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*Developing the **Next World Class**
Gold Mining Operation*

April 2011

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Osisko Mining Corporation

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Total Reserve Increases by 19% at Canadian Malartic

- Open pit **Proven and Probable** reserve has increased to **10.71 million ounces Au** at an average fully diluted grade of 0.97g/t based on \$1000/oz Au price
- **Global Measured and Indicated resources** have increased to **11.80 million ounces Au**
- **Global Inferred resources** have increased to **850,000 ounces Au**
- **Recoverable gold** has increased to **9.2 million ounces** from 7.7 million ounces (at 85.8% recovery)
- New resources defined from the ongoing drill program, including the Barnat Extension and Gouldie Zones

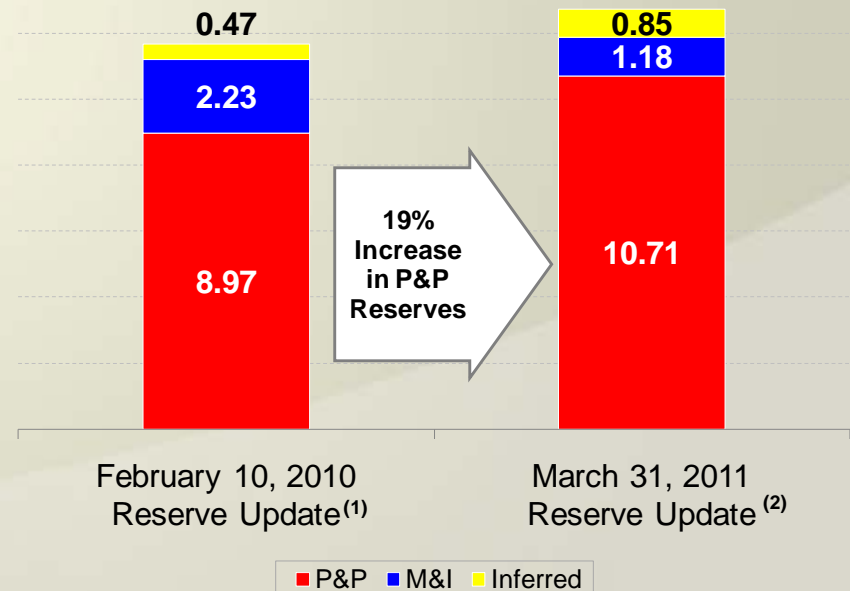
Reserve and Resource Estimate

Using Base Case US\$1000/oz Engineered Pit Shell with 0.30g/t Au (South Barnat) to 0.32g/t Au (CM) Lower Cut-off

Category	Tonnes (M)	Grade (g/t)	Au (M oz)
Proven Reserves	48.7	0.80	1.26
Probable Reserves	295.0	1.00	9.45
Proven & Probable Reserves	343.7	0.97	10.71
Out-of-pit Indicated Resources	47.6	0.77	1.18
Global Inferred Resources	33.9	0.78	0.85

Change in Global Resource Estimate at Canadian Malartic

(in million oz Au)



1. Osisko press release ("Osisko announces 9 million ounce gold reserve at Canadian Malartic", February 10, 2010)
 2. Osisko press release ("Osisko increases gold reserve at Canadian Malartic to 10.7 million ounces", March 31, 2010)

Canadian Malartic Resource is Robust

- **R&R estimates calculated from 636,200 meters of drilling completed by Osisko** since March 2005, as well as 228,500 meters of historical drilling that was tested and validated
- **7.2 M oz of gold** in the in-pit M&I resources category **has an average grade of 1.80 g/t** using a 1 g/t cutoff grade
- **At a gold price of US\$1,400/oz**, the **in-pit M&I resource increases to 11.80 M oz** at an average grade of 0.84 g/t

Canadian Malartic Resource Estimate within US\$1000 Whittle Pit Shell

Cut-off (g/t)	Measured & Indicated			Inferred		
	Tonne (M)	Grade (g/t)	Au (M oz)	Tonne (M)	Grade (g/t)	Au (M oz)
0.30 - 0.32*	305.1	1.08	10.63	9.0	0.68	0.20
0.40	271.0	1.17	10.24	6.8	0.79	0.17
0.50	234.6	1.29	9.73	5.2	0.89	0.15
0.60	202.8	1.40	9.15	4.0	1.00	0.13
0.70	176.9	1.51	8.61	2.9	1.13	0.11
0.80	156.5	1.61	8.12	2.2	1.25	0.09
0.90	139.5	1.71	7.66	1.8	1.35	0.08
1.00	124.8	1.80	7.21	1.4	1.47	0.06

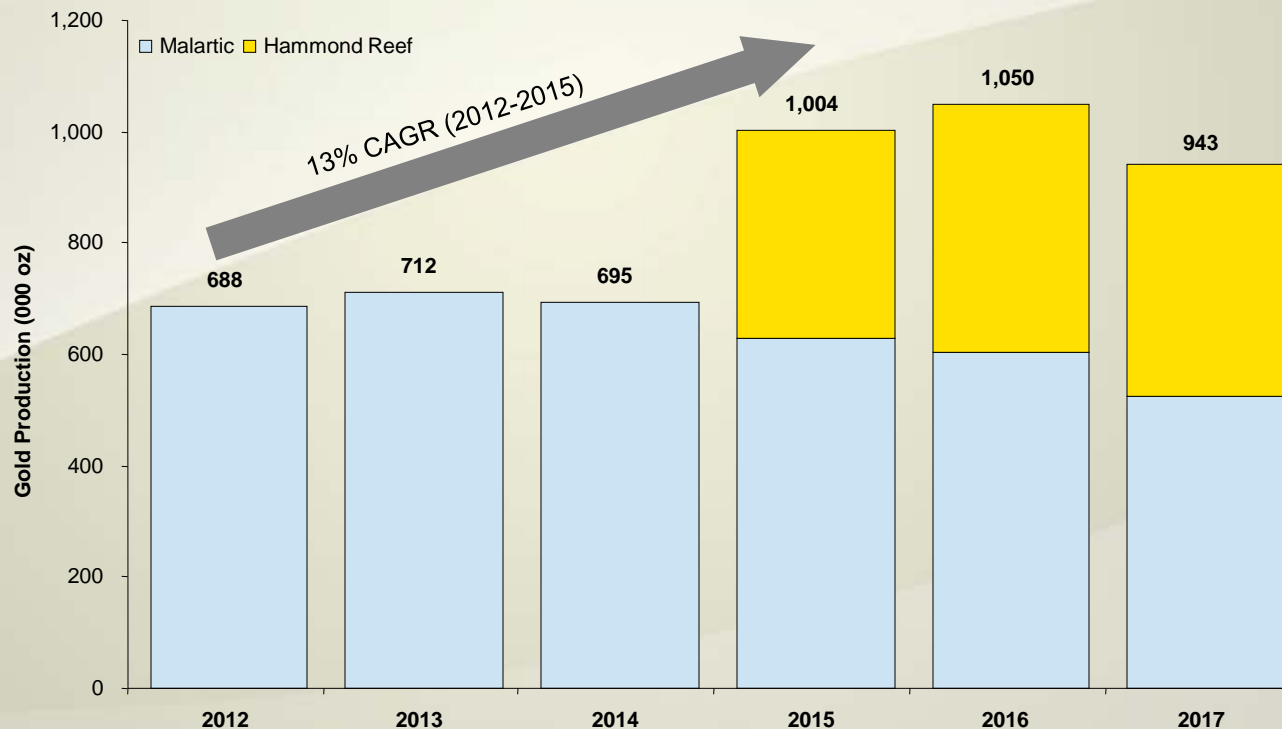
* Cut-off of 0.30g/t Au for Barnat and 0.32g/t Au for Canadian Malartic

Sensitivity of the In-pit M&I Resource to the Gold Price

Gold Price	Tonnes (M)	Grade (g/t)	Au Ounces (M)	Strip Ratio
\$800	300.1	1.05	10.15	2.01
\$900	328.0	1.01	10.60	2.00
\$1,000	353.7	0.96	10.95	1.96
\$1,100	376.1	0.93	11.20	1.89
\$1,200	395.9	0.90	11.41	1.84
\$1,300	419.6	0.86	11.65	1.80
\$1,400	437.0	0.84	11.80	1.76
\$1,500	452.0	0.82	11.91	1.71
\$1,600	466.0	0.80	12.01	1.66

