OSISKO

Discovery and Development of the Canadian Malartic Gold Deposit

OSK:TSX EWX:Deutsche Boerse

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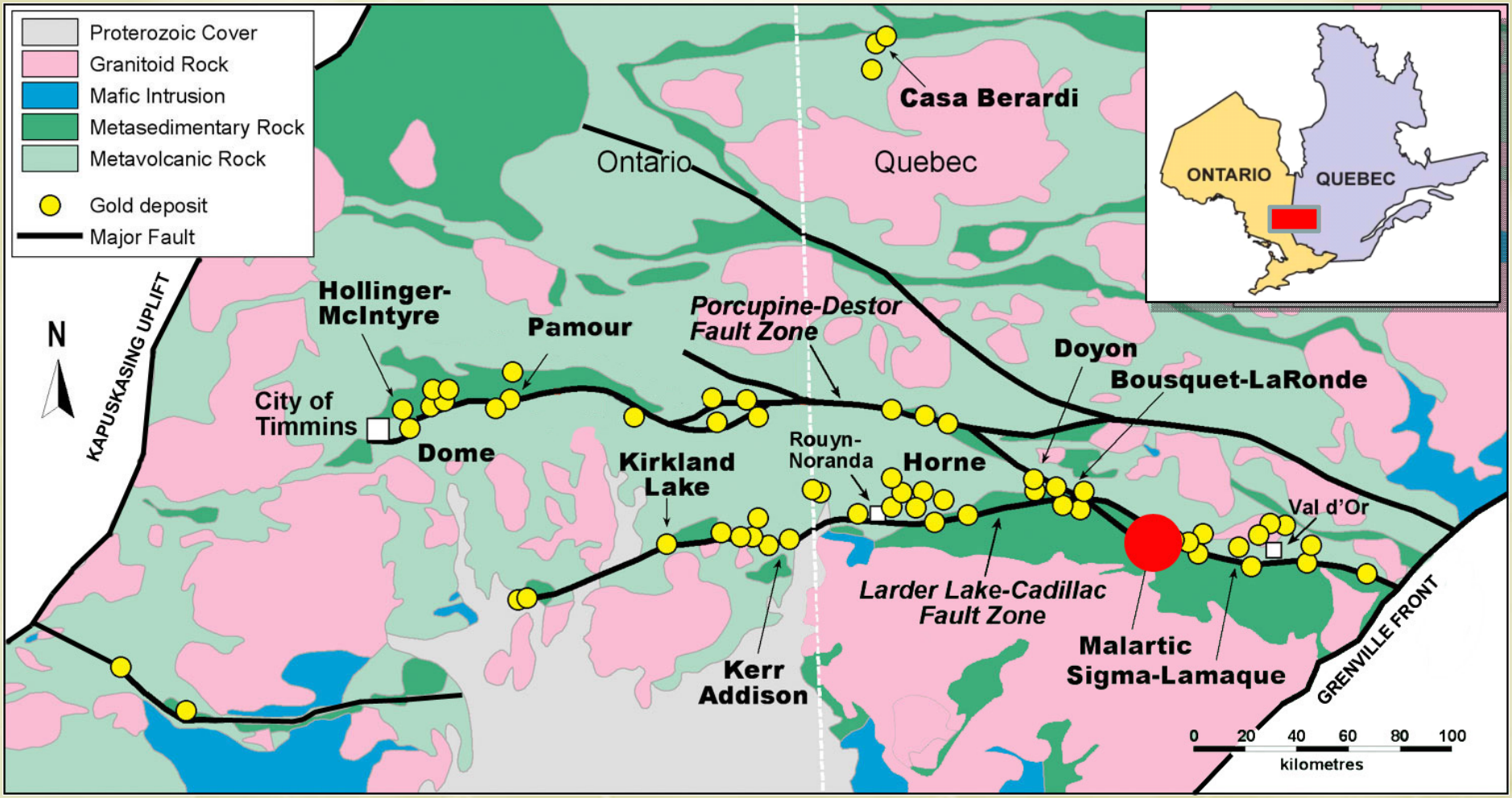
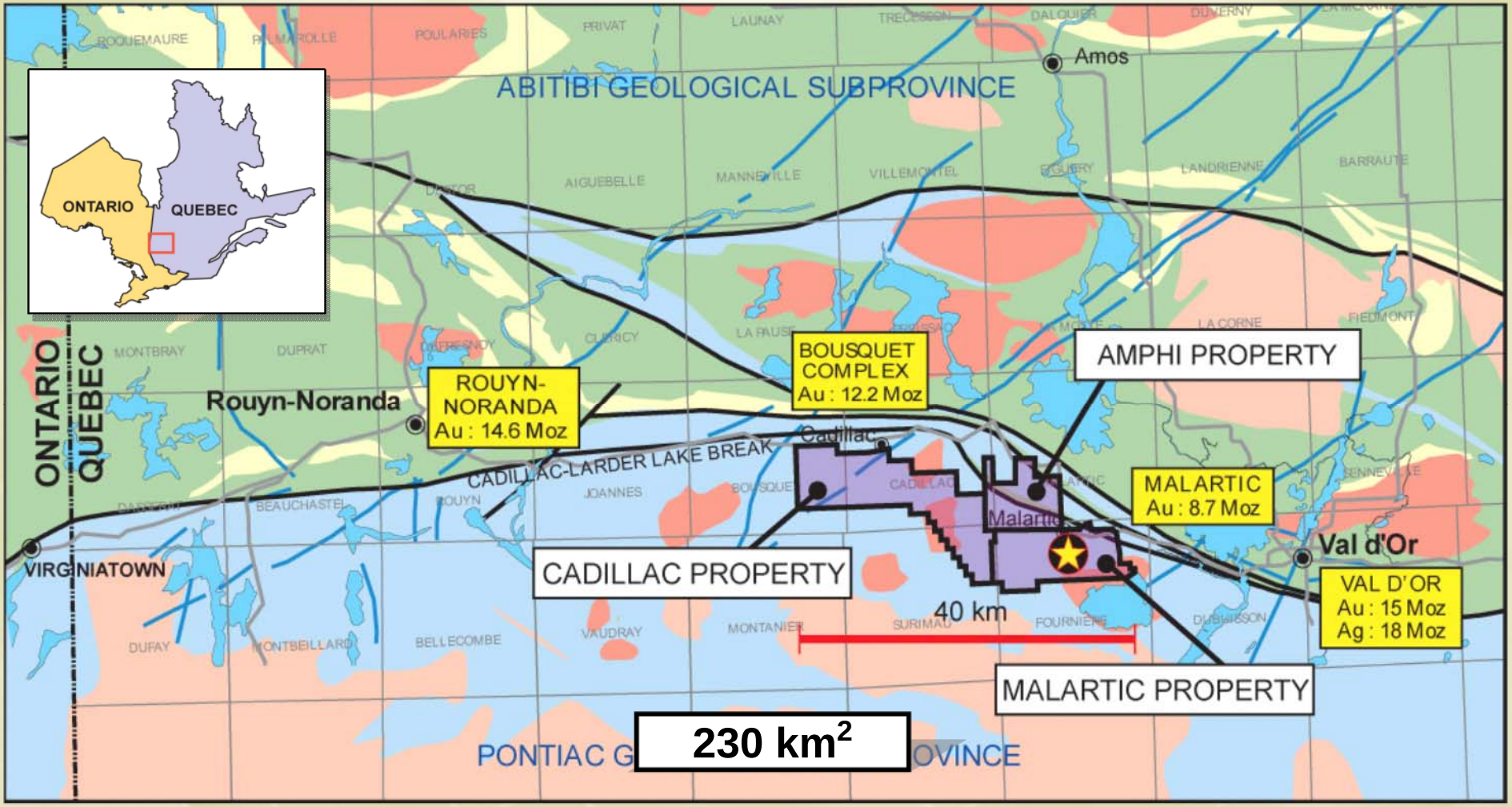
CANADIAN MALARTIC BULK TONNAGE GOLD DEPOSIT

- Located in Southern Abitibi Greenstone Belt of Quebec
- Discovered in 2005 as a result of compiling publically available data, and of intentional focus on targeting bulk tonnage porphyry-type gold deposits in the Archean
- Project unique as it targeted an unusual deposit type, and required relocation of a significant portion of an existing community
- Brownfield exploration program successfully outlined ~13 M oz (400 t) gold resource in under six years
- Production began May 2011 with 10.7 M oz P&P reserves

Abitibi Greenstone Belt



Property location



Project Background

- **Historical production from camp (1935-1979): Canadian Malartic, Sladen Malartic, Barnat Mines, East Malartic, Rand Malartic and Malartic Goldfields: 8.7 ounces of gold from ore grading average 4.5 g/t Au by way of UG bulk mining methods.**
- **Following closure of East Malartic Mines in 1979 the entire camp was acquired by Long Lac Exploration Ltd.**
- **Lac Minerals explored the properties between 1980 and 1990 aiming to produce from a number of small open pits.**
- **Lac Minerals was acquired by Barrick in 1994, no exploration work performed by Barrick.**

Project Background

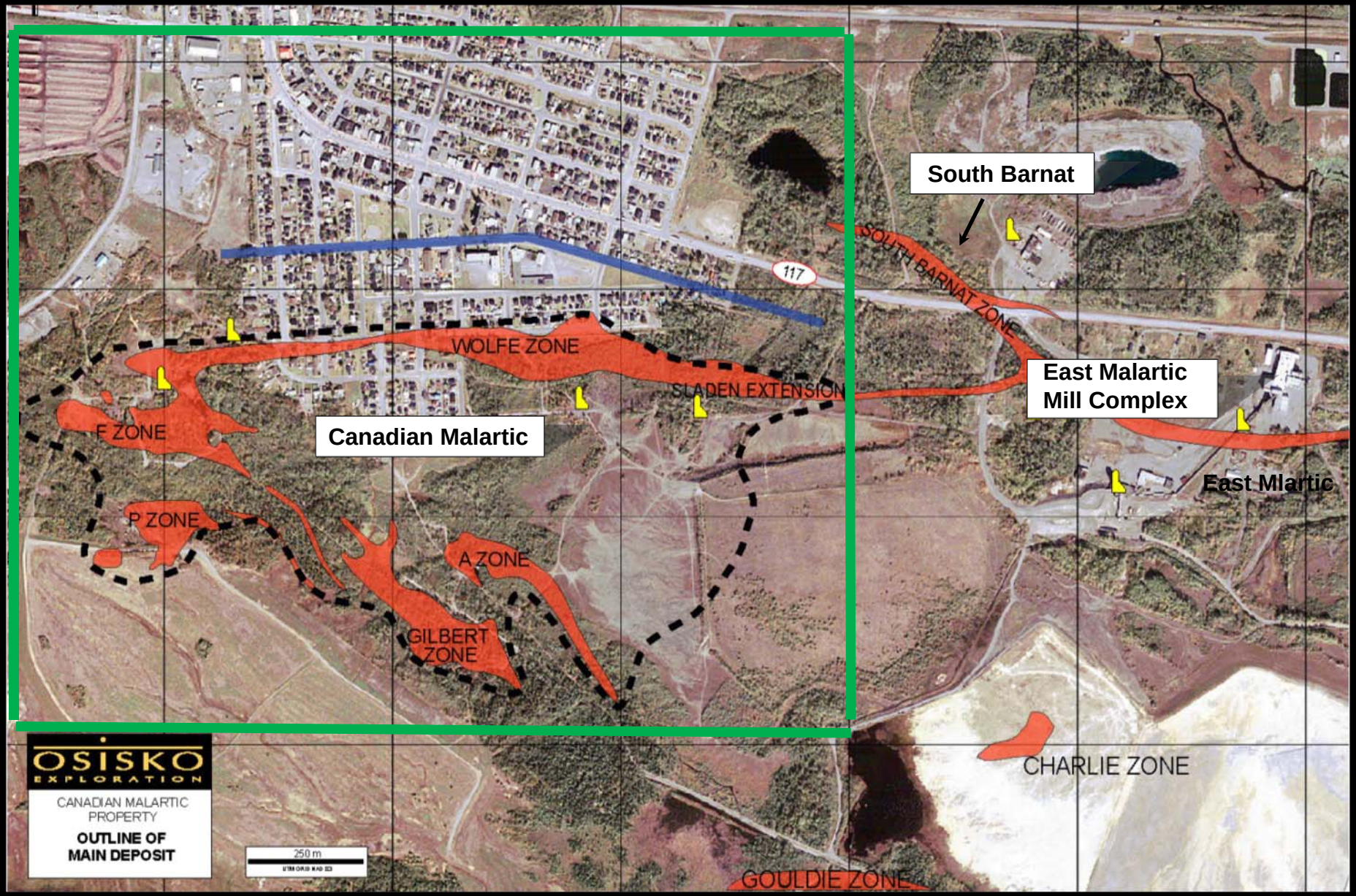
- **Barrick sold all interests in Malartic camp to McWatters Mining in 2003, retaining a 3% NSR on portions of the camp.**
- **McWatters declared bankruptcy in 2004; Osisko acquired the initial CM claims in October 2004 from liquidation trustee for $80,000!**
- **Osisko gambled that no one would bid on what was perceived as a fully exploited brownfield play with potential liabilities.**
- **Central to its targeting strategy was the search for potential porphyry gold deposits in the Archean Superior province.**
- **By 2004, compilation had already identified past-producing Canadian Malartic mine as a high-potential acquisition.**

Features of gold-rich porphyry deposits

- High tonnage (>100 Mt)
- Low copper grades (< 1% Cu)
- Low but recoverable gold (0.4-1.2 g/t Au) and silver (1-5 g/t)
- long, consistent, low-grade drill intersects
- Simple hypogene mineralogy (cp-py)
- Disseminated/stockwork mineralisation, hydrothermal breccias
- Widespread potassic alteration footprint
- Genetic and spatial association to intermediate calc-alkaline porphyritic intrusions
- Intrusion typically has a simple cylindrical morphology

(Red indicates observed features at CM)

