

## Bringing Value to the Surface

**Northgate Minerals Corporation** 

**European Gold Forum** 



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# WHY NORTHGATE?



Our Corporate Profile and Our Vision
A Successful Track Record
Northgate Today
Achievements & Objectives

### WHY NORTHGATE?

### **Corporate Profile**

We are good operators.

We have a proven and successful track record of turning around underperforming assets.

And we deliver results.



Northgate Minerals Corporation is a gold and copper producer with mining operations, development projects and exploration properties in Canada and Australia. We are forecasting gold production of **316,000 ounces in 2010.** 

#### **Corporate Vision**

To be the leading intermediate gold producer by identifying, acquiring and developing profitable, long life mining properties.

# SUCCESSFUL TRACK RECORD

### **Creating value from underappreciated assets**

#### **Kemess South**



- » Acquired February 2000 out of bankruptcy when gold was below \$300/oz and copper below \$0.70/lb
- » Remarkable operational turnaround within two years
- » 2.5 MM oz of gold and 620 MM lbs of copper produced

#### Young-Davidson



- » Acquired November 2005 for \$18 million
- » 2.8 million proven & probable ounces adding over 200% to Northgate's reserves
- » Targeting a 15-year mine life: 180,000 oz/yr @ \$350/oz

Fosterville & Stawell



- » Acquired February 2008 all cash acquisition
- » Undercapitalized mines could not operate efficiently and develop additional reserves through exploration in prolific gold region
- » Successful operational turnaround, improving productivity and lowering costs

# NORTHGATE TODAY

We have laid the groundwork for a bright future

(100% owned and operated)

Australia







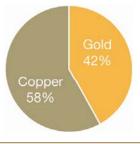




#### 2008

- One mine
- 789,000 oz of reserves
- Production ending in 2010

Revenue:











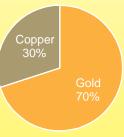
#### **Today**

Three fully permitted operating mines

~ 4 million oz of reserves

Production beyond 2027+

Revenue<sup>1</sup>:



100% gold when Young-Davidson begins production

<sup>&</sup>lt;sup>1</sup> Assumes \$1,140/oz gold and \$3.20/lb copper for 2010 production.

## ACHIEVEMENTS & OBJECTIVES

### **Delivering Results**

Record gold production of 362,398 ozs

Net cash cost in line with original guidance

Record cash flow from operations of \$187.2 million

Established a 2.8 million ounce reserve at Young-Davidson

Young-Davidson Feasibility: 17% after tax IRR @ \$1,100 gold

Added reserves at Stawell to extend mine life

Defined initial 159K oz reserve in the Harrier zone at Fosterville

#### **Achieved**

#### **Near-Term Objectives**

Start construction at Young-Davidson

Expanded \$21 million exploration budget in 2010

Re-deploy or sell Kemess assets into other opportunities

## FOCUS & STRATEGY

- Maintain a strong balance sheet; currently no long-term debt
- Organic growth through Fosterville, Stawell and Young-Davidson
- All operations and projects in stable jurisdictions
- Create value from successful turnaround of underappreciated assets
- Exceptional leverage to gold price from three operating mines and maximizing cash flow to fund growth initiatives
- Targeting sustainable annual production at 400,000+ ounces per year from current projects
- Additional growth through M&A

## **GROWTH STRATEGY**

### **Corporate Development**

Acquisition of one or more operating gold mines, exploration or development projects

50,000 - 200,000 oz

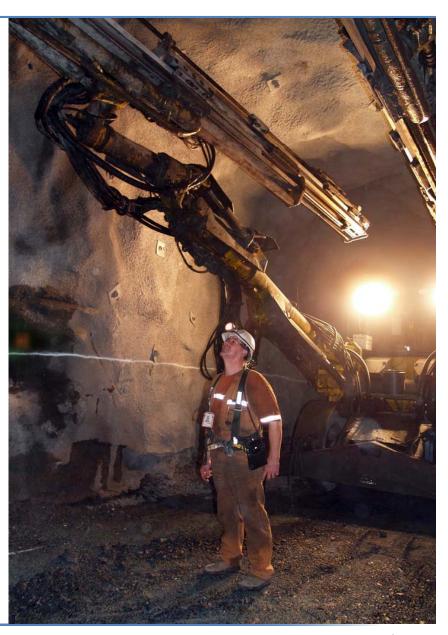
Annual production potential

# **Expertise**

Underperforming gold or gold/copper mines where we can add value

## **Jurisdiction**

Properties with regional exploration in politically stable jurisdiction



## 2010 PRODUCTION FORECAST

Northgate is forecasting production of **316,000 ounces** in 2010 at a cash cost of \$537/oz\*

	Gold (ounces)	Copper (000s pounds)	2010 Net Cash Cost
Fosterville	113,000	n/a	\$655/oz
Stawell	99,500	n/a	\$633/oz
Kemess	103,500	47,600	\$318/oz
Combined	316,000	47,600	\$537/oz

#### **Sensitivities**

#### **Operating Cash Flow**

Variable	Change	Impact (US\$)
Gold Price	\$25 per ounce	\$7.9 million
Copper Price	\$0.05 per pound	\$1.3 million
Cdn\$/US\$ FX Rate	0.05	\$5.0 million
A\$/US\$ FX Rate	0.05	\$6.9 million

#### **Cash Cost per Ounce**

Variable	Change	Impact (US\$)
Cdn\$/US\$ F/X Rate	\$0.05	\$25/oz
A\$/US\$ F/X Rate	\$0.05	\$20/oz

Assumes \$3.20/lb copper; US\$/Cdn\$0.97 and US\$/A\$0.92.