Strong Production Profile

- The addition of Hammond Reef will position Osisko to reach 1 mm ounces of production by 2015
 - Significant milestone for mid-tier producer
 - Strong growth profile will drive valuation



Sources: Malartic production estimates based on Osisko press release ("Osisko announces 9 million ounce gold reserve at Canadian Malartic", February 10, 2010) and costs based on Feasibility Study (BBA, December 2008). Hammond Reef estimates based on Preliminary Assessment Study (Scott Wilson RPA, November 2009)

Significant Cash Flow (at US\$1,000/oz)

- Production scale and low cash costs position Osisko to generate significant pre-tax cash flow
- Opportunity to internally finance capital expenditures at Hammond Reef



Sources: Malartic production estimates based on Osisko press release ("Osisko announces 9 million ounce gold reserve at Canadian Malartic", February 10, 2010) and costs based on Feasibility Study (BBA, December 2008). Hammond Reef estimates based on Preliminary Assessment Study (Scott Wilson RPA, November 2009)

1. Calculated as revenue from gold production (at US\$1,000 / oz gold) less cash costs including royalties; excludes silver by-product credits for Canadian Malartic

High-Quality Asset Base

- Assets located in low-risk, mine-friendly Canada
- Comparable mine types with robust economic profile
- Experienced build team at Osisko will be ready to move to Hammond Reef

	Canadian Malartic ⁽¹⁾	Hammond Reef ⁽²⁾
Production Start	Q2 2011	2015
Mine Type	Open Pit	Open Pit
Daily Mill Throughput (tpd)	55,000	50,000
Overall Strip Ratio (waste:ore)	2.1	1.43
Life-of-Mine Recovery	86.1%	93%
Average Grade (life-of-mine, g/t)	1.13	0.70
Mine Life (years)	12.2	14
Estimated Recovered Gold (000 oz)	7,721	5,129
Initial Average Production (000 oz)	732 ⁽³⁾	463 ⁽⁵⁾
Average Production (life-of-mine, 000 oz)	630	369
Cash Costs incl. royalties (US\$/oz)	\$319 ⁽⁴⁾	\$382 ⁽⁵⁾
Initial Capital Expenditures (US\$m)	\$813 ⁽⁶⁾	\$614

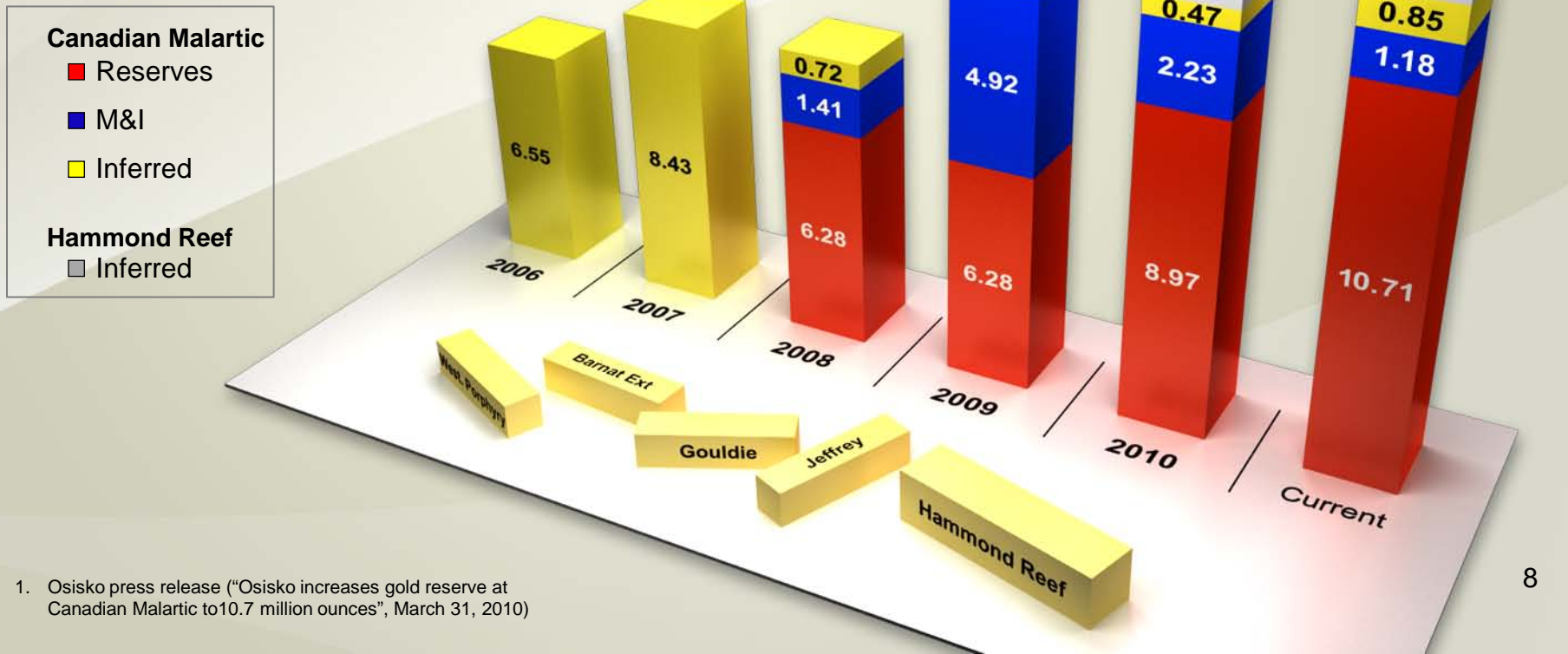


1. Osisko press release ("Osisko announces 9 million ounce gold reserve at Canadian Malartic", February 10, 2010)
2. Brett press release ("Brett's Hammond Reef Delivers Robust Economic Results", November 12, 2009)
3. Figures shown represent averages for first three years of full production (2012 – 2014) assuming milling rate is upgraded to 60,000 tpd in 2013
4. Based on life-of-mine average, including royalties and silver credits; Source: November 2008 feasibility study on Canadian Malartic
5. Figures shown represent averages for years 1-6
6. November 2008 feasibility study on Canadian Malartic increased by 3% as per press release ("Osisko Releases Second Quarter 2010 Results", August 10, 2010)