The Malartic situation in 2004



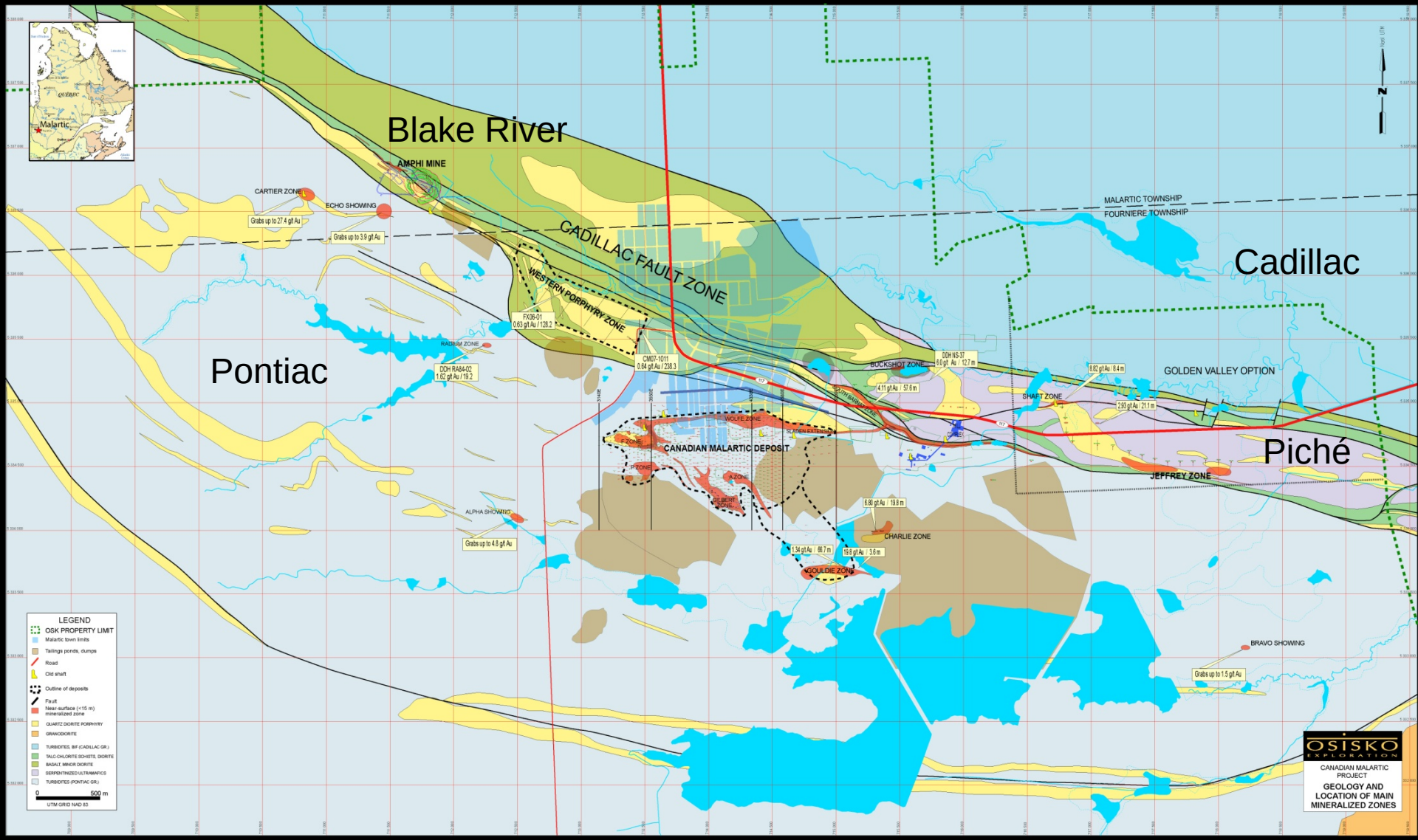
INSPIRATION – it can be done!

Fort Knox, Alaska

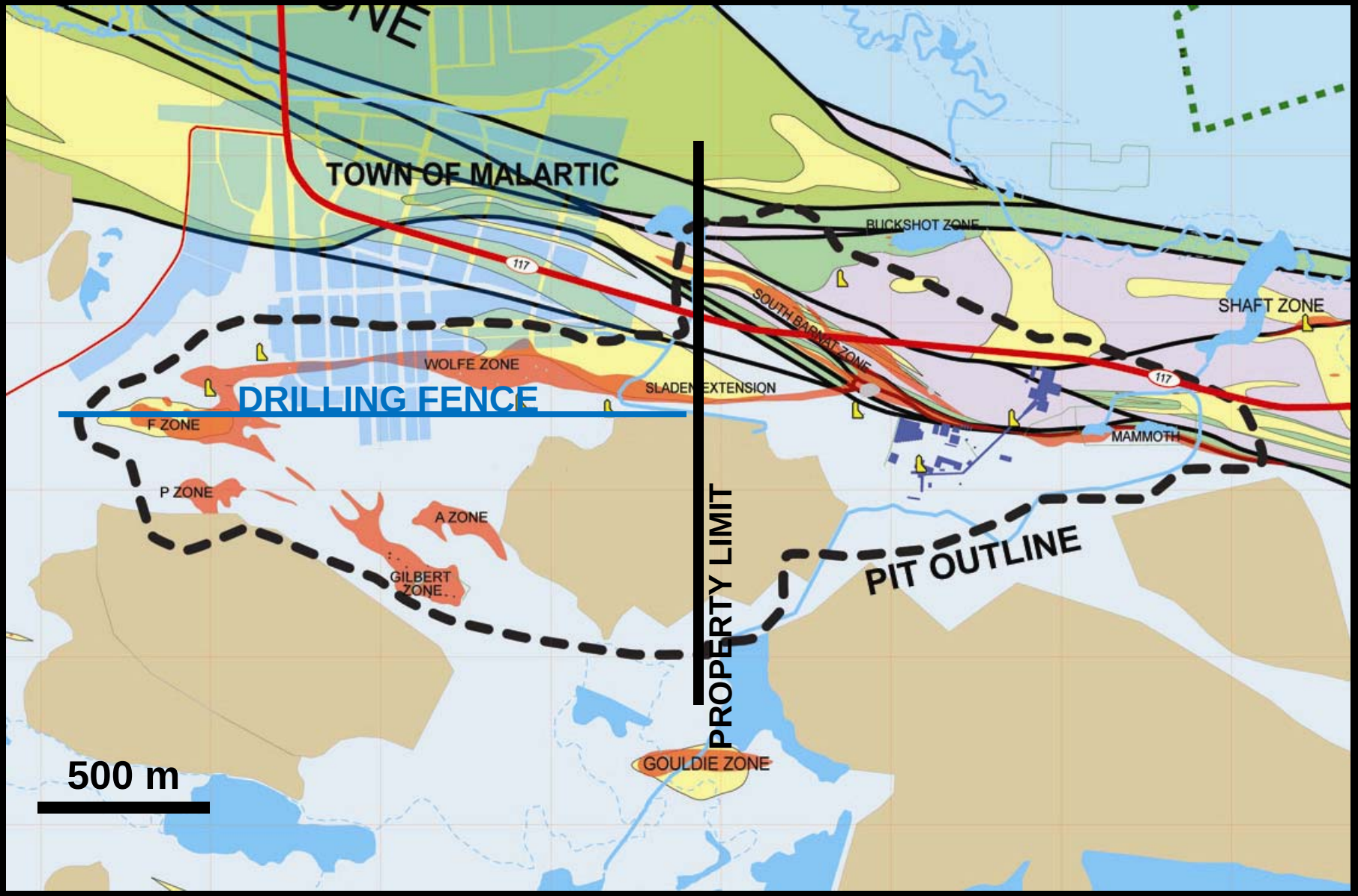
Waihi, New-Zealand

EARLY EXPLORATION AND DISCOVERY

Local geology



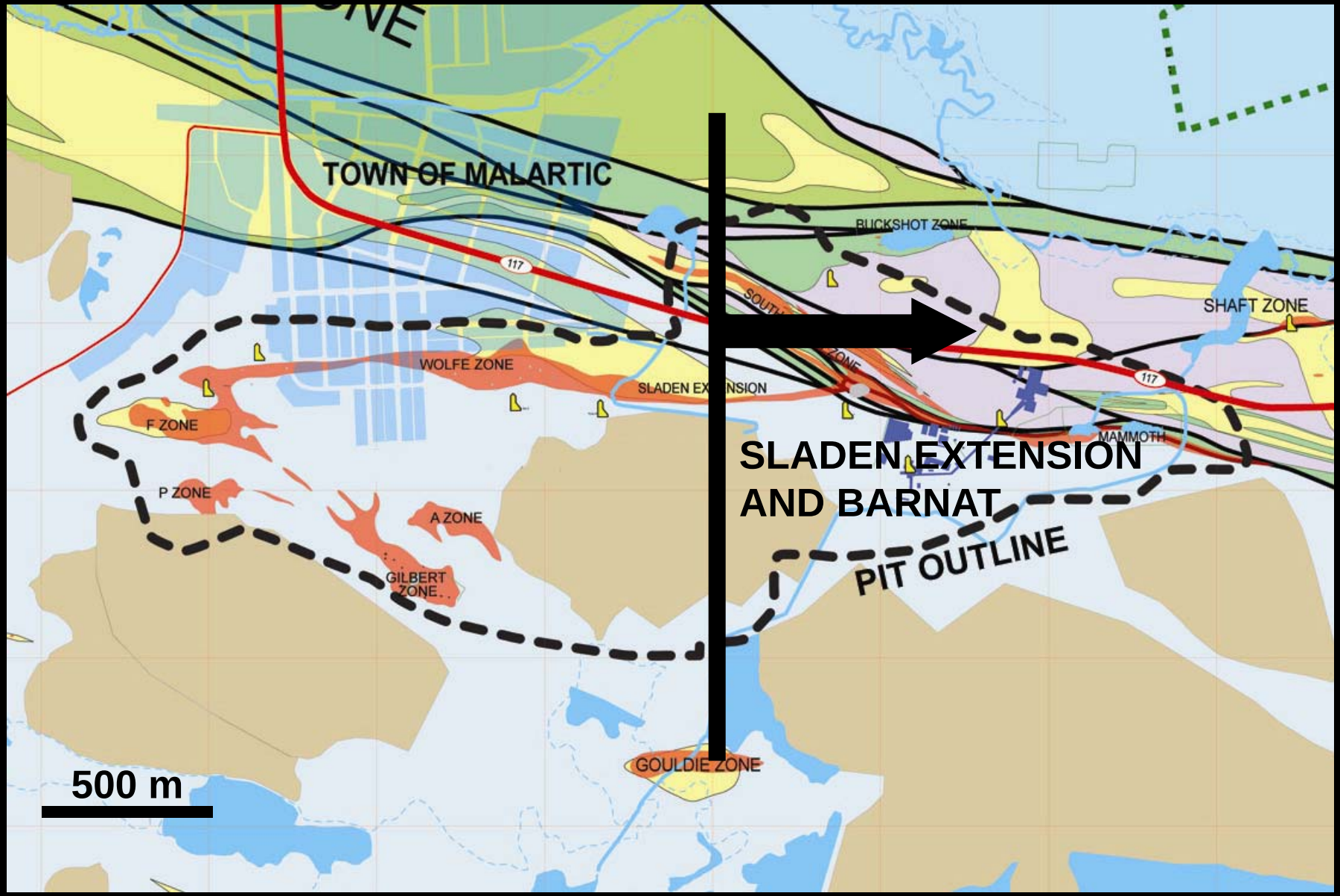
2005 – 6,200 m drilling



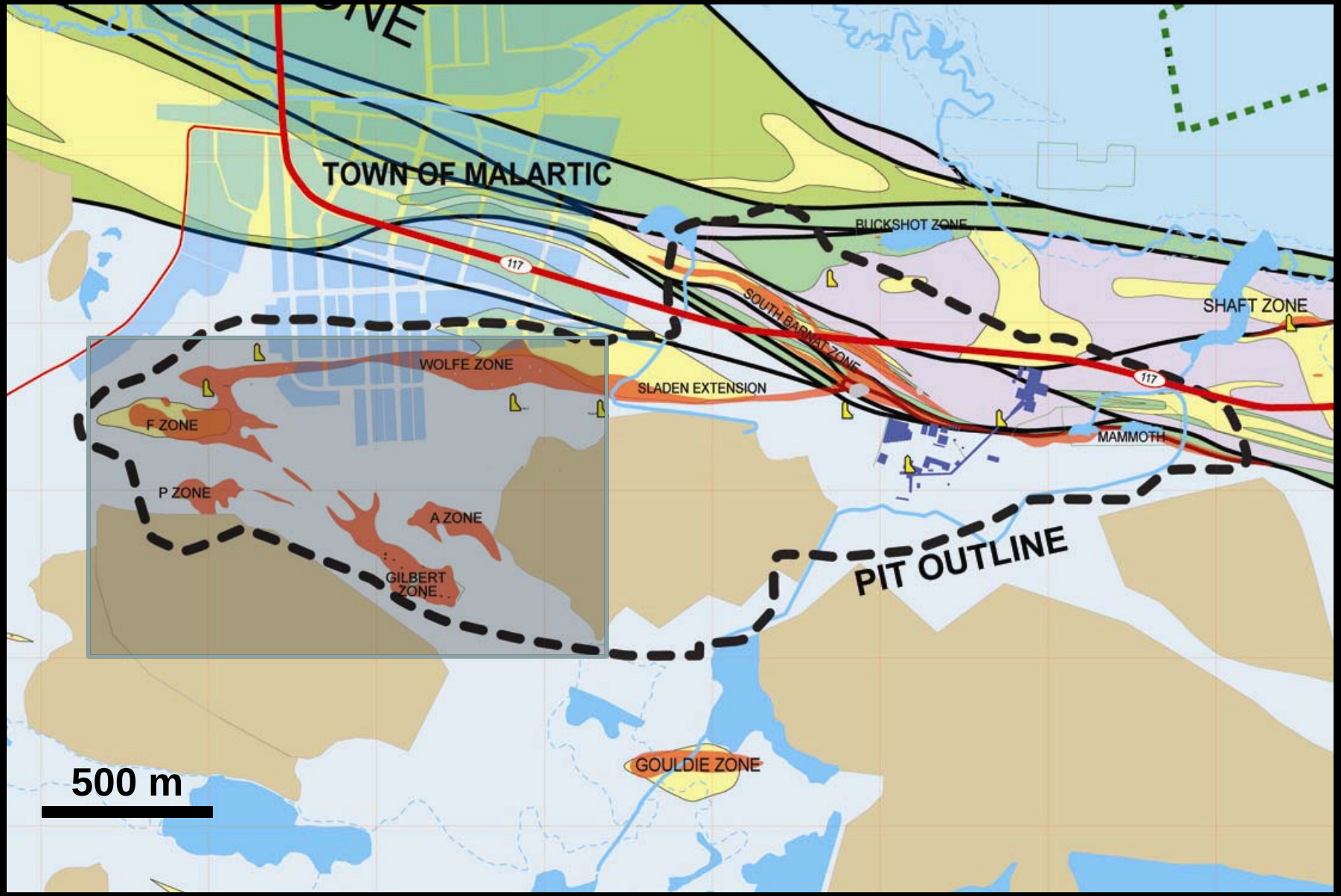
2005 DRILLING

DDH	From (m)	To (m)	Length (m)	Au (g/t)
CM05-651	31.3	125.2	**93.9**	**1.01**
CM05-652	30.4	173.6	**143.2**	**1.01**
CM05-653	30.6	117.8	**87.2**	**1.68**
CM05-654	27.3	99.0	**71.7**	**2.50**
CM05-655	2.5	149.9	**147.4**	**1.03**
CM05-659	0.8	115.1	**114.3**	**1.20**
CM05-660	0.9	138.6	**137.7**	**1.65**
CM05-661	7.0	50.3	**43.3**	**1.45**
and	129.0	322.0	**193.0**	**1.22**