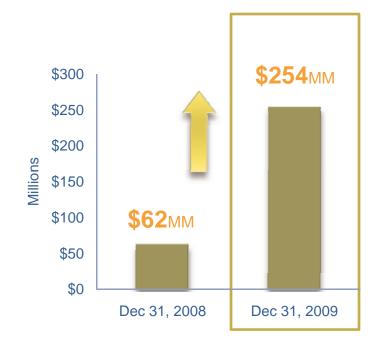
## FINANCIAL POSITION

#### Well positioned to begin construction of the Young-Davidson Mine

- \$254 million in cash; no long-term debt at Dec. 31, 2009
- Strong free cash flow projected in 2010 from Kemess
  - Upside participation on gold price
  - Downside protection on copper price
- Received expressions of interest from a variety of financial institutions











Positive Feasibility Study Recent Exploration Success 2010 Exploration Budget and Outlook

### Realizing our vision

Young-Davidson is a financially robust, low cost, long-life project

# 2.8 million p+p oz

216% increase to Northgate's reserves

### At today's spot prices<sup>1</sup>:

**17.1%** 

After tax IRR

us\$425 MM

After tax NPV 5%

YD Net Asset Value Cdn\$1.54 per share<sup>2</sup>



#### **Production Profile**

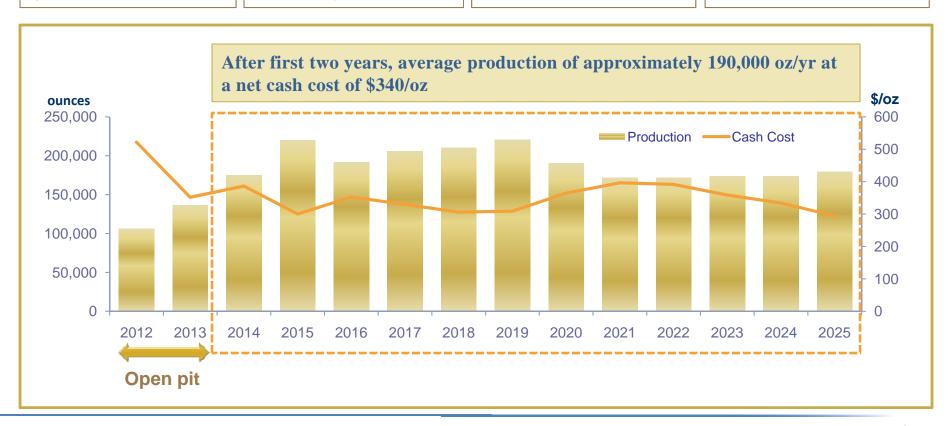
anticipated production

180,000

ozs average annual production

estimated net cash cost

estimated mine-life



## YD MINE DESIGN

Orebody geometry well suited to high productivity bulk mining methods

> Below industry average cash costs of \$350/oz

(EXISTING)

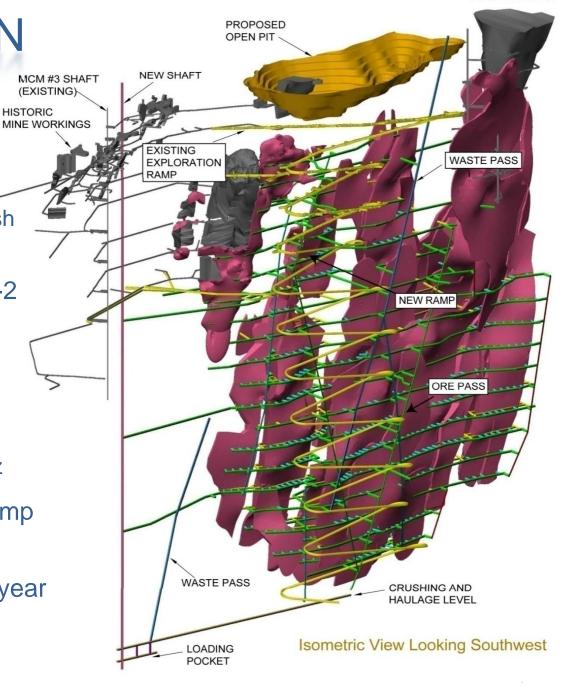
HISTORIC

Open pit production years 1-2

Stripping ratio is 2.75:1

Underground production years 3-15

- Average production of 190,000 ounces @ \$340/oz
- Mine access by shaft and ramp
- Underground ore production rate of 6,000 tpd or 2.2 MT/ year



# YOUNG-DAVIDSON

### **Achieving our Goals**







Defined NI 43-101 compliant reserve of 2.8 million ounces

Raised \$88.5 million through equity offering

Completed Feasibility Study

Received board approval to commence development

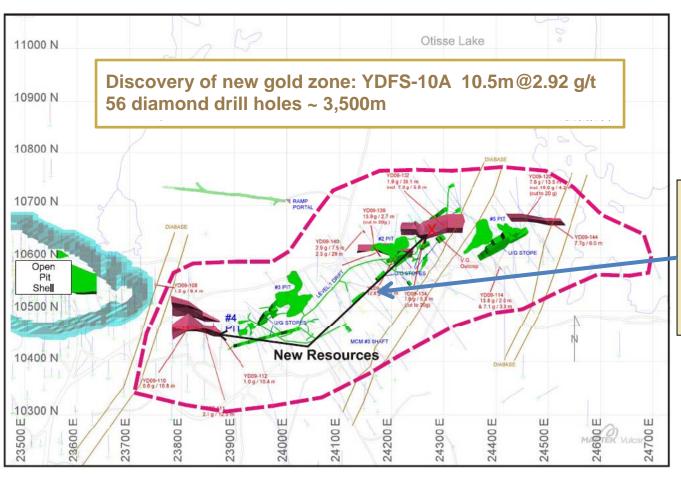
Discovered new area of gold mineralization