Exploration Upside

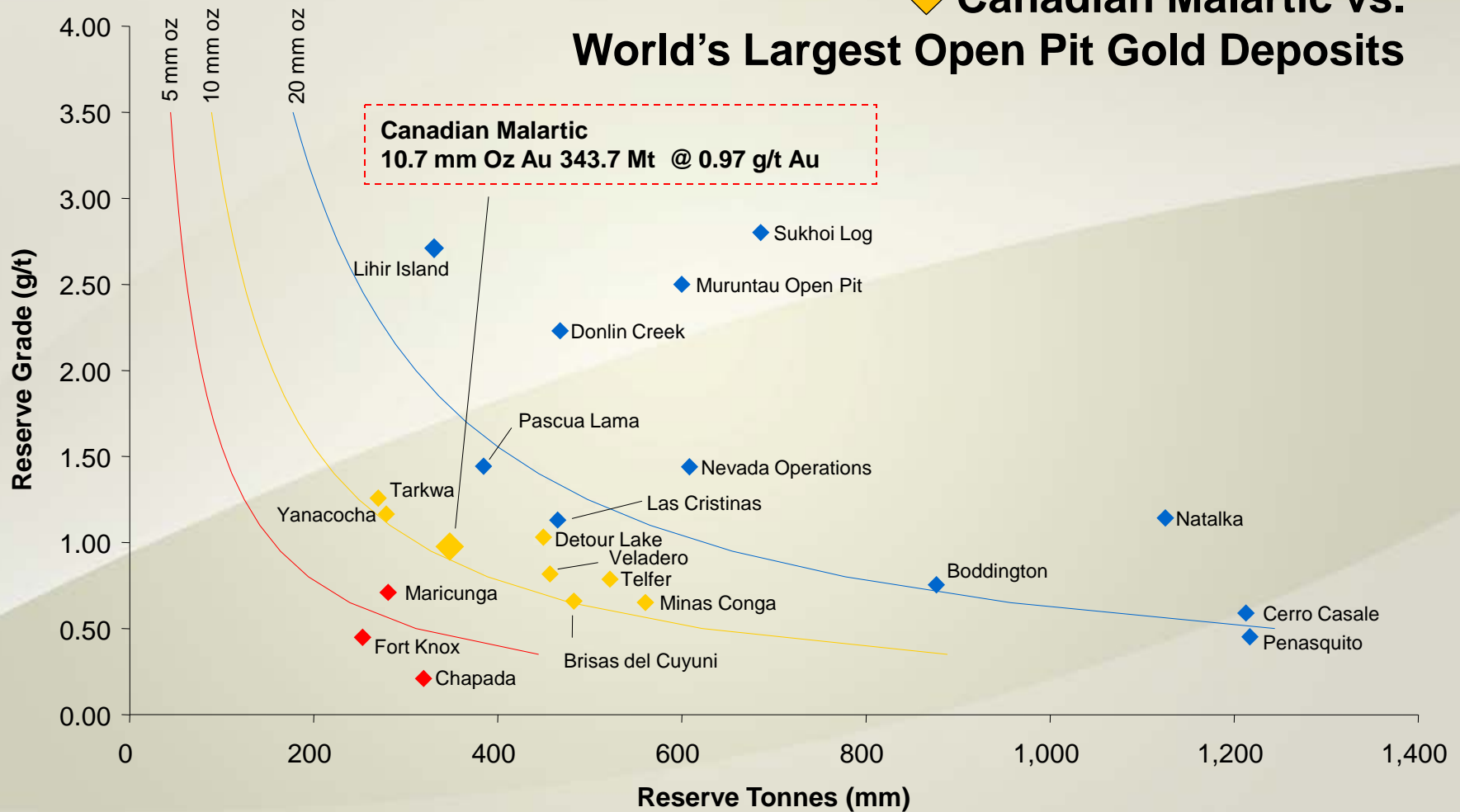
- Osisko has a proven track record of creating value at the drill bit year-on-year
- Open pit proven and probable reserve has increased by 1.74 million ounces (19%) in 2011
 - New resources defined from the ongoing drill program, including the Barnat Extension and Gouldie Zones
- Executed over 630,000 meters of drilling at Canadian Malartic since 2005
- Addition of relatively underexplored Hammond Reef provides further upside

Global Gold Resources (MM oz)



1. Osisko press release ("Osisko increases gold reserve at Canadian Malartic to 10.7 million ounces", March 31, 2010)

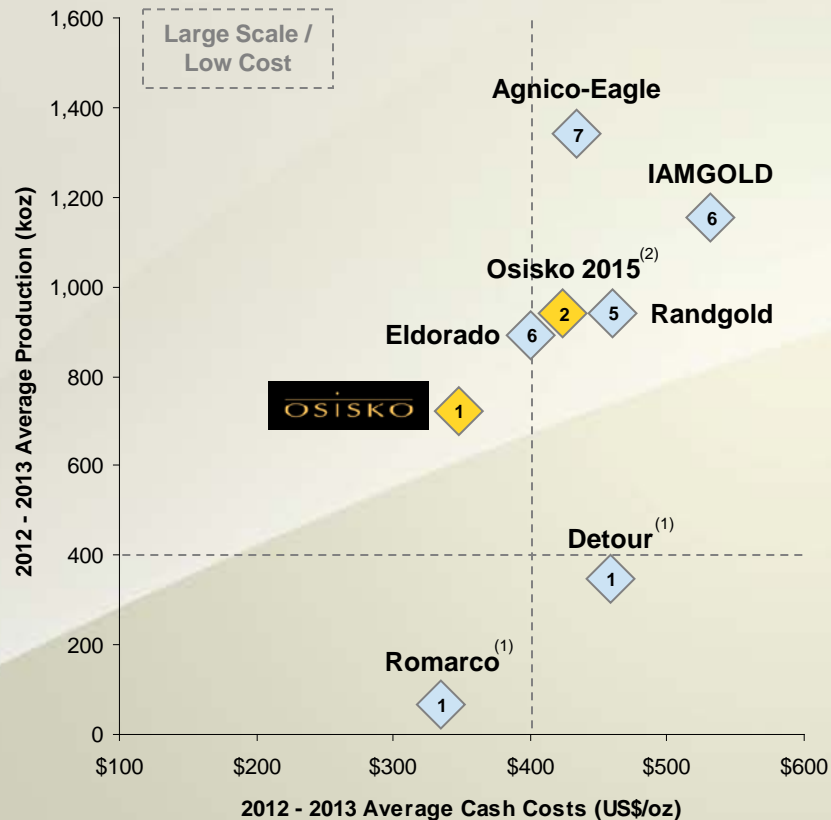
Canadian Malartic vs. World's Largest Open Pit Gold Deposits



Source: Metals Economics Group and company disclosure

Asset Quality

Production vs. Cash Costs



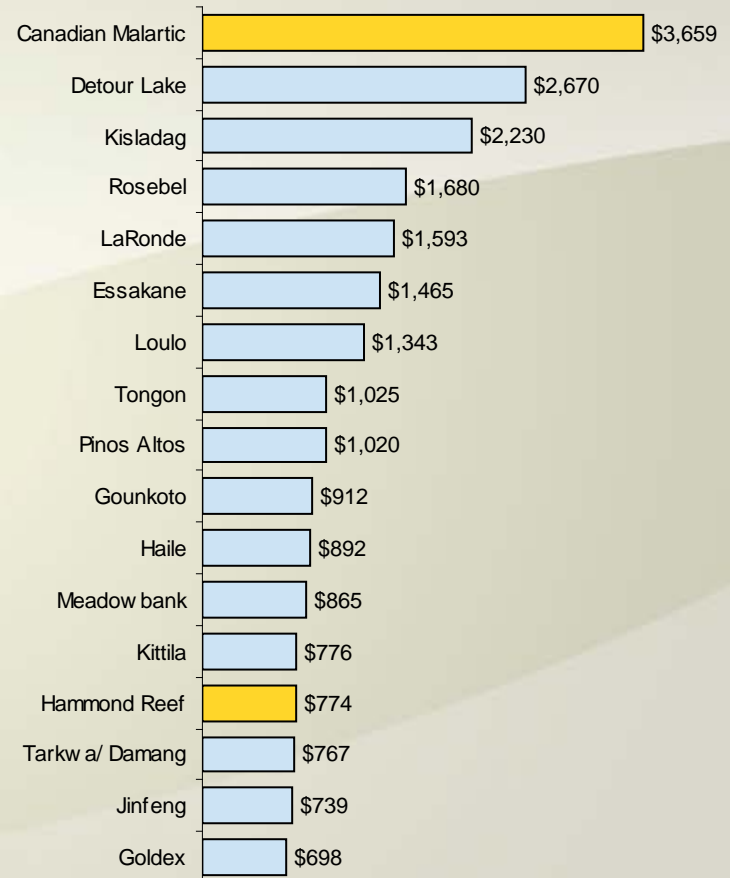
Note: Number of assets with expected production in 2012 – 2013 is shown within diamonds