NOV 2005 – PROPERTY EXPANSION

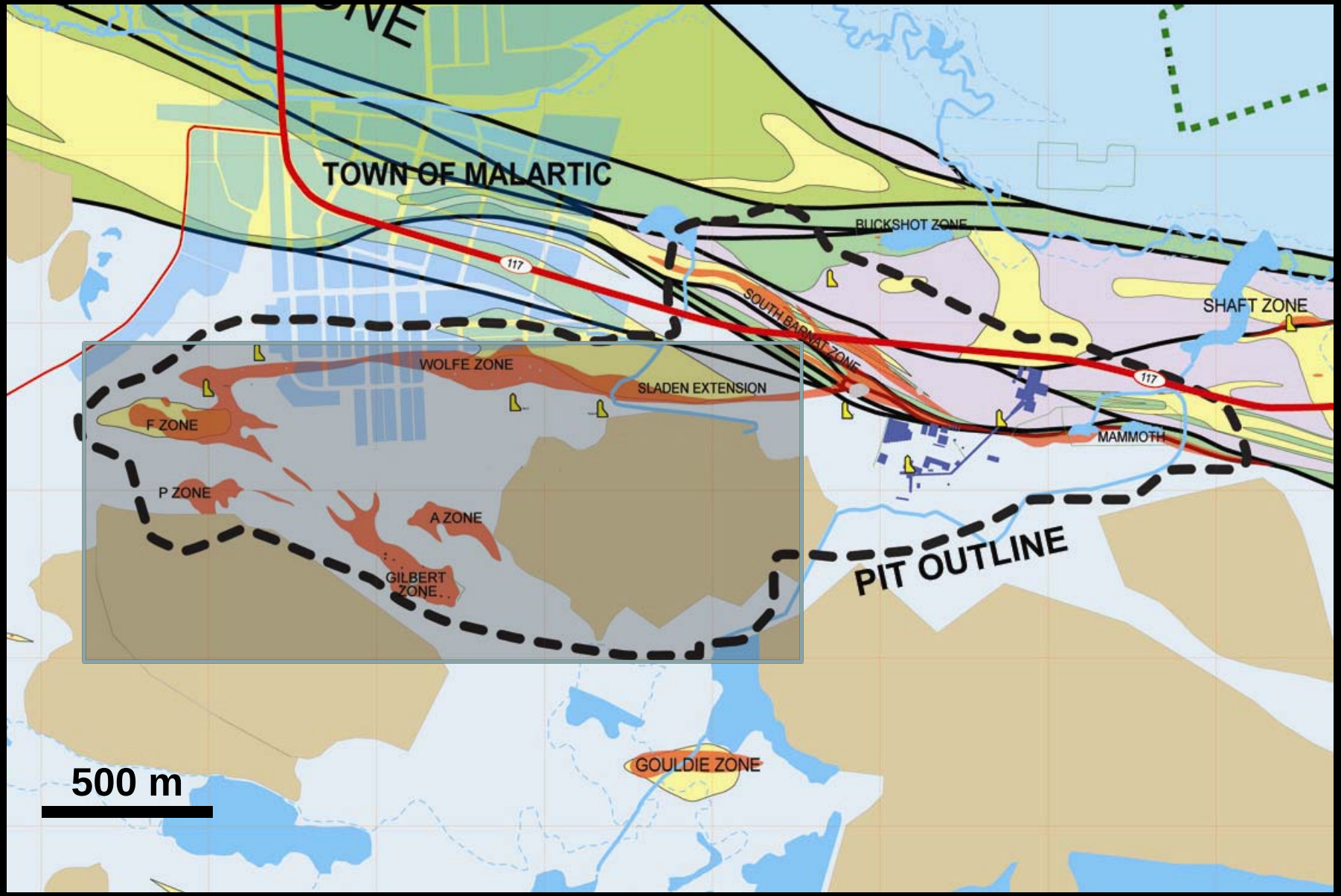


2006 - 60 m grid definition drilling



Q3 2006 – 42,000 m drilling: 6.5 M oz inferred resource

2007 - 60 m grid definition drilling



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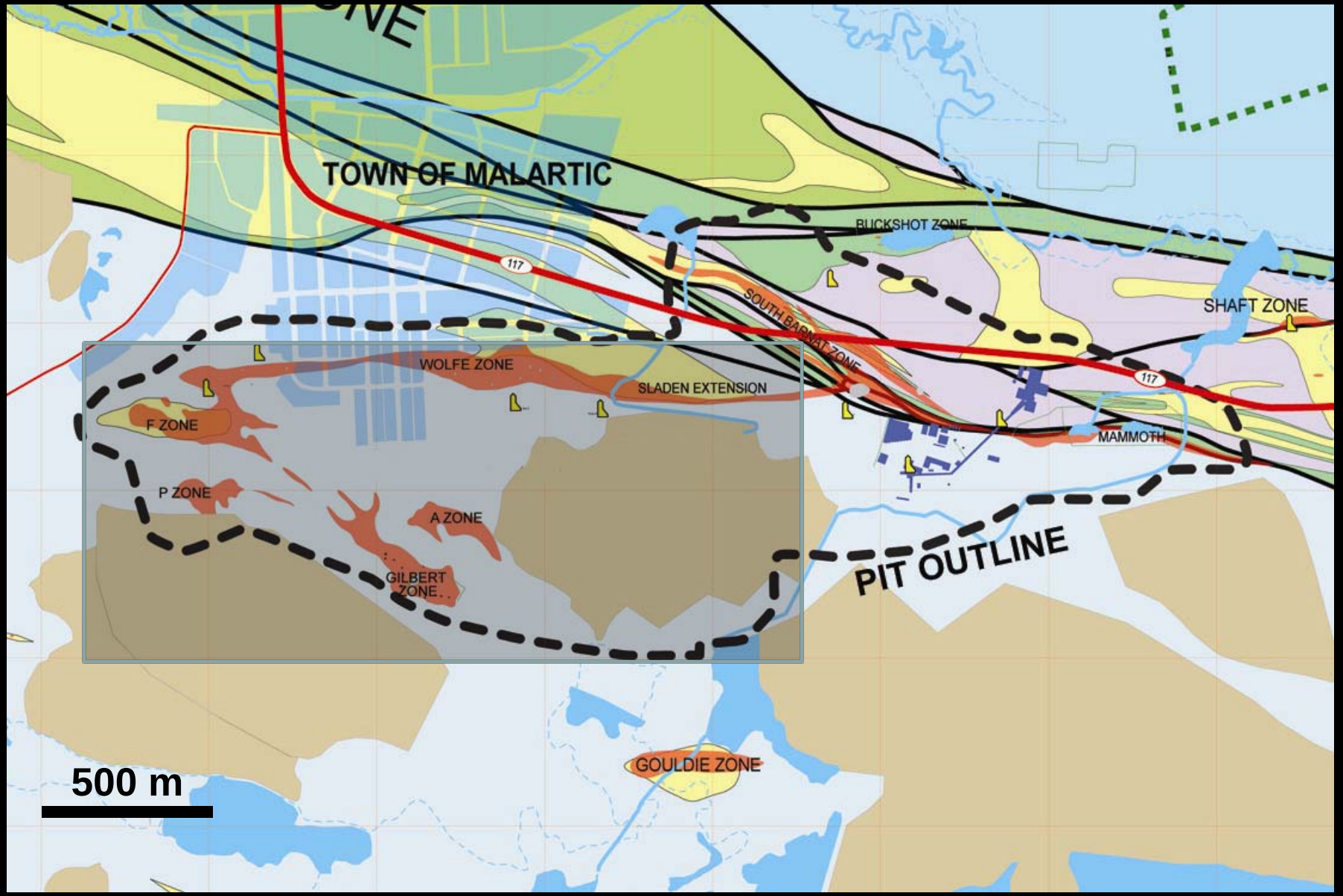
Q2 2007 – 102,000 m drilling: 8.4 M oz inferred resource

Q3 2008 – 316,200 m drilling on 30 m grid



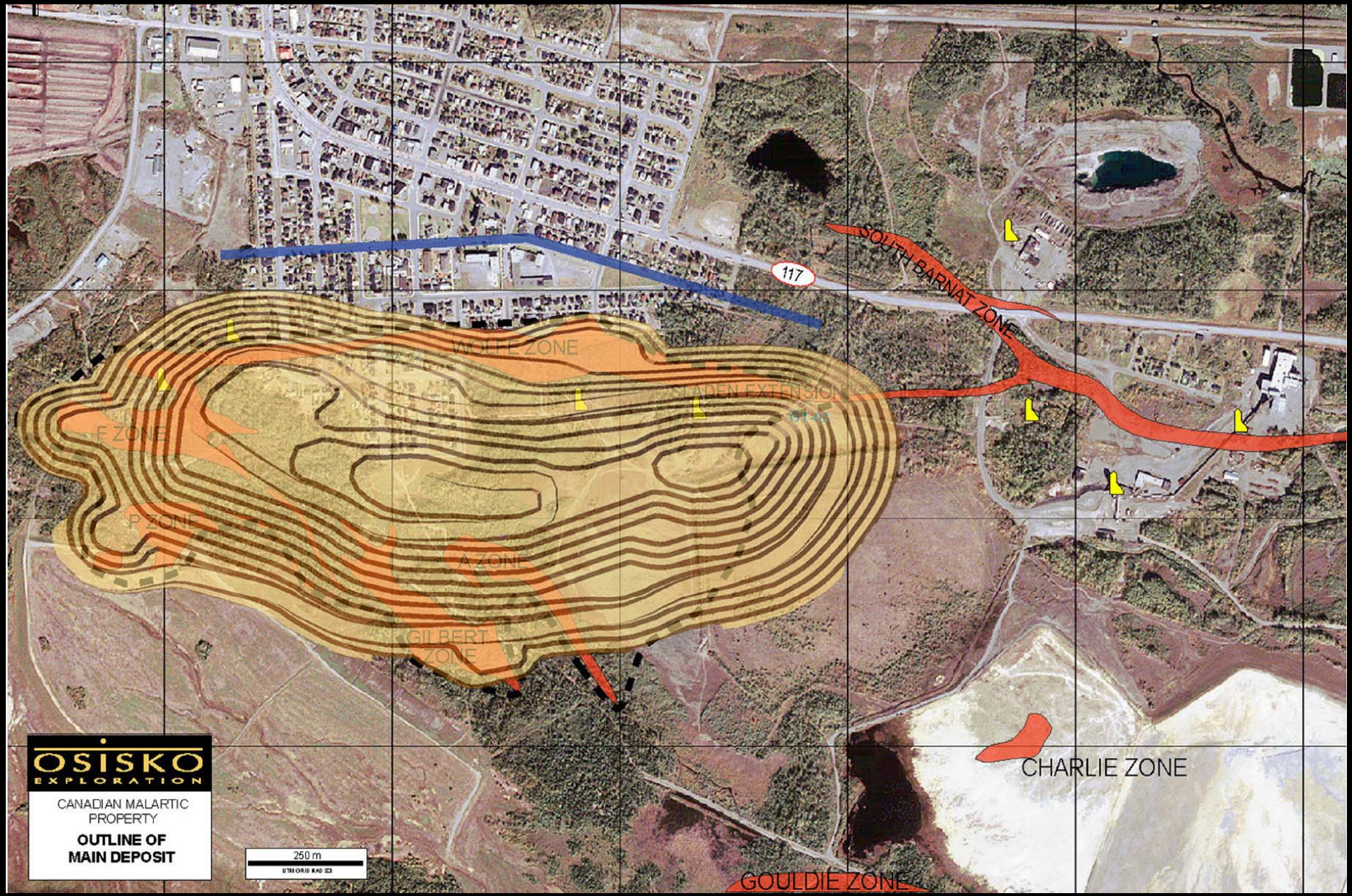
In situ CM M&I Resource Estimates, September 2008

	Measured			Indicated			Total Measured +Indicated		
Cut-off (g/t)	Tonnes (M)	Grade (g/t)	Oz (M)	Tonne (M)	Grade (g/t)	Oz (M)	Tonne (M)	Grade (g/t)	Oz (M)
0.30	4.94	1.25	0.20	263.18	0.93	7.87	268.12	0.94	8.07
0.36	**4.83**	**1.27**	**0.20**	**227.42**	**1.02**	**7.49**	**232.25**	**1.03**	**7.69**
0.40	4.75	1.28	0.20	208.14	1.08	7.26	212.89	1.09	7.45
0.50	4.42	1.34	0.19	170.01	1.23	6.71	174.44	1.23	6.90
0.60	4.08	1.41	0.18	141.96	1.36	6.21	146.04	1.36	6.40
0.70	3.60	1.51	0.17	121.86	1.48	5.80	125.46	1.48	5.97
0.80	3.20	1.61	0.16	106.74	1.58	5.43	109.94	1.58	5.60
0.90	2.89	1.69	0.16	94.95	1.67	5.11	97.84	1.67	5.27
1.00	2.66	1.75	0.15	85.69	1.75	4.83	88.35	1.75	4.98

In-pit CM M&I Resource Estimates, September 2008 (US$775 Whittle pit shell)

	Measured			Indicated			Total M+I			Strip Ratio
Cut-off (g/t)	Tonnes (M)	Grade (g/t)	Oz (M)	Tonnes (M)	Grade (g/t)	Oz (M)	Tonnes (M)	Grade (g/t)	Oz (M)	Waste/ Ore
0.30	4.63	1.27	0.19	192.15	1.04	6.43	196.78	1.05	6.62	1.43
0.36	4.54	1.29	0.19	173.71	1.12	6.23	**178.25**	**1.12**	**6.42**	**1.69**
0.40	4.47	1.31	0.19	163 .38	1.16	6.11	167.85	1.17	6.29	1.85
0.50	4.16	1.37	0.18	140.52	1.28	5.78	144.68	1.28	5.96	2.31
0.60	3.84	1.44	0.18	120 .81	1.40	5.43	124.66	1.40	5.61	2.84
0.70	3.40	1.54	0.17	105.96	1.50	5.12	109.36	1.50	5.29	3.38
0.80	3.04	1.63	0.16	94.20	1.60	4.84	97.24	1.60	5.00	3.93
0.90	2.79	1.70	0.15	84.57	1.68	4.57	87.36	1.68	4.73	4.48
1.00	2.58	1.76	0.15	76.95	1.75	4.34	79 .52	1.76	4.49	5.02

Model pit ($775 gold)



