 96g/t Ag, 0.06% Cu, 1.42% Pb and 5.27% Zn and from the Cassia prospect 2m @ 0.7g/t Au, 96g/t Ag, 0.06% Cu, 1.42% Pb and 5.24% Zn.

Ongoing exploration at the Abra deposit, 200km N of Meekatharra, by Abra Mining Ltd returned encouraging results from step-out drilling including 14m @ 3.71% Pb and 11ppm Ag from 638m, 86m @ 1.87% Pb, 0.10% Zn and 6ppm Ag from 472m and 16m @ 3.81% Pb, 0.13% Zn and 7ppm Ag from 551m.

**NICKEL**

Queensland

A new indicated and inferred resource of 29.7Mt @ 0.75% Ni and 0.03% Co (0.45% Ni cut-off) was released by Metallica Minerals Ltd for the Nornico project, NW of Townsville. This is an increase of 26% over the previous estimate.

D’Aguilar Gold Ltd announced that drilling at its Mount Cobalt prospect W of Gympie intersected nickel mineralisation including 78m at 0.55% Ni, 38m at 0.5% Ni and 25m at 0.52% Ni.

Tasmania

Allegiance Mining NL announced the discovery of the Saxon mineralisation at its Avebury project, 8km W of Zeehan and 800m E of the Avebury mine. Drill intersections returned 8m @ 1.2% Ni and 4m @ 1.2% Ni both of which were within an intersection of 19m @ 0.8% Ni. The company also reported further mineralisation at the Viking prospect where intersections of 4m @ 1.6% Ni and 5m @ 1.4% Ni were reported. Allegiance released a new resource of 7.48Mt @ 1.28% Ni for the Avebury nickel mine.

Western Australia

Jubilee Mines NL announced the intersection of high-grade massive sulphides at the Alec Mairs prospect, 0.5km S of the Cosmos Deepes mine including 7.4m @ 16.9% Ni, 11.2m @ 15.0% Ni and 4.1m @ 4.1% Ni in the AM2 Zone. Jubilee also discovered massive sulphides 50m S of the AM2 Zone where an intersection of 23.7m @ 3.63% Ni was reported. An initial resource of 60,779t @ 12.91% Ni was announced for the Alec Mairs 2 deposit.

Continuing exploration at the Flying Fox deposit by Western Areas NL yielded high-grade intersections including 5.4m @ 5.1% Ni, 4.5m @ 7.2% Ni and 2.2m @ 7.0% Ni at T Zero (South). Also at T Zero (South), 11.5m of sulphides were discovered in granite above the main mineralised contact. A down-hole intersection of 13.65m @ 4.6% Ni was reported from Flying Fox T4. At T5, in a zone to the south and above the T5 ore reserve, intersections of 5.0m @ 5.5% Ni, 5.1m @ 7.9% Ni and 5.6m @ 5.8% Ni were reported. A new resource estimate released for the T5 deposit was indicated resources of 862,100t @ 6.8% Ni for 58,800t Ni and an inferred resource of 164,400t @ 6.8% Ni for 11,220t Ni.

Independent Group NL reported that exploration done concurrently with the development of the decline at the McLeay deposit yielded high-grade intersections. Included were 4.5m (true width) @ 10.4% Ni, 3.5m (true width) @ 14.3% Ni and 3.7m (true width) @ 11.73% Ni. The total resource for this deposit is 344,000t @ 6.9% Ni (1% Ni cut-off).

At Carnilya Hill, Mincor Resources NL reported 11m @ 6.95% Ni which included 4.7m @ 11.83% Ni from 200m down plunge from an existing underground development at the old Carnilya Hill nickel mine 25km NE of Kambalda.

An initial inferred resource of 0.756Mt @ 2.92% Ni for 22,070t Ni was announced by Jubilee Mines NL for the Sinclair deposit near Leonora. Ongoing exploration at Sinclair also returned significant intersections including 29m @ 3.25% Ni from 6m, 31m @ 2.41% Ni from 35m and 6.7m @ 2.45% Ni.

Drilling at the Jocks Dream prospect NW of Koolyanobbing by Western Areas NL returned 5m @ 2.1% Ni which included 1m @ 4.0% Ni from a depth of 74m.

Drilling near the old Carr Boyd nickel mine, 80km NE of
Kalgoorlie by Yilgarn Mining Ltd returned significant intersections including 9m @ 2.2% Ni and 0.87% Cu, 8m @ 2.7% Ni and 1.19% Cu and 4m @ 2.2% Ni and 0.63% Cu. Yilgarn announced a new resource estimate of 618,000t @ 1.4% Ni and 0.50% Cu (0.7% Ni cut-off) for Carr-Boyd.

» Barra Resources Ltd reported a drill intersection from Martins Zone within the Riverina Prospect, 130km N of Coolgardie that included 2m @ 2.16% Ni and 0.21% Cu.

» Australian Mines Ltd announced a 45% increase in resources at its Blair mine 32km SE of Kalgoorlie. The increase brought the project’s total resources to 109,000t @ 5.19% Ni for a contained 5660t Ni. The Company also reported a drill intersection at Blair that included 9.25m @ 12.5% Ni.

» Pioneer Nickel Ltd reported new drilling results for two prospects 30km S of Kalgoorlie. At Blair South, intersections included 15m @ 1.12% Ni, 0.13% Cu and 9m @ 1.2% Ni, 0.12% Cu. At the Marshall Prospect, a 1m intersection returned 2.2% Ni.

