

# **Workshop: Examples of Outcome Visualization**

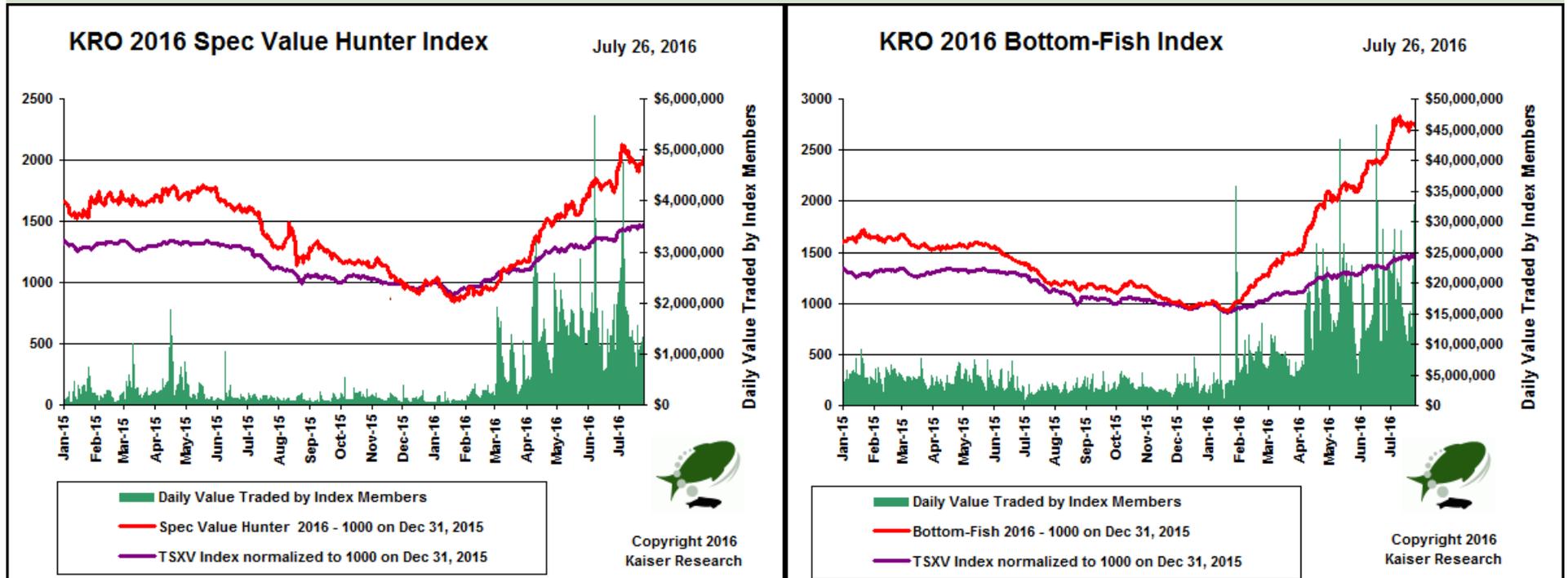
**Presented by John Kaiser**

**2016 Spratt Natural Resource Symposium**

**July 28, 2016**

**Vancouver, Canada**

## Two Membership Packages: SVH and KRO



**Spec Value Hunter: \$250/yr**

**KRO: \$250/90 days**

## Gold \$/oz (London PM Fix)



# Midas Gold Corp

7/29/2006 TO 7/26/2016



Issued: 175,826,167

High: \$4.90 on 1/20/2012

Max Volume: 7,498,700 on 7/8/2016

Diluted: 203,361,762

Low: \$0.25 on 1/22/2016

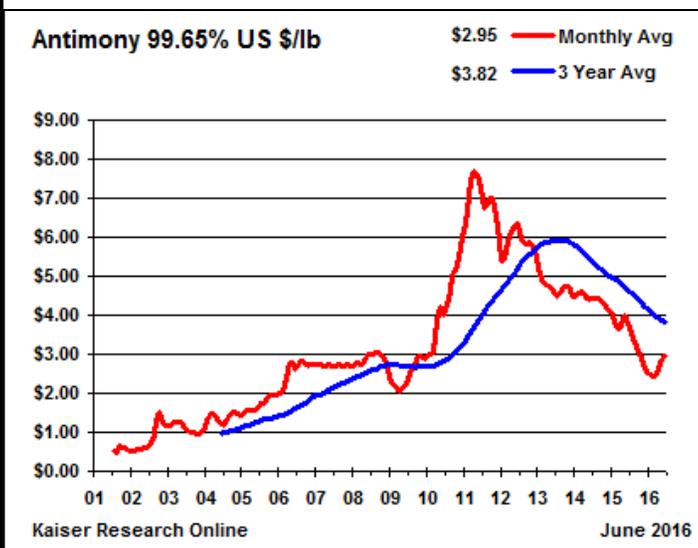
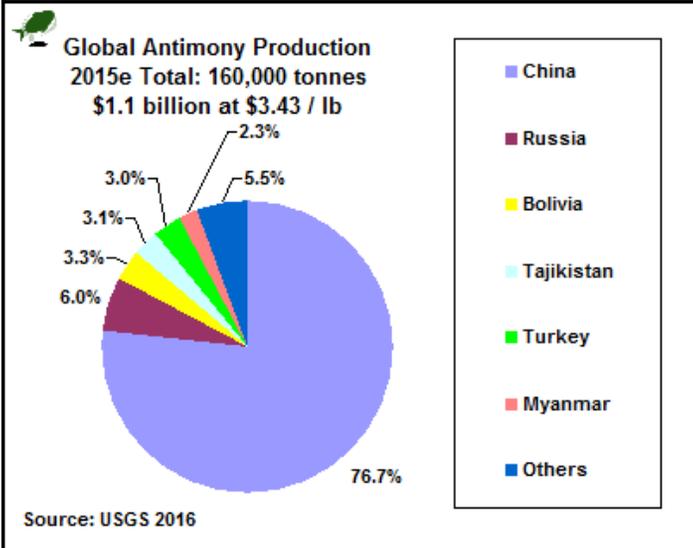
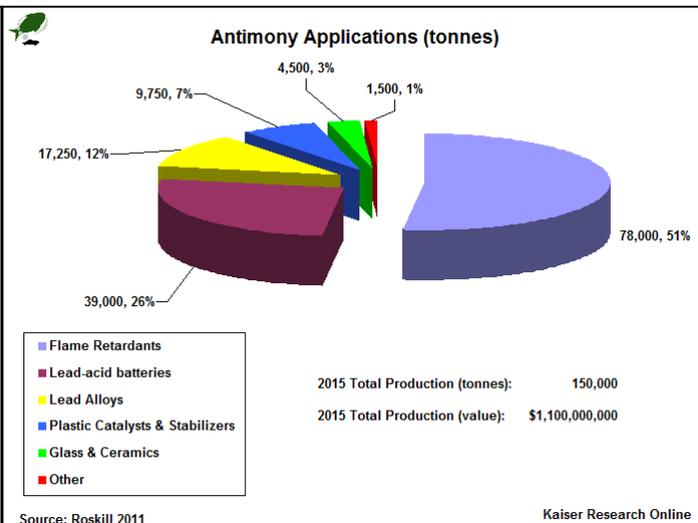
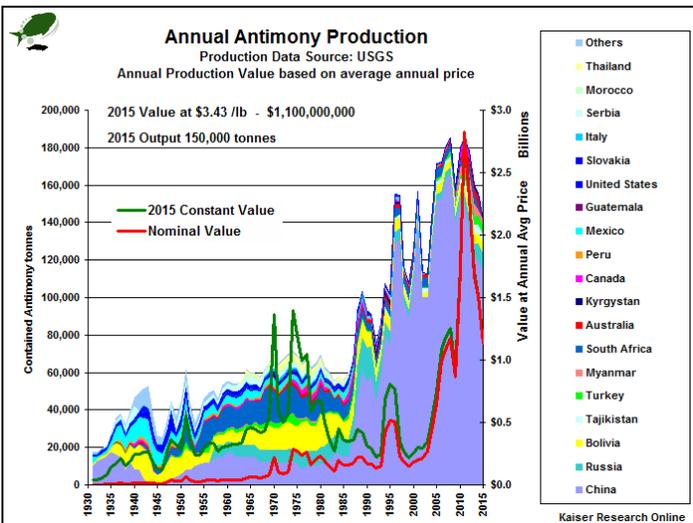
Max Value: \$8,833,012 on 1/13/2012



