

Corporate Presentation | March 31, 2014



ALEXCO

Building a Sustainable Future in Silver

NYSE-MKT: AXU  
TSX: AXR





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# Forward Looking Statement

*This presentation contains forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995 and forward-looking information within the meaning of applicable Canadian securities laws (together, "forward-looking statements") concerning Alexco's business plans, including but not limited to anticipated results and developments in Alexco's operations in future periods, planned exploration and development of its mineral properties, plans related to its business and other matters that may occur in the future, made as of the date of this presentation. Alexco does not intend, and does not assume any obligation, to update these forward-looking statements, except as required by applicable law.*

*Forward-looking statements may include, but are not limited to, statements with respect to future remediation and reclamation activities, future mineral exploration, the estimation of mineral reserves and mineral resources, the realization of mineral reserve and mineral resource estimates, future mine construction and development activities, future mine operation and production, the timing of activities, the amount of estimated revenues and expenses, the success of exploration activities, permitting time lines, requirements for additional capital and sources and uses of funds.*

*Forward-looking statements are subject to a variety of known and unknown risks, uncertainties and other factors which could cause actual events or results to differ from those expressed or implied by the forward-looking statements. Such factors include, but are not limited to, risks related to actual results and timing of exploration and development activities; actual results and timing of mining activities; actual results and timing of environmental services operations; actual results and timing of remediation and reclamation activities; conclusions of economic evaluations; changes in project parameters as plans continue to be refined; future prices of silver, gold, lead, zinc and other commodities; possible variations in mineable resources, grade or recovery rates; failure of plant, equipment or processes to operate as anticipated; accidents, labour disputes and other risks of the mining industry; First Nation rights and title; continued capitalization and commercial viability; global economic conditions; competition; and delays in obtaining governmental approvals or financing or in the completion of development activities. Furthermore, forward-looking statements are statements about the future and are inherently uncertain, and actual achievements of Alexco or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors, including but not limited to those referred to in the section entitled "Risk Factors" in the MD&A included in Alexco's most recent interim and annual financial reports, its current AIF and U.S. Form 40-F, and various of its other continuous disclosure documents.*

*Forward-looking statements are based on certain assumptions that management believes are reasonable at the time they are made. In making the forward-looking statements included in this presentation, Alexco has applied several material assumptions, including, but not limited to, the assumption that: (1) the proposed development of its mineral projects will be viable operationally and economically and proceed as planned; (2) market fundamentals will result in sustained silver, gold, lead and zinc demand and prices, and such prices will be materially consistent with or more favourable than those anticipated in the Bellekeno Development Plan, (3) the actual nature, size and grade of its mineral resources are materially consistent with the resource estimates reported in the supporting technical reports; and (4) any additional financing needed will be available on reasonable terms.*



# Preliminary Economic Assessment Cautionary Statement

On December 12, 2013, Alexco Resource Corp. filed a Preliminary Economic Assessment Technical Report entitled “Updated Preliminary Economic Assessment for the Eastern Keno Hill Silver District Project – Phase 2, Yukon, Canada”

*Readers are cautioned that mineral resources are not mineral reserves and do not have demonstrated economic viability. The PEA is preliminary in nature; as well, while the consolidated mine production under the PEA is derived primarily from indicated mineral resources, approximately 6% is derived from inferred mineral resources. There is no certainty that the PEA will be realized, and it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. The PEA contemplates an initial development and construction period beginning in the second quarter of 2014, with startup of commercial production in the second quarter of 2015. Commencement of development and construction remains dependent on Alexco making a development decision, which would be dependent on a number of factors, including but not limited to expectations regarding market prices for silver, lead, zinc and gold as well as the US-Canadian dollar exchange rate, and the availability of development capital. Additionally, a production decision which is made without a feasibility study of mineral reserves demonstrating economic and technical viability carries additional potential risks which include, but are not limited to, the risk that additional detailed work may be necessary with respect to mine design and mining schedules, metallurgical flow sheets and process plant designs, and the noted inherent risks pertaining to the inclusion of approximately 6% inferred mineral resources in the mine plan.*



