Recent Exploration Trends
– and the special challenges facing the Northern Territory

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Adjunct Professor, University of Western Australia

AusIMM Technical Meeting
10 May Darwin
Overview

1. Trends in exploration expenditures in Western World
2. Number of deposits found – by number, type and size
3. Australia’s discovery record versus the Western World
4. Location of recent discoveries – current “hot spots”
5. Trends in unit discovery costs – gold, uranium & copper
6. Are we finding enough metal?
7. Discovery performance for the Northern Territory
8. Perceived mineral Potential and Business risks for the NT
9. Challenges & Opportunities for the NT
10. Conclusions
Background

The analysis:

• Covers the period 1975-2011
• **Excludes** Bulk Minerals (such as iron ore, coal, bauxite, phosphate & potash)
• Focuses on deposit size ....
  – Moderate / Major / Giant
• All expenditures are in constant 2011 dollars (A$ and US$)
MinEx Consulting

• Richard Schodde founded MinEx Consulting in 2008
  – Focus is on providing strategic advice to the mining and exploration sectors

• Richard has 30 years of experience in the resources industry
  – 15 years with WMC + 4 years with BHPB
  – Member of the AusIMM, SEG, SME and PDAC
  – Internationally recognised as a leader in mineral economics

• MinEx client list includes:
  – 20+ mining companies (local & international)
  – MCA and AMEC
  – 3 State Governments + 1 Asian Government
  – World Bank, UNDP

For more information go to: www.MinExConsulting.com
Australia and Western World

EXPLORATION EXPENDITURES
Exploration Expenditures Australia: 1975-2011

Dec 2011 A$m

Sources: ABS (as reported on a Calendar Yr basis)
MinEx Consulting estimates

Exploration spend is at an all-time high

A$3.56b
Exploration Expenditures: Australia 1975-2011

Sources: ABS (as reported on a Calendar Yr basis)
MinEx Consulting estimates

- Major shift towards Bulk Minerals
- Relative decline in Gold Exploration

% of Total Spend

- Bulks
- Other
- Uranium
- Gold
- Base Metals
Australia makes up 15-25% of Western World exploration spend

Between 1975-2011 Australia made up 18% of Western World Expenditures (or 15% if you exclude bulks)

Expenditures include Bulk Minerals

Sources: MinEx Consulting estimates, based on data from ABS, NRCan, Tilton (1988), Wallace (1992,93) and Metal Economics Group © 2011
Australia versus the World

NUMBER OF DEPOSITS FOUND
Discoveries: Australia versus the World

On average, 40-60 discoveries are made each year in the world, of which 5-10 are in Australia.

Excludes Bulk Mineral discoveries

Based on discoveries "Moderate" in size or larger, i.e., >100 koz Au, >10 kt Ni, >100 kt Cu equiv, >5 kt U₃O₈

Source: MinEx Consulting May 2012
Discoveries: Australia versus the World

Over the period 1975-2010 Australia’s share of the Western World’s discoveries averaged 20%

Excludes Bulk Mineral discoveries

Based on discoveries “Moderate” in size or larger, ie >100 koz Au, >10 kt Ni, >100 kt Cu equiv, >5 kt U₃O₈

Source: MinEx Consulting May 2012
Gold, Base Metals, Uranium and Other

NUMBER OF DEPOSITS FOUND - BY TYPE
**Discoveries by Commodity Type: Australia**

1975-2010: Australia's share of Western World discoveries were:
- 19% Gold
- 22% Base Metal
- 9% Uranium
- 22% Other

Australia has 6.6% of WW's land mass

Note: Analysis excludes Bulk Mineral discoveries
Base Metals includes Co, Co, Pb, Mo, Ni and Zn
Minimum size threshold is >100 koz Au, >10 kt Ni, >100 kt Cu equiv, >5 kt U₃O₈