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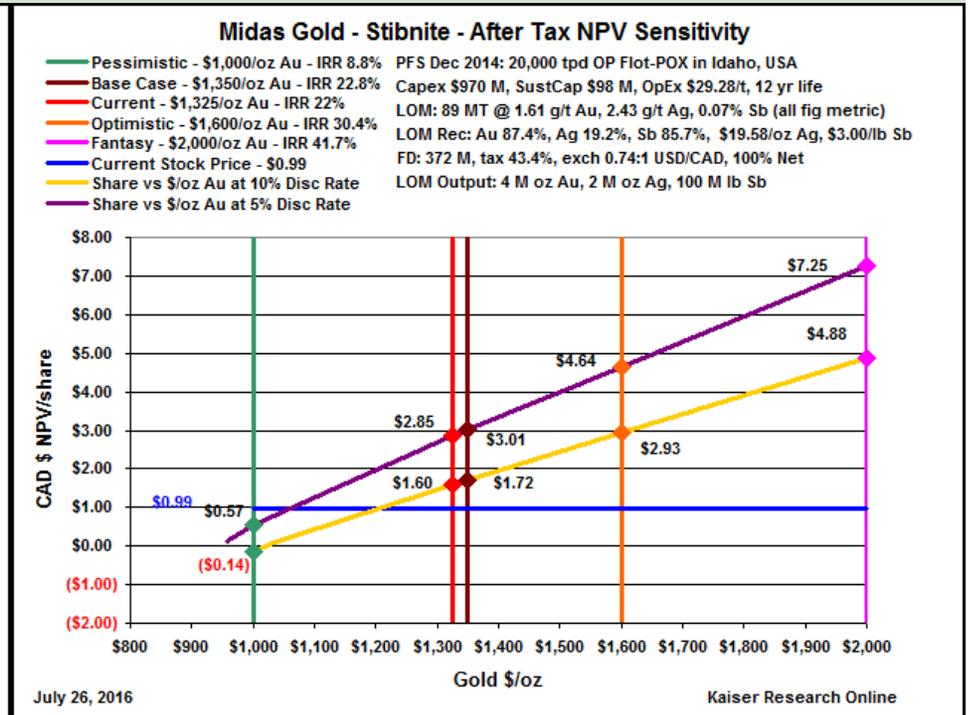
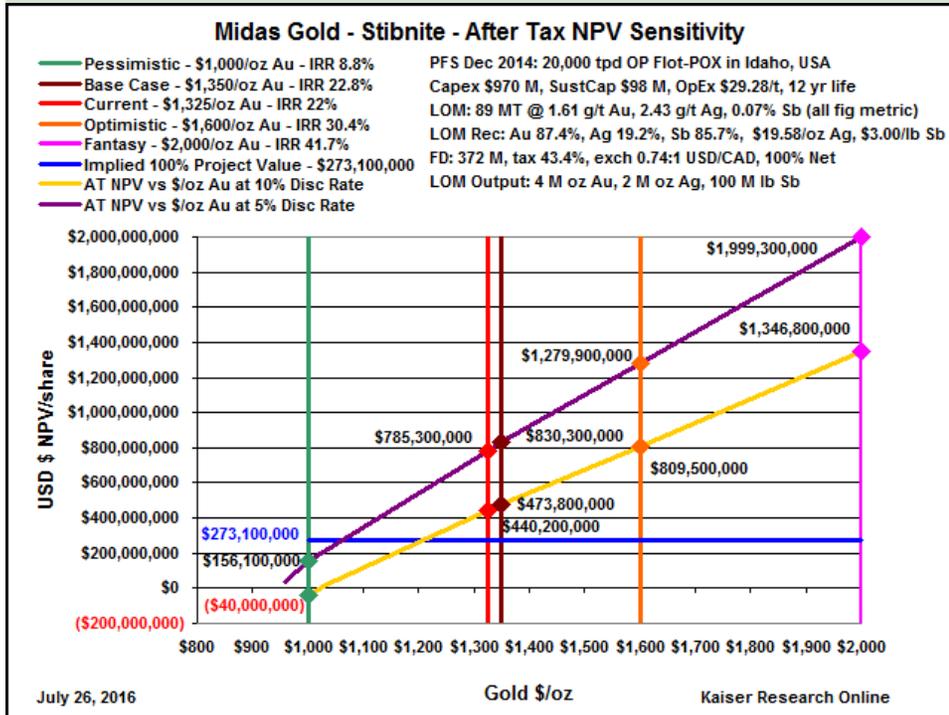
**MAX - TSX - Weekly - CAD \$0.94**

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Antimony – a security of supply risk not taken very seriously, small market but Stibnite Mine by-product could become critical.

Optionality Plays: bet on higher real gold prices by buying juniors with gold projects that will not be developed at the current gold price and thus are intrinsically worthless though not free.



# Sirios Resources Inc

10/31/2012 TO 7/27/2016



Issued:	99,249,310	High: \$0.51 on 4/25/2016	Max Volume: 2,856,100 on 4/11/2016
Diluted:	121,402,950	Low: \$0.06 on 8/13/2013	Max Value: \$1,100,925 on 4/22/2016



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SOI - TSXV - Daily - CAD \$0.47

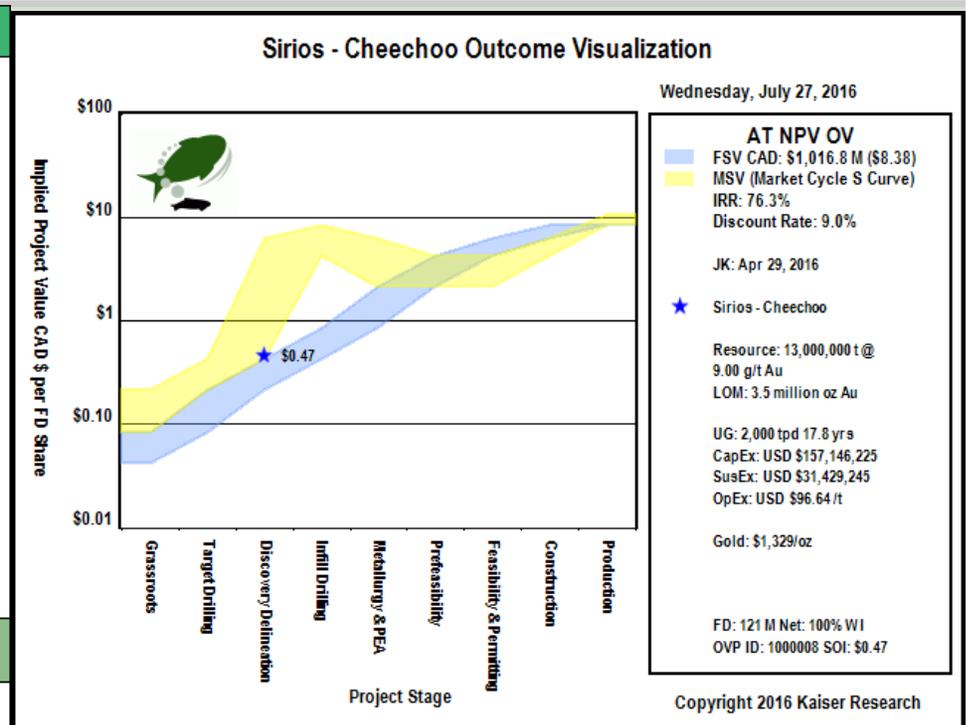
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## Visualized Outcome Summary: Sirios - Cheechoo

**Deposit Scenario:** 13,000,000 t @ 9.0 g/t Gold

**Mining Scenario:** Underground 2,000 tpd 17.8 yrs, CapEx \$157.0 million, SustCapEx \$31.4 million, OpEx \$96.64/t (USD)

**LOM Payable:** 3.5 million oz gold



### Footprint of the Eleonore Gold Deposit and Eleonore South Property

**ELEONORE MINE (Goldcorp)**  
 Surface projection  
 Proven and probable reserves:  
 26.32 Mt @ 5.67 g/t Au (5.35 Moz Au)  
 Measured and Indicated resources:  
 4.59 Mt @ 5.49 g/t Au (0.61 Moz Au)  
 Inferred resources:  
 9.97 Mt @ 7.11 g/t Au (2.28 Moz Au)  
 (as of December 31, 2015)



**CHEECHOO PROPERTY**  
 (Sirios / Golden Valley Mines)

**Cheechoo Discovery (Sirios)**  
 Selected drilling results from public sources of information  
 1.09 g/t Au over 56 m  
 4.10 g/t Au over 5.6 m and 1.45 g/t Au over 29.4 m  
 1.80 g/t Au over 34.0 m and 4.70 g/t Au over 7.5 m  
 1.16 g/t Au over 9.0 m  
 1.53 g/t Au over 19.5 m and 2.02 g/t Au over 33.5 m  
 15.61 g/t Au over 9.70 m and 15.04 g/t Au over 12.35 m  
 4.18 g/t Au over 20.0 m  
 1.00 g/t Au over 33.0 m  
 2.96 g/t Au over 31.5 m  
 1.00 g/t Au over 66.4 m  
 12.08 g/t Au over 20.3 m (Hole #52)

- Drill hole collar location (D)
- Tonalite / sediments contact
- ⚡ Eleonore deposit (Goldcorp) Surface projection

Gold in soil (B horizon)	Percentile range
100%	
99%	
96% - 98%	
91% - 95%	
86% - 90%	
81% - 85%	
71% - 80%	
61% - 70%	
51% - 60%	
1% - 50%	

2.5 km

**JT Target**  
 1.33 g/t Au / 7.5 m (D)  
 10.35 g/t Au / 0.5 m (D)  
 1.54 g/t Au / 5.7 m (D)  
 1.90 g/t Au / 4.0 m (D)  
 1.40 g/t Au / 10.0 m (D)  
 7.06 g/t Au / 0.5 m (D)  
 5.33 g/t Au / 8 m (Channel)  
 1.5 g/t Au / 16 m (Channel)

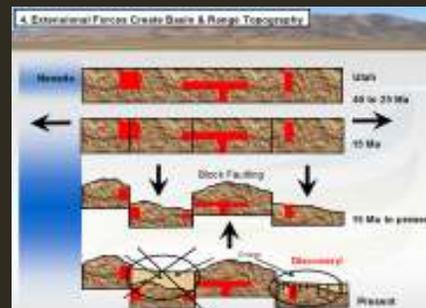
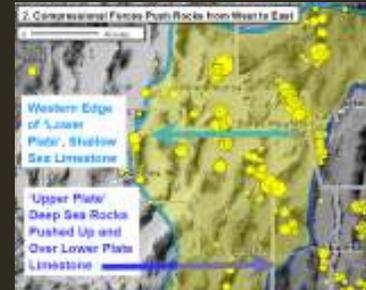
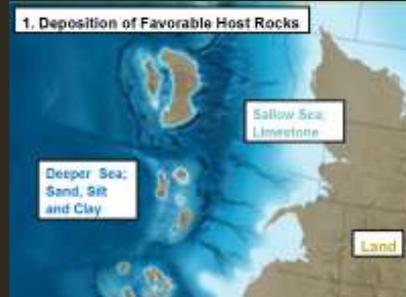
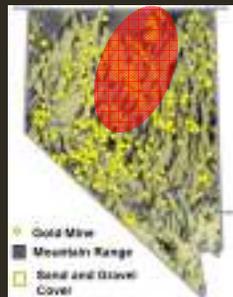
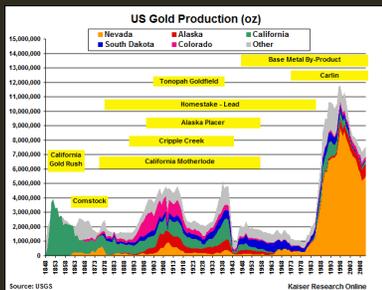
Drilling results over core lengths (true widths unknown)