# Building a Sustainable Future in Silver

- **The Keno Hill Silver District, Yukon:  
A Canadian Silver Franchise**
  - Repositioning for a sustainable future during an interim suspension of operations
- **Restructuring All-in Sustainable Cost profile  
to operate in all price cycles**
  - Cost & efficiency improvements
- **Returning to production with high optionality**
  - Optimized production mix; margin driven
- **Converting exploration ounces to income  
statement ounces**
- **Maintaining growth and profitability of our  
environmental business (AEG)**





# Alexco Resource Corp.

**NYSE-MKT:AXU / TSX:AXR**  
**62.6 Million Shares Issued & Outstanding**

- 100% owner of Keno Hill District
- Canada's only primary silver producer 2011-2013
- Deep pipeline exploration/development targets
- Indicated silver resources of 49.7 million ounces\*
  - Additional 9.9 million oz Inferred resource\*
  - Additional 5.4 million oz Historical resource\*
- Alexco Environmental Group: now an established brand – growing and profitable

12/31/2013

Cash	\$ 8.6 million
Additional Restricted Cash	\$ 9.5 million
Net Working Capital	\$15.3 million
No Financial Debt	



\*Please see appended Summary of Silver Resources slide for full mineral resource disclosure.





**Keno Hill Silver District,  
Yukon, Canada**

- ✦ Safe jurisdiction - Yukon, Canada
- ✦ Historic Keno Hill Silver District, 100% Ownership
- ✦ Historical average ore grade:
  - 40 ounces silver/ton
- ✦ Good infrastructure:
  - On the power grid
  - All-weather roads
- ✦ Supportive political climate
- ✦ Experienced management





# What Have We Achieved Since Acquiring the Keno Hill Silver District?

## 2006

- 1) 5.4 million ounce historical silver resource\*
- 2) No usable infrastructure
- 3) No production
- 4) No modern exploration
- 5) Poor ground conditions
- 6) Environmental liabilities
- 7) Reliance on capital markets, SLW streaming agreement providing initial \$50 million to build mine and mill



## 2013

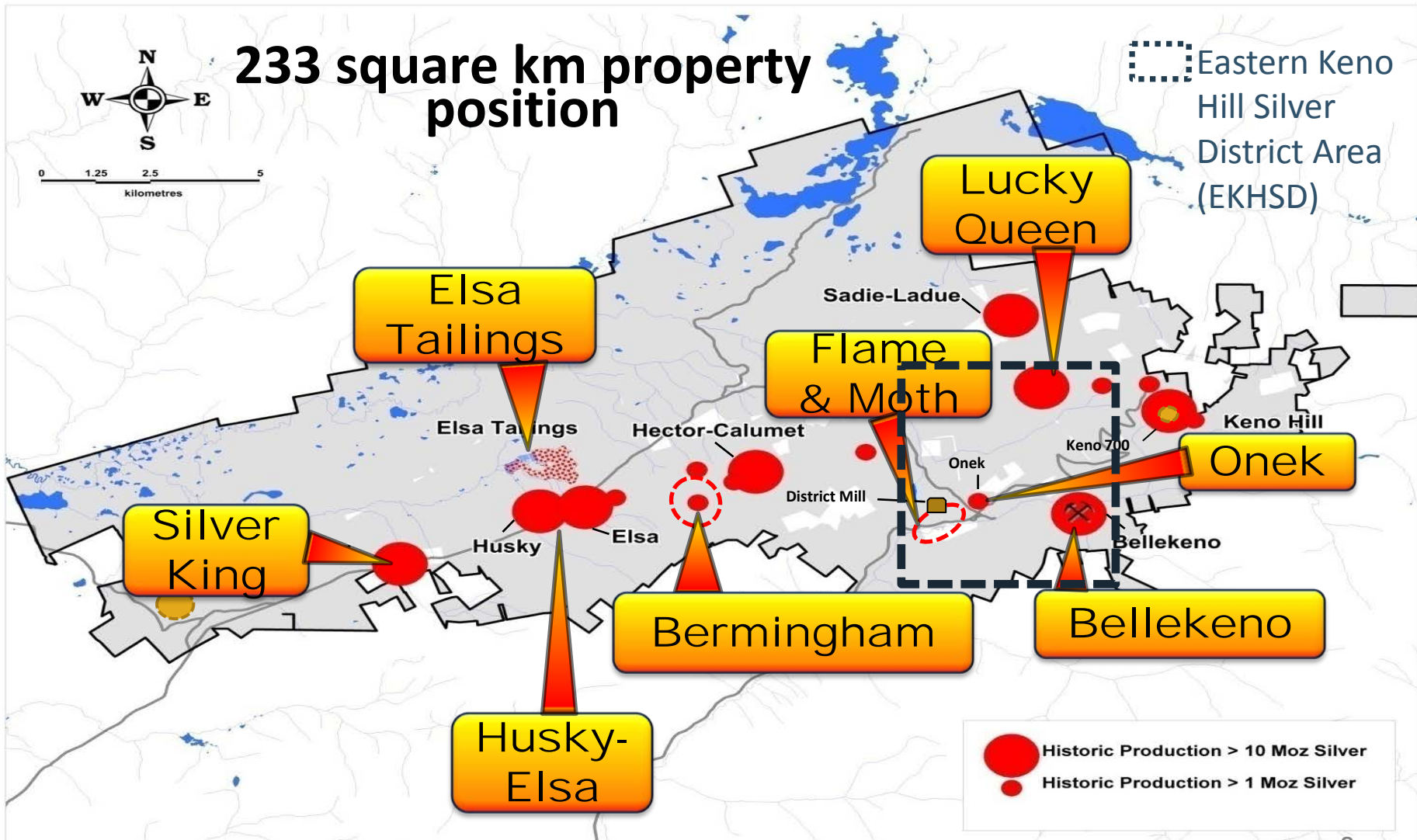
- 1) 12-fold increase in identified silver resource to greater than 60 million ounces\*
- 2) Producing mine, new mill, 2 additional developed mines
- 3) 5.5 mil. oz silver since 2011
- 4) 120,000 meters of surface exploration drilling
- 5) Safe underground operations
- 6) 75% reduction of metals loading in local creeks
- 7) \$48.2 million gross profit 2011 – 2013