Source: MinEx Consulting © May 2012
Moderate, Major & Giant deposits

NUMBER OF DEPOSITS FOUND - BY SIZE
Discoveries by Size: Australia

Most of the discoveries were modest in size

Note: Excludes Bulk Mineral discoveries

“Moderate” >100 koz Au, >10 kt Ni, >100 kt Cu equiv, >5 kt U₃O₈
“Major” >1 Moz Au, >100 kt Ni, >1 Mt Cu equiv, >25 kt U₃O₈
“Giant” >6 Moz Au, >1 Mt Ni, >5 Mt Cu equiv, >125 kt U₃O₈

Source: MinEx Consulting © May 2012
Discoveries & Expenditures: Australia

Expenditures are up, but the rate of discovery has declined

Note: Analysis excludes expenditures and discovery of Bulk Mineral deposits

“Moderate” >100 koz Au, >10 kt Ni, >100 kt Cu equiv, >5 kt U₃O₈
“Major” >1 Moz Au, >100 kt Ni, >1 Mt Cu equiv, >25 kt U₃O₈
“Giant” >6 Moz Au, >1 Mt Ni, >5 Mt Cu equiv, >125 kt U₃O₈

Sources: ABS and MinEx Consulting © May 2012
### Discovery Rates and Costs by Size
Australia versus the Rest of the Western World

<table>
<thead>
<tr>
<th>Period</th>
<th>No of Discoveries in Aust / WW</th>
<th>Australia’s share of Discoveries</th>
<th>Australia’s share of WW Exploration Expenditure</th>
<th>Cost per Discovery (US$2011m)</th>
<th>Australia</th>
<th>Rest of WW</th>
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</thead>
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<tr>
<td><strong>Moderate Discoveries #</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980-89</td>
<td>125 / 520</td>
<td>24%</td>
<td>17%</td>
<td>$55m</td>
<td>$85m</td>
<td></td>
</tr>
<tr>
<td>1990-99</td>
<td>116 / 559</td>
<td>21%</td>
<td>19%</td>
<td>$70m</td>
<td>$79m</td>
<td></td>
</tr>
<tr>
<td>2000-10</td>
<td>73 / 412</td>
<td>18%</td>
<td>13%</td>
<td>$126m</td>
<td>$189m</td>
<td></td>
</tr>
<tr>
<td><strong>Major Discoveries #</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980-89</td>
<td>65 / 260</td>
<td>25%</td>
<td>17%</td>
<td>$106m</td>
<td>$171m</td>
<td></td>
</tr>
<tr>
<td>1990-99</td>
<td>49 / 313</td>
<td>16%</td>
<td>19%</td>
<td>$165m</td>
<td>$133m</td>
<td></td>
</tr>
<tr>
<td>2000-10</td>
<td>25 / 220</td>
<td>11%</td>
<td>13%</td>
<td>$367m</td>
<td>$329m</td>
<td></td>
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<tr>
<td><strong>Giant Discoveries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980-89</td>
<td>10 / 55</td>
<td>18%</td>
<td>17%</td>
<td>$688m</td>
<td>$742m</td>
<td></td>
</tr>
<tr>
<td>1990-99</td>
<td>13 / 87</td>
<td>15%</td>
<td>19%</td>
<td>$622m</td>
<td>$475m</td>
<td></td>
</tr>
<tr>
<td>2000-10</td>
<td>3 / 44</td>
<td>7%</td>
<td>13%</td>
<td>$3056m</td>
<td>$1564m</td>
<td></td>
</tr>
</tbody>
</table>

# Note: Includes discoveries from the larger size range.
Excludes Bulk Mineral exploration and discoveries

Until recently, Australia’s track-record has been good

Is getting more expensive to make giant discoveries in Australia
POSSIBLE FACTORS DRIVING THE DECLINE IN DISCOVERY PERFORMANCE
Expenditures have risen faster than drilling
Total exploration spend and drilling in Australia: March 1990-Dec 2011

The challenge is that if you don’t drill, you don’t discover.