**ELEONORE SOUTH PROPERTY**  
 (Azimut / Goldcorp / Eastmain)

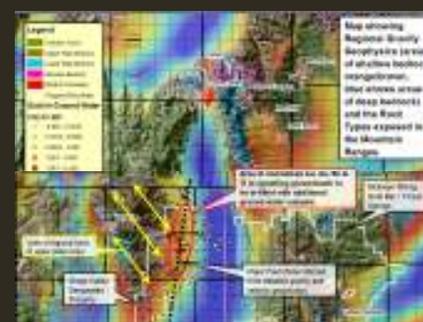
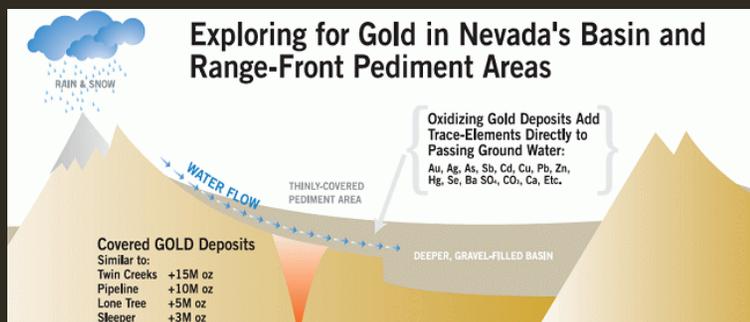
Tonalite Metasediments

Figure 2 - Press release dated June 16, 2016

# Is groundwater chemistry the key to finding Nevada's missing gold?

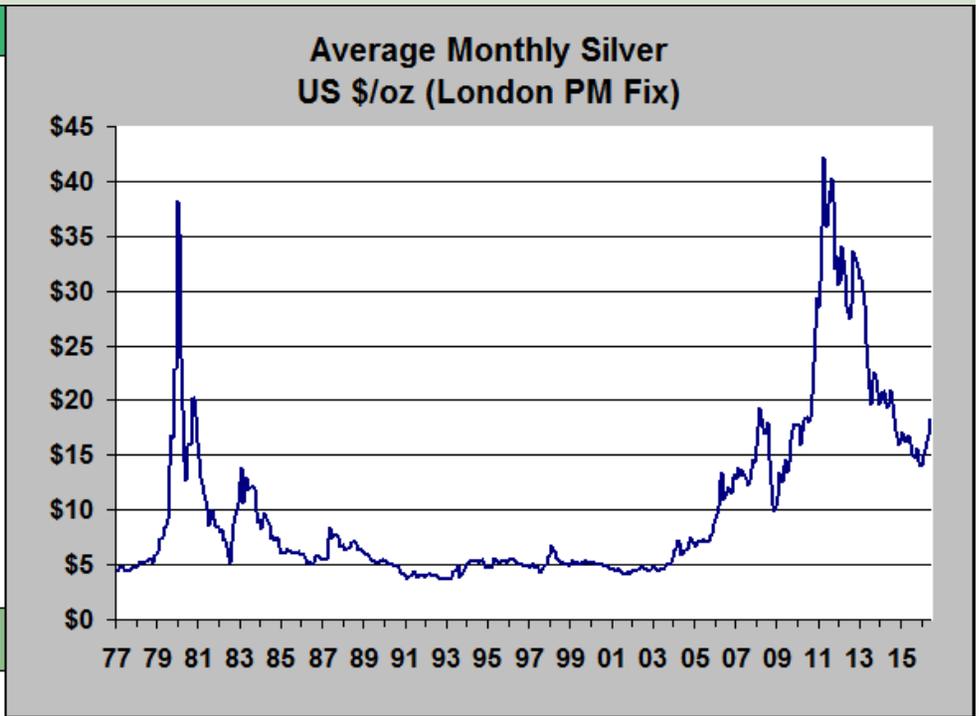


Exposed GOLD Deposits (before 1990):	
Gold Acres	<0.3Moz
Cortez Gold	2.0Moz
Horse Canyon	<0.2Moz
<b>Total Oz</b>	<b>2.5Moz</b>
Covered GOLD Deposits (since 1990):	
Pipeline	17.2Moz
Cortez Hills	15.0Moz
Goldrush	15.6Moz
<b>Total Oz</b>	<b>47.8Moz</b>





# Defiance Silver: bread & butter plus bluesky





# China to Pillory, or Praise, Cities Based on Water Pollution

[点击查看本文中文版](#) | [Read in Chinese](#)

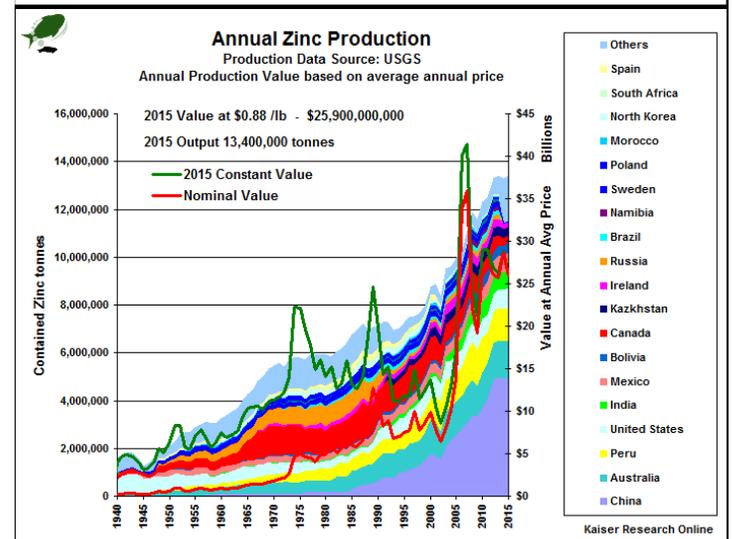
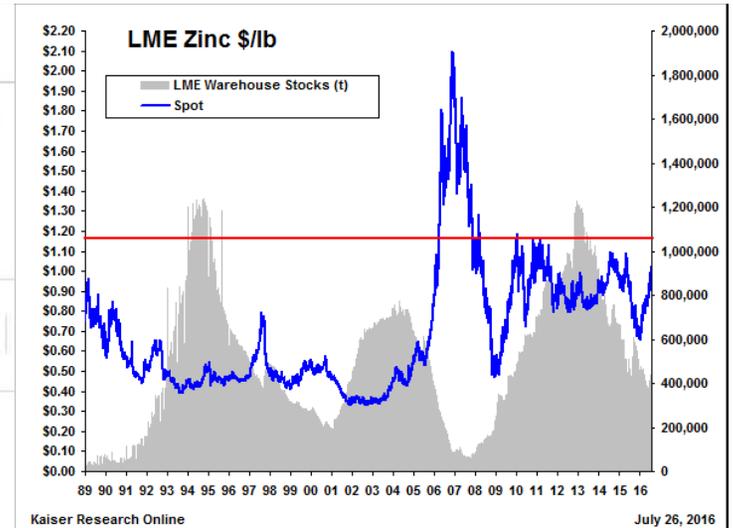
Sinosphere

By EDWARD WONG JULY 7, 2016

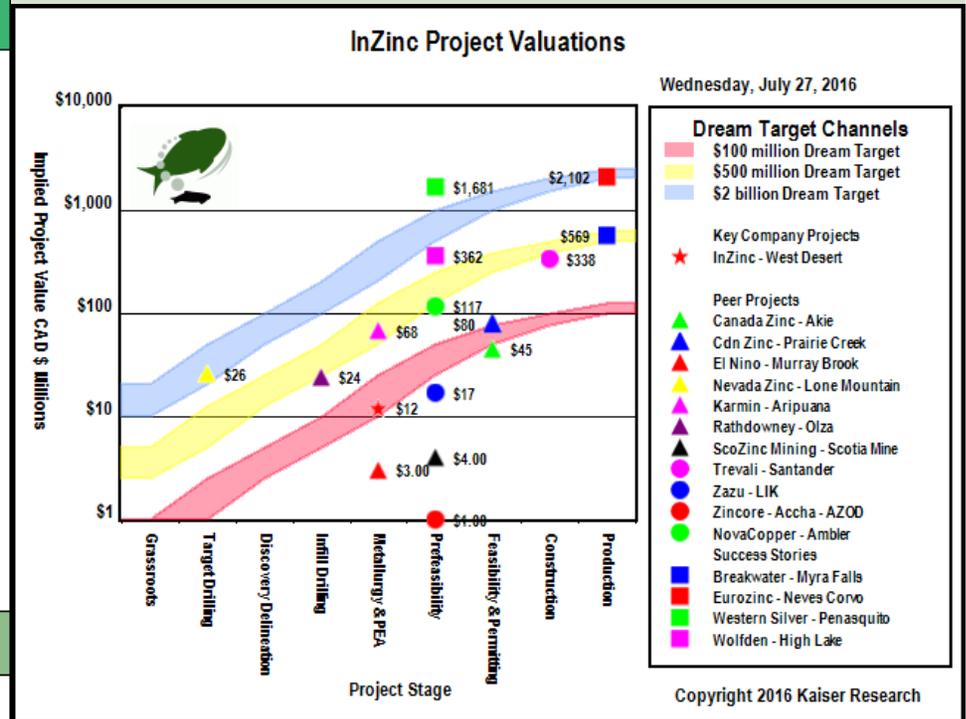
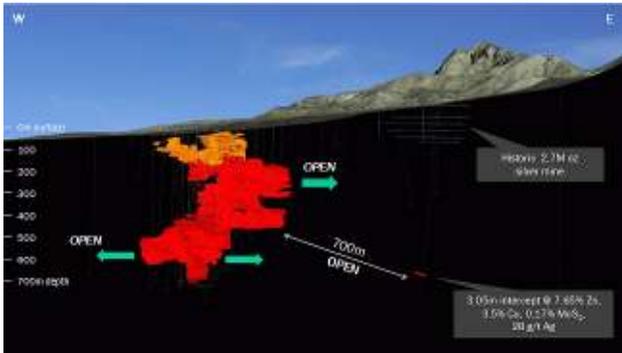


## China's Environmental Awakening

Environmental Policy as Supply Disrupter



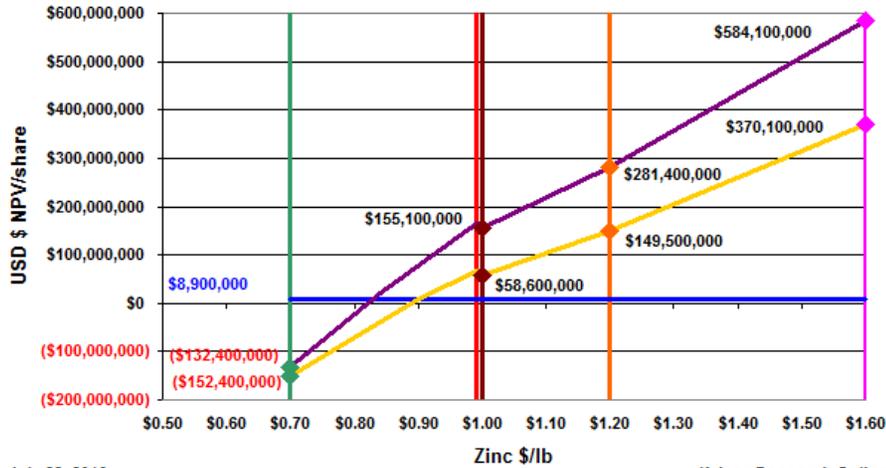
# InZinc: Zinc optionality and Arizona Mining style exploration bluesky