#### **Achieved**

#### **Near-Term Objectives**

- Bid proposals for shaft development
- Getting close to awarding an EPCM contract
- Construction slated for summer of 2010

### Exploring outside of reserve envelope – \$2.8 million exploration budget

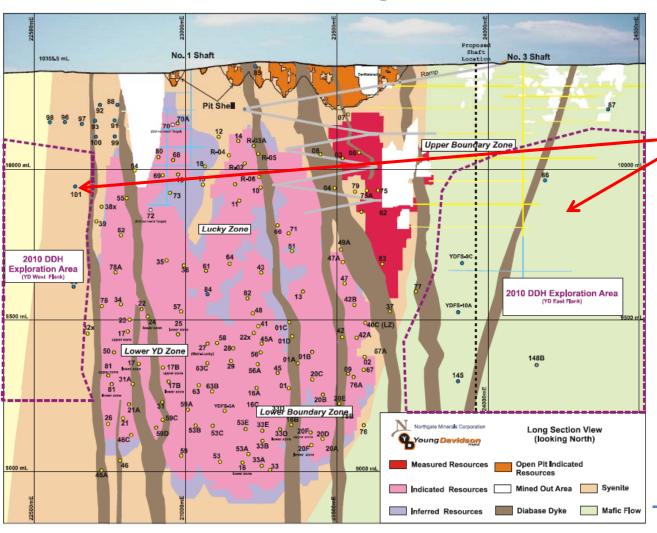


- 20,000m of diamond drilling in 2010

**Targeting near** surface resources that may increase ounces in the open pit

### **Exploring outside of reserve envelope**

- 20,000m of diamond drilling in 2010



10,000m to drill east and west flanks of Young-**Davidson deposit** 

- Also, 6,500m for new geophysical and/or conceptual targets



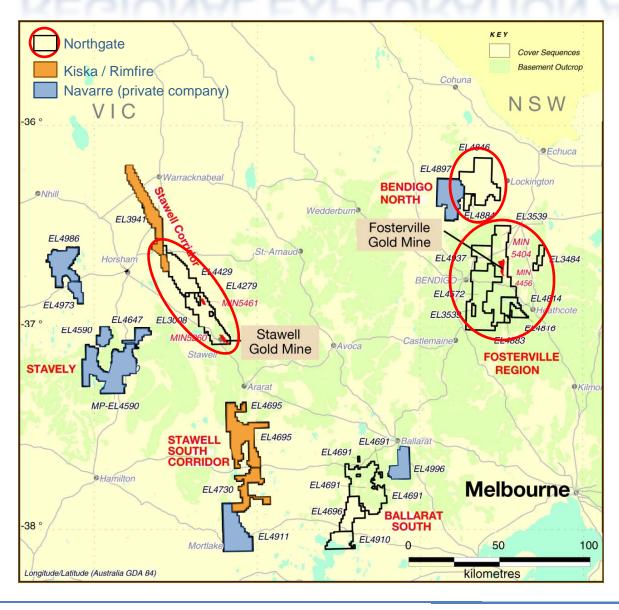
# **GROWTH IN AUSTRALIA**

Australia Land Package Fosterville Gold Mine Stawell Gold Mine



Melbourne

## REGIONAL EXPLORATION AUSTRALIA



- Ramping up exploration on targets on significant land holdings surrounding both operations
- \$18.4 million 2010 exploration budget in Australia
- Other JV agreements with Kiska (Rimfire) and Navarre



## **GROWTH AT FOSTERVILLE**



Proven Results 2010 Objectives and Future Outlook

## GROWTH AT FOSTERVILLE

Proven Results	<b>Then</b> (Q3'08)	<b>Now</b> (Q4'09)
<ul> <li>Higher gold recoveries</li> </ul>	66%	85% (2009 avg)
<ul> <li>Mine development advance</li> </ul>	1,868m	2,226m
<ul> <li>Higher ore mined</li> <li>Higher ore milled</li> </ul>	116,747 tonnes 125,592 tonnes	206,881 tonnes 208,267 tonnes
<ul> <li>Higher production</li> </ul>	15,491 ounces	26,615 oz in Q4 ( <u>record</u> )
<ul> <li>Lower cash costs</li> </ul>	<b>\$831</b> /oz in 2008	\$576/oz in 2009

#### **Excellent productivity achieved:**

- » Record Q4 and 2009 production
- Mining rates increased by over 60%
- » Dramatic decline in cost structure