Part of the increased expenditure is driven by higher input costs for land access, labour, drilling & other services.

Source: ABS 8412.0
Note: Data reported on an annualised basis.
Reduced focus on Greenfield Exploration
Metres drilled by lease type: Australia

Major shift towards Brownfields/Mine Site exploration

Brownfields exploration is focused on mature areas.... This might explain why we are finding fewer Giant deposits

Note: 2012 figure is based on first 6 months of data

Source: ABS 8412.0.
Companies continue to explore in areas of shallow cover
Depth of cover for Major mineral deposits in Australia

Note: Major defined as >1 moz Au, >1mt Cu, >100kt Ni or equivalent
Excludes Bulk Minerals such as Coal, Bauxite and Iron Ore

Sources: MinEx Consulting August 2010
Geoscience Australia
Global view of the exploration & mining industry

RECENT DISCOVERIES AROUND THE WORLD
Significant mineral discoveries: All Years

Australia has a good history for discovery

Note: Excludes Bulk Mineral discoveries

Source: MinEx Consulting © May 2012
Significant mineral discoveries: 1970-79

Note: Excludes Bulk Mineral discoveries

<table>
<thead>
<tr>
<th>Gold Base Metal U₃O₈ Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
</tr>
<tr>
<td>Giant</td>
</tr>
<tr>
<td>Supergiant</td>
</tr>
</tbody>
</table>

Note: Supergiant >60 Moz Au, >10 Mt Ni, >25 Mt Cu equiv
Giant >6 Moz Au, >1 Mt Ni, >5 Mt Cu equiv
Major >1 Moz Au, >100 kt Ni, >1 Mt Cu equiv

Source: MinEx Consulting © May 2012
Significant mineral discoveries: 1980-89

Note: Excludes Bulk Mineral discoveries

Source: MinEx Consulting © May 2012
Significant mineral discoveries: 1990-99

Note: Supergiant  >60 Moz Au, >10 Mt Ni, >25 Mt Cu equiv
     Giant       >6 Moz Au, >1 Mt Ni, >5 Mt Cu equiv
     Major       >1 Moz Au, >100 kt Ni, >1 Mt Cu equiv

Note: Excludes Bulk Mineral discoveries

Source: MinEx Consulting © May 2012
Significant mineral discoveries: 2000-11

Of the 25 significant deposits found in Australia since 2000 only one was in the NT

Note: Excludes Bulk Mineral discoveries

Source: MinEx Consulting © May 2012
Significant mineral discoveries: 2000-11

Note: Supergiant >60 Moz Au, >10 Mt Ni, >25 Mt Cu equiv
      Giant    >6 Moz Au, >1 Mt Ni, >5 Mt Cu equiv
      Major    >1 Moz Au, >100 kt Ni, >1 Mt Cu equiv

Note: Excludes Bulk Mineral discoveries

Source: MinEx Consulting © May 2012
ie Excludes China and the FSU

DISCOVERY COSTS FOR THE WESTERN WORLD
Gold Exploration expenditures and ounces found
Primary gold found in Western World: 1950-2010

Sources: MinEx Consulting estimates. Post 1992 expenditure data from Metal Economics Group © 2010
Discovery costs for gold are rising
Primary gold in Western World: 1950-2010

Assume ~$30/oz for next decade
Discovery costs for uranium are rising
Uranium in Western World: 1950-2010

Discovery Cost (June 2011 US$/lb U₃O₈)
5 Year rolling average

Assume ~$4/lb U₃O₈ for next decade

Note: Based on all primary uranium deposits >0.5 kt U₃O₈. Includes adjustment for deposits with no reported discovery year.