RESERVES, FEASIBILITY AND CONSTRUCTION

December 2008 Feasibility Reserve/Resource Estimate

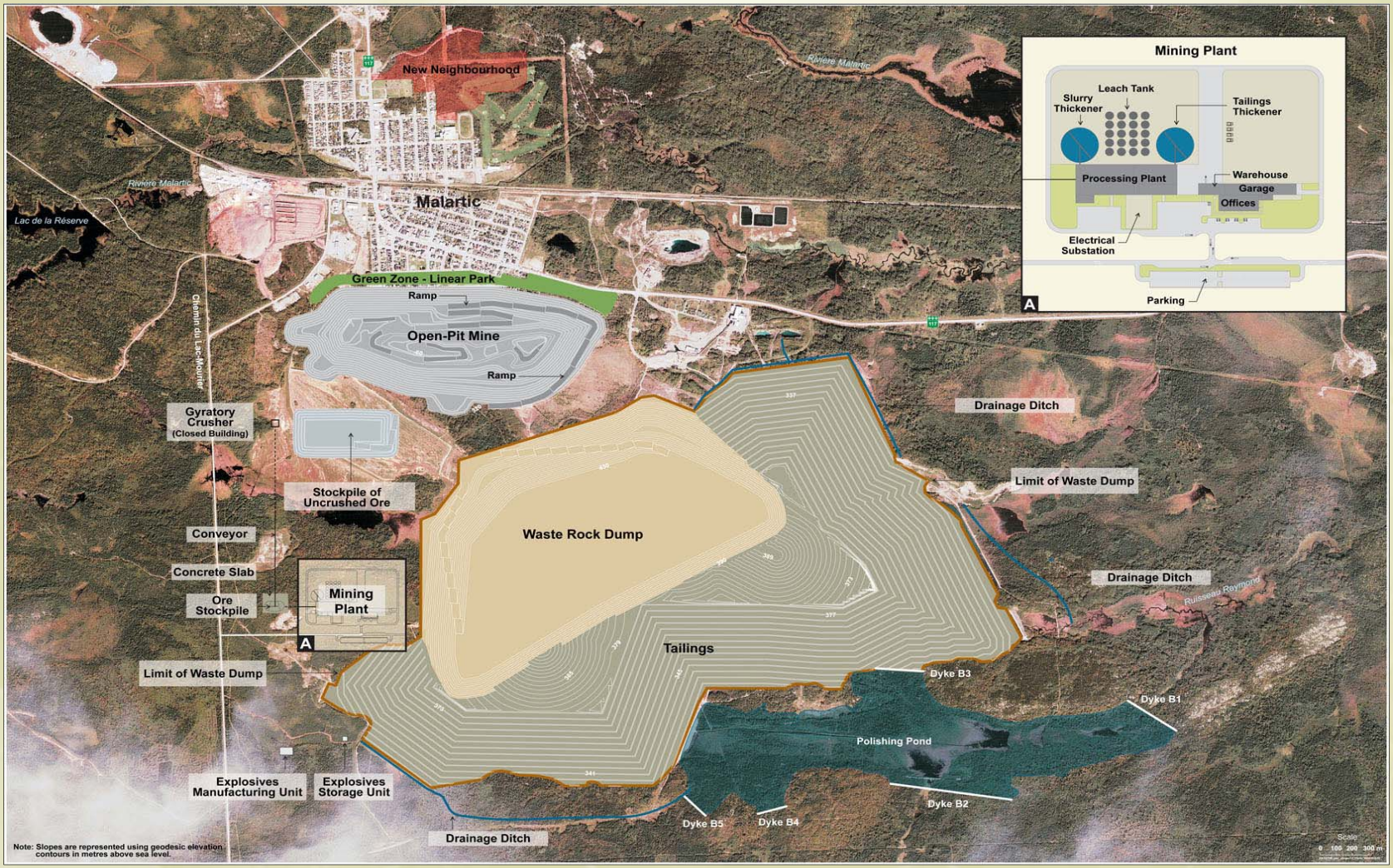
US$775 Engineered pit shell with a 0.36 g/t Au lower cut-off grade

Category	Tonnes (M)	Grade (g/t)	Oz (M)
Proven Reserves	5.1	1.14	0.19
Probable Reserves	178.2	1.06	6.09
Proven+Probable Reserves	183.3	1.07	6.28
Indicated resources	54.0	0.81	1.41
Inferred Resources	37.4	0.60	0.72

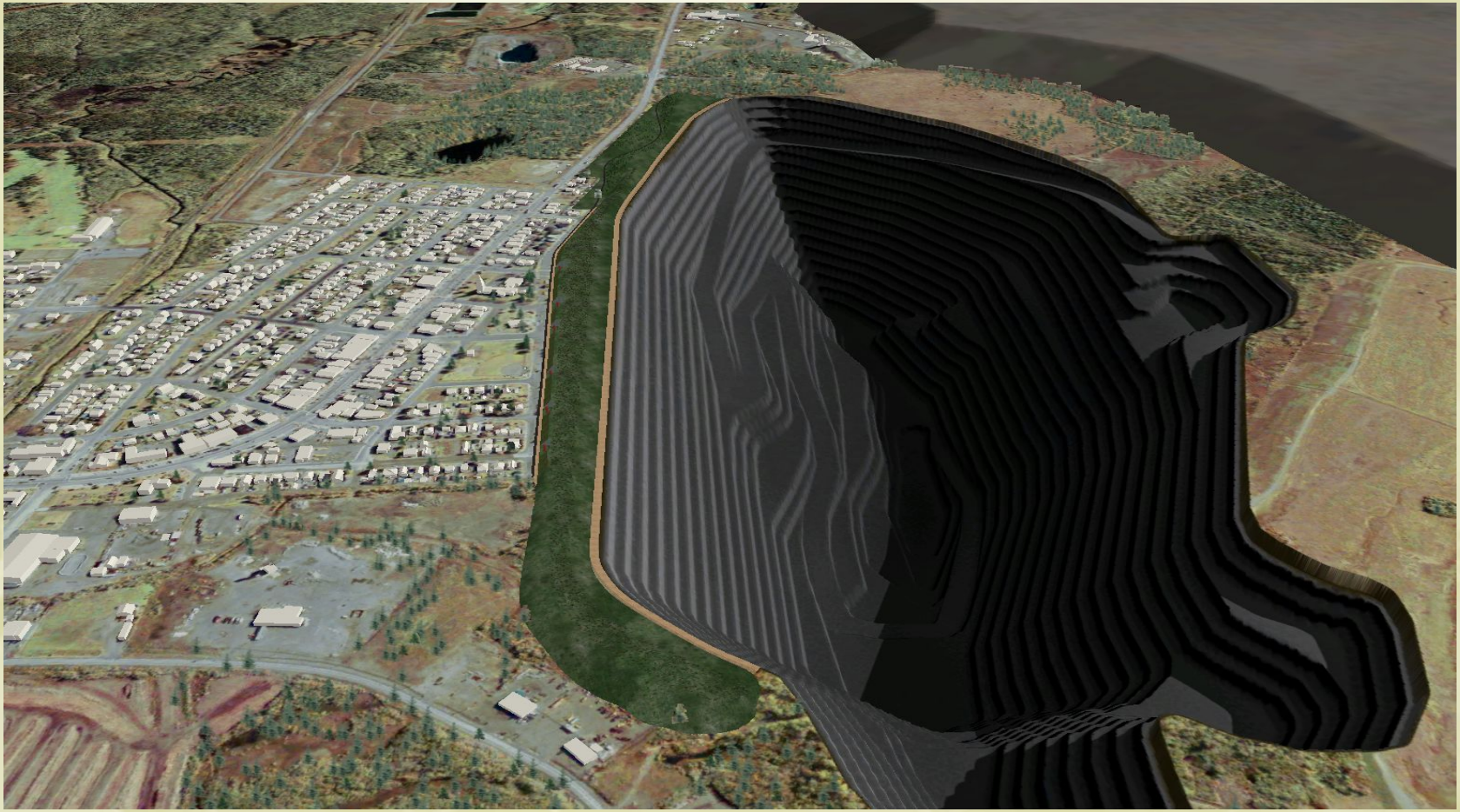
December 2008 Feasibility Study - summary

- 6.3 M oz reserves at US$775 gold and lower cutoff of 0.36 gpt Au
- 55 000 tpd open pit operation (20 Mtpy) with strip ratio of 1.78:1
- Average 85.9% recovery
- Average annual production of 590,000 oz Au
- Mine life of approx. 10 years (total of 5.4 M oz recovered)
- CAPEX: 789 M $ US (146 $ US/oz)
- OPEX 319 $ US/oz, IRR of 29%
- Creation of 465 direct jobs (800 during construction)

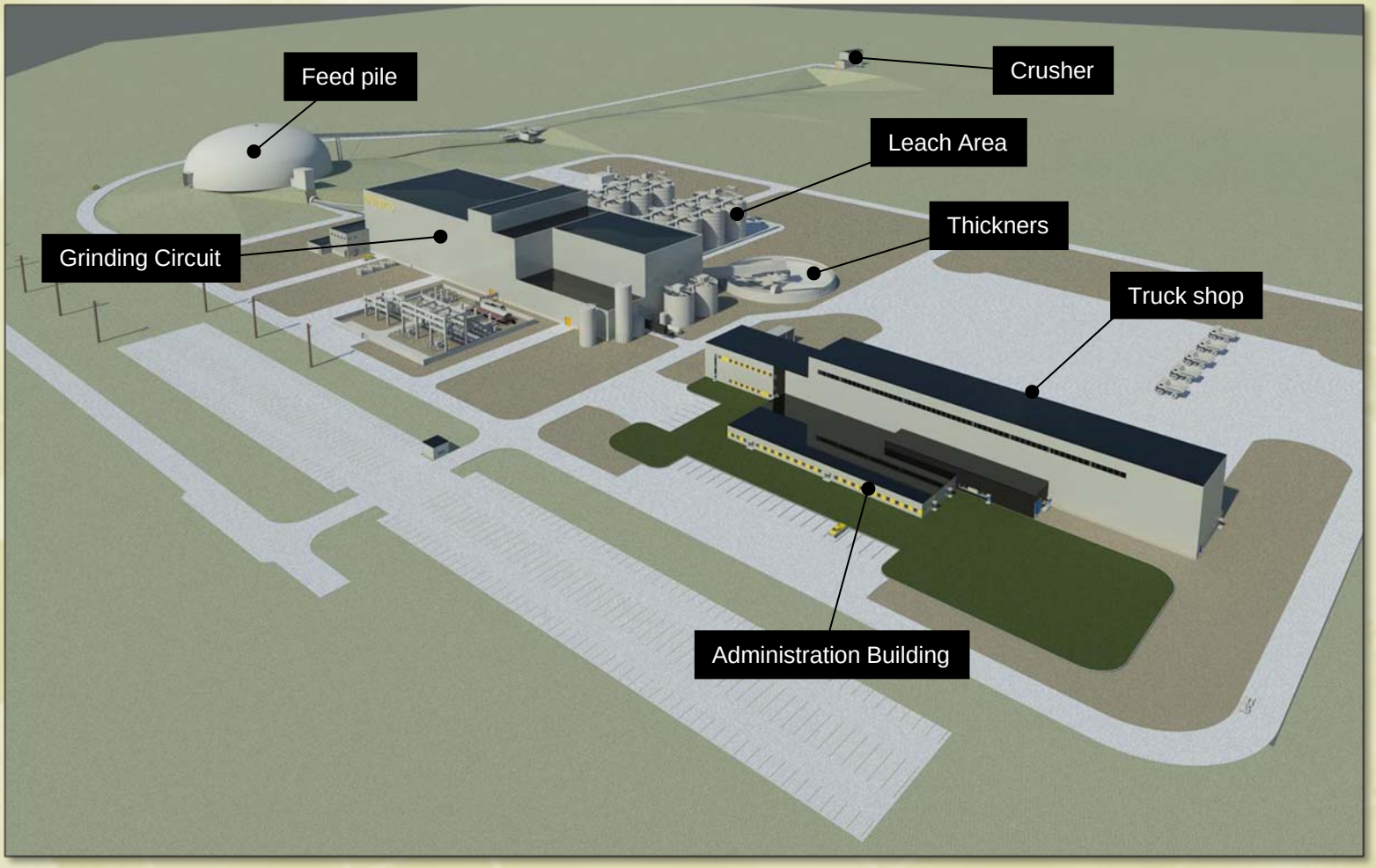
Mine Plan and Tailings Management



Conceptual Pit Adjacent to Town



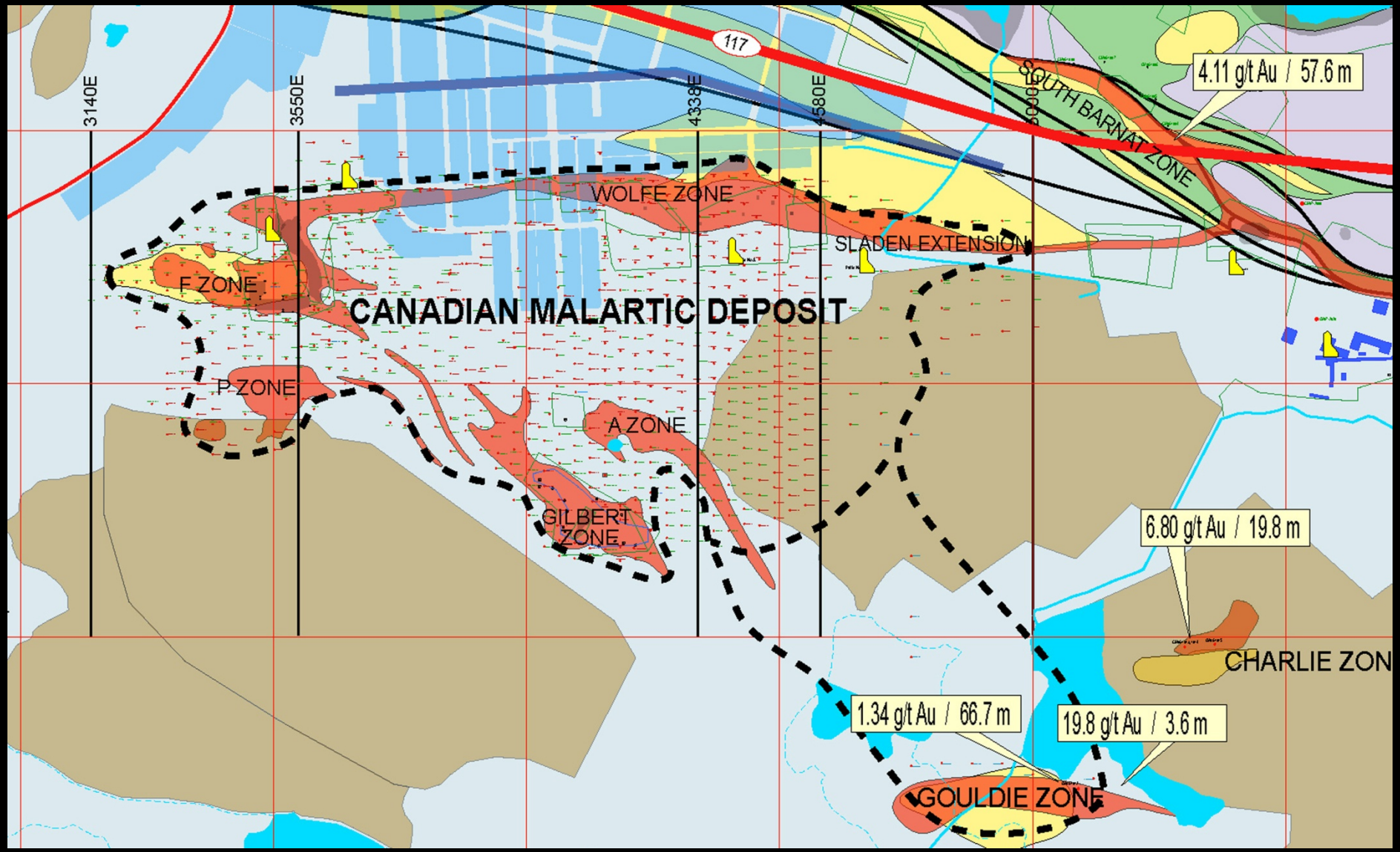
Mill Plan


Feed pile
Crusher
Leach Area
Thickners
Grinding Circuit
Truck shop
Administration Building