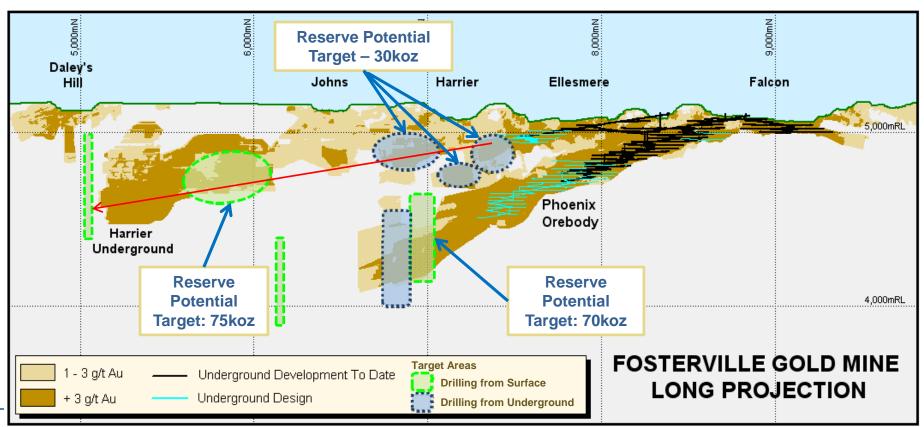
#### - Looking into 2010:

- » 2010 guidance: set to achieve another record year of 113,000 oz of gold
- » Decline towards Harrier; production in 2012

## **GROWTH AT FOSTERVILLE**

### \$11.2MM exploration budget supporting resource conversion

- Phoenix: Extending reserves from 7050mN-6750mN with surface/underground drilling.
   Significant step-out on 6200mN.
- Harrier: Convert northern block to reserves (6200mN-5600mN).
   Seek extension to the south on 5050mN and test potential link to Daley's Hill.
- Other target zones potentially accessible from Harrier Decline.



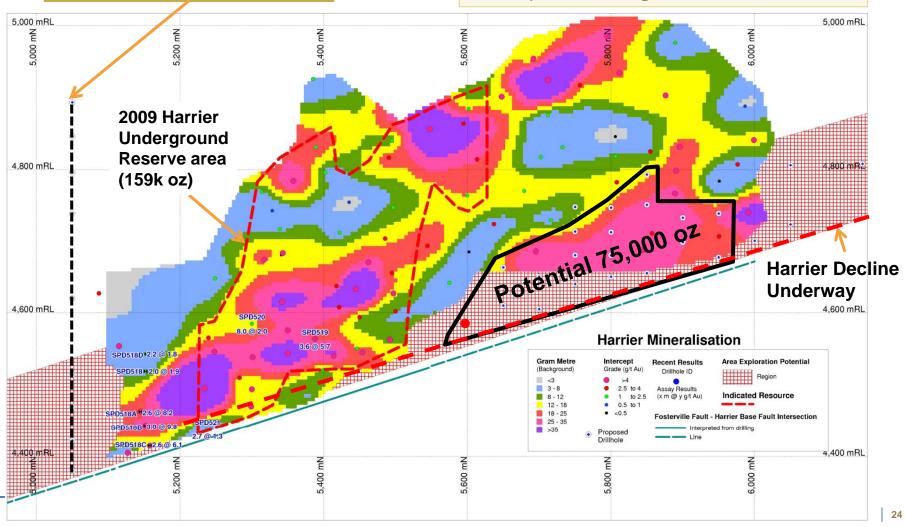
# HARRIER LONG PROJECTION

#### **Step out drilling 5050N:**

13.4m @ 7.7 g/t gold from 263.6m 7.0m @ 5.2 g/t gold from 725.0m 3.0m @ 9.8 g/t gold from 792.0m

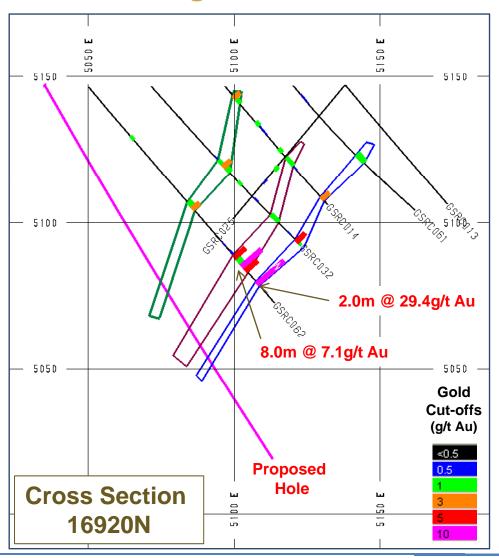
#### **Additional Reserve Potential**

- Targeting additional 75koz,
- Step out drilling on 5050N



# **GOORNONG SOUTH PROSPECT**

#### **Off Lease Target**



- Fosterville style mineralization tested by:
  - » Shallow RC drilling over 250m northerly trend.
  - A single diamond hole ends in 5.1g/t gold.
- Proposed investigative drilling (3 holes) to assess:
  - Down dip continuity of gold mineralization
  - Plunge of mineralization and folding.
- Drilling to commence Q2-Q3
- 10 km from Fosterville mine



# **GROWTH AT STAWELL**



Investing for Long-Term Success 2010 Objectives and Future Outlook

## **GROWTH AT STAWELL**

### **Review of Operations**

	<b>Then</b> (Q3'08)	<b>Now</b> (Q4'09)
<ul> <li>Higher ore mined</li> <li>Higher ore milled</li> </ul>	158,195 tonnes 177,381 tonnes	188,201 tonnes 199,082 tonnes
<ul> <li>Mine development advance</li> </ul>	1,355m	1,994m ( <u>record</u> )
Stable unit operating costs	A\$61/tonne mined A\$26/tonne mined	A\$61/tonne mined A\$24/tonne milled