Source: MinEx Consulting © Sept 2010
Discovery costs for copper are fairly steady

Until recent times, discovery costs have been fairly steady at around 1-1.5 c/lb Cu-eq

US Cents per lb Cu-eq in 2011$

Note: The reported costs include credits for by-product metal
Western World only

Assume 2.5/c lb # Cu-eq going forward

Estimates

# Equal to 3.0 c/lb excluding by-product credits

Source: MinEx Consulting © March 2012
ARE WE FINDING ENOUGH METAL?

Trends in the finding and mining rates for copper
Are we finding enough metal?

• Key drivers
  – Current discovery rates ... *is slowing down*
  – Conversion rates (from discovery to operating mine) ... *only 60-80%*
  – Lag between discovery and development ... *typically 10-15 years*
  – Likely losses on mining ... *typically 10-15%*
  – Current and (more importantly) future mining rates

• Modifying factors
  – Current inventory of undeveloped projects (and their quality)
  – Ability to increase resources through lowering the cut-off grade
  – Long term costs
  – Impact of environmental and social factors
  – Long term prices

Given the feedback loops, is this an *input* or an *output*??

**Given the long delays to convert a discovery into a mine, need to consider size of market at that time**

**Given the feedback loops, is this an input or an output??**
Conversion rates for gold discoveries
Current status of primary gold deposits found in the World: 1950-2011

On average only 60-70% of gold deposits get developed

Analysis based on 1209 Primary gold deposits >0.1 Moz

Source: MinEx Consulting © Oct 2011
How much metal do we need to find?

To ensure no supply interruptions in the longer term the industry needs to be finding 2-3x as much metal as it currently mines.
Mining & discovery rates for gold
Amount of gold found and mined in the World: 1950-2010

Note: Chart include minor adjustment for deposits missing from the database
Is based on discoveries > 0.1 Moz

At face value the situation looks OK

Sources: MinEx Consulting © Nov 2011
Production data from USGS
Mining & discovery rates for uranium
Amount of Primary U₃O₈ found and mined in the World: 1950-2010

Due to low uranium prices, very little exploration was done in the 1990s

Note: Chart excludes Olympic Dam (Cu-U-Au deposit) found in 1975 – contains 2517 kt U₃O₈
Note: Chart include minor adjustment for deposits missing from the database
Is based on discoveries > 0.5 kt U₃O₈

Sources: MinEx Consulting © Sept 2010
Production data from USGS

Strategic advice on mineral economics & exploration
Mining & discovery rates for copper
Amount of Primary copper deposits found and mined in the world: 1950-2011

The copper industry is in reasonable shape – key issue is the grade and location of the project.

Source: MinEx Consulting © March 2012
Production data from USGS
## Estimated Discovery/Production ratios

<table>
<thead>
<tr>
<th></th>
<th>Gold</th>
<th>Copper</th>
<th>Uranium</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit discovery costs</strong></td>
<td>~$30/oz</td>
<td>~3 c/lb</td>
<td>~$4/lb</td>
</tr>
<tr>
<td><strong>World exploration spend rate</strong></td>
<td>[A] = $3700m [P] = $8500m</td>
<td>[A] = $1600m [P] = $4100m</td>
<td>[A] = $600m [P] = $1100m</td>
</tr>
<tr>
<td><strong>Mine Production</strong></td>
<td>2010 = 78 Moz 2020 = 90 Moz</td>
<td>2010 = 16 Mt 2020 = 21 Mt</td>
<td>2010 = 60 kt 2020 = 90 kt</td>
</tr>
<tr>
<td><strong>Discovery/Production Ratios</strong></td>
<td>[A] [P]</td>
<td>[A] [P]</td>
<td>[A] [P]</td>
</tr>
<tr>
<td><strong>At 2010 Production Rate</strong></td>
<td>1.6x 3.6x 1.5x 3.9x 1.1x 2.1x</td>
<td>1.1x 3.0x</td>
<td>0.8x 1.4x</td>
</tr>
<tr>
<td><strong>At 2020 Production Rate</strong></td>
<td>1.4x 3.1x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Target is >2x**