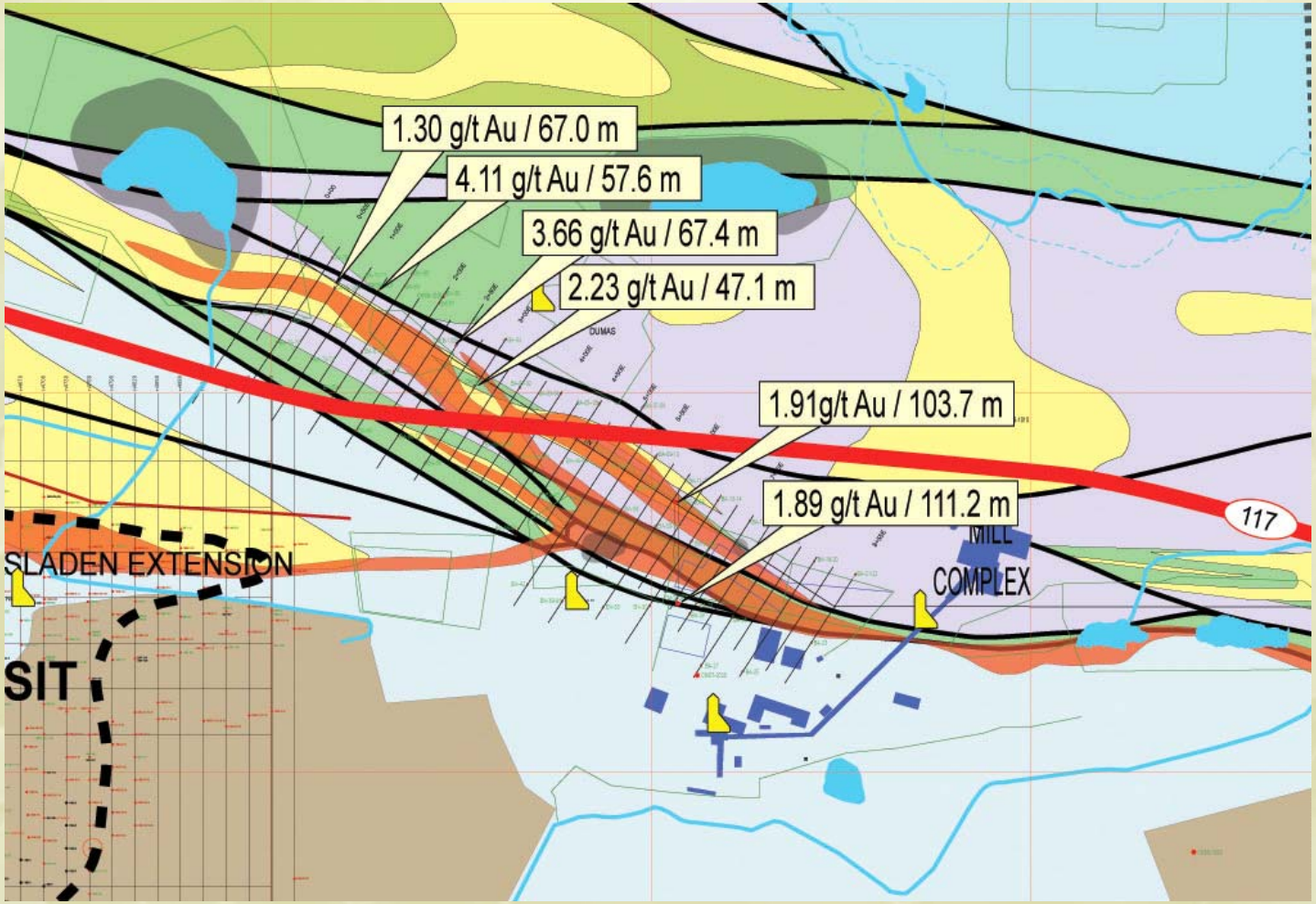
January 2009

- ✓ Reserves and feasibility
- ✓ Town relocation program well advanced
- ✓ Permitting process begun
- **Additional reserves – South Barnat discovery**
- **Construction permit (obtained August 2009)**

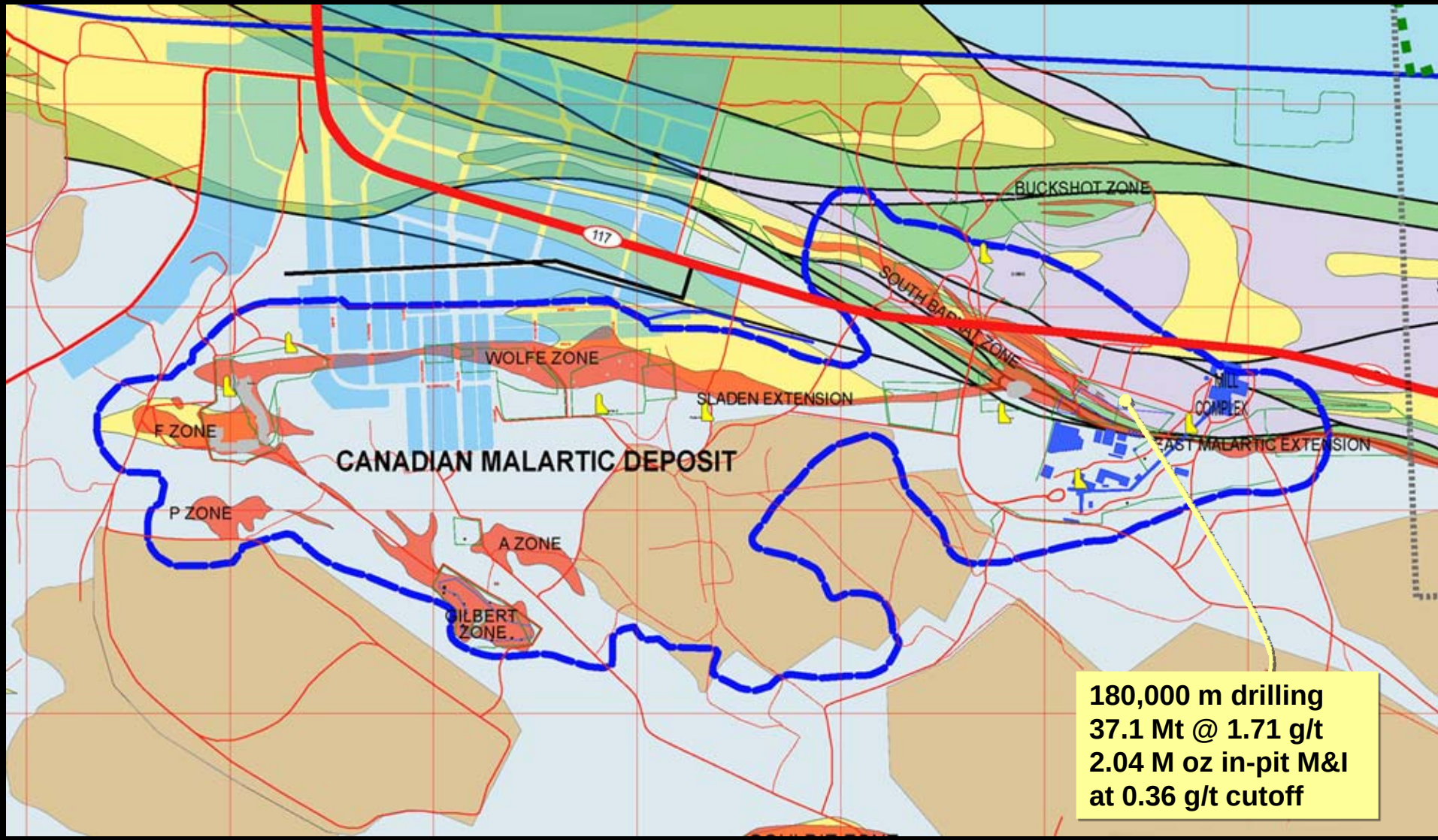
South Barnat



2007 recon drilling



Model pits ($825 gold) including South Barnat expansion



February 2010 Reserve/Resource Estimate

US$825 Engineered pit shell with a 0.34 g/t Au lower cut-off grade

Category	Tonnes (M)	Grade (g/t)	Oz (M)
Proven Reserves	28.4	0.92	0.84
Probable Reserves	217.4	1.16	8.13
Proven+Probable Reserves	245.8	1.13	8.97
Indicated resources	70.4	0.99	2.23
Inferred Resources	20.0	0.73	0.47

Construction begins – September 2009

Sag Mill Foundation Preparation

Construction

Mill Site March 2010

Construction

Gyratory Crusher April 2010

Mill site fall 2010

Starter Pit

Mill opening February 2011

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SAG Mill (38')

Ball Mills (3 x 24')

March 2011 Reserve/Resource Estimate

US$1000 Engineered pit shell with a 0.30-0.32 g/t Au lower cut-off grade

Category	Tonnes (M)	Grade (g/t)	Oz (M)
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

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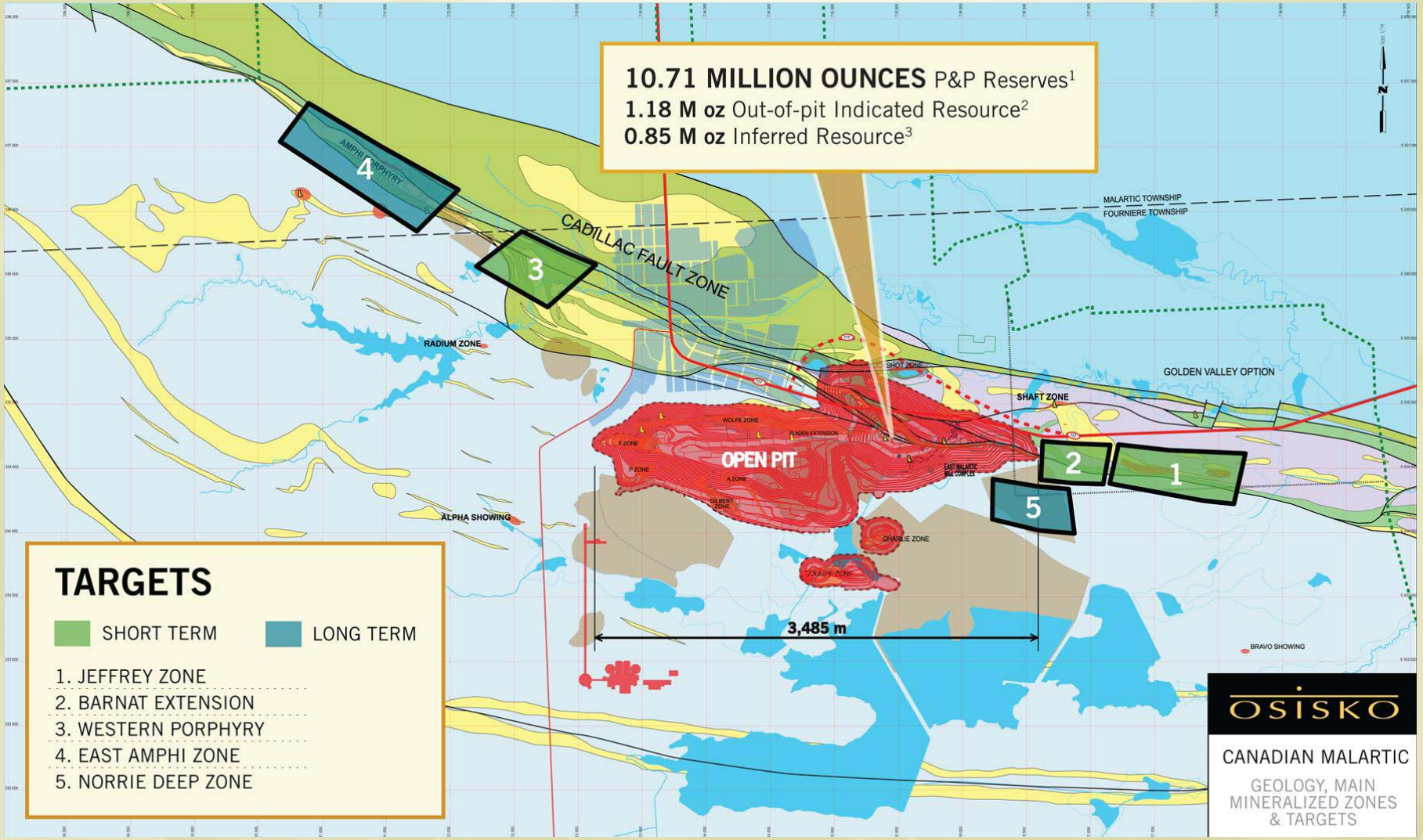
Exploration Potential



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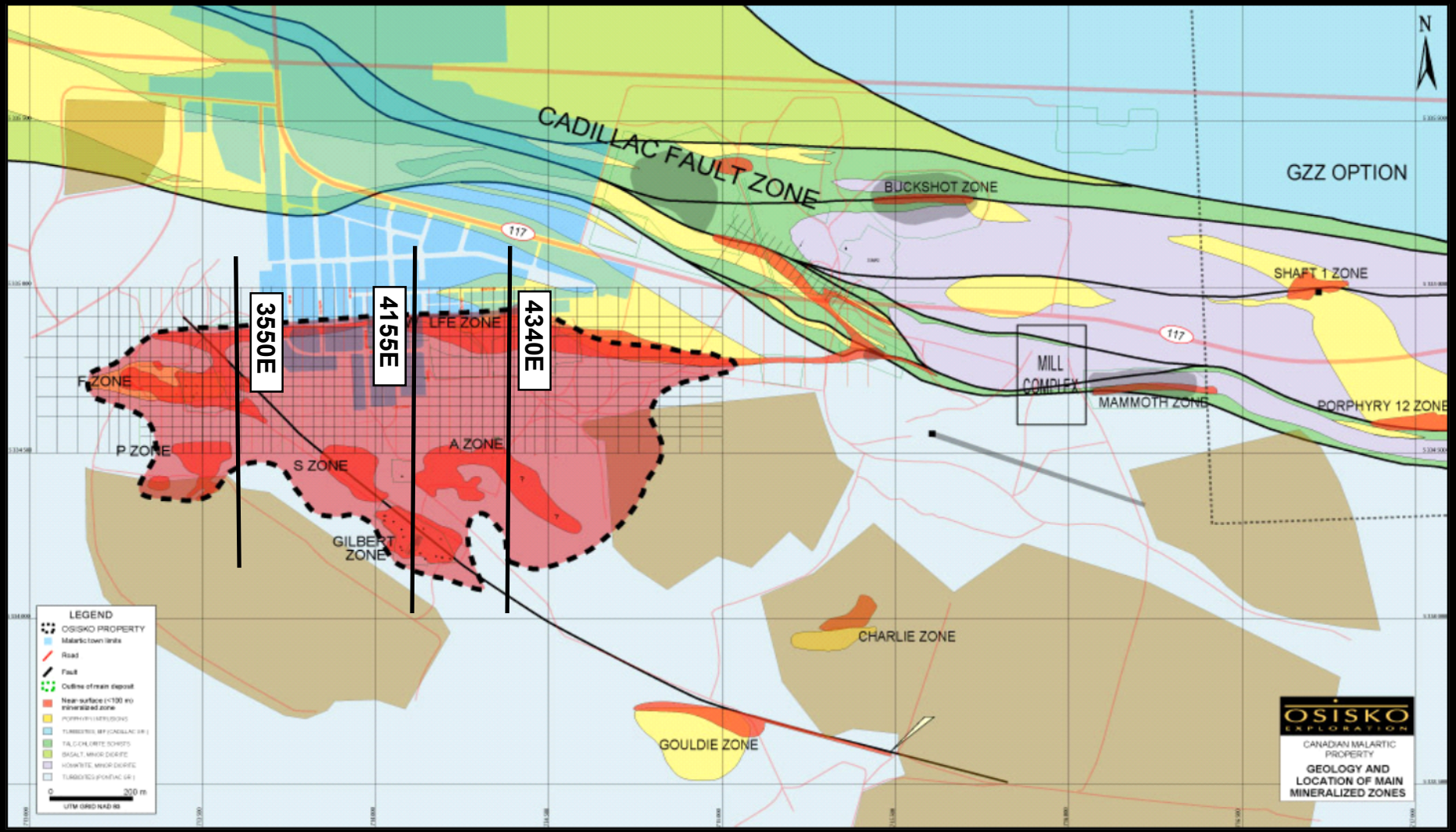
April 2011 – First Doré Bar !