» Drilling by Sally Malay Mining Ltd at the Lanfranchi project, 40km SE of Kambalda returned a number of high-grade intersections. One was 111.0m (drill thickness) @ 2.90% Ni from 67m in the Helmut South orebody. Included in this were intersections of 11.0m @ 4.29% Ni from 132.0m and 6.21m @ 7.55% Ni from 169.07m which the company report as massive sulphides on a basal contact.

» Sally Malay Mining Ltd reported massive sulphides in drilling aimed at testing depth extensions to the Copernicus orebody. Intersections included 24m @ 2.46% Ni, 1.16% Cu and 0.08% Co from 186m, 14m @ 1.54% Ni, 0.92% Cu and 0.05% Co from 122m and 11m @ 1.39% Ni, 1.85% Cu and 0.05% Co from 158m. Copernicus is located 35km S of the Sally Malay mine in the Kimberley region.

» At Mt Sholl, Fox Resources Ltd intends to fast-track a feasibility study into the development of an open pit operation at its Sholl B2 project following successful metallurgical studies. The Feasibility Study will focus on developing a shallow open pit on the Anita lode where encouraging drill intersections have included 4.6m @ 3.36% Ni, and 0.85% Cu from 45m and 1m @ 3.54% Ni and 0.42% Cu from 33m.

» In other drilling, Niagara Mining Ltd reported a down-hole intersection of 2.95m @ 2.99% Ni from the Windarra Nickel Project NW of Laverton. At Razerline, 9km NE of Radio Hill, Fox Resources Ltd, intersected 8m @ 1.3% Ni and 1% Cu. Drilling by Ausquest Ltd from the Beasley prospect, 50km west of Tom Price, included 1m @ 0.25% Ni, 550 pm Cu, and 0.18g/t PGE.

**IRON ORE**

**Northern Territory**

Drilling at Territory Iron Ltd’s Frances Creek project, 170km SE of Darwin, returned high-grade intersections with the potential to increase resources at the project. Indicative intersections include 37m @ 67.44% Fe, 0.02% P, 0.82% Al₂O₃, 1.96% SiO₂, 0.44% LOI, 13m @ 64.56% Fe, 0.06% P, 1.83% Al₂O₃, 4.37% SiO₂, 0.8% LOI and 11m @ 65.38% Fe, 0.11% P, 1.66% Al₂O₃, 2.80% SiO₂, 0.93% LOI. Total resources at Frances Creek are 9.4Mt @ 60.9% Fe, 0.08% P at a 55% Fe cut-off grade.

**South Australia**

» Centrex Metals Ltd reported iron grades of up to 65.6% Fe from its Wilgerup prospect 30km SE of Lock. Higher grade intersections reported included 62m @ 65.6% Fe, 1.12% SiO₂, 0.95% Al₂O₃, 0.192% P, and 2.96% LOI, and 42m @ 64% Fe, 1.7% SiO₂, 1.25% Al₂O₃, 0.070% P, and 3.37% LOI.

» Trafford Resources Ltd reported the discovery of magnetite mineralisation at Wilcherry Hill in its Weednanna prospect, 100 km west NW of Whyalla where encouraging gold intersections have also been reported. Drill results included 44 m @ 28.34% Fe.

**Western Australia**

» Fortescue Metals Group reported a new mineral resource for the Christmas Creek deposit of 1.415Bt @ 58.4% Fe, 4.30% SiO₂, 2.49% Al₂O₃, 0.054% P and 7.67% LOI. For the Cloud Break deposit, a resource of 816Mt @ 58.7% Fe, 4.10% SiO₂, 2.44% Al₂O₃, 0.056% P and 8.23% LOI was reported.

» Midwest Corporation Ltd identified additional iron ore mineralisation at Koolanooka and Blue Hills where intersections included 60m @ 65.0% Fe, 1.7% SiO₂, 1.2% Al₂O₃, 0.13% P and 3.4% LOI. In the Koolanooka area detrital iron ore was intersected and results included 18m @ 58.0% Fe, 4.0% SiO₂, 4.3% Al₂O₃, 0.07% P, and 8.0% LOI.

» Gandalbie Metals Ltd announced a 75% increase in resources at its Karara magnetite deposit, 45km E of Koolanooka, to 1.291Bt @ 36.3% Fe in the indicated and inferred resource categories. Tests indicated that the magnetite can be upgraded with Davis Tube Magnetic Separation analysis producing a concentrate of 69% Fe, 3.9% SiO₂, 0.04% Al₂O₃, 0.01% P at a weight recovery of 40%.

» FerrAus Ltd reported significant intersections at its Robertson Range prospect 100km ESE of Newman. Intersections included 36m @ 62.1% Fe, 0.08% P, 3.1% SiO₂, 1.8% Al₂O₃, 6.0% LOI and 30m @ 60.1% Fe, 0.13% P, 3.3% SiO₂, 1.9% Al₂O₃, 8.5% LOI and 18m @ 59.0% Fe, 0.14% P, 3.4% SiO₂, 2.2% Al₂O₃, 8.8% LOI. FerrAus released an upgraded resource total
Jupiter Mines Ltd reported an intersection including 29m Fe @ 63.3% P, 0.066% SiO₂ and 7.76% LOI.