- In Q4, Stawell achieved its strongest production quarter of 23,566 oz
- Reported 7% increase in reserves; strong resource base of 268koz indicated and 163k inferred (up 40%)
- **Looking into 2010:** 
  - » Stawell is forecasting solid gold production of 99,500 ounces at an average net cash cost of \$633/oz in 2010
  - » 2 million ounces produced in early March 2010

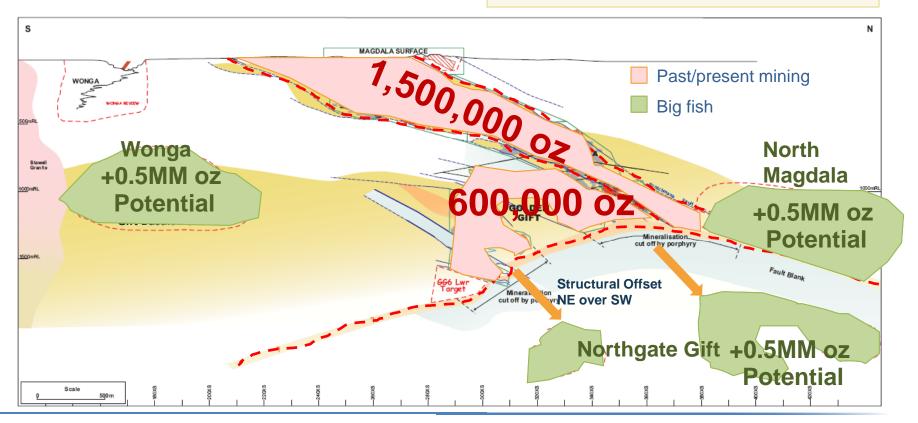
## **GROWTH AT STAWELL**

### On Lease "Big Fish" Targets

- Gold first discovered in 1853;
  - » 2.6 million ounces mined to 1920
  - » Total production 4.5 million ounces to 2009
- World Class Deposit

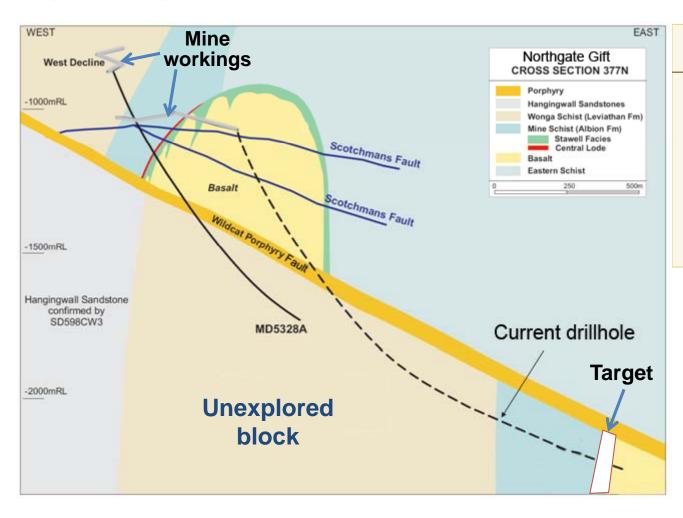
#### **Looking Ahead**

- Three "Big Fish" Targets
  - » Northgate Gift (drilling underway)
  - » North Magdala (Q3 / Q4)
  - » Wonga (Q3 / Q4)



# NORTHGATE GIFT TARGET CONCEPT

### Post mineral fault repeat of **Golden Gift orebodies**



### **Looking Ahead**

- Drilling underway under wildcat porphyry
- +0.5 million ounce reserve potential

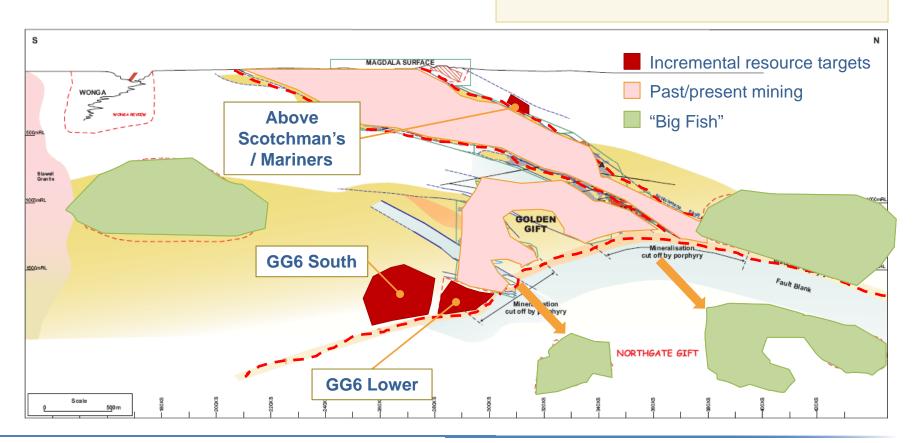
## ON LEASE EXPLORATION

### **Incremental resource targets**

 Focusing on targets ■ to maintain current reserve level while exploring "Big Fish" targets

#### **Looking Ahead**

- Scoping / resource drilling on:
  - » GG6 Lower
  - **GG6 South**
  - » Above Scotchman's / Mariners