### InZinc - West Desert - After Tax NPV Sensitivity

- Pessimistic - \$0.70/lb Zn - IRR 11%
- Base Case - \$1.00/lb Zn - IRR 15%
- Current - \$0.99/lb Zn - IRR 15%
- Optimistic - \$1.20/lb Zn - IRR 22%
- Fantasy - \$1.60/lb Zn - IRR 37%
- Current Stock Price - \$0.15
- Share vs \$/lb Zn at 10% Disc Rate
- Share vs \$/lb Zn at 5% Disc Rate

PEA Apr 2014: 6,500 tpd UG-Flotation, 15 yr mine life, Utah  
 CapEx \$247.4 M, SustEx \$141.5 M, OpEx \$41/t, ShipEx: \$69/t Zn/Fe  
 LOM: 34 M t @ 2.72% Zn, 0.27% Cu, 44% mag, 30 g/t In, 1 g/t Ag  
 Conc: 55% Zn, 29% Cu, \$2.14/lb Cu, \$250/kg In, \$80/t 64% magnetite  
 FD: 79.7 M, tax rate 39%, exch 0.74:1 USD/CAD, 100% Net  
 LOM: 1.6 B lb Zn, 148 M lbs Cu, 569 t In, 14.5 M t magnetite, 1.1M oz Ag @ \$19.50 oz, 114 K oz Au @ \$1,340/oz



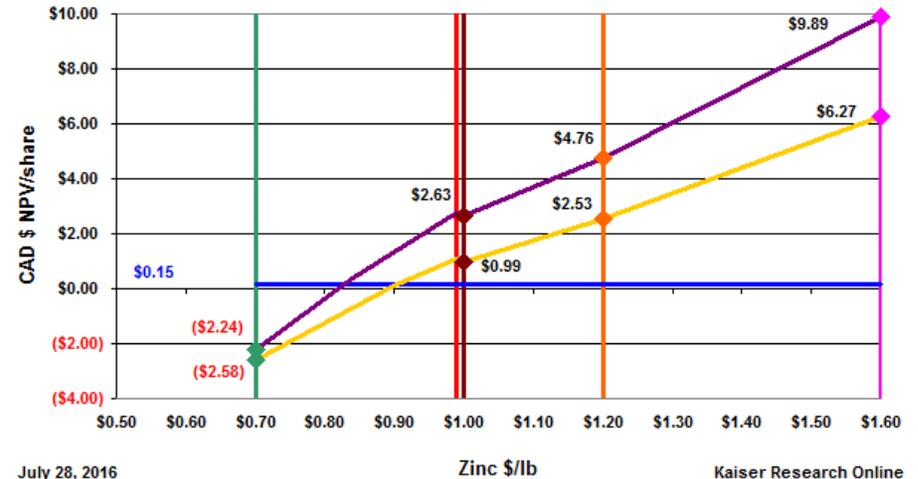
July 28, 2016

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### InZinc Mining - West Desert - After Tax NPV Sensitivity

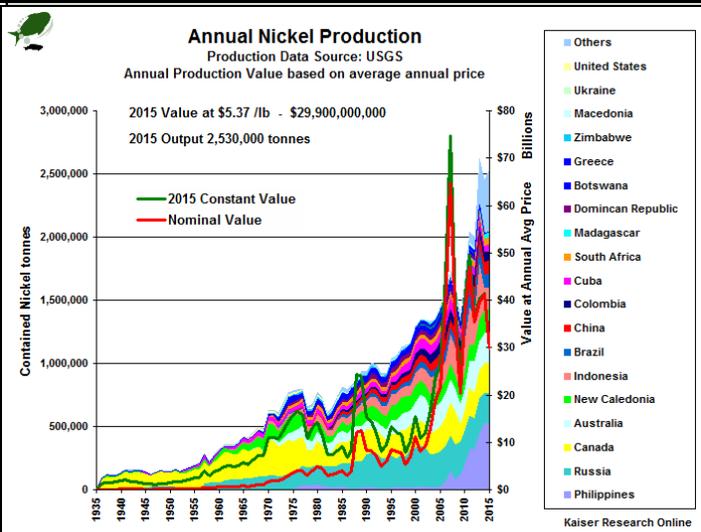
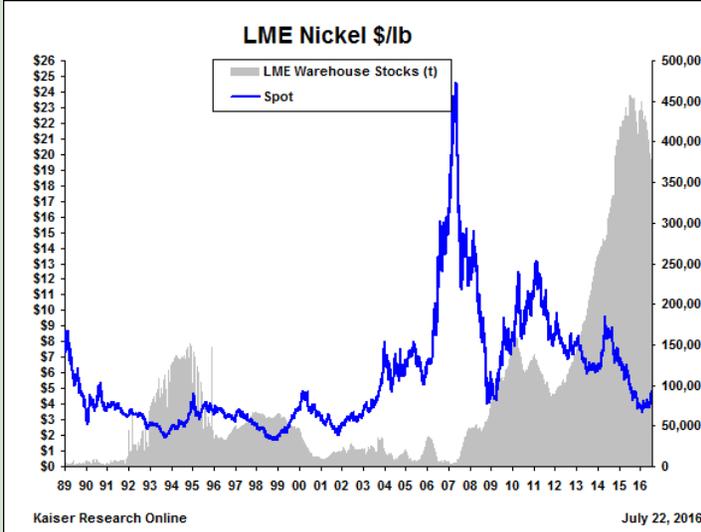
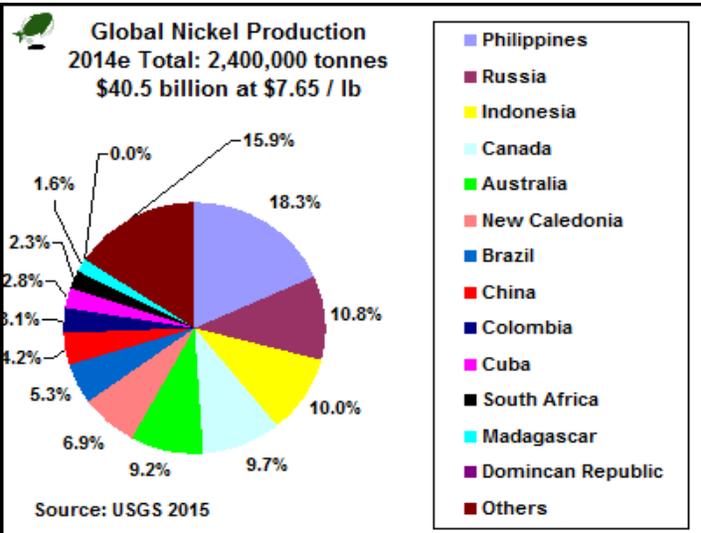
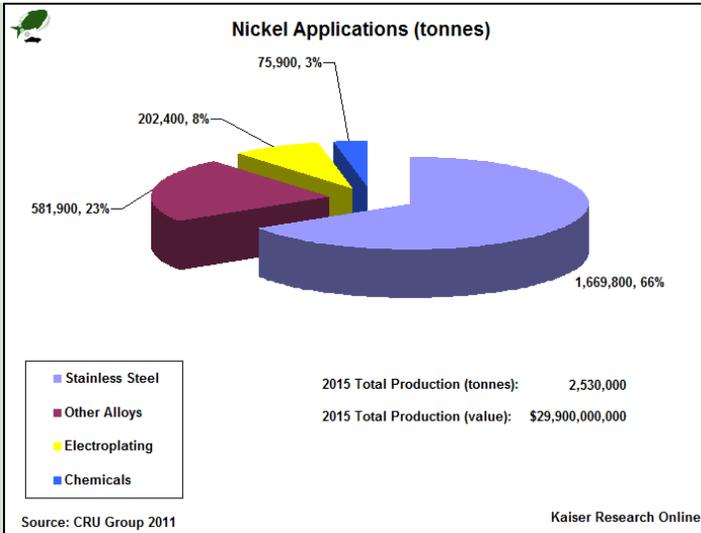
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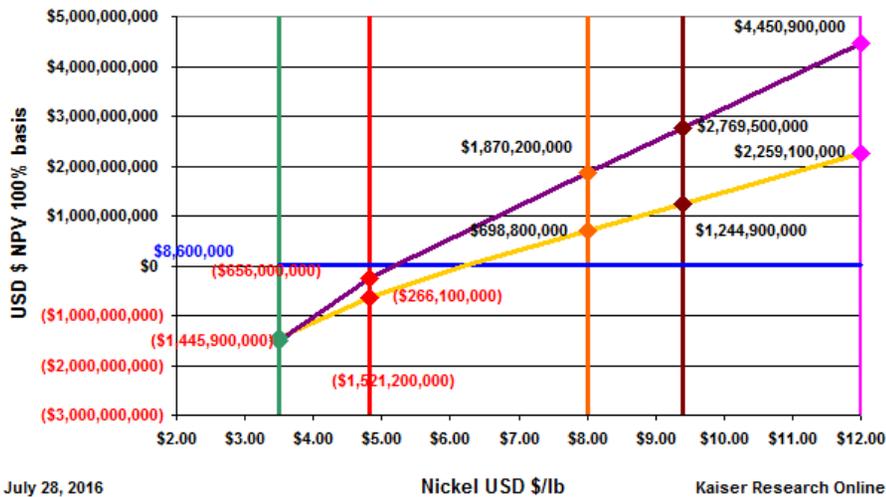




### First Point - Decar - After Tax NPV Sensitivity

- Pessimistic - \$3.50/lb Ni - IRR -11%
- Base Case - \$9.39/ Ni - IRR 17%
- Current - \$4.83/lb Ni - IRR 3%
- Optimistic - \$8.00/lb Ni - IRR 21%
- Fantasy - \$12.00/lb Ni - IRR 29%
- Implied USD 100% Project Value - \$8,600,000
- AT NPV vs \$/lb nickel at 10% Disc Rate
- AT NPV vs \$/lb nickel at 5% Disc Rate