Golden West Resources Ltd reported high-grade iron intersections from drilling at its Wiluna West project. At the Bowerbird prospect results included 15.5m @ 67.37% Fe from 17.5m, 10.0m @ 68.4% Fe from 29m and 17.5m @ 66.75% Fe from 55m. These results followed earlier intersections at the Joyners Find prospect 10km to the south which included 29m @ 68.2% Fe and 17m @ 68.5% Fe.

A resource (indicated-inferred) of 7.2Mt @ 57.2% Fe, 0.14% P, 1.6% Al₂O₃ and 8.5% LOI was reported by Atlas Iron Ltd for the Pardoo deposit 75km ENE of Port Hedland. Also from Pardoo, intersections reported included 40m @ 61.14% Fe, 0.15% P, 3.29% SiO₂, 1.35% Al₂O₃, and 9.16% LOI.

A Australian Resources Ltd announced an ore reserve estimate for the Balmoral South magnetite project, 90km SE of Onslow. The company said the reserve was 346Mt of ore which is expected to yield an estimated 109Mt of concentrate at 69.9% Fe over nine years at the nominal project capacity of 12Mtpa concentrate.

Exploration by Royal Resources Ltd at the Pinyalling Hills prospect, 40km WNW of Paynes Find, has indicated calcined iron values of up to 61.6% Fe with low phosphorus and moderate silica and alumina. Initial drilling by the company returned calcined iron values of 4m @ 55.98% Fe, 5m @ 56.50% Fe and 5m @ 57.80% Fe.

Grange Resources Ltd published an indicated and inferred resource of 479Mt @ 37.3% Fe for the Southdown magnetite deposit, 90km NE of Albany.

Drill intersections reported by Iron Ore Holdings Ltd, from Phil's Creek Channel Iron Deposit (CID) in the east Pilbara region included 7m @ 62.8% Fe and 0.072% P and 14m @ 60.55% Fe, 3.87% SiO₂, 2.03% Al₂O₃, 0.095% P and 7.13% LOI.

An intersection including 4m @ 51.4% Fe, 6.8% SiO₂, 7.4% Al₂O₃, and 9.3% LOI from the Nameless Iron Ore Project, 5km NW of Tom Price was reported by Ausquest Ltd. The company also completed a second phase of drilling at the Rocklea CID, where better assay results included 24m @ 56.4% Fe, 4.8% SiO₂, 1.9% Al₂O₃, and 11.4% LOI.

Red Hill Iron Ltd and Aquila Resources Ltd reported that drilling of channel iron deposits at the Ken's Bore Prospect, 60km from Pannawonica, yielded intersections including 38m @ 59.9% Fe, 4.72% SiO₂, 2.74% Al₂O₃, 0.066% P and 7.76% LOI.

Jupiter Mines Ltd reported an intersection including 29m Fe @ 63.3% Fe from initial drilling program at the Mt Mason Iron Ore Project, near Menzies.

**URANIUM**

**Northern Territory**

A resource estimate for the Biglry deposit, 390km NW of Alice Springs, was announced by Energy Metals Ltd in July. At a cut-off grade of 0.1% U₃O₈, the indicated resource was 1.054Mt @ 0.23% U₃O₈ and 0.22% V₂O₅, and the inferred resource was 0.781Mt @ 0.17% U₃O₈ and 0.22% V₂O₅. Energy Metals advised that drilling at Biglry intersected significant extensions to the current resources, including 8.5m @ 2.17% eu₃O₈ and 0.49% V₂O₅, 5.95m @ 1.01% eu₃O₈ and 2.45m @ 1.01% eu₃O₈.

Compass Resources NL released a resource estimate for the Mt Fitch deposit 55km S of Darwin. An indicated resource of 4.6Mt @ 0.047% U₃O₈ and an inferred resource of 4.2Mt @ 0.044% U₃O₈ were reported. The re-assay of drill pulps from early base metal exploration returned significant uranium results including 40m @ 0.12% U₃O₈. New drilling returned intersections including 11m @ 0.144% U₃O₈, 4m @ 0.115% U₃O₈ and 4m @ 0.125% U₃O₈.

**Queensland**

Drilling at Summit Resources Ltd’s Mount Isa Uranium Project, 35km N of Mount Isa, returned encouraging intersections from the Bikini prospect. Intersections reported included 11m @ 3.12 lb/t (0.14%) U₃O₈ and 1.83 lb/t (0.08%) V₂O₅, and 8m @ 2.08 lb/t (0.09%) U₃O₈. Summit also reported encouraging results from drilling at other prospects in the Mount Isa project including 28m @ 4.87 lb/t U₃O₈ and 5.94lb/t V₂O₅ from Andersons, 5m @ 5.59lb/t U₃O₈ and 1.68lb/t V₂O₅ from Mirrioola, 10m @ 1.93lb/t U₃O₈ and 1.35lb/t V₂O₅ from Tjilpa, and 75m @ 1.18lb/t U₃O₈ and 1.19lb/t V₂O₅ from Skal. A revised resource estimate released for the Valhalla deposit was 33.3Mt @ 0.077% U₃O₈ (0.023% U₃O₈ cut-off) for 25,900t contained U₃O₈, a 56% increase over the previously reported resource.
South Australia

- High-grade intersections continued to be reported from the Beverley 4 Mile prospect, 10-15km NW of Heathgate Resources’ Beverley mine. Alliance Resources Ltd reported 1.5m @ 2.58% pU₃O₈, 3.0m @ 2.11% pU₃O₈, 3.0m @ 1.35% pU₃O₈ and 9.0m @ 1.657% pU₃O₈.