DEPOSIT GEOLOGY

Deposit Geology



Section 3550 E (looking west)

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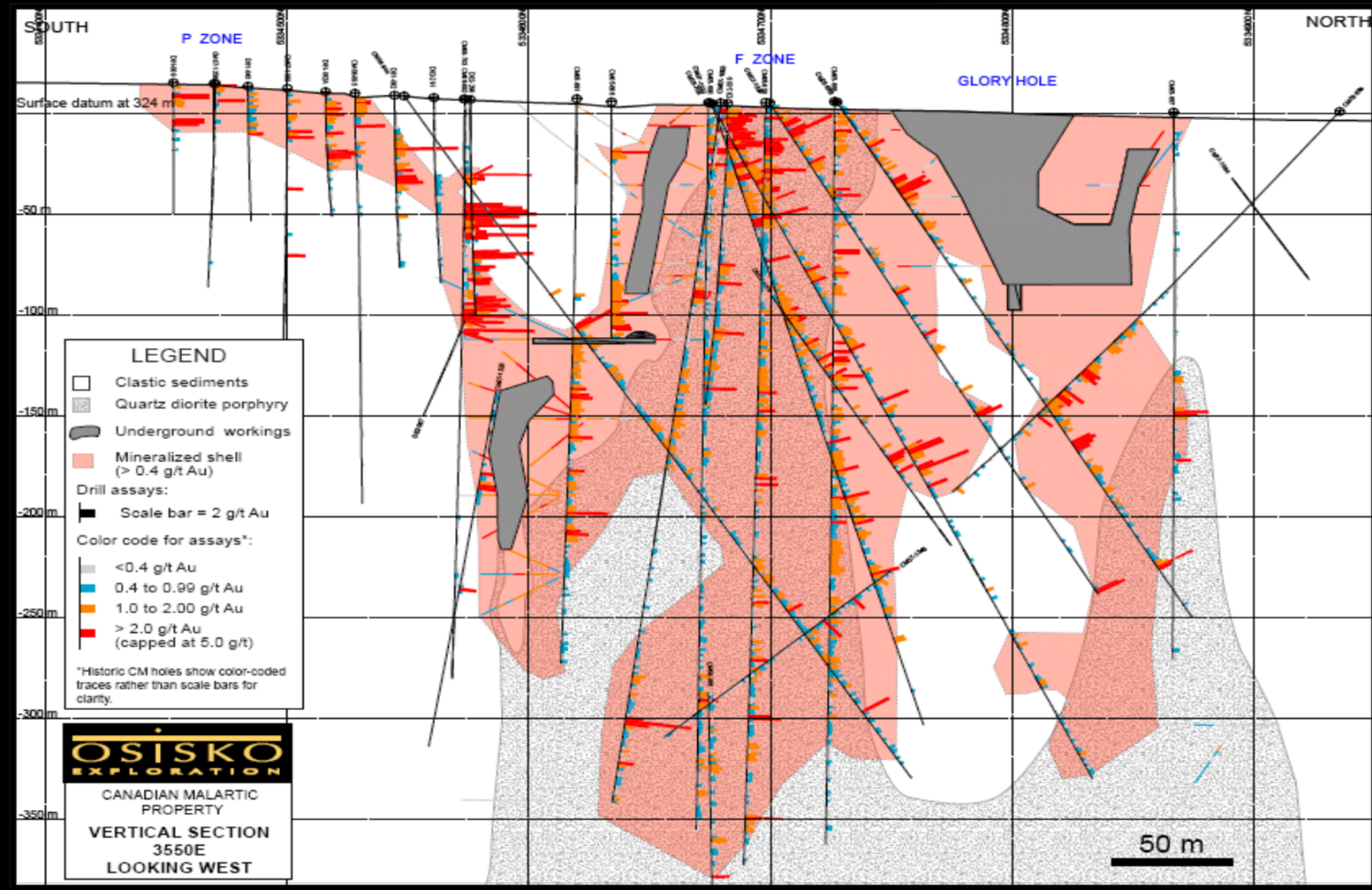
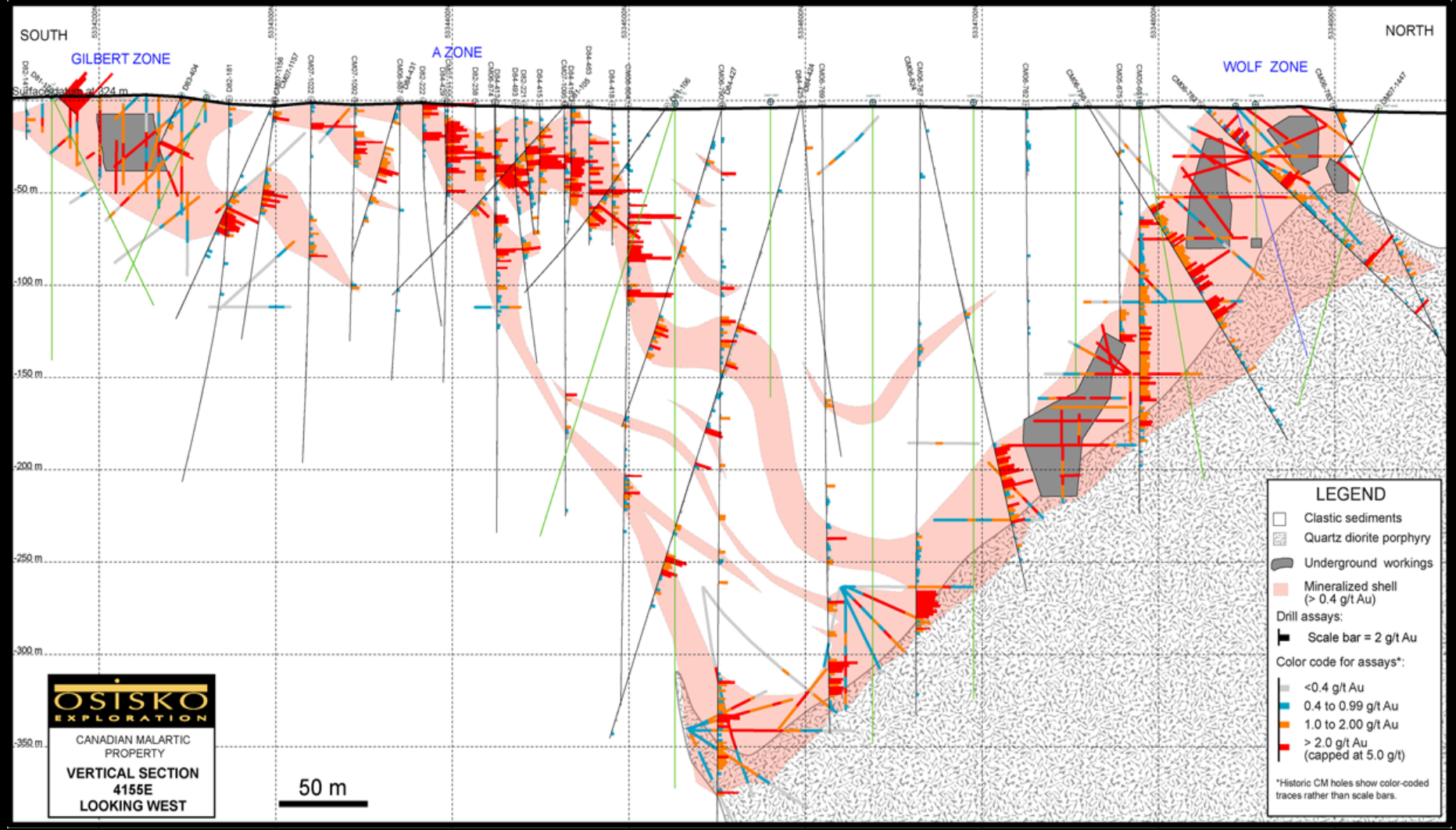


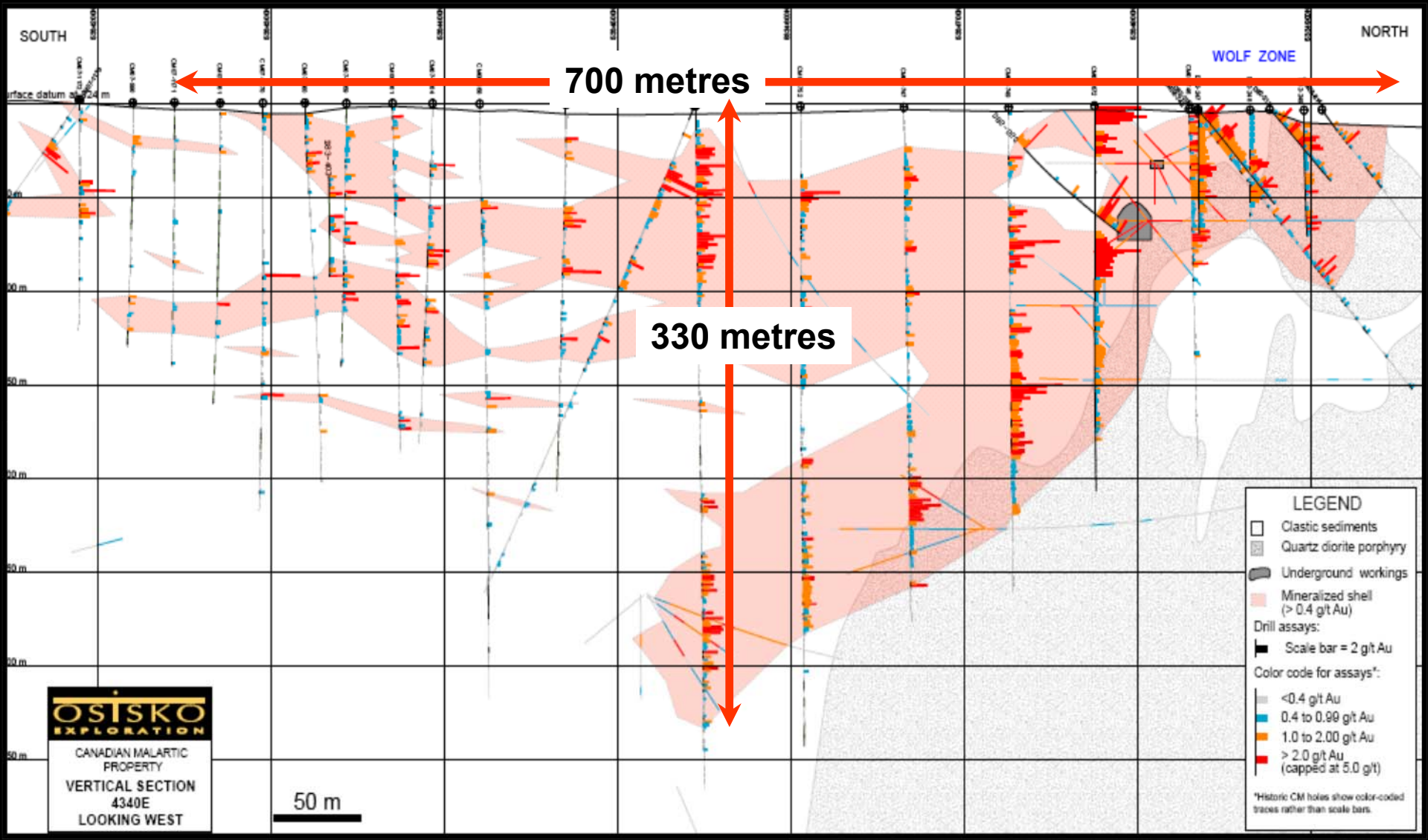
Section 4155 E (looking west)

OSISKO

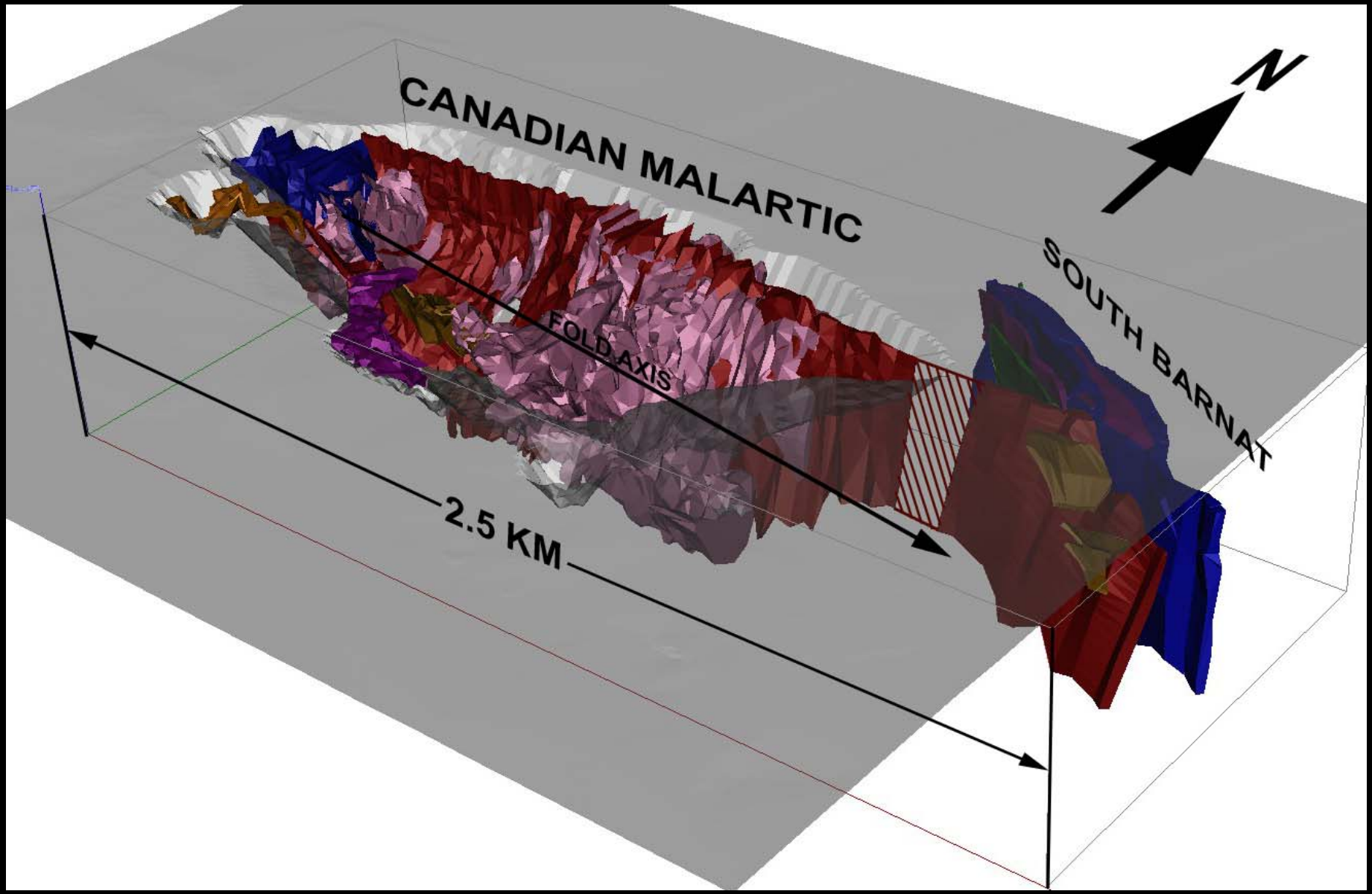


Section 4340 E (looking west)