Source: Street consensus

1. Figures based on 2013 due to no production estimated for 2012

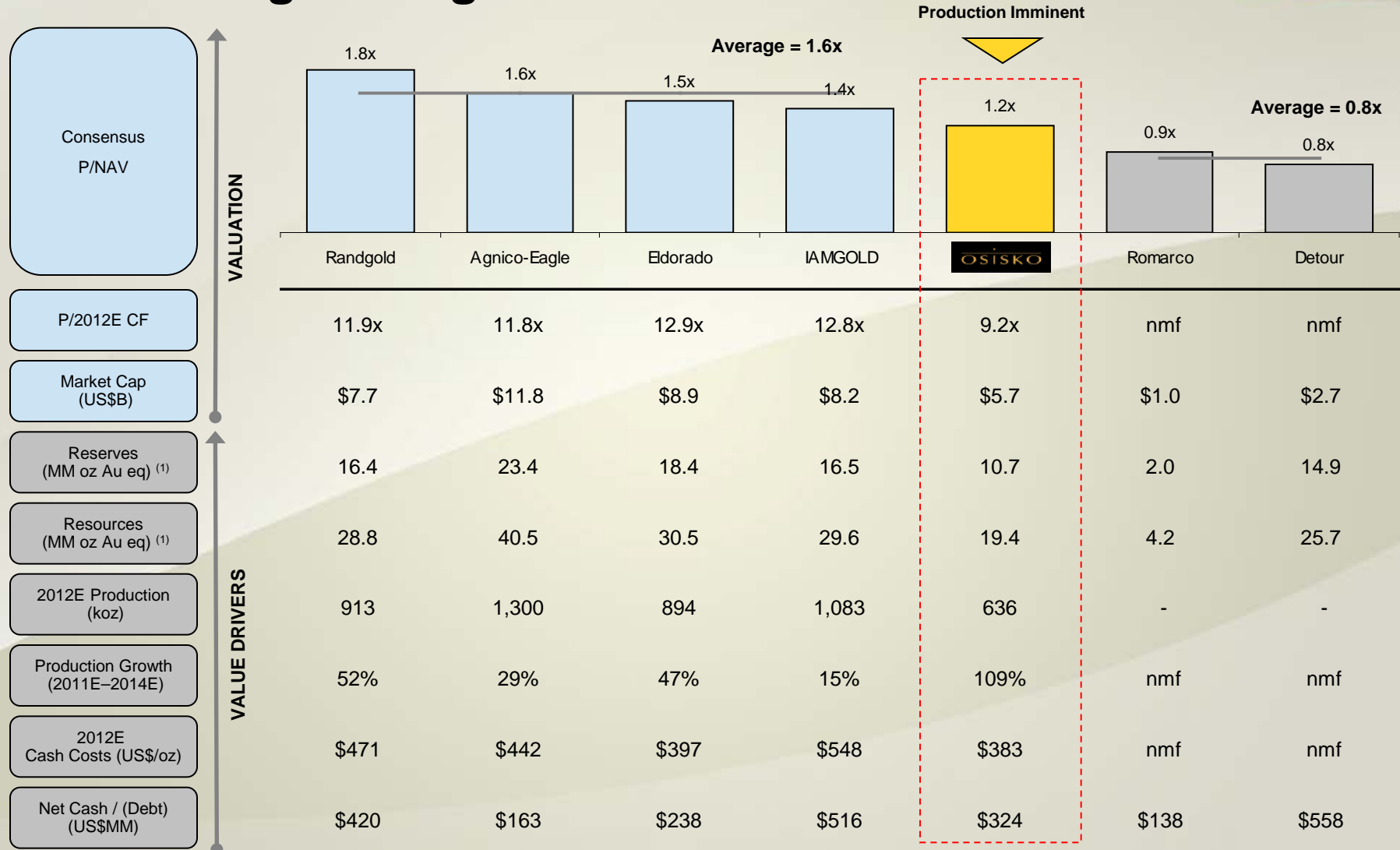
2. Osisko 2015 includes production and cash costs from Hammond Reef

Peer Assets by Consensus NPV (US\$MM)



Osisko controls two of the highest value assets of its peer group

Positioning Among Peers

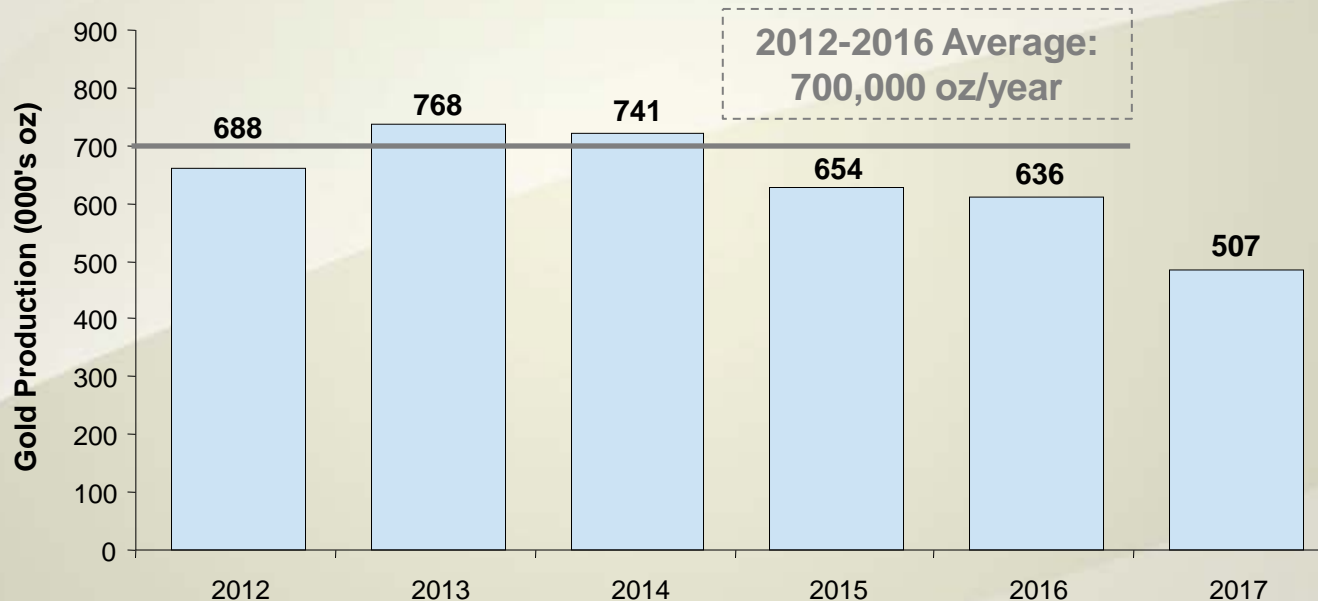


Source: Bloomberg Financial Markets, company disclosure, street consensus

1. Precious metals only. Gold equivalent reserves and resources calculated using long-term consensus gold and silver prices (US\$): Au - \$1,000/oz; Ag - \$17/oz.

Upgrading to 60,000 TPD

- Ability to recover 3.5 mm ounces of gold in the first five years of production at an average rate of 700,000 ounces per year by increasing to 60,000 tpd in 2013



Source: Production estimates based on Osisko press release ("Osisko announces 9 million ounce gold reserve at Canadian Malartic", February 10, 2010)

Project Overview



Mining Complex

Project Overview



Administrative Building

Project Overview



Process Plant

Project Overview



Leaching Circuit

Mining Fleet on Site – Mining has Commenced



CAT 793F Mining Truck

Terex RH340 Excavator

Grinding Mills Installation (38' SAG mill)



Grinding Mills Installation (38' SAG mill)



Grinding Mills Installation (38' SAG mill)



Grinding Mills Installation (ball mills)