PEA Mar 2013: 114,000 tpd OP Gravity-Mag Separation  
 CapEx US \$1 B, LOM SusCap \$572 M, OpEx \$5.19/t, 24 yr  
 I+I - 925 M t @ 0.118% Ni (Davis Tube), recovery 82%  
 129 M FD, 39% Tax, exch 0.75 USD:CAD, 100% net  
 Direct ship concentrate (Fe+Ni+Cr) payable 75% Ni value  
 PEA costs in CAD assumed unchanged



July 28, 2016

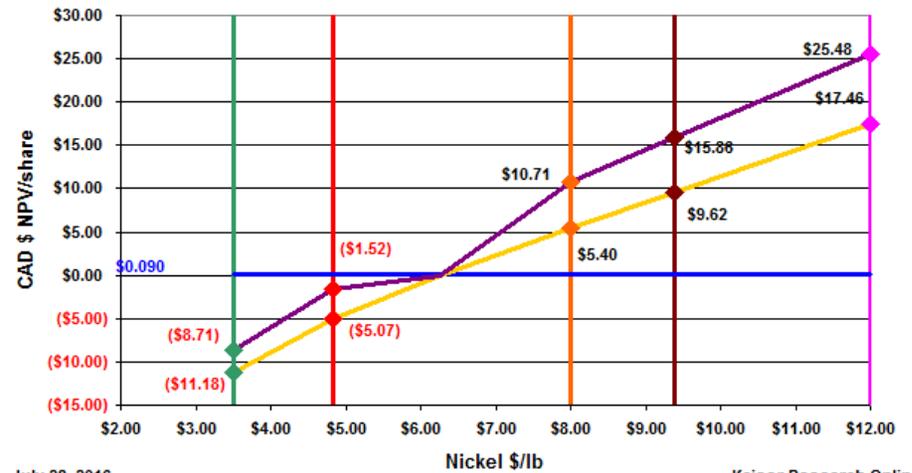
Nickel USD \$/lb

Kaiser Research Online

### First Point - Decar - After Tax NPV Sensitivity

- Pessimistic - \$3.50/lb Ni - IRR -11%
- Base Case - \$9.39/ Ni - IRR 17%
- Current - \$4.83/lb Ni - IRR 3%
- Optimistic - \$8.00/lb Ni - IRR 21%
- Fantasy - \$12.00/lb Ni - IRR 29%
- Current Stock Price - \$0.09
- AT NPV/sh vs \$/lb Ni at 10% Disc Rate
- AT NPV/Sh vs \$/lb Ni at 5% Disc Rate

PEA Mar 2013: 114,000 tpd OP Gravity-Mag Separation  
 CapEx US \$1 B, LOM SusCap \$572 M, OpEx \$5.19/t, 24 yr mine life  
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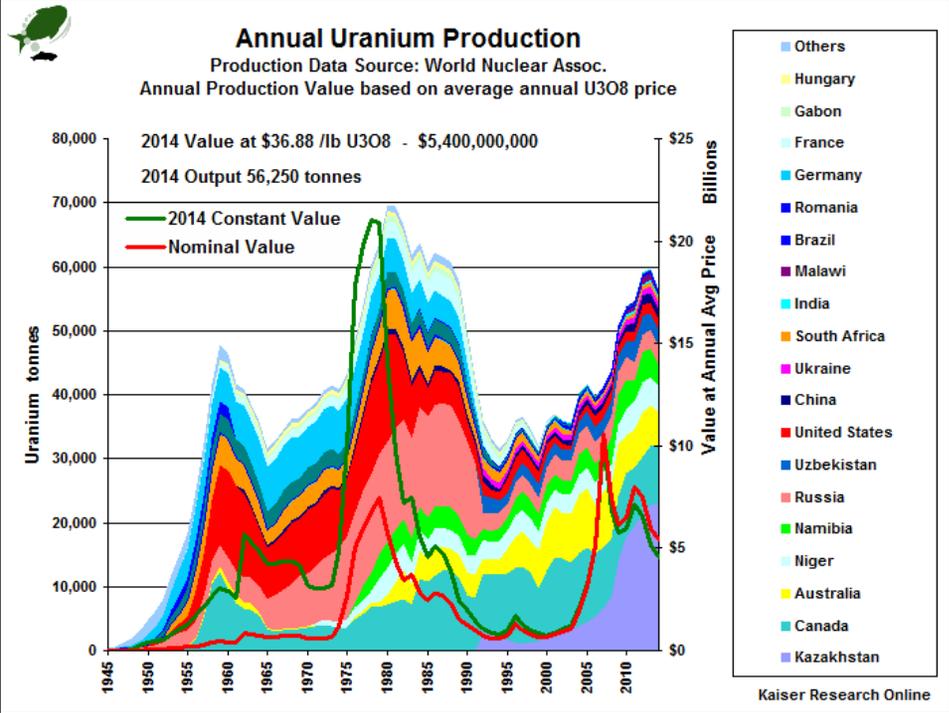
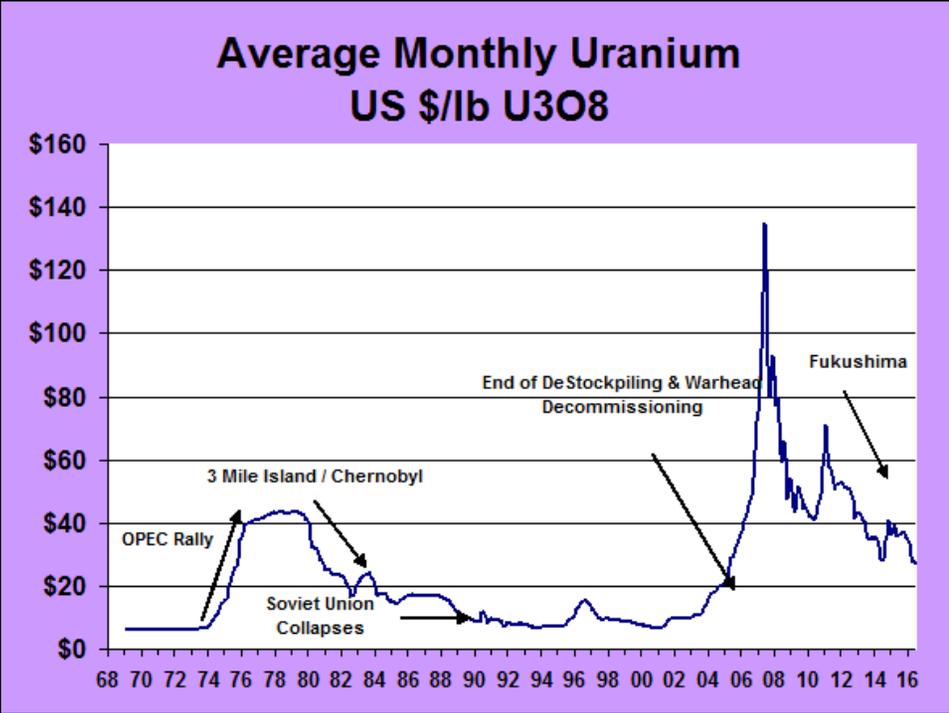


July 28, 2016

Nickel \$/lb

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# Uranium: Fukushima and Kazakhstan ISL