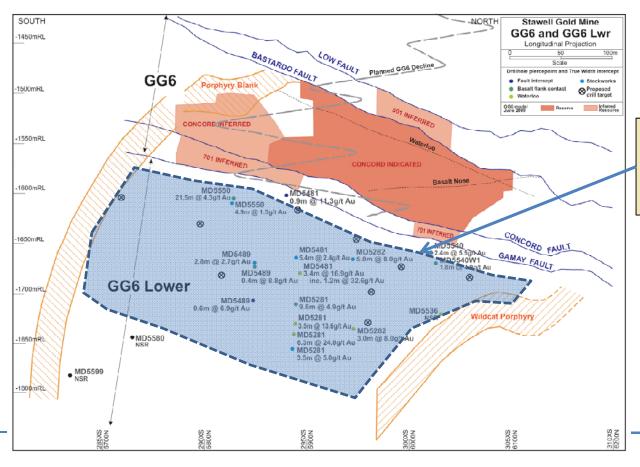
## **GOLDEN GIFT 6 LOWER**

### Incremental resource target

- Drilling platform in place
- Conversion to Inferred Resource

#### **Looking Ahead**

~70,000 oz potential based on history and current drill spacing and grades



Nine underground drill holes totalling 3,600m



# 2010 OBJECTIVES



## KEMESS SOUTH

#### **2010 Objectives**

- 2009 production in line with guidance; cash costs lower than expected
- 2009 production: 173,040 ounces of gold **52.5 MM pounds of copper** Net cash cost: \$348/oz
- 91% mill availability in 2009
- Throughput of 53,000+ tpd in Q4
- Low unit mining costs in Q4: Cdn\$0.95/tonne moved (Cdn\$2.27 in Q4-2008)



#### **Looking into 2010**

- Added to 7 million tonnes to reserves, extending mine-life until end of Q1-2011
- Solid production of 103,500 ozs at 47.6 MM lbs
- Expect to make \$55 million in free cash flow in 2010\*
  - » net of significant reclamation expenses of \$24 million

## CORPORATE REVIEW

### **Upcoming Highlights**

#### Fosterville:

- ✓ Record annual production forecast in 2010
- √ \$11.2 million exploration budget in support of resource conversion

#### Stawell:

- Solid production in 2010
- \$7.2 million exploration budget in support of mine-life extension

#### **Creating Value**

#### Kemess:

- ✓ Additional reserves extending mine-life until end of Q1-2011
- ✓ Re-deploy / sell Kemess assets
- √ Extensive reclamation efforts

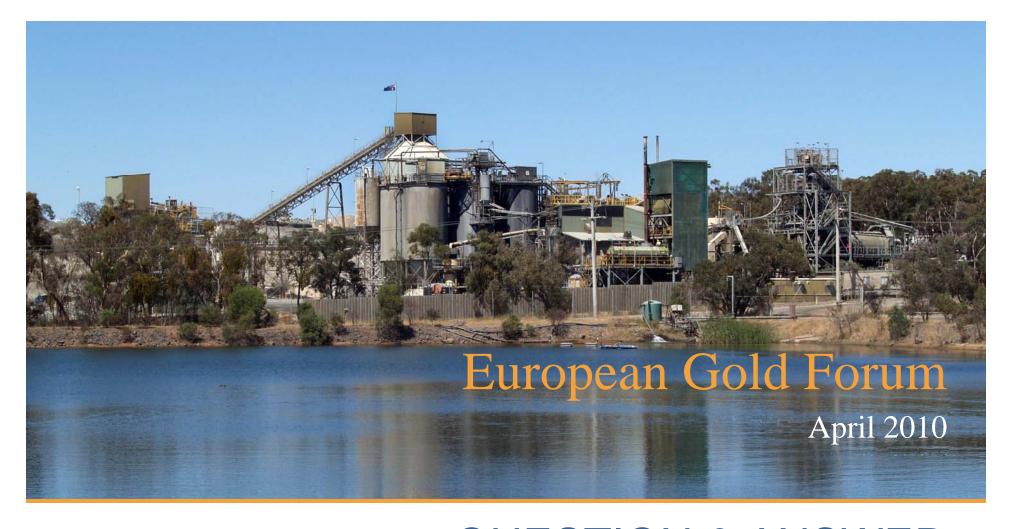
#### Young-Davidson:

- ✓ Permitting activities ongoing
- ✓ Construction starting in summer
- ✓ Exploration outside of reserve envelope

### IN CONCLUSION

### A Leading Multi-Mine Gold Producer

- All operations and projects in stable jurisdictions
- Strong balance sheet
- Exceptional leverage to gold price from three operating mines to fund growth initiatives
- An experienced management team with a depth of operating experience in turning around underappreciated assets
- Forecasting gold production of 316,000 ounces in 2010
- Excellent exploration upside at Fosterville, Stawell and Young-Davidson
- Organic growth at Young-Davidson