- Curnamona Energy Ltd reported that drilling at its Oban prospect, 60km N of the Honeymoon uranium deposit, intersected uranium mineralisation. Results reported included 6.3m @ 0.036% eU₃O₈ and 5.4m @ 0.082% eU₃O₈. Curnamona also reported encouraging results from the Mount John prospect at its Yarramba palaeochannel prospect near the Honeymoon uranium deposit. Gamma counts were up to 10 times local background levels in two sand layers and this approximately equalled 0.035% eU₃O₈ and a second hole returned approximately 0.02% eU₃O₈.

- Giralia Resources NL reported significant drill intersections from the Lake Frome Joint Venture, surrounding the Beverley uranium mine (operated by Heathgate Resources). Heathgate manages the joint venture over Giralia’s tenements and intersections reported were 2m @ 0.039% pU₃O₈, 4m @ 0.055% pU₃O₈ and 1m @ 0.022% pU₃O₈.

- Stellar Resources Ltd reported 4m @ 0.024% U₃O₈ from its Warrior palaeochannel project about 50km WNW of Tarcoola.

- Drilling by Toro Energy Ltd at the Kattata Palaeochannel, 50km E of Streaky Bay included 1m @ 194 ppm U₃O₈.

- Marathon Resources Ltd reported drill results from the Mt Gee deposit included an intersection of 3m @ 0.164% U₃O₈. At the Hodgkinson deposit, drilling returned an intersection including 1m @ 0.97% U₃O₈.

Western Australia

- Encouraging results were reported by Encounter Resources Ltd from initial drilling at the Bellah Bore East prospect, 40km N of the Yellirrie deposit. Intersections reported included 7m (from 1m) @ 100ppm U₃O₈ and 17ppm V, 8m (from surface) @ 123ppm U₃O₈ and 49ppm V and 3m @ 781ppm U₃O₈. Mineralisation is in a uraniferous silicified calcrete.

- U3O8 Ltd reported good intersections from drilling at its Hinkler project S of Wiluna including 1.18m @ 0.042% eU₃O₈, 1.30m @ 0.047% eU₃O₈ and 1.58m @ 0.058% eU₃O₈.

- Following a review of historical drilling and assay data Nova Energy Ltd announced new resource estimates for the Lake Way and Centipede deposits, SE of Wiluna. Inferred resources for Lake Way were 8.51Mt @ 0.054% U₃O₈ for 4600t contained U₃O₈ and for Centipede 7.00Mt @ 0.63% U₃O₈ for 4400t contained U₃O₈.

- Korab Resources Ltd announced an inferred resource of 966t of U₃O₈ (100 ppm U cut-off) for the Maitland Joint Venture Project, located 130km SE of Wiluna.

- Aura Energy Ltd reported assay results from its Wondinong prospect, near Mount Magnet, which included 1m @ 528 ppm U₃O₈.

MINERAL SANDS

New South Wales

- Bemax Resources Ltd announced that resources at the Snapper deposit in the Broken Hill region were upgraded to reserve status, with reserves totalling 117Mt @ 5% heavy mineral (HM).

Northern Territory

- Matilda Minerals Ltd reported an increase of 34% in reserves and contained heavy minerals for the Tiwi Islands Mineral Sands Project, with the reserve now totalling 6.5Mt @ 4.5% HM (at a 1% HM cut-off).
South Australia

» In April, Iluka Resources Ltd announced the discovery of the **Gullivers** deposit 60km E of Ceduna in the Eucla Basin. Gullivers differs from the other Eucla Basin deposits (Ambrosia, Jacinth and Tripitaka) in that although zircon is significant, altered ilmenite is the primary component. HM grades are generally between 1% and 3% with the mineral assemblage composed of 60% altered ilmenite, 21% zircon, 5% leucoxene and 2% rutile.

» Iluka Resources Ltd announced a substantial upgrade of resources in its **Ambrosia** deposit in the Eucla Basin. The in situ HM resource increased by 75% to 2.8Mt @ 2.7% HM. Iluka reported that 48% of the mineral assemblage is zircon. This increase, when combined with the nearby Jacinth deposit, gives Iluka 9.2Mt in situ HM in the Eucla Basin at an average grade of 4.3% HM and an average zircon content of 48%.

» Adelaide Resources Ltd announced drilling results from the **Tripitaka** deposit in the Eucla Basin, 100km NW of Ceduna. These included 21m @ 5.6% HM. Iluka Resources Ltd released an inferred resource estimate for this deposit of 1MT @ 2.4% HM (1% HM cut-off), containing approximately 65% zircon.

Western Australia

» Image Resources NL reported that drilling at **Cooljarloo North**, 3km N of the Cooljarloo mine near Cataby, returned very thick intersections of HM. Indicative of these are: 67m @ 1.9% HM including 26m @ 2.2% HM, 30m @ 6.6 HM, and 67m @ 2.1% HM. Very high-grade intersections have also been reported including 4m @ 49.2% HM from 6m.

**DIAMOND**

Northern Territory

» North Australian Diamonds Ltd reported a grade of 56 carats per hundred tonnes (cpht) from the previously untested small Perceval pipe in the **Merlin** kimberlite field where higher diamond grades at the Kaye, Ywain and Gawain kimberlites were announced following re-evaluation using improved crushing and recovery techniques. The company also reported recovery of microdiamonds and diamond indicator minerals from the Tintagel area, south of Merlin.