\*Please see appended Summary of Silver Resources slide for full mineral resource disclosure.



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# Keno Hill Silver District – A Long Term Vision







# 2013 Preliminary Economic Assessment Plan for EKHSD Area

- 9 month construction period; 5.5 years of production
- Annual production: average 3.1 million ounces of payable silver, 6.8 million pounds of lead, 6.6 million pounds of zinc and 1,050 ounces of gold
- After tax internal rate of return (IRR) of 38%, pre-tax IRR of 45%
- After tax net present value (NPV) (5%) of \$29.6 million, pre-tax NPV of \$39.9 million
- Initial capital (including working capital) of approximately \$25 million, 3.5 year payback
- PEA fully incorporates Alexco's Silver Purchase Agreement, with 25% of payable silver stream delivered to Silver Wheaton
- Currently optimizing PEA

(See PEA Cautionary language on slide 3. The PEA is based on metal prices of US\$24 per ounce for silver, US\$0.95 per pound for lead, US\$0.85 per pound for zinc and US\$1,300 per ounce for gold. )

# Potential Mineable Tonnes included in PEA Plant Feed

2014 - 2020

Mine	Tonnes	Silver (gpt)	Gold (gpt)	Lead (%)	Zinc (%)
Flame & Moth	593,000	690	0.52	2.18	5.44
Bellekeno	85,700	660		6.74	4.15
Lucky Queen	129,000	1054	0.12	2.35	1.47
<b>Total</b>	<b>807,700</b>	<b>745</b>	<b>0.40</b>	<b>2.69</b>	<b>4.67</b>

Please see the December 12, 2013, Alexco Resource Corp. Preliminary Economic Assessment Technical Report entitled "Updated Preliminary Economic Assessment for the Eastern Keno Hill Silver District Project – Phase 2, Yukon, Canada" for further information.