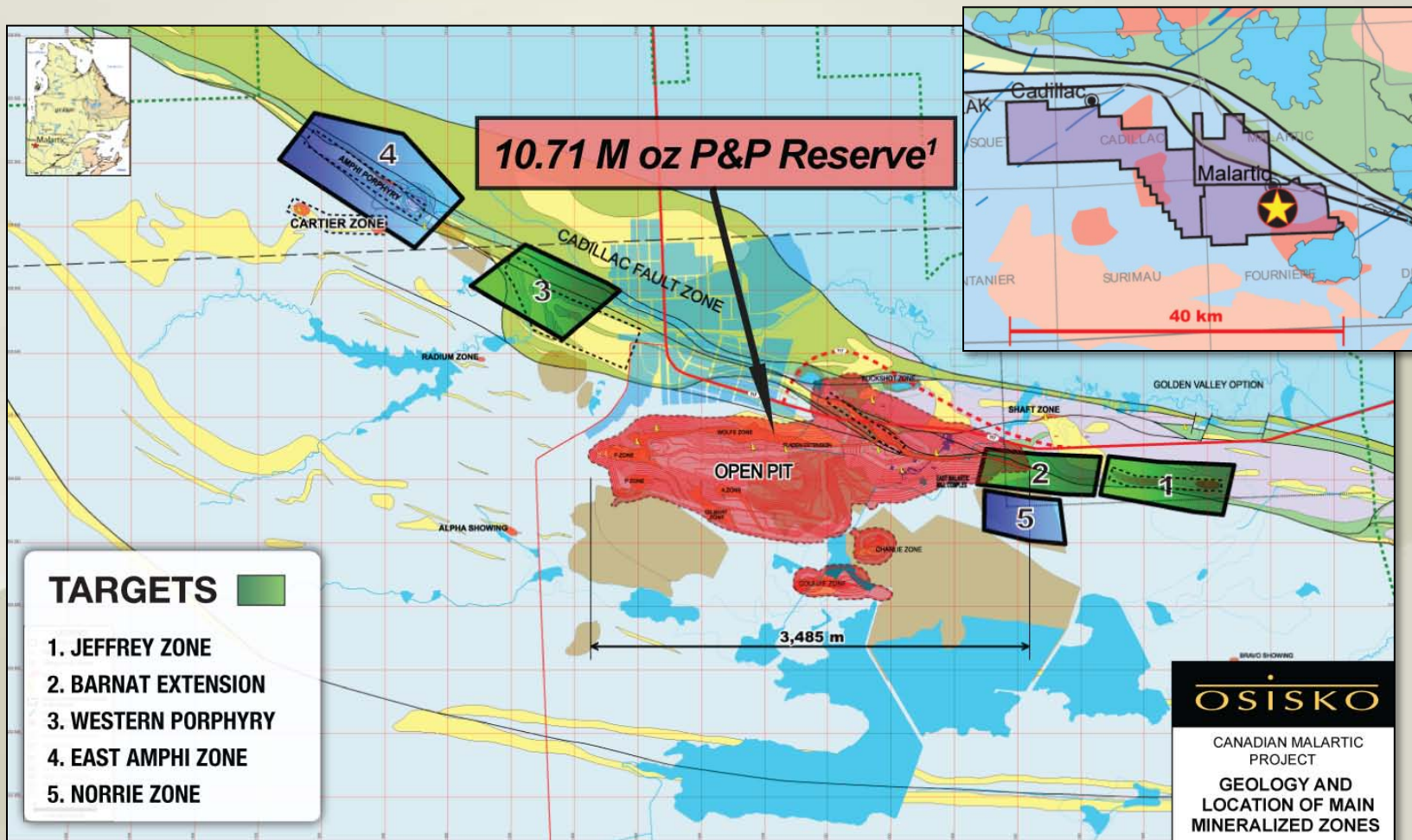


Project CAPEX

DESCRIPTION	Revised Budget	Invested 31/12/10	Commitments 31/12/10	Total 31/12/10
	(CA\$M)	(CA\$M)	(CA\$M)	(CA\$M)
Mining	175.7	147.8	6.9	154.7
Processing	444.2	406.8	11.1	417.9
Tailing and Water Management	29.3	24.6	3.2	27.8
Electrical and Communication	21.1	19.8	1.0	20.8
Infrastructure	44.0	39.8	0.9	40.7
Community Development	143.8	142.9	0.3	143.2
Indirects	85.5	73.1	3.9	77.0
Owner's Cost	31.8	26.6	2.2	28.8
Sub-Total	975.6	881.4	29.5	910.9
Contingency	5.3	6.6	0.8	7.4
Total	980.9	888.0	30.3	918.3

93% of CAPEX is cost protected

Resource Areas and Top Four Priority Drill Targets

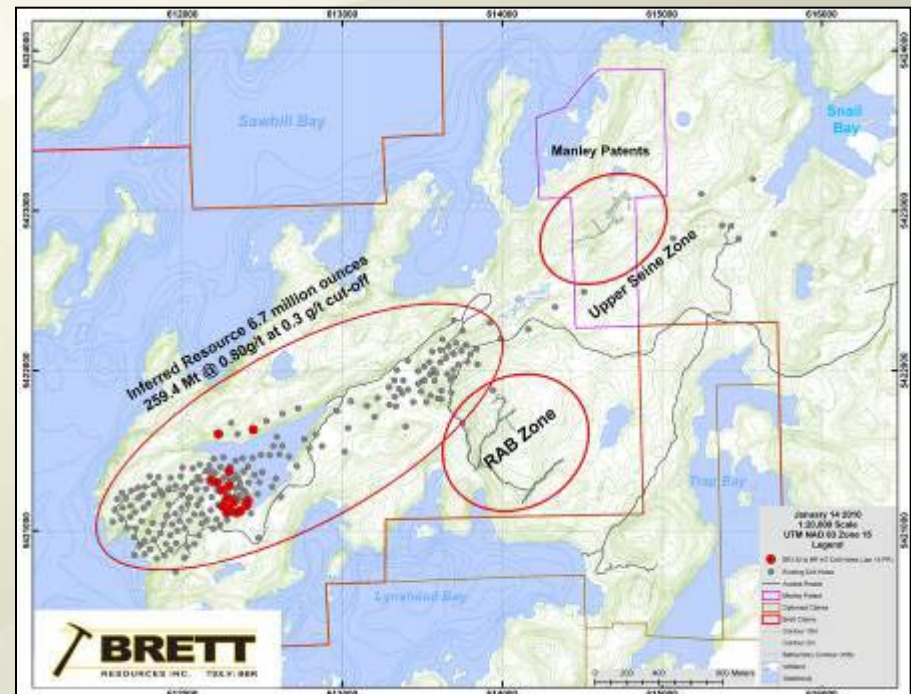


1. NI 43-101 Proven and Probable Reserves: 343.7 Mt @ 0.97 g/t Au

Resource of 6.7 mm Ounces

- Inferred resource based on 85 historic drill holes and 126 Brett drill holes
 - Completed in July 2009 by Scott Wilson RPA
- 97% of resource lies within 300 metres of surface
- Deposit remains open at depth and along strike

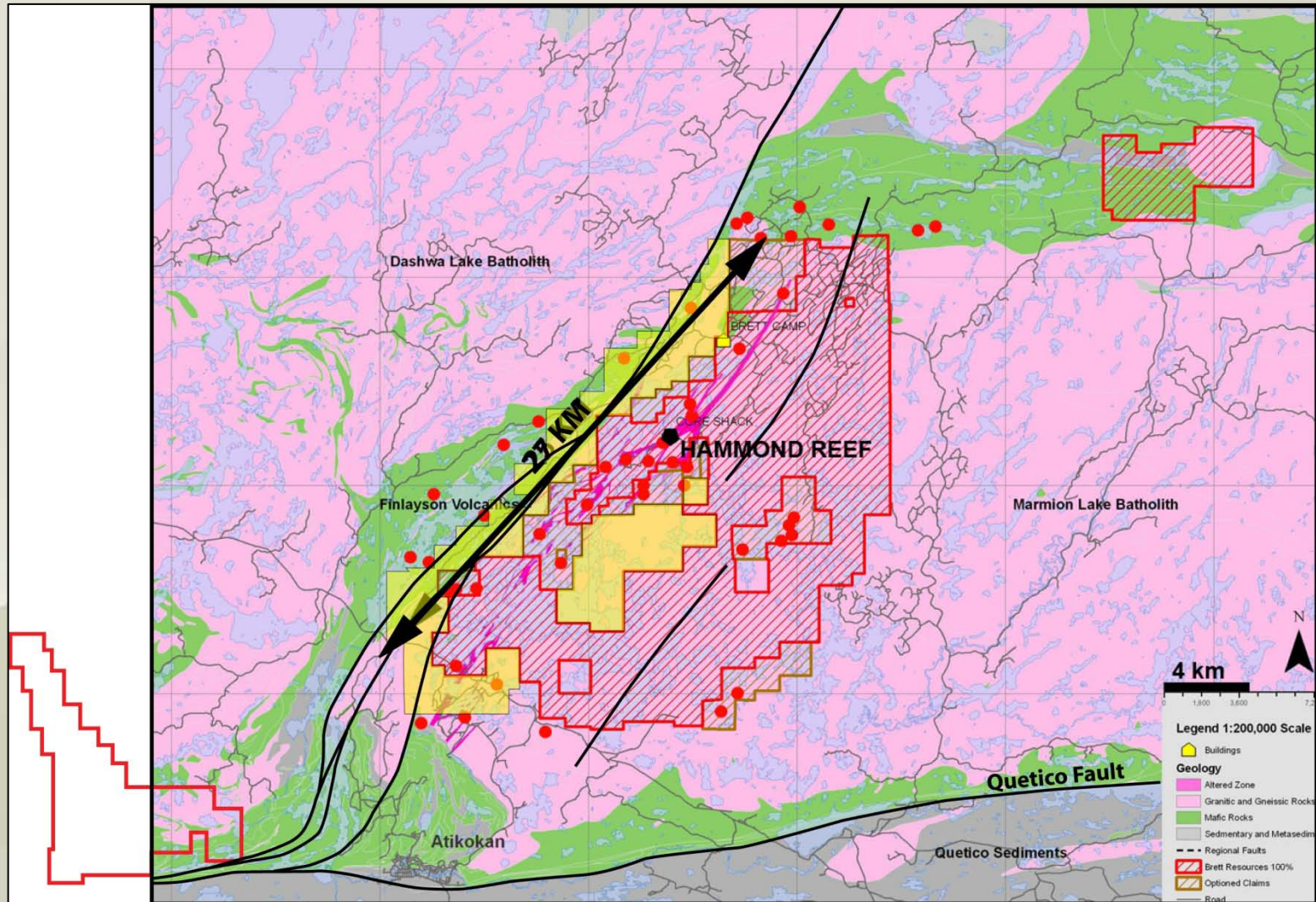
Cut-off	Tonnes	Grade	Gold
Au g/t	(mm)	Au g/t	(mm oz)
1.00	60.2	1.46	2.83
0.90	77.1	1.35	3.34
0.80	98.4	1.24	3.93
0.70	124.6	1.14	4.56
0.60	155.0	1.04	5.19
0.50	188.5	0.95	5.78
0.40	227.0	0.87	6.34
0.30	259.4	0.80	6.70
0.20	281.9	0.76	6.89