[A] = Average exploration spending rate over last decade (2001-11)
[P] = Peak exploration spending rate (in 2011)

Source: MinEx Consulting © Nov 2011
Implications for the future

• In order to meet future needs for new mines:
  – Need to maintain exploration spending at current high levels (it can’t revert back to the 10 year historic average)
  – The Gold sector is tight – ironically saved by fact that expected growth in production is “flat” #
  – Expected strong growth in Uranium mining will put that sector under a lot of stress
  – To offset increasing unit discovery costs, the industry needs to find new ways and places to explore

Ultimately the supply/demand problem will be solved through higher prices and/or improvements in mining & processing technologies (both of which allow the use of lower cut-off grades, and allow marginal projects to be developed)

# It could be argued that the current lack of good gold projects is the reason why the industry isn’t growing
Comparison between the NT and other Australian States

EXPLORATION EXPENDITURES AND DISCOVERIES FOR THE NORTHERN TERRITORY
Total exploration spend in Australia by State
March 1990- December 2011

Note: Quarterly spend data is reported on an annualised basis

Expenditure is at an all-time high

Source: ABS 8412
Total exploration spend in Australia by State
March 1990- December 2011

Spend (% of total for Australia)

Western Australia continues to be the main State
South Australia grew in the late-2000s
Queensland has grown in recent years (due to coal)

NT’s share has slowly declined over last 20 years
Was 8-10%. Now less than 7%
Source: ABS 8412
Discoveries by Size: Australia & Northern Territory

The Discovery rate for Australia and the NT have both dropped-off in the last decade.

Given that the NT makes up 6-8% of Australia’s total spend, its discovery performance is OK.

Note: Excludes Bulk Mineral discoveries

“Moderate” >100 koz Au, >10 kt Ni, >100 kt Cu equiv, >5 kt U₃O₈
“Major” >1 Moz Au, >100 kt Ni, >1 Mt Cu equiv, >25 kt U₃O₈
“Giant” >6 Moz Au, >1 Mt Ni, >5 Mt Cu equiv, >125 kt U₃O₈

Source: MinEx Consulting © May 2012
What do exploration companies think of the NT’s mineral potential?

NORTHERN TERRITORY’S PERCEIVED ENDOWMENT
Fraser Institute Annual Survey of Mining Companies

• Every year since 1997, the Fraser Institute has surveyed mining companies on their views regarding the mineral potential (ie “the attractiveness of the rocks”) and policy potential (ie the “ability to do business”) in a range of countries.

• The results of the 2011/12 Survey (carried out in late 2011) was released in March 2012. It covers 93 jurisdictions and is based on the opinions (and biases) of 802 companies.

CAUTIONARY NOTE: The Survey is based on industry “perceptions” which may/may-not match reality.

# Fred McMahon and Miguel Cervantes, “Fraser Institute Annual Survey of Mining Companies: 2011/2012”, Fraser Institute. Weblink: [www.fraserinstitute.org](http://www.fraserinstitute.org)
Mineral Potential in 2012

(i.e., the “attractiveness of the rocks”)

% of Respondents

- 100%
- 80%
- 60%
- 40%
- 20%
- 0%

Dominican Republic
Vietnam
Victoria
Egypt
Tasmania
Romania
Nova Scotia
New Zealand
Washington
Norway
Namibia
Morocco
Jujuy
Bulgaria
Spain
New Brunswick
Honduras
Guyana
Minnesota
Suriname
Salta
New South Wales
Michigan
Niger
Mendoza
Panama
California
Bolivia
Venezuela
Missouri
Ireland
Zambia
Mauritania
Madagascar
Guatemala
Zimbabwe
South Africa
New Mexico
Colorado
Alberta
Santa Cruz
Laos
Ecuador
Utah
Northern Territory
Guinea (Conakry)
Tanzania
China
Wyoming
Sweden
Russia
Rio Negro
Poland
Kyrgyzstan
India
Idaho
Finland
Catamarca
San Juan
Montana
Kazakhstan
Mali
Turkey
Arizona
Queensland
Manitoba
Greenland
Burkina Faso
Ontario
Botswana
South Australia
Colombia
Saskatchewan
Nevada
Ghana
Chile
Brazil
Quebec
Peru
Chubut
Alaska
Prince Edward Island
Federal
Ontario
British Columbia
Indonesia
Western Australia
NFD & Labrador
Mongolia
Northern Territory was ranked 49th out of 93 jurisdictions in 2012