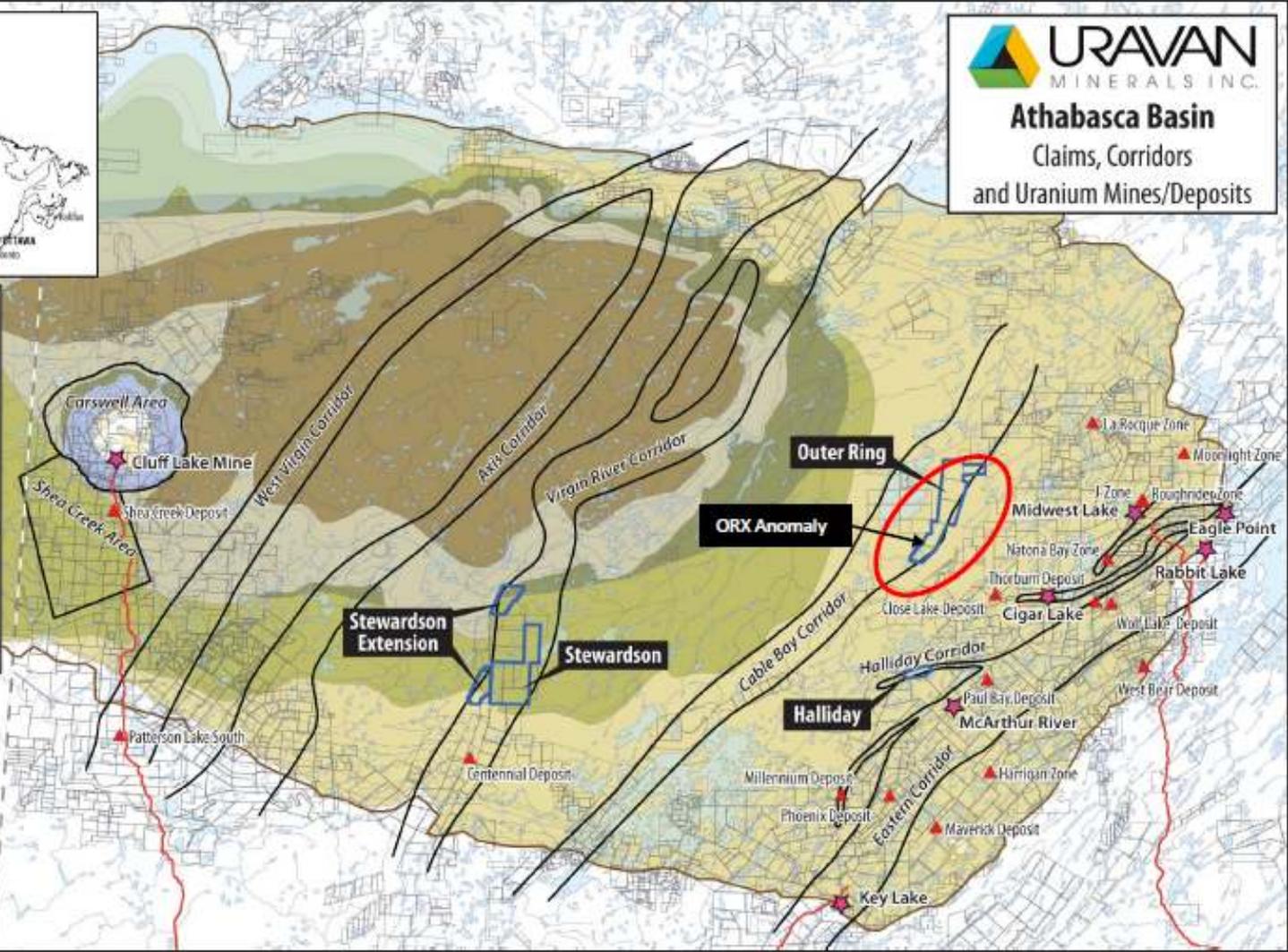




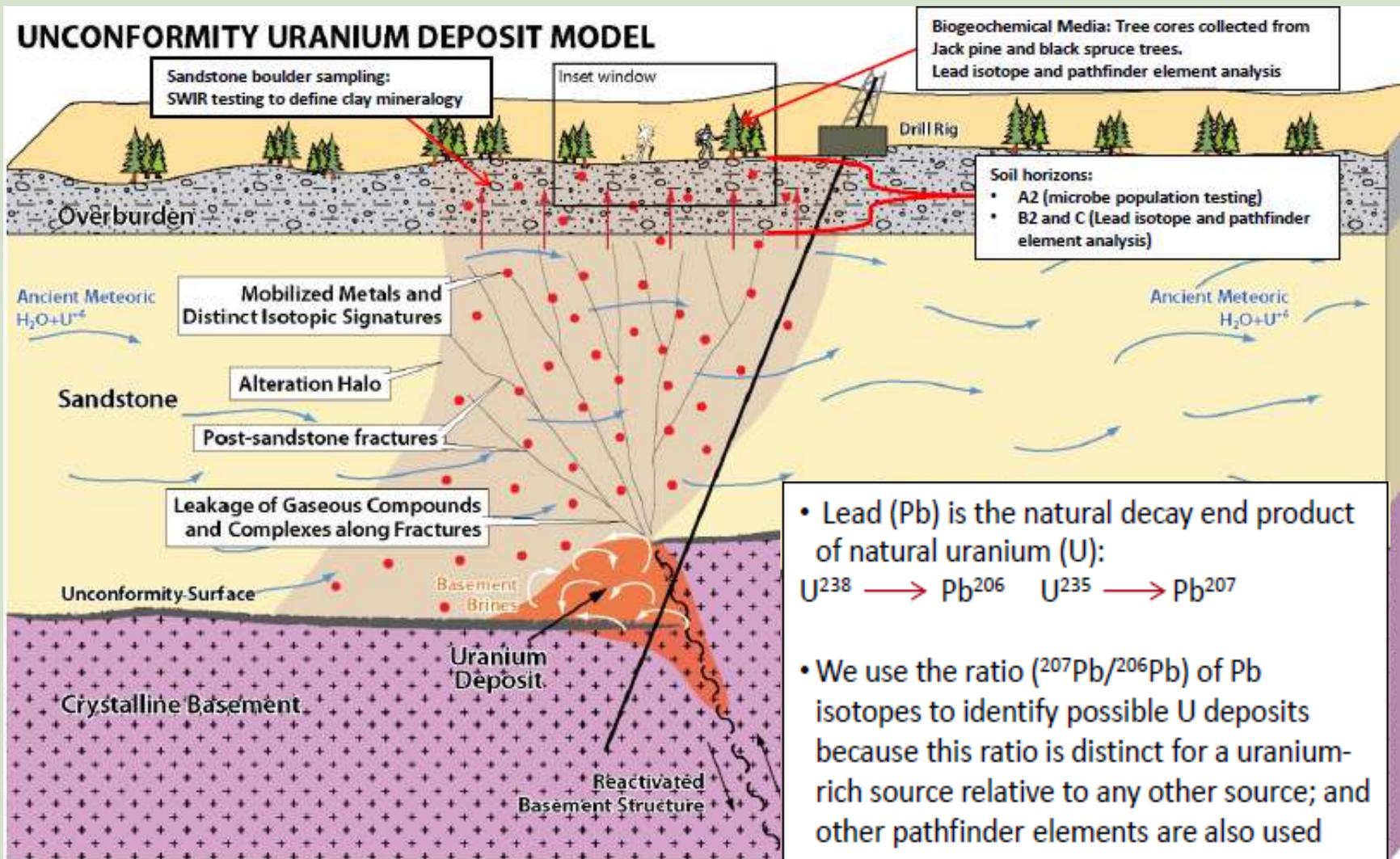
**URAVAN**  
MINERALS INC.

**Athabasca Basin**  
Claims, Corridors  
and Uranium Mines/Deposits

- Legend**
- All claim boundaries
  - All UraVan claims
  - ★▲ Mines and Deposits
  - /// Corridors of Interest
- Formation Geology**
- Carswell Area
  - Mackenzie Dyke
  - Otherside
  - Locker Lake
  - Wolverine Point
  - Lazenby Lake
  - Manitou Falls
  - Basement



# UNCONFORMITY URANIUM DEPOSIT MODEL



Sandstone boulder sampling:  
SWIR testing to define clay mineralogy

Inset window

Biogeochemical Media: Tree cores collected from  
Jack pine and black spruce trees.  
Lead isotope and pathfinder element analysis

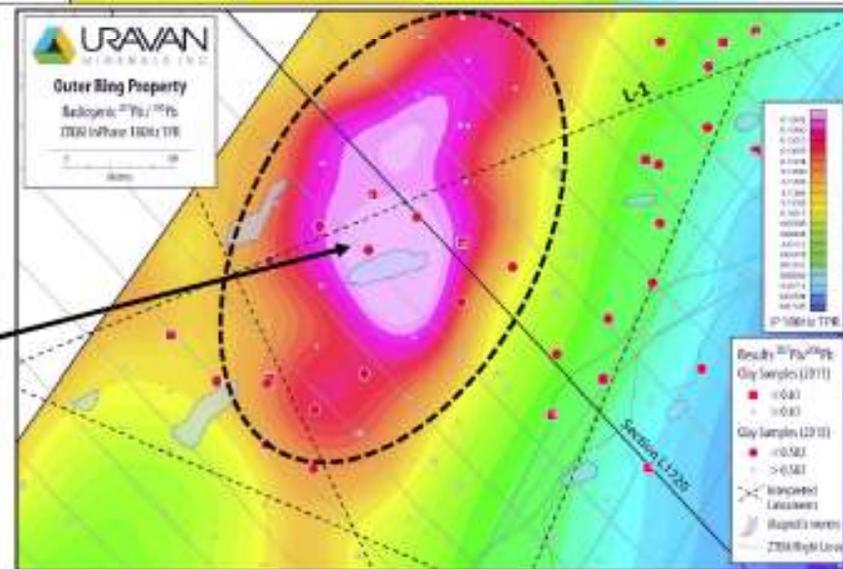
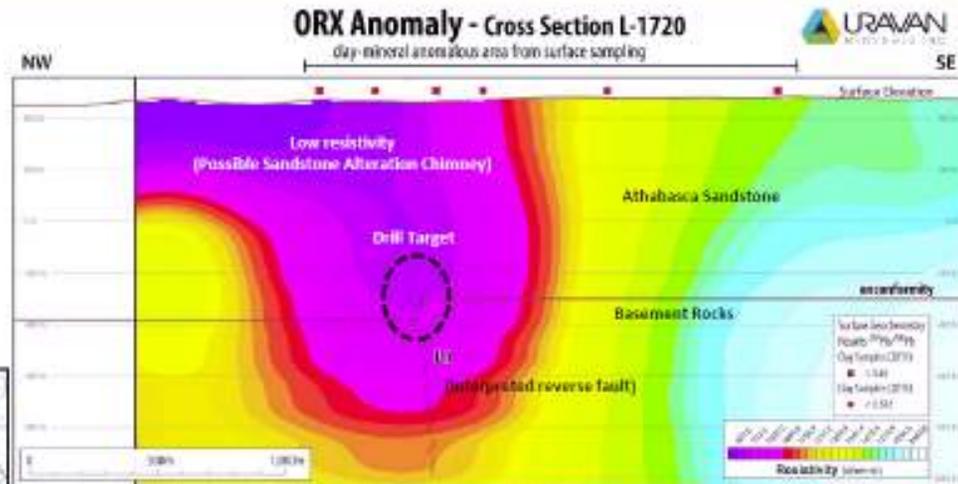
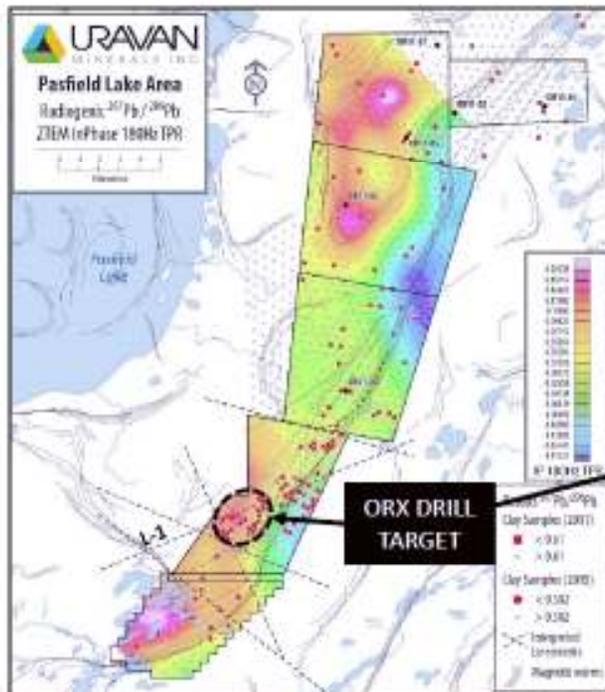
Soil horizons:  
• A2 (microbe population testing)  
• B2 and C (Lead isotope and pathfinder  
element analysis)

- Lead (Pb) is the natural decay end product of natural uranium (U):  

$$U^{238} \longrightarrow Pb^{206} \quad U^{235} \longrightarrow Pb^{207}$$
- We use the ratio ( $^{207}Pb/^{206}Pb$ ) of Pb isotopes to identify possible U deposits because this ratio is distinct for a uranium-rich source relative to any other source; and other pathfinder elements are also used

## ORX DRILL TARGETING

- A positive correlation between the ORX Anomaly and the ORX (ZTEM) conductive system provides specific drill-hole vectoring.
- Two to three drill-hole are required to test this unique anomaly for potential uranium mineralization at depth.