Base Case for Preliminary Assessment ⁽¹⁾

1. Preliminary Assessment of the Hammond Reef Gold Project; completed by Scott Willson RPA, November 2009

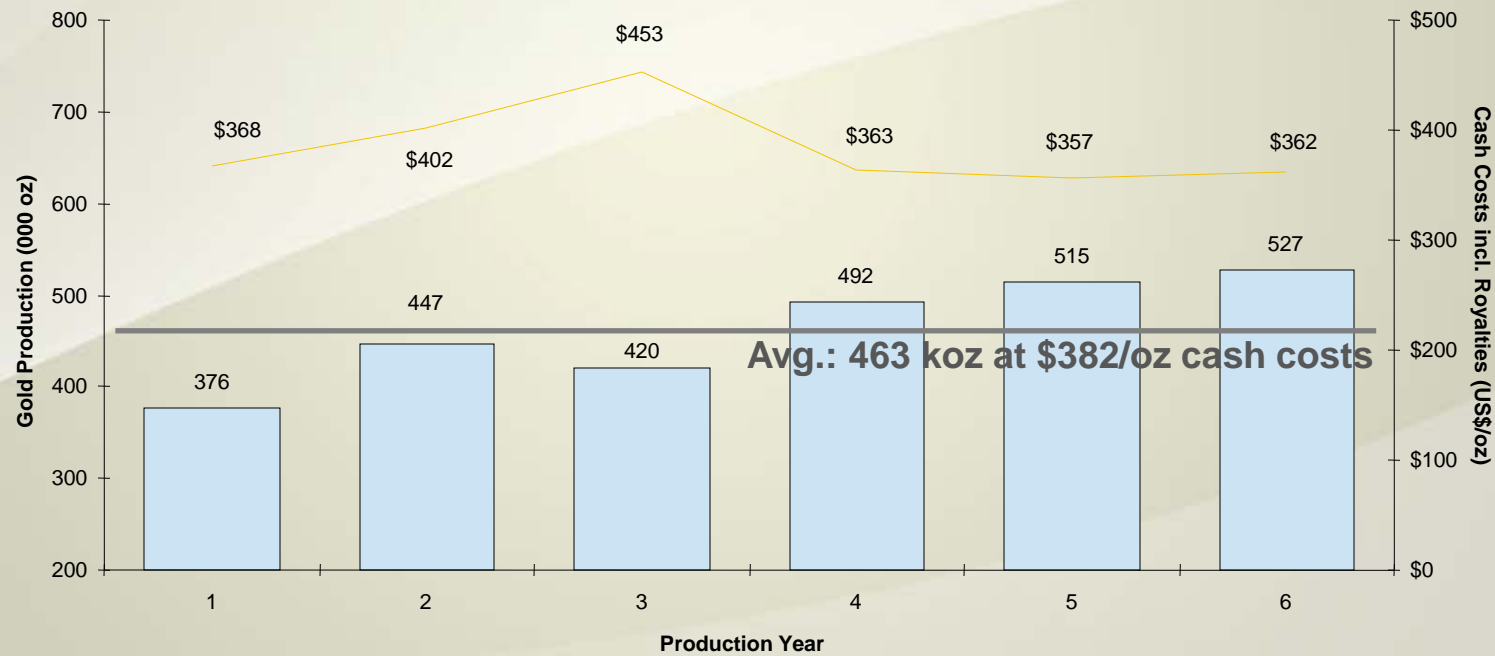
Property Claim Map



Production Profile

- Over 2.7 mm ounces produced during first six years
- Life-of-mine average annual production of 369,000 ounces

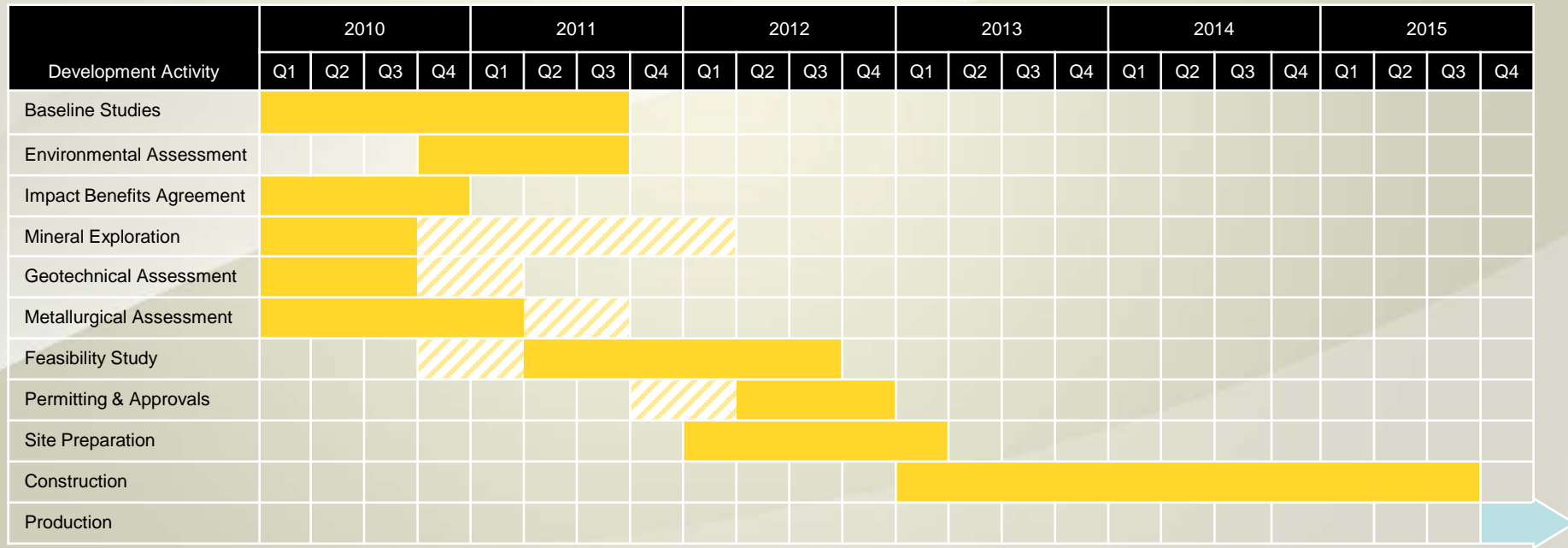
**Years 1 – 6:
Average annual
production of 463,000
ounces at cash costs
of US\$382/oz**



Source: Preliminary Assessment of the Hammond Reef Gold Project; completed by Scott Willson RPA, November 2009