Source: Fraser Institute March 2012

Note: Assumes full access to land, and best practice by industry
... and the Northern Territory’s perceived Mineral Potential has declined in recent years

% of Respondents


Source: Fraser Institute annual surveys

Note: Assumes full access to land, and best practice by industry

MinEx Consulting
Strategic advice on mineral economics & exploration
... even so, the Northern Territory’s share of Australia’s exploration spend has remained fairly steady

### NT’s % share of Australia’s exploration spend

**Note:** If you exclude Bulk Minerals, NT’s share has risen in recent years

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</thead>
<tbody>
<tr>
<td>%</td>
<td>7.8%</td>
<td>7.0%</td>
<td>7.2%</td>
<td>5.6%</td>
<td>5.4%</td>
<td>5.6%</td>
<td>6.0%</td>
</tr>
</tbody>
</table>

Sources: Fraser Institute annual surveys, ABS (as reported on a Calendar Yr basis)

**Note:** Assumes full access to land, and best practice by industry
South Australia’s perceived Mineral Potential took a step increase in 2006

% of Respondents

Carrapateena Cu-Au deposit was discovered in 2005 using Govt funding

No data prior to 2005

Note: Assumes full access to land, and best practice by industry

Source: Fraser Institute annual surveys
South Australia’s perceived Mineral Potential took a step increase in 2006 ... and its Explorn share went up!

Carrapateena Cu-Au deposit was discovered in 2005 using Govt funding

No data prior to 2005

South Australia’s % share of Australia’s exploration spend

Would also argue that the higher spend is also a function of SA being “friendlier” to exploration companies

Sources: Fraser Institute annual surveys
ABS (as reported on a Calendar Yr basis)
What do exploration companies think of the Northern Territory’s policies for supporting the mining industry?

NORTHERN TERRITORY’S PERCIEVED BUSINESS RISK
Policy Potential Index in 2011
(Measures the “ability to do business” there)

PPI Score  Note: Higher the Score, the better

Source: Fraser Institute March 2011

Northern Territory
In 2011 was ranked 27th best out of 79 jurisdictions
From a doing-business perspective, the NT is one of the best jurisdictions to operate in. 

Policy Potential Index (Measures the “ability to do business” there)

PPI Score  Note: Higher the Score, the better

Northern Territory
In 2012 was ranked 11th best out of 93 jurisdictions

Source: Fraser Institute March 2012
The Northern Territory is in the top-quartile for doing-business

Policy Potential Index (Measures the “ability to do business” there)

PPI Score

Note: Higher the Score, the better

Source: Fraser Institute March 2012
The Northern Territory’s business risk ranking has improved in the last year.

Source: MinEx Consulting analysis of Fraser Institute annual surveys
... and is now the equal-best of all Australian States

PPI Score (ie “ability to do business” there)

Source: MinEx Consulting analysis of Fraser Institute annual surveys
... and compares well with its peers overseas

Source: MinEx Consulting analysis of Fraser Institute annual surveys
The Policy Potential Index is Based on 17 factors

March 2012
Survey Results for the Northern Territory

The Northern Territory performs well in some categories ... but not others!