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# Keno District Mill

- ✦Crushing unit: jaw crusher, cone crusher and screen
- ✦Primary grinding circuit
- ✦Silver-lead flotation
- ✦Zinc flotation circuit
- ✦Concentrate dewatering circuit
- ✦Tailings dewatering





# The Goal: to be a Sustaining Silver Producer through all Silver Cycles

## Critical Factors for Restart of Operations

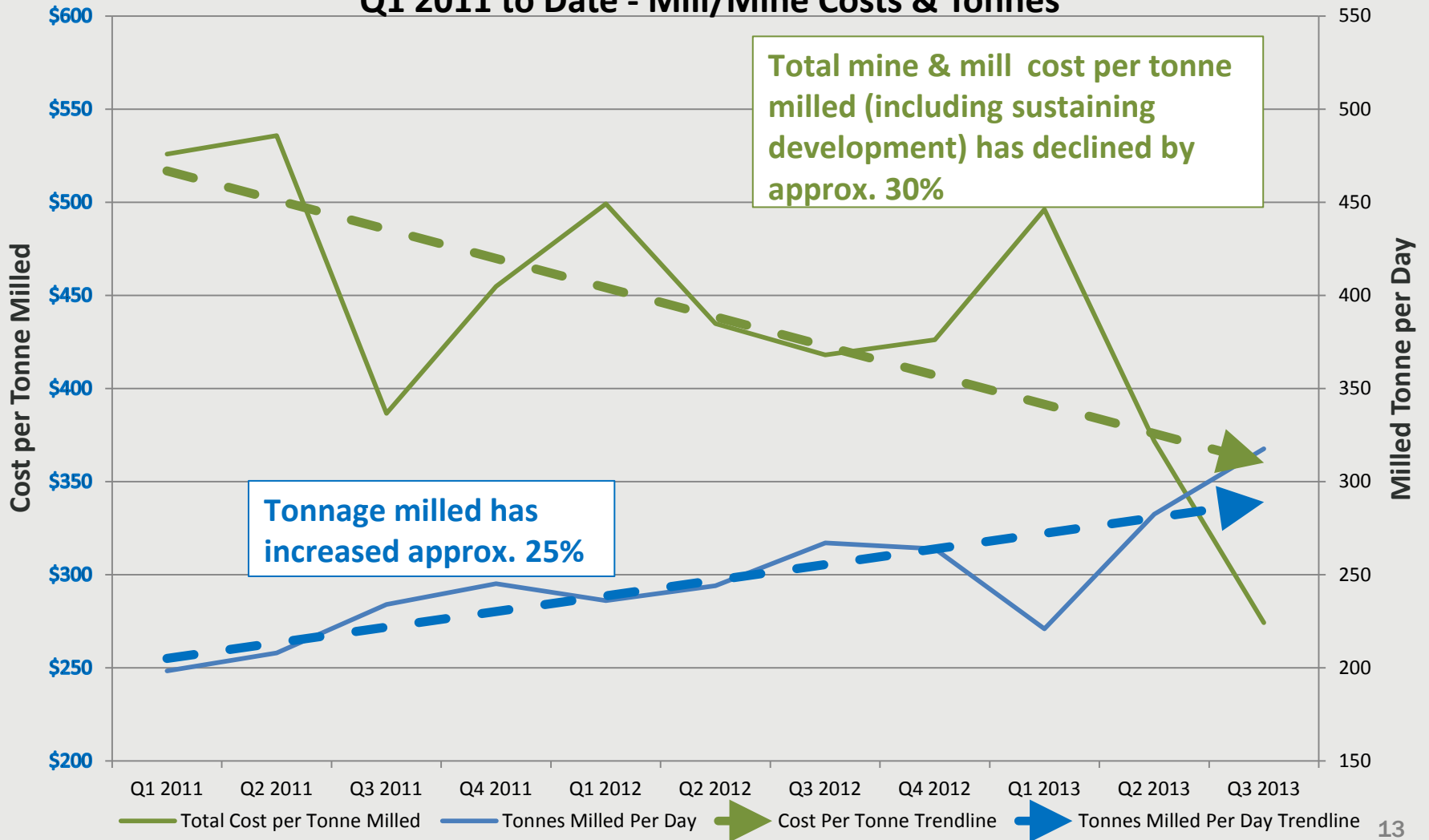
- ✦ A path to 400tpd as quickly as possible
- ✦ A reduction of underlying fixed costs
  - ✦ Self mining, fly in/fly out, etc.
- ✦ Review of third party agreements
- ✦ A 'cooperative' silver market



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# Significant Cost and Volume Improvements