OSISKO

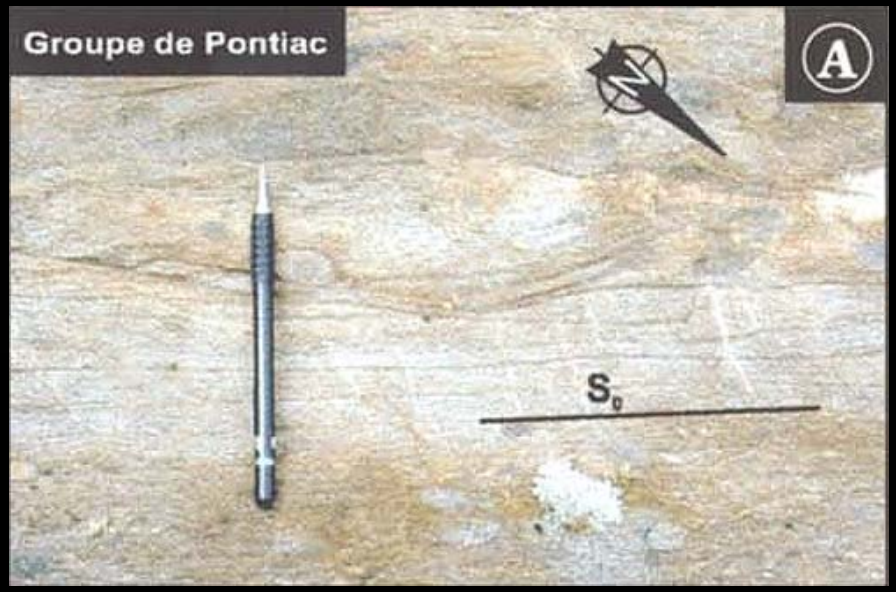


3D model



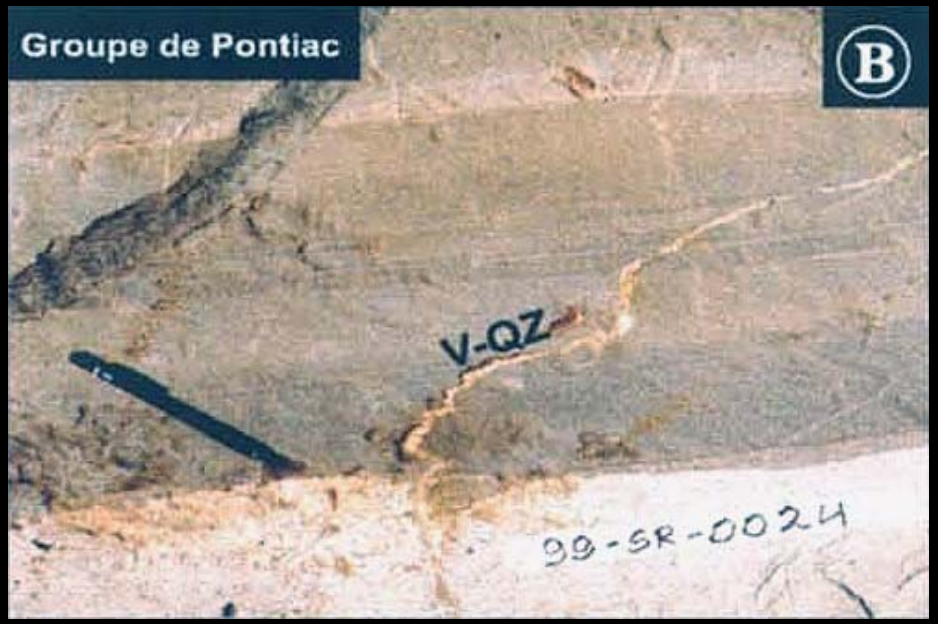
Altered greywacke

Structure



True bedding and polarity rare

Bedding parallel transposition focused in muddy units



MRNQ, Fallara et al. 2000

Boudinaged porphyry dyke

Predominant deformation style is steep flexural slip/stretching consistent with high-angle thrusting

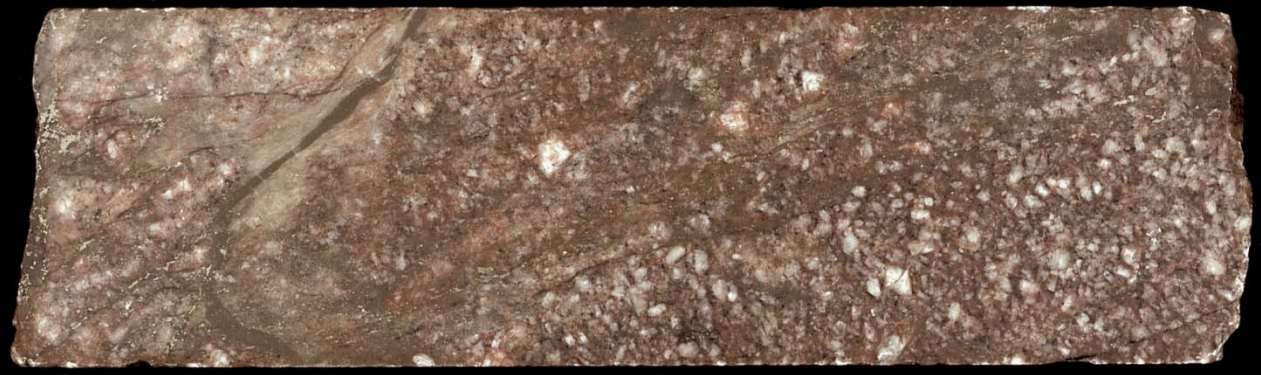
Porphyry (quartz monzodiorite) – potassic alteration (APO-CPO)

K-feldspar+bio+cal+py (0.43 g/t Au)

K-feldspar+bio+cal+py (6.39 g/t Au)

Porphyry – silicification (SPO)

Fracture-controlled replacement by cryptocrystalline quartz + py (3.03 g/t Au)



Pervasive replacement by cryptocrystalline quartz + py (2.76 g/t Au)

Porphyry – detail of silicification

Porphyry – advanced silicification (REMPO)

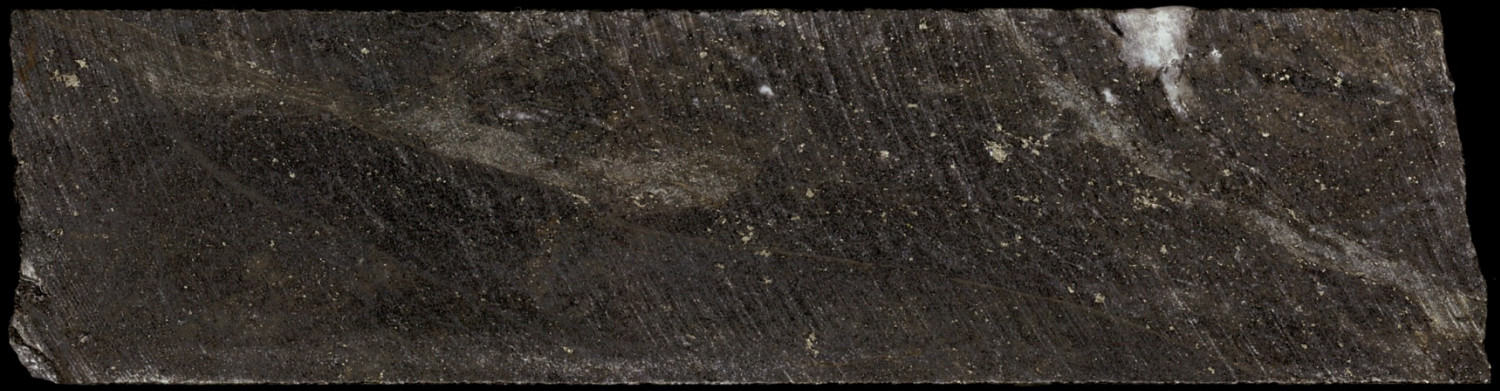
Pervasive replacement by cryptocrystalline quartz + py (0.85 g/t Au)

Pervasive replacement by cryptocrystalline quartz + py + hem (1.69 g/t Au)

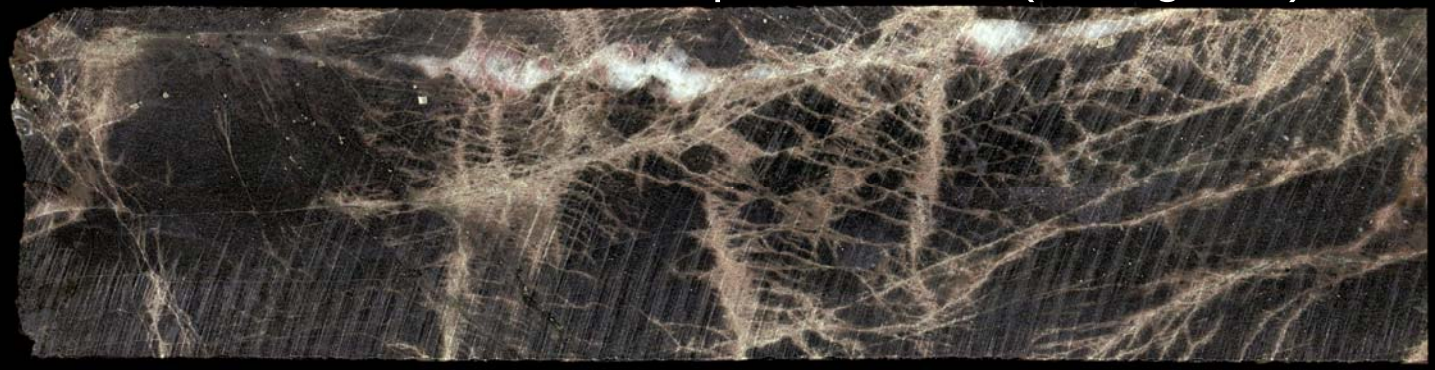
Greywacke – incipient potassic alteration (AGR)
(biotite-K feldspar)

Greywacke – advanced potassic (+ carbonate) alteration (AGR-CGR)

Pervasive bio+K-feldspar+cal+py (1.83 g/t Au)



Stockwork/breccias of K-feldspar+cal+chl (0.12 g/t Au)



2 cm

Greywacke – silicification (SGR or BRGR - best gold grades)

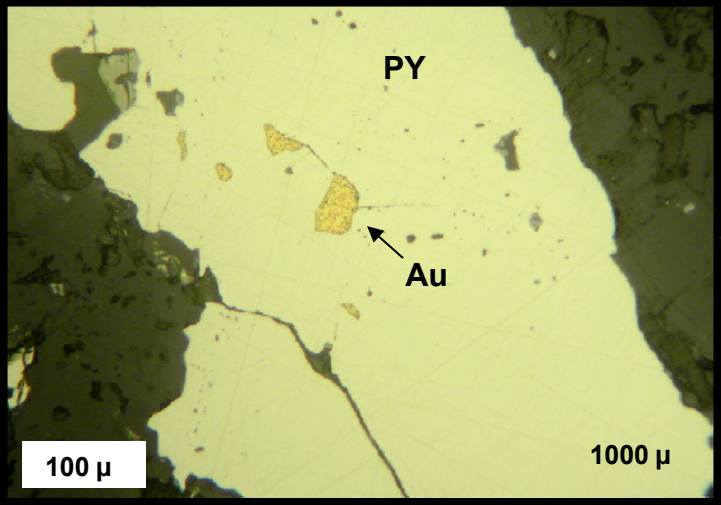
Replacement/brecciation by cryptocrystalline qtz + py (1.30 g/t Au)

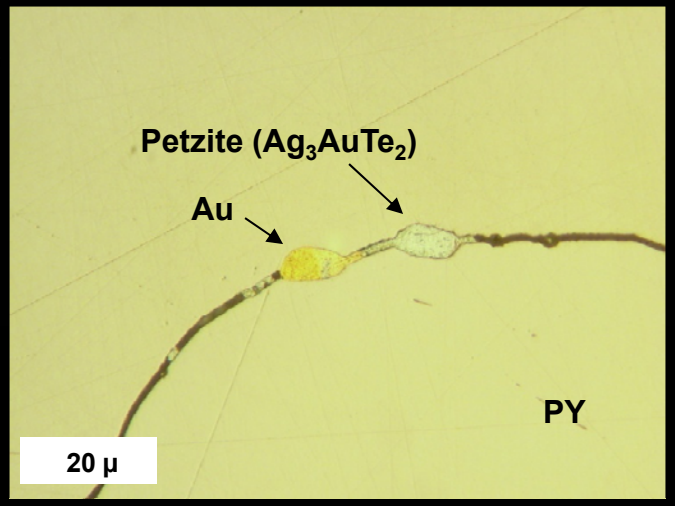
Greywacke – advanced silicification (REMGR)

Pervasive silicification
(1.15 g/t Au)

Siliceous breccia with
late barren qtz veins
(0.62 g/t Au)

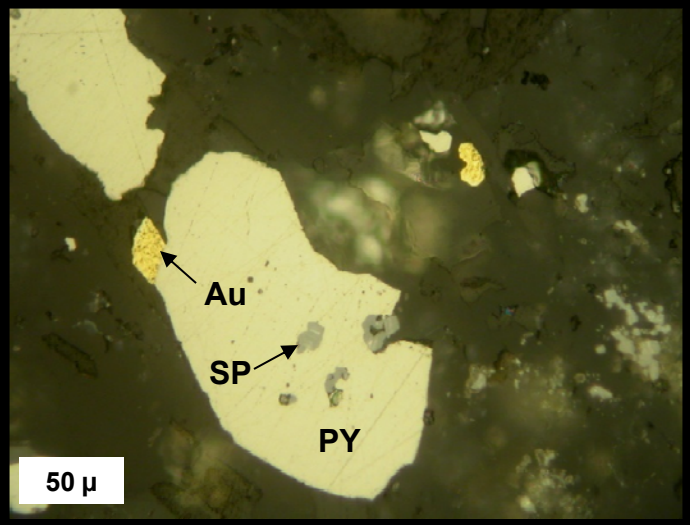
Pervasive silicification with
late bio-cal veinlets (3.10 g/t Au)