Data: MinEx Consulting analysis of 2012 Fraser Institute survey
PPI scores have changed in the last year

March 2011
Survey Results for the Northern Territory

Disputed Land Claims
Protected Areas
Taxation Regime
Regulatory Duplication
Labour Regulations
Socio-economic Agreements
Availability of Skilled Labour
Infrastructure
Growing (Lessening) Uncertainty
Environmental Regulations
Trade Barriers
Legal System
Administration of Regulations
Political Stability
Geological Data Base
Corruption
Security Situation

Encourages Investment
Mild Deterrent
Not a Deterrent
Strong Deterrent
Prevents Investment

Note: Have used the same ranking order as the 2012 survey

Data: MinEx Consulting analysis of 2011 Fraser Institute survey

MinEx Consulting
Strategic advice on mineral economics & exploration
Fraser Institute Survey for the NT
Perception vs Reality

The general scores for the NT appear to be good. However not all is perfect in paradise!

- Government is keen to promote mining in the NT. However there have been a number of cases where permits have been rescinded after being issued.
  - Moratorium on manganese exploration offshore from Groote Eylandt
  - Ban on uranium mining at Angela-Pamela
- Lack of consultation & communication with industry
  - Sudden change in the boundaries of proposed Limmen National Park
- Difficulties in getting Environmental Permits
The way forward for the NT

CHALLENGES & OPPORTUNITIES FOR THE NORTHERN TERRITORY
Challenges for the Northern Territory

• Limited infrastructure
  – General focus is on the north-south rail corridor

• There hasn’t been a major new mine developed on NLC administered freehold land in the last two decades

• Need for better coordination across Government Agencies

• Need to explore under cover
  – Develop better geophysical data sets

• Impact of the Ichthys LNG Project on services
  – The short term new mines might be crowded out

• Royalty Rates are too high
  – 20% Profit Based Royalty translates into 5-8% NSR. This, when coupled with royalties to Traditional Land Owners, is a heavy burden on a project
Summary (1)

• Exploration expenditures are at an all-time high.
  – Australia makes up 15% of world spend (and declining)
  – The NT makes up 6% of Australia’s spend

• In Australia, there has been a major shift in exploration to Bulk Minerals

• In Australia there has been a major shift to Brownfields Exploration
  – This may explain why our discovery record (for giant deposits) has been declining

• On average 40-60 Major discoveries are made in the world
  – Australia makes up ~20% of these (and is declining)

• The World is struggling to find enough new deposits to meet future demand.
  – Especially for gold and uranium.
  – To be sustainable the industry needs to develop more effective exploration tools (and spend more money)
Summary (2)

• The Northern Territory has only made 1 Major discovery in the last decade.
  – In terms of Moderate discoveries its track record is comparable to the rest of Australia

• General Perceptions of the Northern Territory’s Mineral Potential is positive but not high
  – Need to get the real story out ... especially to Major Companies (who are conspicuously absent in the NT)
  – Best way to attract new players to the NT is to make a Giant discovery .... And the best place to find a Giant is in “fresh ground” and/or “fresh” ideas ... hence the importance of supporting Greenfields Exploration

• The General Perception is that the Northern Territory is a great place to do business.
  – I agree ... but there are some items the Government needs to address to make it even better in the areas of Land Access, Environmental Permitting and Royalty Rates
QUESTIONS?
Contact details

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Website: MinExConsulting.com
The scores for each factor can change over time
Survey results for the Northern Territory: 2005-12

Disputed land claims / Native Title issues
- Prevents Investment
- Strong Deterrent
- Mild Deterrent
- Not a Deterrent
- Encourages Investment

Socio-Economic Agreements
- ie “community issues”

Source: MinEx Consulting analysis of Fraser Institute annual surveys
The scores for each factor can change over time

Survey results for the Northern Territory: 2005-12

Uncertainty over Protected areas

Prevents Investment
Strong Deterrent
Mild Deterrent
Not a Deterrent
Encourages Investment

Environmental Regulations

i.e. “environmental issues”

Source: MinEx Consulting analysis of Fraser Institute annual surveys
The scores for each factor can change over time

Survey results for the Northern Territory: 2005-12

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