South Australia

» Flinders Diamonds Ltd recovered 43 microdiamonds from a 7.8kg sample from pipe 77a in the **Monks Hill** area of the Flinders Ranges. Flinders also reported that bulk sampling within its Flinders ranges tenements had yielded 75 diamonds (>0.5mm) of which 18 were between 1 and 3mm in size and the largest was 0.09c. Most of the recovered diamonds came from the Euralia area.

Western Australia

» Blina Diamonds Ltd discovered Kimberley 45, an olivine-rich lamproite NW of Ellendale 9. The company also reported that bulk sampling of alluvial diamonds in gravels at its **Ellendale 9 North** deposit discovered in 2005 yielded grades up to 52.69cpht with an overall grade of about 20cpht, and that large-diameter drilling had defined a significant extension to diamondiferous palaeochannels in the terrace 5 alluvial system.

» Kimberley Diamond Company NL reported the discovery of two small lamproite bodies within its mining lease at Ellendale where it continued drilling and large scale bulk sampling to better define grades at **Ellendale 7** (grades reported up to 6.59cpht) and other Ellendale pipes. Total resources at 30 June 2006 for Ellendale 9, 4 and 4S were 78.1Mt @ 6.4cpht (average grade) for 4.98Mc.

Figure 5: Selected mineral exploration projects, 2006.
Tawana Resources NL reported recovery of 263 diamonds weighing 20.89c from processing of 215t of +1mm -6mm material from the Blacktop 01 kimberlite dyke, 40km NE of Pannawonica in the Pilbara region, a 50/50 joint venture with De Beers Australia Exploration Ltd. The largest stone recovered was 1.0249c. Tawana reported that the nearby Blacktop 02 dyke was also diamondiferous.

**PLATINUM GROUP ELEMENTS**

**Western Australia**

- At the Edison prospect 45km SW of Halls Creek, Thundelarra Exploration Ltd announced intersecting significant PGEs in drilling at the Lamboo project. Results reported included 46m @ 1.87g/t Pt+Pd+Au from surface, 33m @ 2.77g/t Pt+Pd+Au from surface and 37m @ 2.07g/t Pt+Pd+Au from 16m. Other intersections from the area included 24m @ 1.34g/t Pt+Pd+Au 1km south of Edison, and 27m @ 1.13g/t Pt+Pd+Au and 64m @ 0.93g/t Pt+Pd+Au 500m west of Edison.

**RARE EARTH ELEMENTS**

**New South Wales**

- Capital Mining Ltd received encouraging results at the Narraburra rare earths and rare metals project 12km NE of Temora from drill testing of deeply weathered granitic intrusive with relatively high Zr, Hf, Nb, Th and REE in a 1,500m by 500-800m zone. Estimated inferred oxide resource to 40m are 55Mt @ 1000g/t ZrO₂, 60g/t Y₂O₃, 300g/t REO, 40g/t HfO₂, 80g/t NbO₂, 50g/t ThO₂.

**Northern Territory**

- Arafura Resources NL continued drilling at the Nolan’s Bore prospect, 135km NW of Alice Springs and reported intersections including 5m @ 6.4% REO, 27.8% P₂O₅ and 1.13lb/t U₃O₈ and 10m @ 5.0% REO, 22% P₂O₅ and 0.81lb/t U₃O₈.

**TUNGSTEN, MOLYBDENUM**

**New South Wales**

- At the White Rock tungsten project, N of Canberra, drilling by Copper Strike Ltd outlined an inferred resource of 150,000t @ 0.9% WO₃. The mineralisation is associated with magnetite skarn bodies, of which only one of ten bodies has been tested to date. Paradigm Gold Ltd became a joint venture partner.

**Queensland**

- At the Watershed Prospect in N Queensland, Vital Metals Ltd carried out infill drilling, bulk sampling and metallurgical testing to upgrade existing data to a standard suitable for a feasibility study. Drill intersections included 21m @ 0.86% WO₃, 2m @ 3.49% WO₃ and 5m @ 1.39% WO₃.

- Drilling at Wolfram Camp, 90km W of Cairns, returned 3m @ 0.610% WO₃ and 0.16% MoS₂, as reported by Queensland Ores Ltd. The measured and indicated resource for Wolfram Camp is 376,500t @ 0.41% WO₃ and 0.20% MoS₂.

- Minotaur Exploration Ltd announced discovery of the Black Mountain molybdenum and tungsten prospect, between Charters Towers and Townsville. The mineralisation occurs in a greisen zone and drill intersections include 7m @ 0.59% MoS₂ and 0.18% WO₃, 12 m @ 0.23% MoS₂.

**Tasmania**

- A new indicated and inferred resource (98.5% in the indicated category) of 13.4Mt @ 0.65% WO₃ (0.25% WO₃ cut-off) at the Dolphin deposit at Grassy, King Island, was released by King Island Scheelite Ltd.

**Western Australia**

- Mincor Resources NL released assay results from channel rock chip sampling of outcropping mineralised skarn at Nardoo Well, in the Gascoyne Tungsten Project. Initial values included 3m @ 6.66% WO₃.

**VANADIUM**

**Queensland**

- New drilling results from Intermin Resources Ltd’s Julia Creek project indicate a continuous near-horizontal, 6m mineralised zone averaging 0.36% V₂O₅ and 270g/t MoO₃.