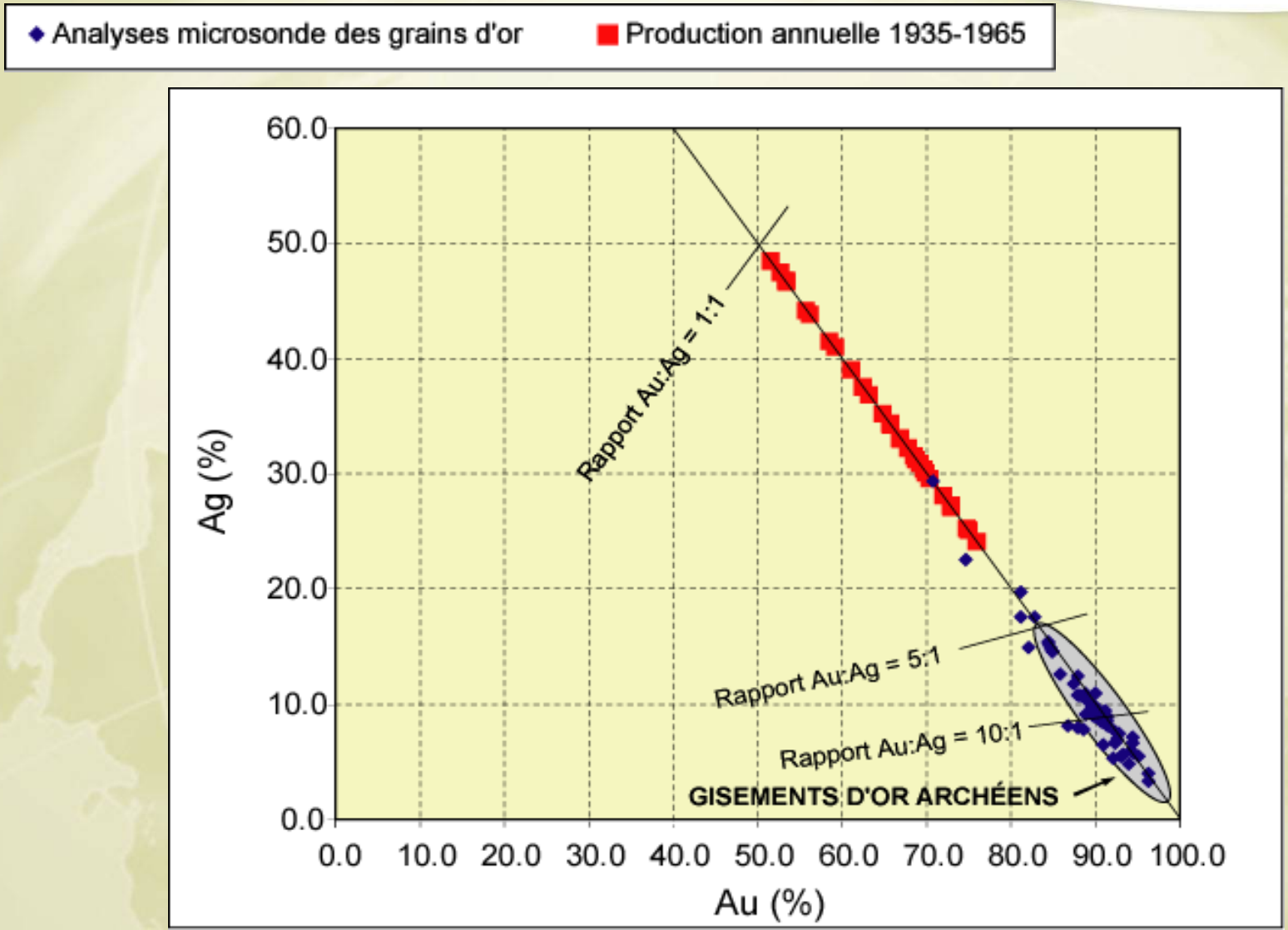


Native gold as inclusions (generally 2-30 microns) in pyrite and as tellurides; traces of chalcopyrite, sphalerite

Historical recovery at Canadian Malartic (1935-1965): 88% to 93%



Silver credit (0.42 g/t Ag)



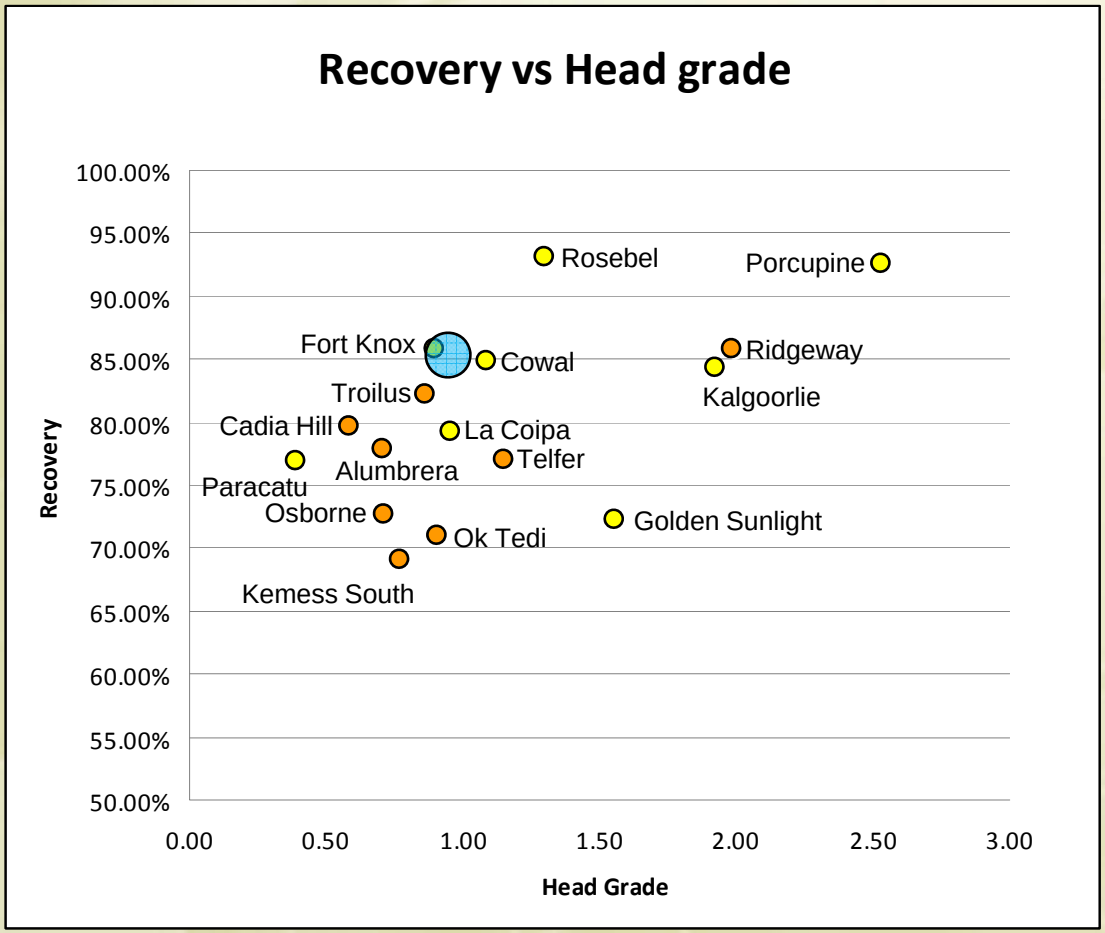
Bulk trace element geochemistry

Analyses (ICP MS at SGS Lakefield)
from composite samples grading 1.0 to 1.1 g/t Au

Element	CPO	SPO	CGR	SGR
As (ppm)	< 30	< 30	< 30	< 30
Bi (ppm)	< 20	< 20	< 20	< 20
Cd (ppm)	< 2	< 2	< 2	< 2
Sb (ppm)	< 10	< 10	< 10	< 10
Cu (ppm)	22	23	51	45
Mo (ppm)	< 5	5	< 5	11
Pb (ppm)	< 30	< 30	< 30	< 30
Zn (ppm)	43	57	74	80

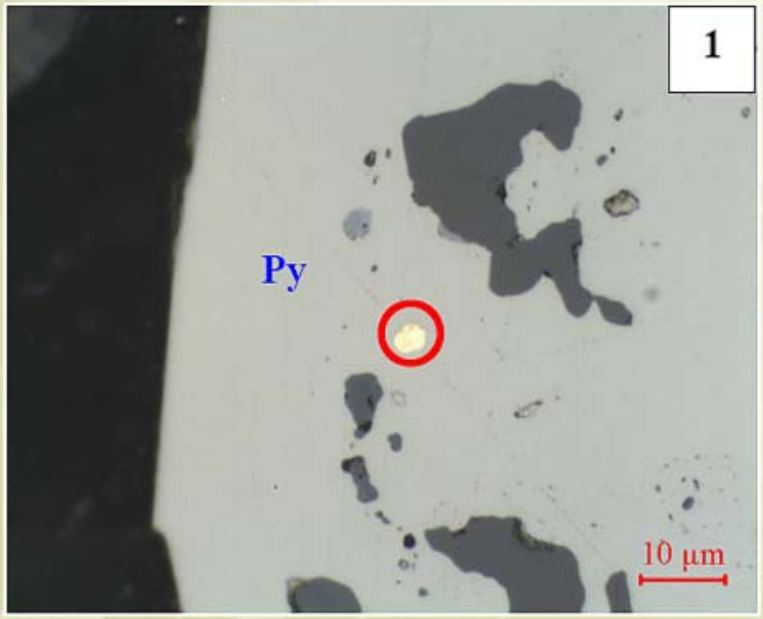
Global Open Pit Mines

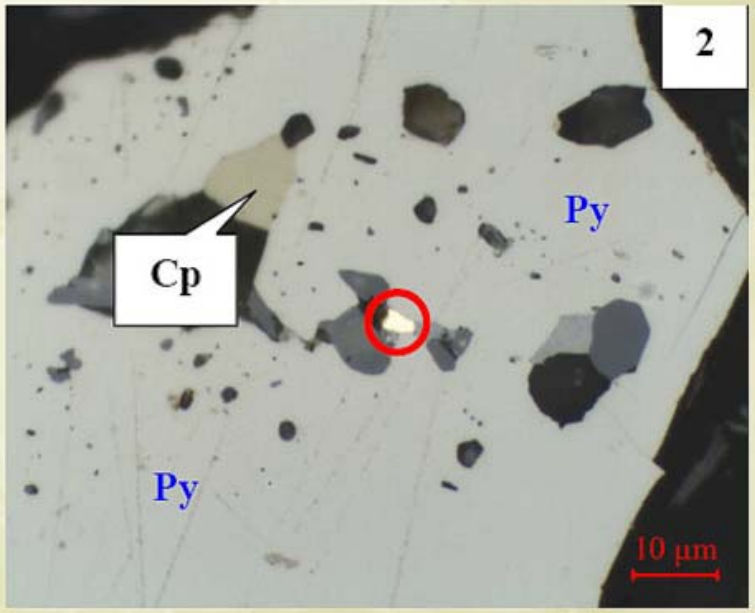
Comparing Canadian Malartic With Operating Mines



Canadian Malartic:
86% recovery at 1.0 g/t Au
Well within global average

Residual Gold in Leach Tails





Gold deportment studies on leach tails revealed that:

- 77% of residual gold is encapsulated in pyrite
- average 2-5 micron particle size

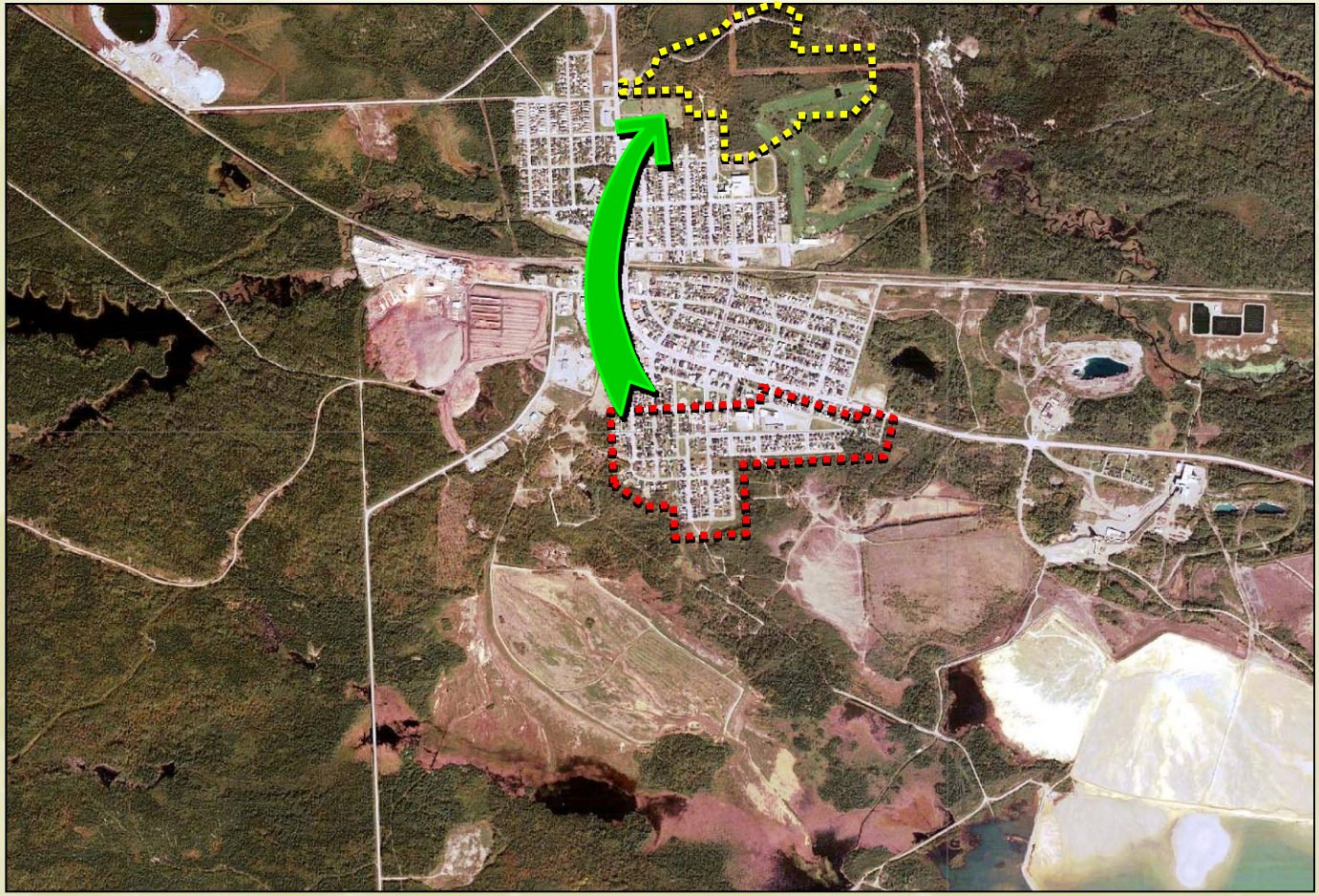
TOWN RELOCATION

Political Support ≠ Social License

Communication, Consultation and Community Involvement

Malartic Church May 2006

South Malartic relocation plan



New neighborhood in a nutshell ($135 M investment)

- 205 residences/apartment buidings and **20 units of low-cost housing**
- **1 municipal park**
- 5 institutional buildings
  - ✓ **1 primary school**
  - ✓ **1 adult education facility**
  - ✓ **1 community center**
  - ✓ **1 day care**
  - ✓**1 long-term health-care facility**

Fall 2008 – start of relocation

PRIMARY SCHOOL

Summer 2010

New Neighborhood

New Institutional Buildings

Long Term Care Hospital Center

École des Explorateurs

Day Care Facility

Adult Learning Facility – Le Trait-d'Union

Cultural Recreation Centre

Conclusions

- Canadian Malartic is an innovative project targeting low grade disseminated gold deposit in the Archean Superior province by way of open pit bulk tonnage mining adjacent to a town (first in Canada).
- Began in 2004 as a novel geological concept, now a CAN +$1 billion project that will mine and process 21 M tons ore per year over 16 years.
- After over 780,000 metres of drilling over 6 years, open-pit reserves stand at 10.7 million ounces gold, and counting...
- Commercial production was reached in May 2011 and ramp-up toward full capacity of 60,000 tpd will continue into Q2 2012.