**QUESTION & ANSWER** 





# Bringing Value to the Surface

**Northgate Minerals Corporation** 

**European Gold Forum** 



# **APPENDIX**

## **YD Economic Analysis**<sup>1</sup>

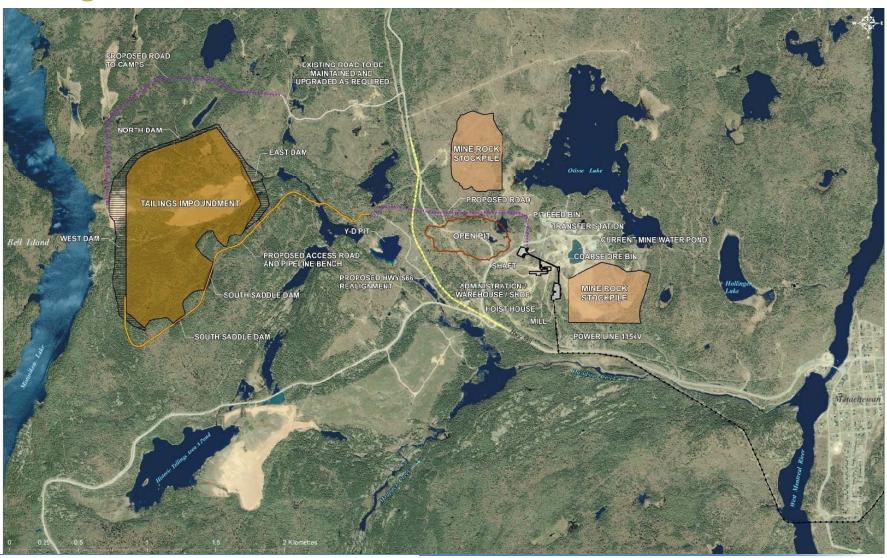
Gold Price (US\$/ oz)	1	Cash Flow S\$M) After Tax		Discount (\$\$M) After Tax	II Pre-tax	RR After Tax	Payback (years)
825	\$646	\$466	\$264	\$166	12.4%	10.3%	6.9
925	\$887	\$631	\$418	\$275	16.3%	13.6%	5.9
1025	\$1,131	\$799	\$573	\$383	19.9%	16.6%	5.1
1125	\$1,379	\$969	\$729	\$492	23.3%	19.5%	4.5

### Sensitivities +10% (NPV 5% after tax) (US\$)

Capital expenditures	\$50 million
Operating cost	\$58 million
Exchange rate	\$136 million

# **APPENDIX**

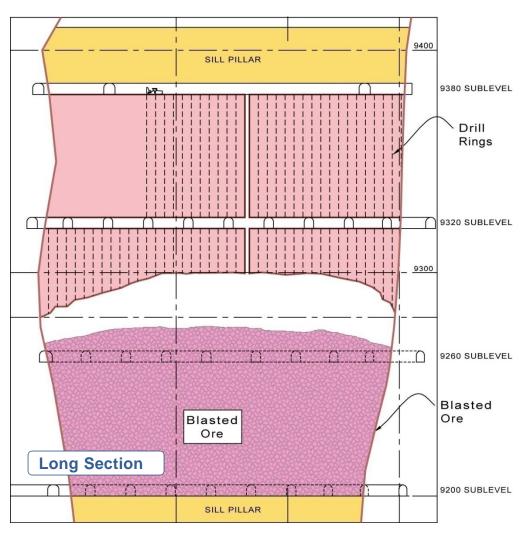
## **Young-Davidson Site Plan**

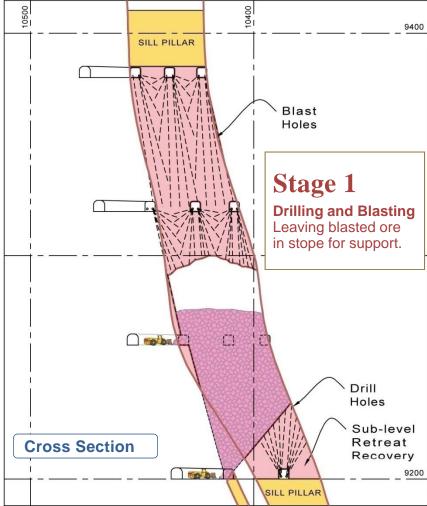


### YD MINING METHOD

### **Longhole Shrinkage – 50%**

Stopes are large and productive, averaging 250,000 tonnes each; some over 1,000,000 tonnes.



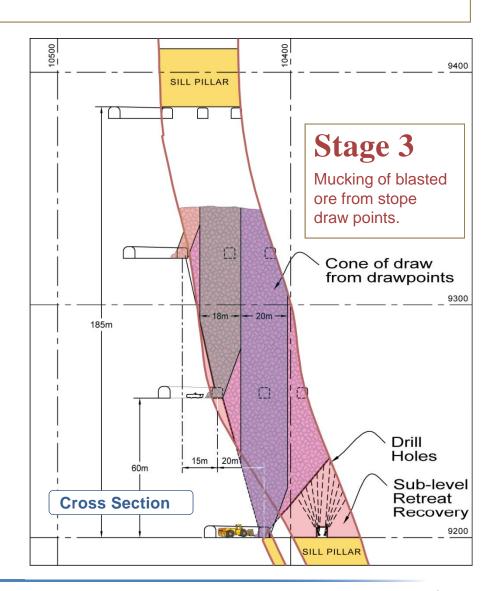


### YD MINING METHOD

### Longhole Shrinkage

#### 9400 SILL PILLAR Stope full of ore Stage 2 **Blasting complete** 9300 185m Drill Holes 15m | 20m 60m Sub-level Retreat **Cross Section** Recovery 1000 SILL PILLAR