**Western Australia**

- Aurox Resources Ltd announced an uncut mineral resource of 306Mt @ 0.65% V₂O₅ for its Balla Balla vanadium deposit, with nearly 2Mt of contained V₂O₅.
**Project development**

The following projects are indicative of the range of projects in various stages of development in 2006

**ANTIMONY**

**Victoria**

» AGD Mining opened their $12.5 million gold/antimony mine at Costerfield in Central Victoria in August. AGD now plans to mine about 70,000t of ore annually to produce 21,000ozs Au and about 3,300t of Sb metal per year.

**COPPER**

» Rio Tinto Ltd announced that the Northparkes Mine Joint Venture partners (Rio 80% and Sumitomo 20%) approved the development, subject to New South Wales Government approval, of the E48 block cave project at the Northparkes operation. The project is expected to cost US$160 million and will extend the life of the operation to 2016. The E48 block cave will replace the current block cave from 2009.

» Compass Resources NL received approval from the Northern Territory Government for development of the Browns Oxide mine near Batchelor. When in full production the project is expected to produce 10,000t of copper cathode, 1,000t of cobalt and 750t of nickel annually. Capital cost is expected to be about US$140 million.

» A feasibility study was completed on the Lady Annie project, 137km N of Mount Isa, Queensland, in April by CopperCo Ltd. Mineral resources were increased by 20% to 18Mt @ 0.9% Cu and ore reserves rose by 12% to 11Mt @ 1.1% Cu. Exploration continued on deposits in the project such as Flying Horse and Mt Clarke. The company acquired an SX-EW plant and orders for long lead time items had been placed. Over an initial mine life of 8 years, design capacity is 19,000tpa of Grade “A” copper cathode.

» Universal Resources Ltd announced positive results from a feasibility study into the development of the Roseby project near Mount Isa, Queensland, which suggested the project was both technically and financially feasible. The study forecast a mine life of 8.5 years resulting in the production of 34,000tpa Cu and 14,700oz Au. The development schedule in the feasibility study anticipates ore treatment from the fourth quarter 2008.

» Matrix Metals Ltd announced that it received the final approvals needed to commence production at its Leichhardt operation in Queensland. This mine will comprise a refurbished SX-EW plant at Mount Cuthbert, with ore sourced for the nearby Mount Watson deposit (8.0Mt @ 1.0% Cu).

**DIAMOND**

» Rio Tinto Ltd continued with underground development at its Argyle mine in the Kimberley region of Western Australia awarding a contract for Phase 2 of the development works that involve around 30km of underground development, including the major elements associated with the establishment of the new block cave mine. The project is considered to be the largest underground mine development currently being undertaken in Australia.

» Kimberley Diamond Company NL successfully commissioned production from Ellendale 4 (4.4Mtpa) and an upgrade of the east plant at Ellendale 9 to 3.3Mtpa was expected to be completed in early December. These expansions, and a further expansion of the Ellendale 9 east plant to 4.4Mtpa by June 2007 are expected to lift production to 650,000c per annum. Production in 2005-06 was 152,000c from 2.243Mt of ore.

» North Australian Diamonds NL continued staged development of the Merlin field with trial mining of re-optimised pits, remnant ore and processing of ore in tailings stockpiles. A pre-feasibility study for combined open pit and underground mining of the Gawain and Ywain kimberlites is expected to be completed in early 2007. Total resources (more than 50% Indicated) at Merlin were 19.45Mt @ 18cpht for 3.52Mc.

**GOLD**

» A decision was taken to develop the Boddington project, S of Perth, WA, by Newmont Mining Corp and AngloGold Ashanti Ltd at a cost of $1.8-$2.0 billion. Boddington has reserves of over 11Mozs Au. Initial production is expected in late 2008 or early 2009. The project has an estimated mine life of more than 15 years and over the first five years, gold output will average about 1Mozs Au/year. Subsequent production will be around 0.85Mozs Au/year. Life of mine copper output will be about 30,000t Cu/year.

» Oxiana Ltd announced in August that it would proceed with the development of a mine at its Prominent Hill deposit in the Gawler Craton, SA. Prominent Hill has resources of 118.7Mt @ 1.3% Cu and 0.5g/t Au in the copper-gold breccia and 22.5Mt @ 1.24g/t Au in the Eastern gold only zone. Planned output from the operation is 104,000tpa of copper over the first four full years of operation and 71,000tpa over the next six years and 115,000ozs of gold per year over the life of the mine. The pre-production capital cost is expected by the company to be $775 million. The deposit remains open at depth and to the east and west and exploration is continuing.

» In Western Australia’s area of the Tanami region, Tanami Gold NL
poured the first gold from its Coyote mine in August. Annual production over an anticipated four-year mine life is 50,000ozs.

Citigold Corporation Ltd reported that it poured the first gold from its Warrior mine at Charters Towers, Qld, in November. Development of the Warrior mine is continuing and annual production is expected to rise to 40,000ozs.

Production commenced at the Toms Gully mine, NT, with milling of ore and the first gold pour taking place in July. Annual production is expected to be around 45,000ozs over a five year mine life but upgraded resource estimates to over 0.5Mozs may extend its life.

Range River Gold Ltd commenced production from the Withnell East and Withnell South pits at the Indee project, 80km SE of Port Hedland, WA. The first gold pour from the project took place in August and stage 1 production is expected to be around 64,000ozs per year over 2 years.