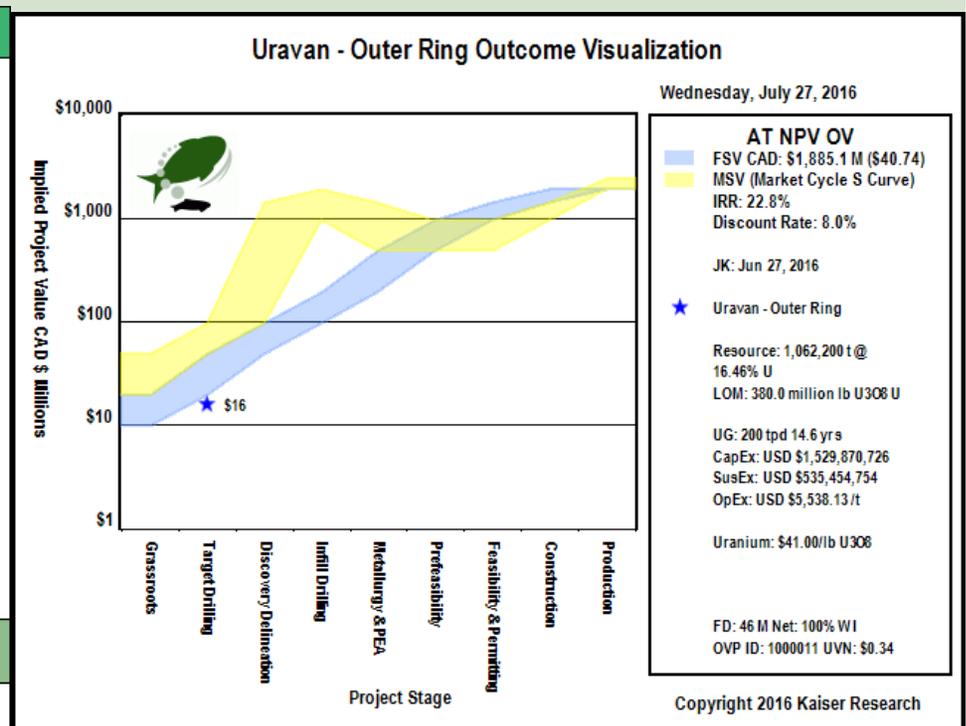


## Visualized Outcome Summary: Uravan - Outer Ring

**Deposit Scenario:** 1,062,200 t @ 16.46% Uranium

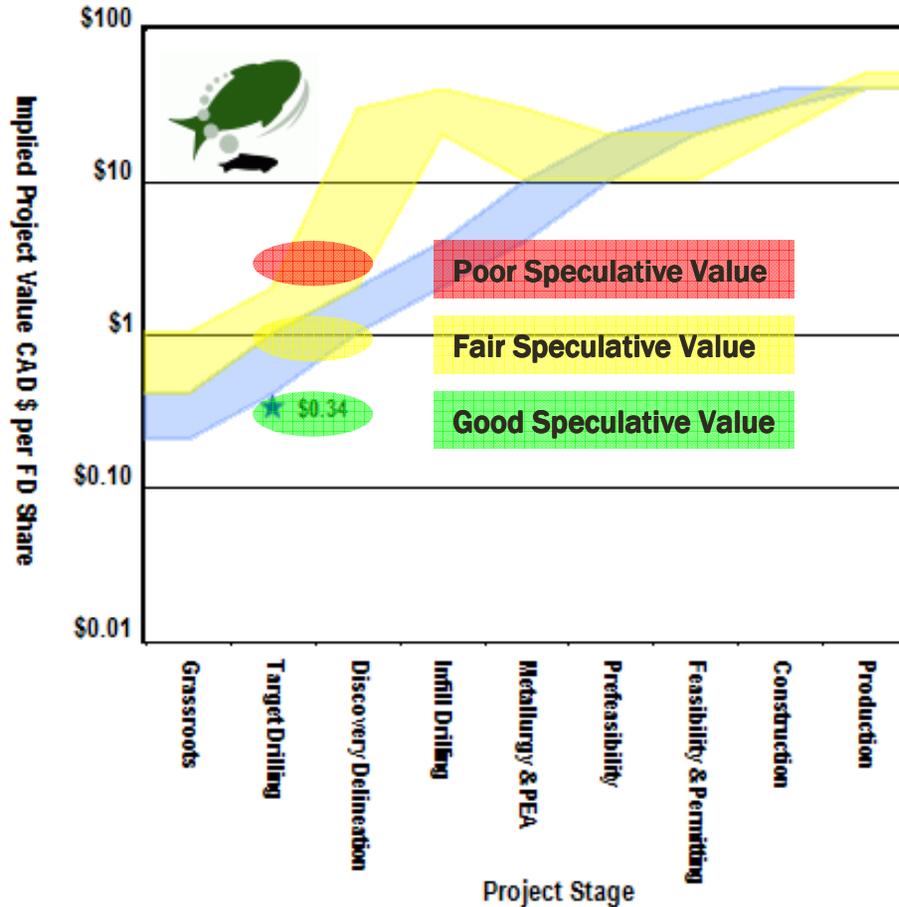
**Mining Scenario:** Underground 200 tpd 14.6 yrs, CapEx \$1.5 billion, SustCapEx \$535.0 million, OpEx \$5,538.13/t (USD)

**LOM Payable:** 380.0 million lb U3O8 uranium



# Uravan - Outer Ring Outcome Visualization

Tuesday, July 26, 2016



## AT NPV OV

FSV CAD: \$1,884.3 M (\$40.72)  
 MSV (Market Cycle S Curve)  
 IRR: 22.8%  
 Discount Rate: 8.0%

JK: Jun 27, 2016

★ Uravan - Outer Ring

Resource: 1,062,200 t @  
 16.46% U  
 LOM: 380.0 million lb U3O8 U

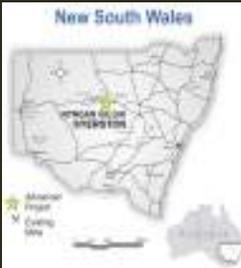
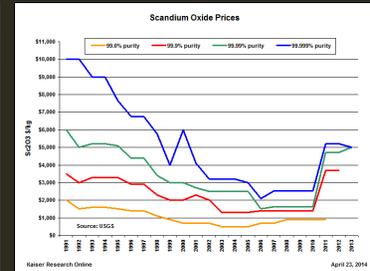
UG: 200 tpd 14.6 yrs  
 CapEx: USD \$1,529,870,726  
 SusEx: USD \$535,454,754  
 OpEx: USD \$5,538.13 /t

Uranium: \$41.00/lb U3O8

FD: 46 M Net: 100% WI  
 OVP ID: 1000011 UVN: \$0.34

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# The Scandium Story: a winner even in a worst case scenario

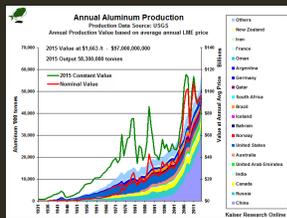
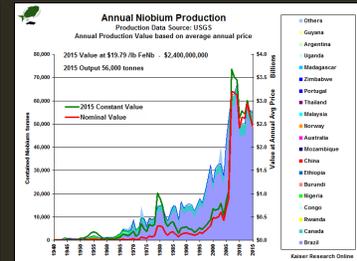
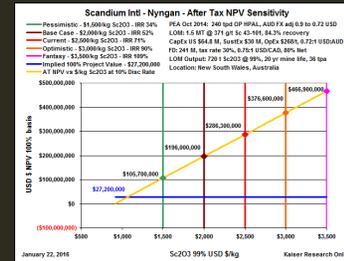


Project Resource Estimate - Nyngan

Mar 30, 2010 Ni 43-101 Sanja van Huet of Jervois Mining Ltd & Max Rangott of Rangott Mineral Exploration Pty Ltd, Orange, N Cutoff: 100 g/t Sc

Note: Grades are in g/t Sc, but pricing is for 99.9% scandium oxide (Sc2O3) which is estimated by USGS to average at \$3,700/kg, though a more realistic price is \$2,000/kg. The converter from element to oxide grade is 1.53.

Resource Category	Tonnage	Total Rock Value	Metal	Grade	Recovery	Contained Metal	% of GMV
Measured Resource	2,718,000	\$841/t	Scandium	274.00 g/t	100.0%	1,142,402 kg	100%
Indicated Resources	9,294,000	\$792/t	Scandium	258.00 g/t	100.0%	3,678,251 kg	100%
<b>All Categories Spot</b>	<b>12,012,000</b>	<b>\$803/t</b>	<b>Scandium</b>	<b>261.62 g/t</b>		<b>4,820,653 kg</b>	<b>100%</b>
<b>Spot Gross Metal Value</b>		<b>Market Cap as % of Net GMV</b>		<b>Spot Prices Used</b>			
\$9,641,306,949		0.3%		Scandium \$2,000.00/kg			



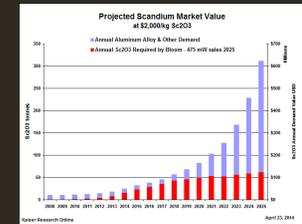
OBAMA ADMINISTRATION Fuel Economy Standards

The fleet-wide average will be **54.5 MPG**

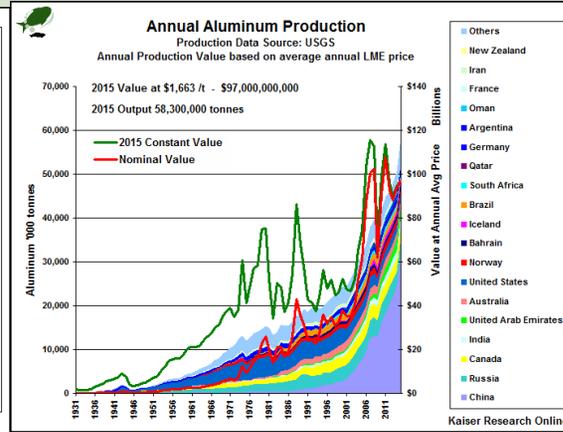
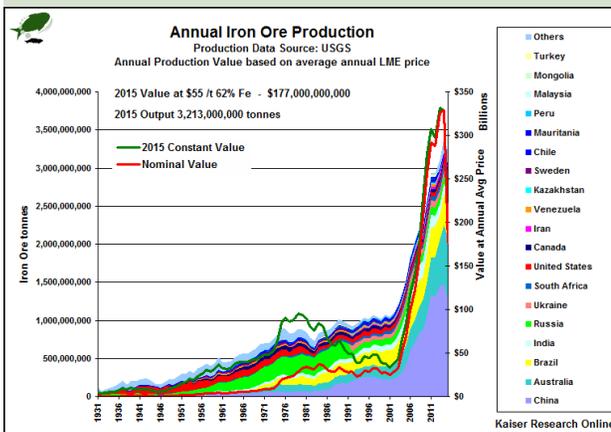
Consumers will have saved **\$1.7 TRILLION** at the pump over the life of the program.