Project Timeline

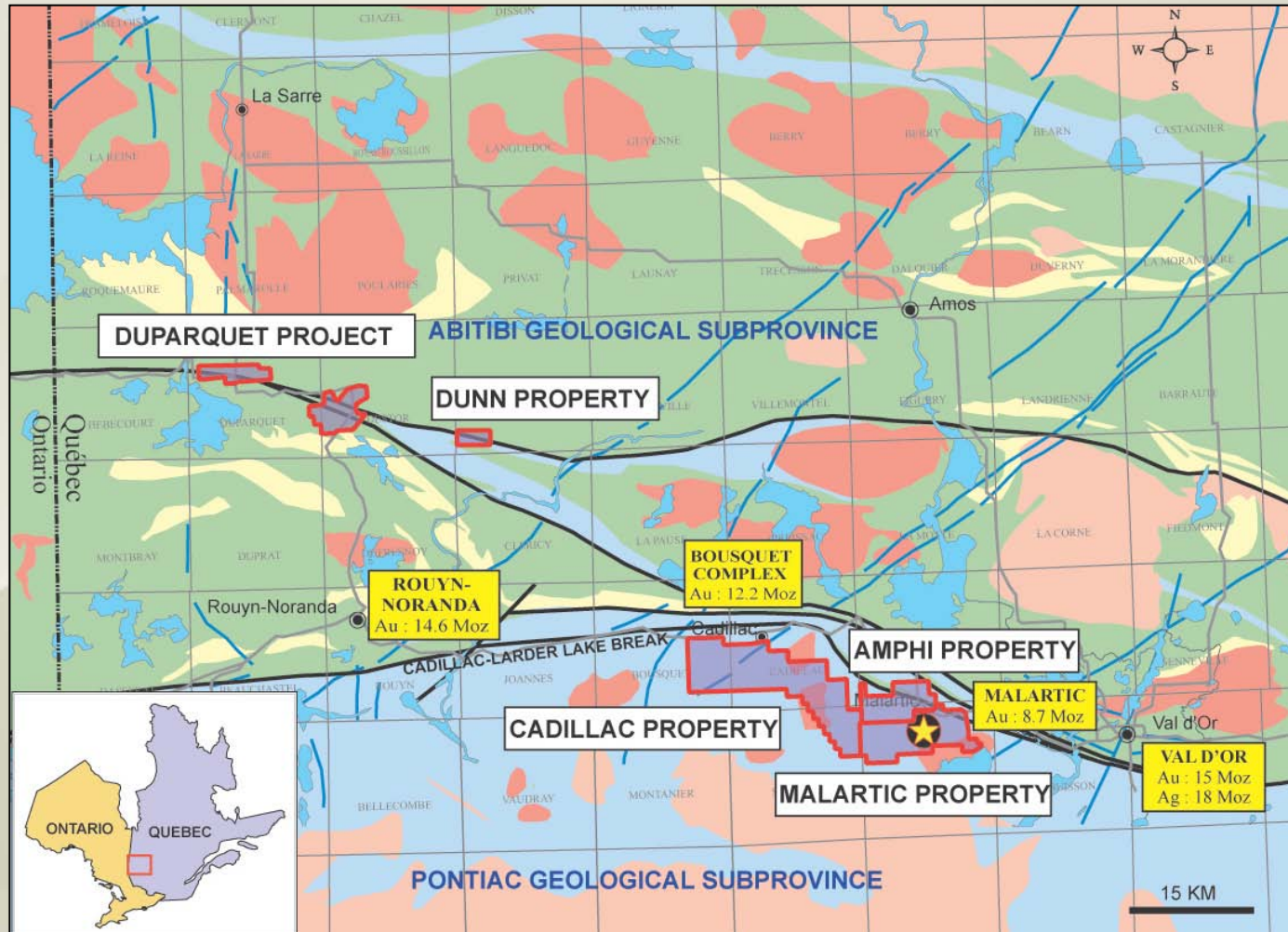
- Development of Hammond Reef fits well into Osisko's pipeline
 - Site preparation work scheduled after Canadian Malartic enters production
- Development on schedule for production in 2015



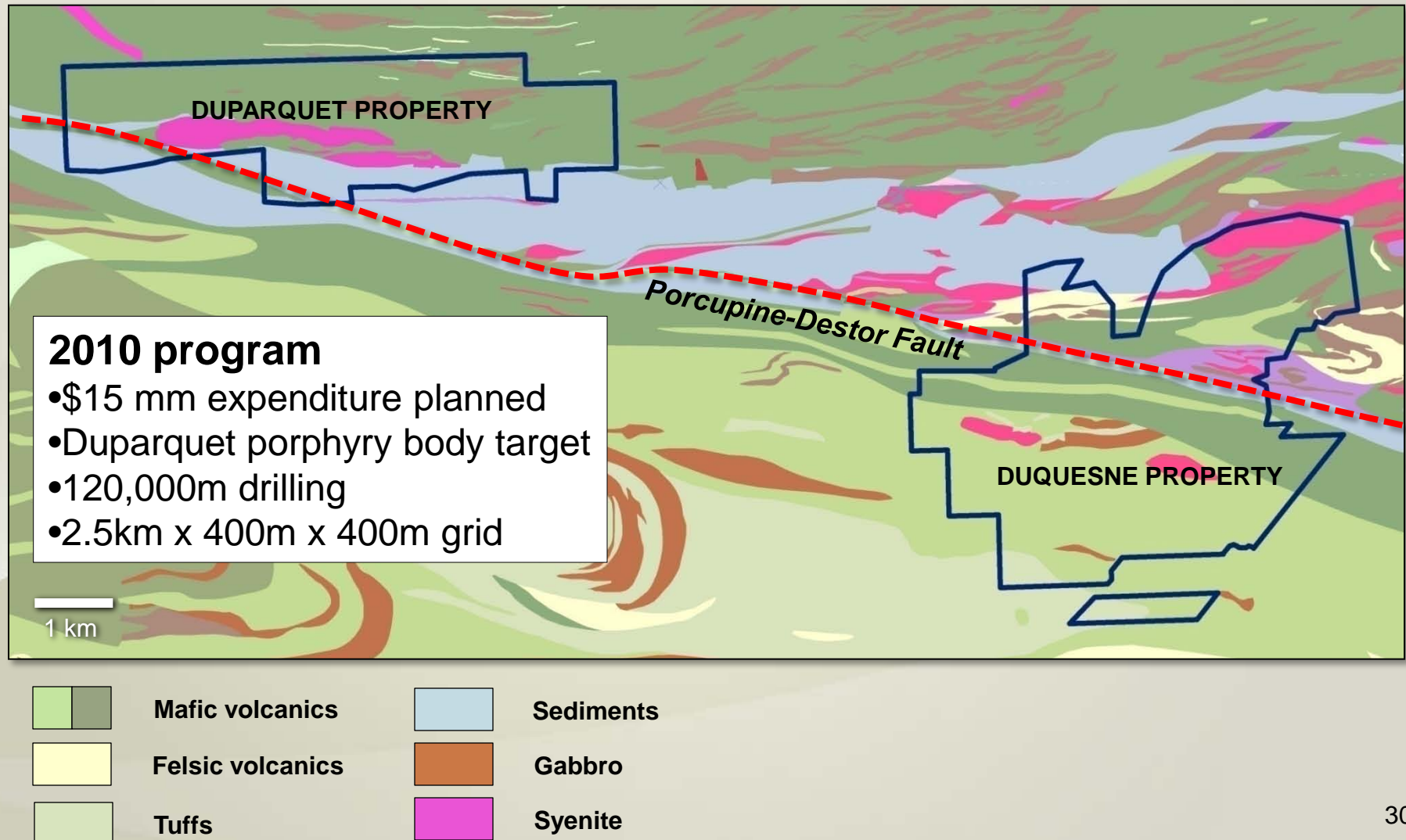
Plans for 2011

- Continue exploration to identify and drill additional new targets
 - RAB and Manley
- New exploration and infill drill program to grow resource and improve resource categories underway
 - New resource estimate in Q1 2012
- Initiate Environmental Assessment and fieldwork – started Q3-2010
- Conduct detailed geotechnical investigations
- Continue definitive metallurgical testwork