GBS Gold International Inc announced that it had decided to commence production in late-2006 from the Union Reefs project, near Pine Creek, NT. Anticipated production is 150,000ozs in 2007 rising to an annual rate of 250,000ozs from 2008. Mining of ore will be from the Fountain Head and Rising Tide open cuts and the Brocks Creek underground mine. The first gold pour from the operation took place in September.

Ballarat Goldfields NL completed stage one of the Ballarat East processing plant in December 2005. Mine development is continuing with over 5km of development completed. An extended mine design will focus on the recently discovered high grade mineralisation at depth around the Blue Whale Fault system. The extension of the mine will delay full gold production until 2009 and will cost an estimated A$120m.

Avoca Resources Ltd announced that it had arranged a $15 million, one year financing facility to advance the development of its Trident gold project at Higginsville, WA, and to provide working capital. Avoca is finalising a feasibility study into the development of Trident.

The first gold pour from the new Kangaroo Flat mine at Bendigo, Vic, took place in July and production of up to 90,000 ozs is expected by Bendigo Mining Ltd in 2006-07. Annual production of up to 200,000 ozs is expected.

Alkane Exploration Ltd’s pre-feasibility study for the development of the Wyoming
One and Wyoming Three deposits considered a 0.5Mtpa open pit mine followed by 0.25Mtpa underground operation to produce 30,000 to 35,000ozs annually for six years. Total resources for the Wyoming deposits are 7.13Mt @ 2.70g/t Au for 0.6Mozs.

The Directors of Crescent Gold Ltd approved the development of the $15.4 million Laverton gold project, near Laverton, WA. At full production the project is expected to yield 90,000ozs per year over a 4.1 years mine life. A revised reserve estimate based on further drilling may increase the mine life.

Dioro Exploration NL conducted a pre-feasibility study into underground mining at Frog’s Leg in the Manguri East joint venture NW of Kalgoorlie, WA, which returned positive results. The study indicated that 2.77Mt @ 5.43g/t Au could be produced over 7.5 years.

Glencore Gold Ltd completed the refurbishment of the Fortnum project treatment plant (WA) mid-year and the first commercial gold production took place in July. At full production, annual output is expected to be around 55,000ozs for an initial three years.

Production started at Barra Resources Ltd’s Burbanks project, 8 km southwest of Coolgardie, WA, in mid-year. Resources at the project at the start of production were 517,000 t @ 4.5g/t Au. Mining also started at Anglo Australian Resources NL’s small Mandilla project 70 km south of Kalgoorlie, WA, in June. Kalgoorlie-Boulder Resources Ltd mined the small Jackpot deposit 6 km east Neast of Coolgardie. Ramelius Resources Ltd reported the first production of gold from its small Wattle Dam project in July.

**IRON ORE**

Major expansions of mine capacity and rail and port facilities are underway in the Western Australia’s Pilbara region that will add more than 100 Mtpa to production capacity in the region over the next 2–3 years.

Principal amongst these are BHP Billiton’s Iron Ore’s $770 million Rapid Growth (RPG) 2 completed in 2006 that involved development of Orebody 18 near its existing operations in the Pilbara, adding 8Mtpa of output, and its $2 billion RPG 3 project that will expand the Area C mining operation by an additional 20Mtpa when completed by the end of 2007.

Rio Tinto Ltd – Hancock Prospecting’s $1.3 billion development of the new Hope Downs mine due to commence operation in early 2008, will produce 22Mtpa in stage one building to 30Mtpa in stage 2. Expansions at the Yandicoogina and Tom Price/Marandoo/Nammuldi mines will lift output capacity by another 30Mtpa by the end of 2007.

Fortescue Metals Group gained approval and finance for development of its Christmas Creek – Cloud Break deposits and commenced construction of infrastructure at Port Hedland. The $1.9 billion project proposes to produce 45Mtpa of iron ore commencing in early 2008.

The first shipment of iron ore from Midwest Corporation Ltd’s Koolanooka/Blue Hills Direct Shipping Ore Project left Geraldton at the end of February. The Company has identified additional iron ore mineralisation at Koolanooka and Blue Hills during exploration aimed at delineating additional reserves to support expansion of its existing Stage 1 DSO Project from 1Mtpa to 2Mtpa.

Murchison Metals Ltd completed Stage 1 of the Jack Hills project located 140km WNW of Meekatharra. Haulage of ore to the Company’s facilities at Geraldton commenced in November. Stage 1 of the project is planned to produce 1.5Mtpa of ore from 2006 rising to Mtpa in 2008. Stage 2 would have annual production rising to 25Mt.

Aztec Resources Ltd announced that the Western Australian Government granted mining leases for the construction and operation of the Koolan Iron project. Construction is expected to cost around $125m and commenced at the end of June with first ore production expected in December 2006. Planned annual output is 4Mtpa.

Consolidated Minerals Ltd reported that a full feasibility study of the Mindy Mindy project in the Pilbara region commenced in May. The proposed development is for a 5 Mtpa iron ore operation at Mindy Mindy with the study to be conducted by Consolidated’s JV partner, Fortescue Metals Group. Fortescue will assume operator and manager status of the Mindy Mindy JV during this phase. A resource of 44.8Mt @ 55.2% Fe has been defined at Mindy Mindy from 4.8km of the 16km length of the channel iron deposit.

**MANGANESE**

Production commenced in April at the Bootu Creek deposit, NT, and both road and rail haulage arrangements were made.