It costs the government more than \$1 billion to build a gallon of ethanol.

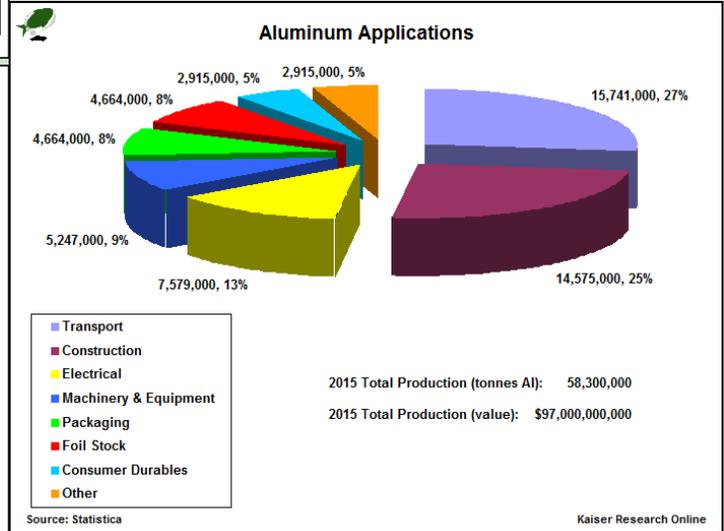
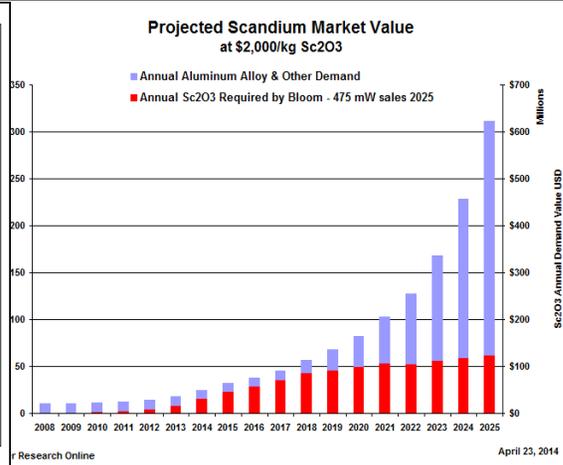
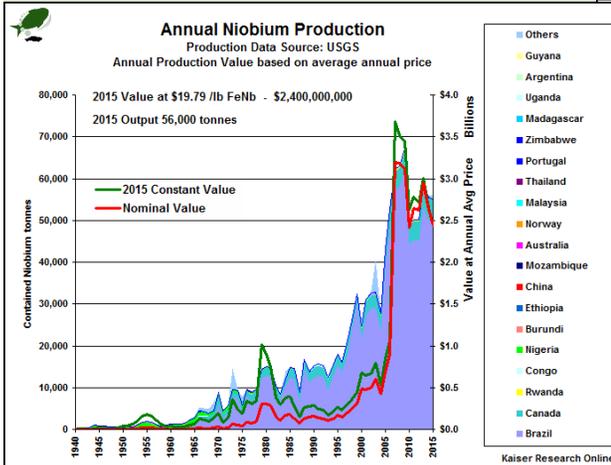
Over the life of the program, the standards will **save 12 billion gallons of oil** and **eliminate 6 billion pounds of carbon dioxide pollution**.



# Scandium: annual \$20 million to \$2 billion growth in next decade?



- Perfect aluminum alloy
- Stronger, corrosion resistant, reliable weld joints, 3D printable
- Historically available only as non-scalable by-product from uranium ISL, rare earth mines and titanium dioxide waste streams

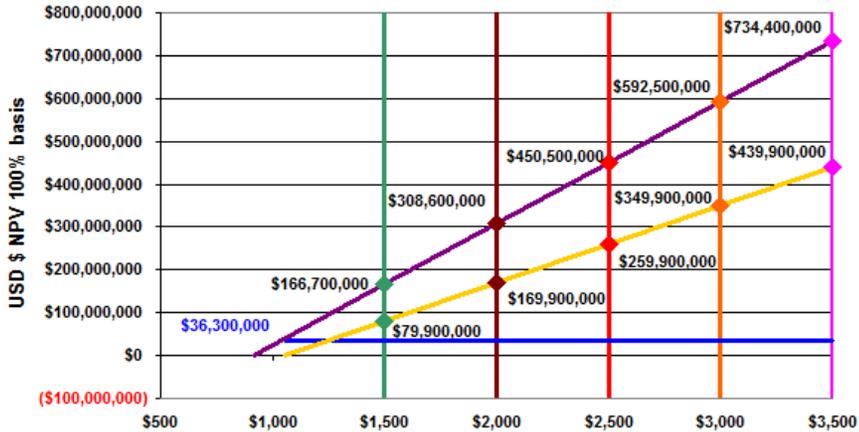


# Scandium International Mining Corp (SCY-T)

**Scandium Intl - Nyngan - After Tax NPV Sensitivity**

Pessimistic - \$1,500/kg Sc2O3 - IRR 22%  
 Base Case - \$2,000/kg Sc2O3 - IRR 33%  
 Current - \$2,500/kg Sc2O3 - IRR 43%  
 Optimistic - \$3,000/kg Sc2O3 - IRR 52%  
 Fantasy - \$3,500/kg Sc2O3 - IRR 61%  
 Implied 100% Project Value - \$36,300,000  
 AT NPV vs \$/kg Sc2O3 at 10% Disc Rate  
 AT NPV vs \$/kg Sc2O3 at 5% Disc Rate

DFS Apr 2016: 240 tpd OP HPAL, 6.4% NSR, 20 yr SL Depr  
 LOM: 1.4 MT @ 409 g/t Sc 43-101, 83.7% recovery  
 CapEx US \$87.1 M, SustEx \$26 M, OpEx \$292/t, 0.70:1 USD:AUD  
 FD: 243 M, tax rate 30%, 0.78:1 USD/CAD, 80% Net  
 LOM Output: 754 t Sc2O3 @ 99%, 20 yr mine life, 36-42 tpa  
 Location: New South Wales, Australia



July 26, 2016

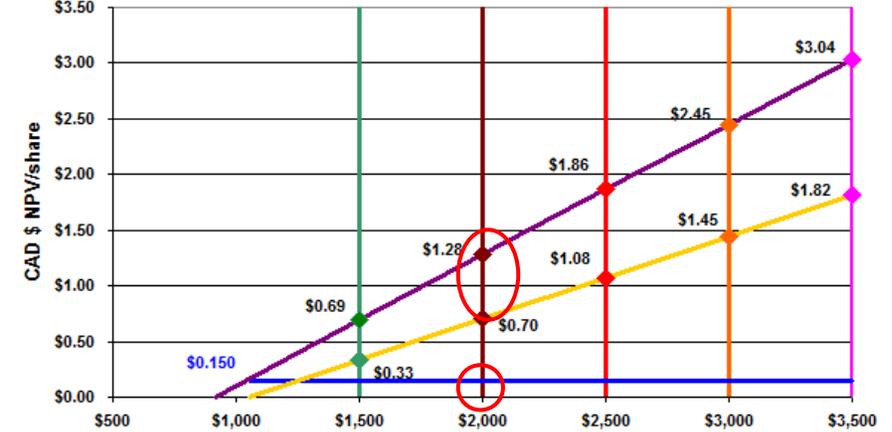
Sc2O3 99% USD \$/kg

Kaiser Research Online

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 Fantasy - \$3,500/kg Sc2O3 - IRR 61%  
 Current Stock Price - \$0.15  
 Share vs \$/kg Sc2O3 at 10% Disc Rate  
 Share vs \$/kg Sc2O3 at 5% Disc Rate

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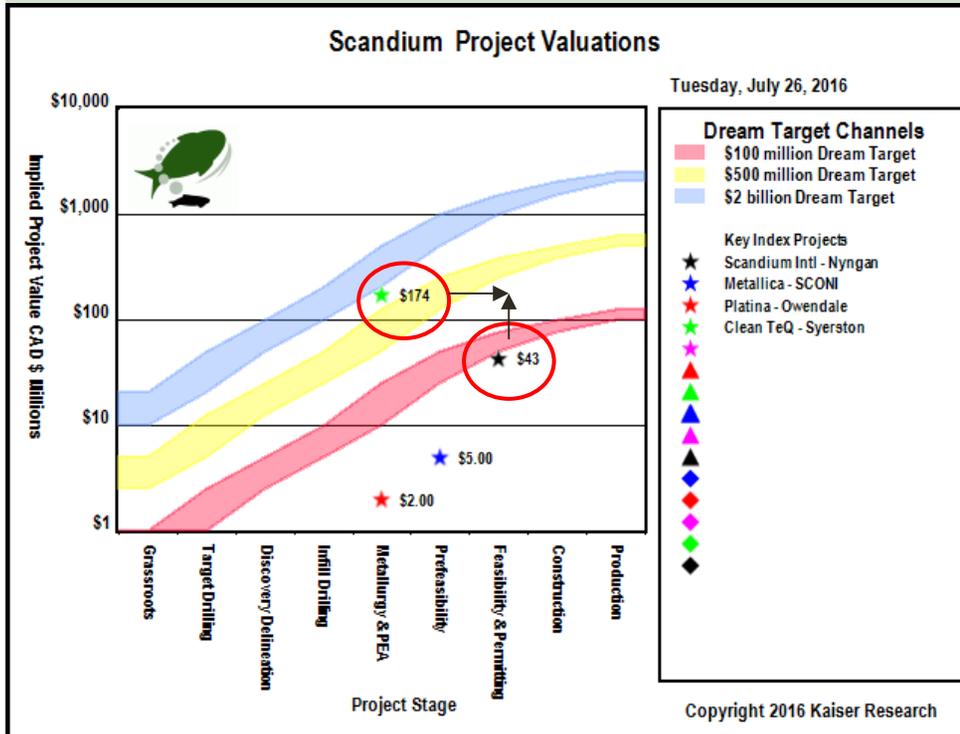
July 26, 2016

Sc2O3 99% USD \$/kg

Kaiser Research Online

**The best hedge against the failure of the resource sector recovery**

# SCY and CLQ will provide the baseload supply for a scandium demand explosion



# Kaiser Research Online

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Tel: (925) 631-9748



***When the market wind blows resource juniors should bend  
like reeds rather than break like trees.***