Duparquet Project – Regional Property Location

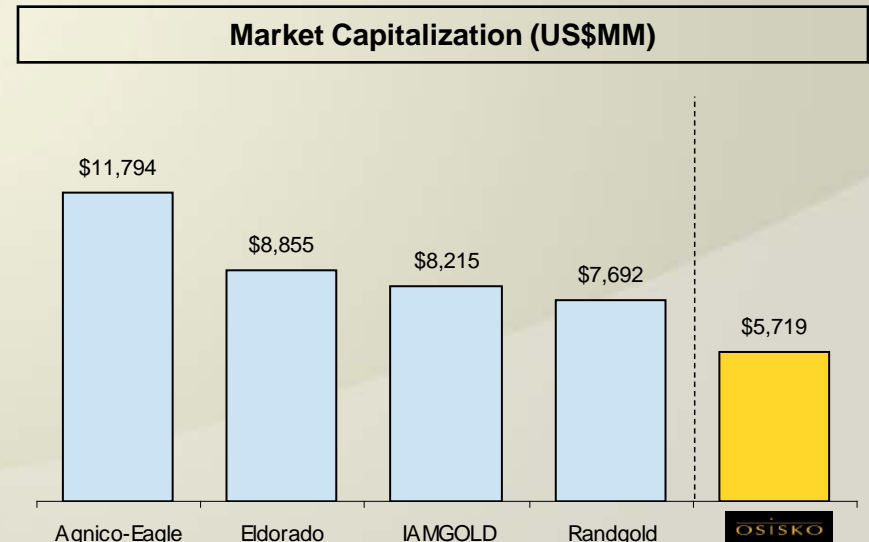
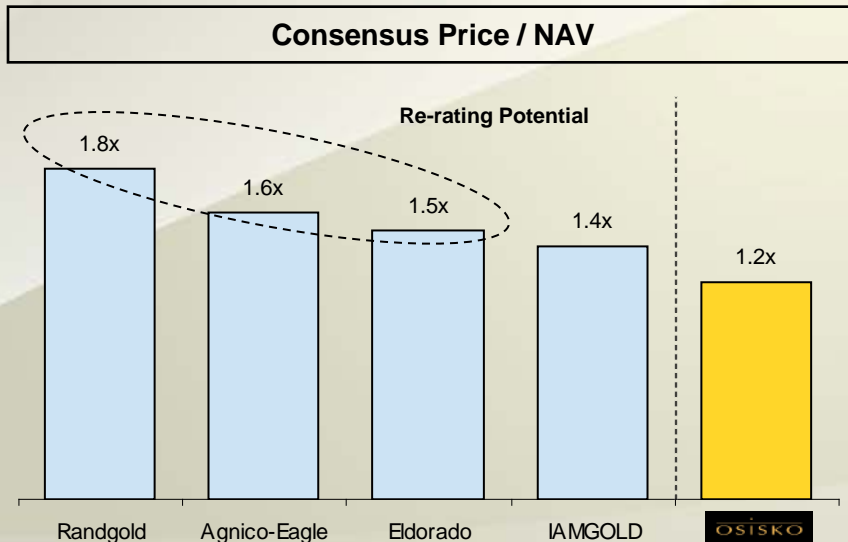


Duparquet Project - Geology and Property Location



Valuation Re-Rating

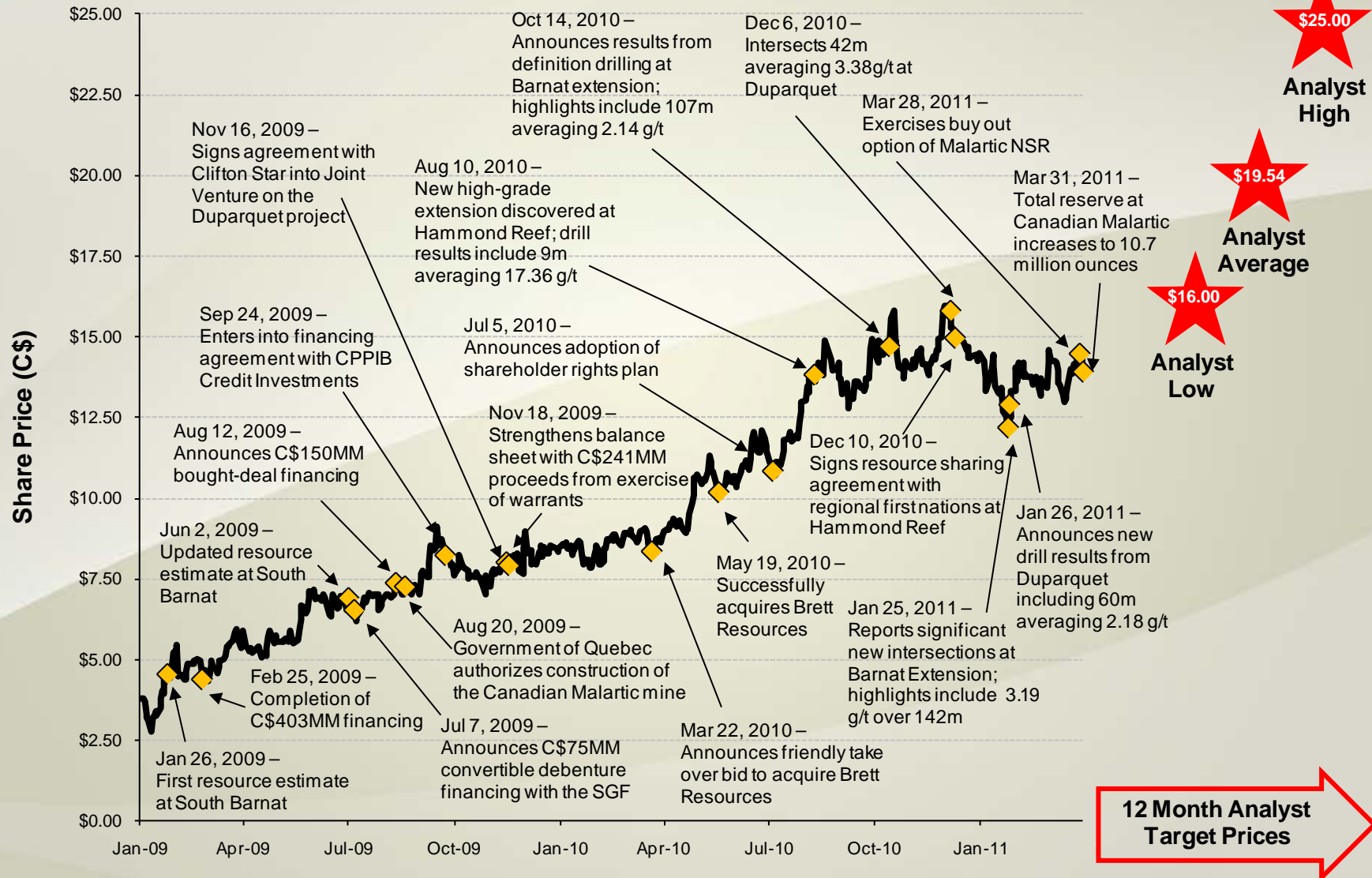
- Osisko positioned to achieve valuation multiples enjoyed by mid-tier producers
 - Diversified assets, located in low-risk jurisdiction
 - Strong production growth
 - Visibility to 1 MM ounces of production
 - Low cash costs
 - Exploration upside
 - Experienced management team



Significant Upside Ahead

	Broker	Date	Target Price (C\$/share)
1.	CIBC World Markets	Nov-21-2010	\$25.00
2.	Cormark Securities	Apr-01-2011	\$24.00
3.	Stifel Nicolaus	Mar-28-2011	\$22.00
4.	RBC Capital Markets	Mar-28-2011	\$21.00
5.	Canaccord Genuity	Apr-01-2011	\$20.00
6.	Dundee Securities	Mar-31-2011	\$20.00
7.	UBS Securities	Mar-31-2011	\$19.50
8.	GMP Securities	Apr-01-2011	\$18.75
9.	Macquarie	Apr-01-2011	\$18.00
10.	BMO Capital Markets	Mar-31-2011	\$18.00
11.	Raymond James	Mar-31-2011	\$18.00
12.	Credit Suisse	Mar-31-2011	\$17.25
13.	Paradigm Capital	Sep-20-2010	\$16.00
14.	TD Newcrest	Mar-31-2011	\$16.00
Average			\$19.54

Share Price Momentum



Administrative / Mine Services Building



Canadian Malartic Workforce



Residential Relocation 100% Complete

New neighbourhood constructed by Osisko



October 2010



*Old neighbourhood cleared
of houses*

Construction of New Institutional Buildings Completed

Long Term Care Hospital Center



École des Explorateurs



Day Care Facility



Adult Learning Facility – Le Trait-d'Union



Cultural Recreation Centre