**MINERAL SANDS**

Iluka Resources Ltd opened the $280 million Douglas mine near Hamilton in western Victoria in August. The mine is expected to produce almost 250,000t of HM concentrate per year, including 70,000t of rutile and 110,000t of zircon. The Mineral Separation Plant at Hamilton was undergoing final commissioning and plant ramp up activities in late 2006.

Iluka Resources Ltd is progressing feasibility and environmental approvals for their high grade Northern Murray Basin rutile project, near Ouyen, Vic.

Aston Limited is progressing feasibility and environmental approvals for their fine grained Donald project in western Vic.
Gunson Resources Ltd announced that State and Federal government environmental approvals were received for the proposed Coburn mine development, 250km N of Geraldton, WA. A definitive feasibility study was progressing and a decision on development was due in March 2007.

Mining and processing of ore from the zircon-rich Adamson deposit, 260km N of Perth, by Iluka Resources Ltd commenced in April. As at 31 December 2005 the Adamson deposit contained a probable reserve of 16.7Mt @ 5.0% HM for 831,000t of contained HM. The HM assemblage is 20.4% zircon, 6.8% rutile and 46.4% ilmenite.

Bemax Resources Ltd announced that commissioning of the Broken Hill Mineral Separation Plant commenced on schedule and that mining commenced in the high grade zone of the Ginkgo ore body. The first shipment of 22,000t of zircon and rutile-rich product was shipped for final processing at the upgraded and expanded Bunbury plant, WA.

Olympia Resources Ltd entered into a life of mine toll treatment agreement with Cable Sands (WA) Pty Ltd for its Keysbrook Mineral Sands Project, 75km S of Perth, WA. Keysbrook is expected produce 120,000t annually of HM concentrate for eight years.

Approval was granted by Northern Territory Government to Matilda Minerals Ltd to mine the Andranangoo Creek and Letheridge Bay deposits on the Tiwi Islands and commercial production started at Andranangoo. The deposits will yield a HM concentrate of approximately 50% zircon and 35% rutile.

Nickel

BHP Billiton Ltd continued construction of the Ravensthorpe lateritic nickel-cobalt project near Ravensthorpe, WA. The Company announced that capital costs of the project rose to US$2.2 billion. Near year’s end construction at Ravensthorpe was approximately 73% complete and the Yabulu (Qld) refinery expansion was approximately 87% complete. The project involves open pit mining and a hydrometallurgical plant to produce up to 50,000tpa contained nickel and 1400tpa contained cobalt in a mixed intermediate product for further processing at Yabulu. The target date for first metal ex-Yabulu from Ravensthorpe is the first quarter calendar year 2008.

At Aveybury, Tas, Allegiance Mining NL reported that construction continued and the project will have a mill throughput of 900,000tpa of ore producing more than 8,500t of nickel-in-concentrates per annum. Successful milling tests at the Hellyer Treatment plant underpinned the 50% increase in mill capacity to 900,000tpa.

Consolidated Minerals Ltd reported the start of production at the East Alpha mine at Kambalda, WA, at the end of March. Mining operations aim to increase to full production of 5,000tpa by November.

Western Areas NL delivered the first ore from its Flying Fox nickel mine to LionOre for treatment at the Lake Johnston treatment plant prior to construction of a nickel concentrator at Cosmic Boy, 20km S of Flying Fox. The ore was from the first drive to access the T Zero (North) deposit. The Flying Fox decline to access the T Zero (South) deposit is underway and development of this larger deposit is expected to commence in February 2007.

Stage 1 of Gladstone Pacific Nickel Ltd’s Gladstone Nickel project in Qld, aims to produce about 60,000t of Ni and 4,800t of Co per year from a hpal plant at Gladstone using imported ore and ore from laterite deposits near Marlborough, NW of Rockhampton. A definitive feasibility study is due to be completed by mid-2007. The total measured, indicated and inferred resource, based on the first five orebodies at Marlborough, is 70.9 Mt @ 0.91% Ni and 0.06% Co at a cut-off grade of 0.7% Ni.

Tin

Bluestone Tin Ltd commenced production from its Collingwood tin mine, N Queensland in early 2006. Operations were constrained by the need to complete the primary ventilation shaft and establish emergency egress before stoping could commence. Production to the end of June was 282t of Sn metal from 45,376t of ore grading 0.92% Sn.

Tungsten/Molybdenum

Thor Mining PLC announced the completion of a feasibility study on its Molyhil project, 220km NE of Alice Springs, NT, and a decision to develop a mine subject to securing approvals, sales and financing arrangements. The $45.5 million project will produce scheelite and molybdenite concentrate. The current pit model has proved and probable reserves of 1.094 Mt at 0.21% Mo and 0.62% W. A two-staged pit design was developed, providing 201,621t of ore @ 0.26% Mo and 1.28% W in stage 1 and 892,237t of ore @ 0.20% Mo and 0.47% W.

Queensland Ores Ltd announced that, subject to satisfactory financial arrangements, it plans to open the Wolfram Camp tungsten-molybdenum mine in 2007. Wolfram Camp is 90km W of Cairns, Qld. Current resources at Wolfram Camp are indicated and measured: 376,500t at 0.41% WO₃ and 0.20% MoS₂ and inferred 229,500t at 0.4% WO₃ and 0.3% MoS₂.
Energy Resources Australia Ltd announced that construction of a new $27.6 million plant to treat lateritic ore at the Ranger uranium mine, 220km E of Darwin, NT, will commence in April 2007. It is anticipated that the plant will add approximately 400tpa U$_3$O$_8$ to the company’s production over 7 years from 2008.