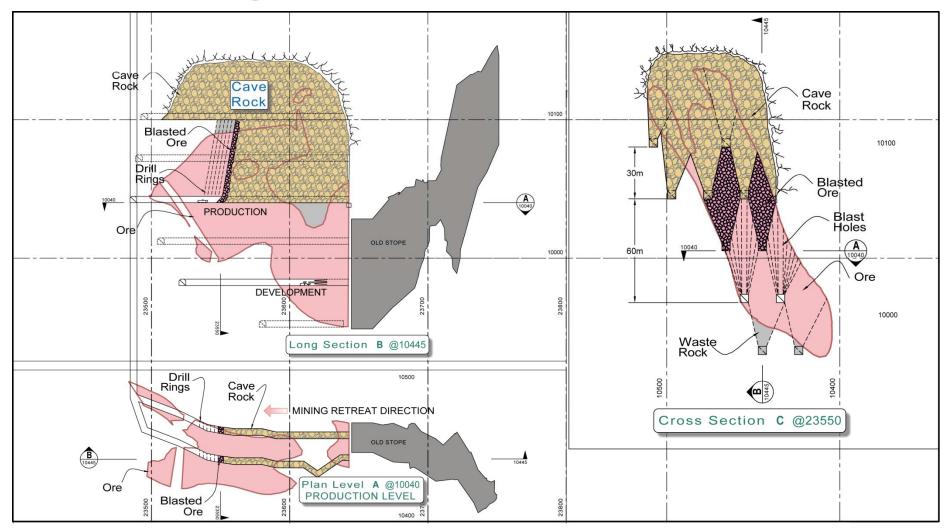
#### Ore widths in this zone are 8m - 40m; sublevel spacing is 60m



### YD MINING METHOD

### **Sublevel Caving – 14%**

Recover 3.6 Mt of near surface ore in a 20m - 40m thick zone.



# YD CAPITAL AND OPERATING COSTS

#### Construction expected to begin in 2010

Pre-Production Capital (US\$ millions)	
Infrastructure	\$ 75.0
Process plant	81.1
Mining	95.7
Indirect costs	56.5
Contingency	31.1
Total Pre-Production Capital	\$ 339.4
Sustaining Capital & Mine Closure	
Completion of underground mine infrastructure	\$ 128.6
Sustaining capital & mine closure	\$ 107.8
Total Sustaining Capital & Mine Closure	\$ 236.4

**Recent financing** and existing cash balance plus future cash flow and project financing means we are well positioned to build **Young-Davidson** 

#### Average Mining Costs (Cdn\$ per tonne milled)

Average mining cost Processing cost General and administration	Cdn \$	19.03 <sup>1</sup> 10.08 2.52
Total	Cdn \$	31.63

<sup>1</sup> Includes open pit cost of Cdn\$3.46 per tonne mined and underground mining cost of Cdn\$20.63 per tonne mined.

## MANAGEMENT BIOS & CONTACT INFO

#### Kenneth G. Stowe, President & CEO

Ken received B.Sc. and M.Sc. degrees in Mining Engineering from Queen's University in Kingston, Ontario. He spent the first 21 years of his career at Noranda in various operational, R&D and corporate roles. In 1995, Ken joined Diamond Fields Resources as Vice President, Technology with responsibility for the feasibility study of the Voisey's Bay nickel-copper deposit. Upon the acquisition of Voisey's Bay by Inco, Ken joined Westmin Resources (subsequently acquired by Boliden) as Vice President, Operations. After the successful startup of the Lomas Bayas copper mine in Chile, he moved on to Northgate to take on the significant challenge of relaunching the company as an operating company through the turnaround of the recently commissioned but floundering Kemess South copper-gold mine. Kemess South is now one of the lowest cost gold mines in the world. In 2006, Ken was the recipient of the prestigious Canadian Mineral Processor of the Year Award.

#### Jon A. Douglas, Senior Vice President & CFO

Jon has been Senior Vice President and Chief Financial Officer of Northgate since 2001. During his career at Northgate, he has overseen the financial transformation of the company from a \$30 million market capitalization, TSX-listed, junior gold mining company with over \$200 million in debt to a duel-listed (TSX; AMEX), SOX-404 compliant intermediate gold producer with no debt and substantial cash balances. Before joining Northgate, Jon spent four years in the corporate development group at Noranda Inc., examining various investment and divestment opportunities. Prior to that, he spent eight years at Noranda Sales Corporation, purchasing primary and secondary copper and precious metal feeds for Noranda's copper metallurgical operations. Jon holds a BASc and a MASc in Chemical Engineering from the University of Toronto and a MBA from York University.

#### Peter MacPhail, Chief Operating Officer

Peter MacPhail joined Northgate in 2004 and is currently the Chief Operating Officer of the company. Peter is responsible for overseeing the company's operations and projects, which included a temporary relocation to Australia in early 2008, where he was responsible for the successful turnaround of the Fosterville and Stawell Gold mines in Victoria. Peter's career spans 25 years in various operations and project related positions with Canadian mining companies, including Noranda, Teck Corporation and Barrick Gold.

#### Christopher J. Rockingham, Vice President, Exploration & Business Development

Chris has been with Northgate Minerals since 2003 during which time he has been responsible for developing the overall corporate strategy and managing the mineral exploration. He is also actively involved in a number of industry associations and is a director of the Association for Mineral Exploration in British Columbia. Chris has both an M.Sc. in geology and an MBA from the University of Western Ontario.

#### **Luc Guimond, Executive General Manager Australian Operations**

Luc joined Northgate in 2006 as Project Manager, responsible for overseeing the initial development of the Young-Davidson property and has recently taken on the role of Executive General Manager for Northgate's Australian operations. Luc has progressed through engineering and operations over the last 20 years having spent time with Dynatec Mining, Noranda's Geco operations and Newmont's Golden Giant mine. He was appointed the General Manager of Newmont's Holloway operations in 2004. Luc is a graduate of the Haileybury School of Mines and holds a BSc in Mining Engineering from Queen's University.

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