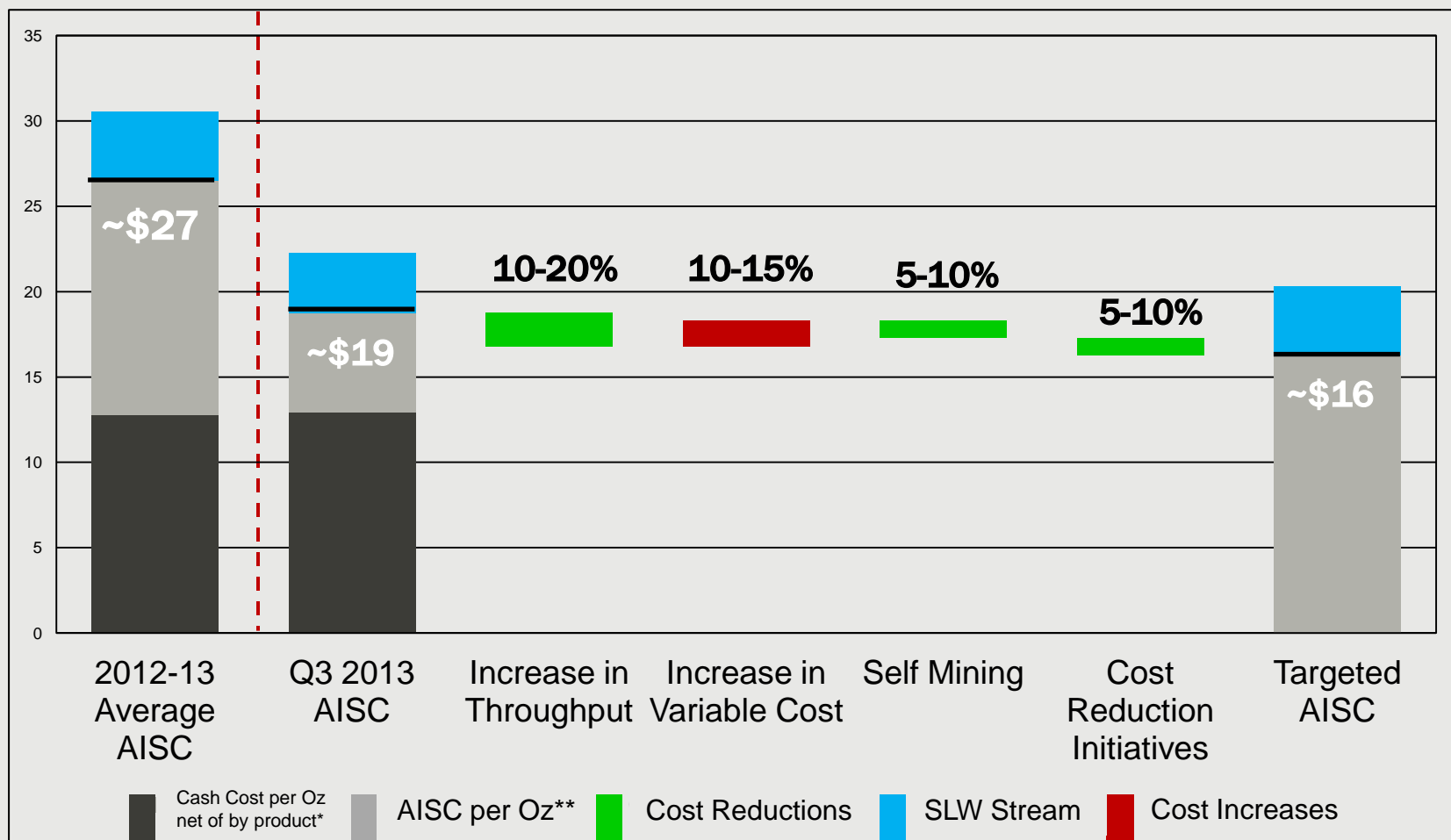
## Q1 2011 to Date - Mill/Mine Costs & Tonnes







# Targeted Potential Cost Reductions at Keno Hill



\*Cash Cost per Ounce is calculated on a payable ounces produced

\*\*AISC is calculated on payable ounces sold on a co product basis

# Exploration: An Unqualified Success

From inception to date, exploration spending is approximately \$65 million

➤ **Efficient** ➔

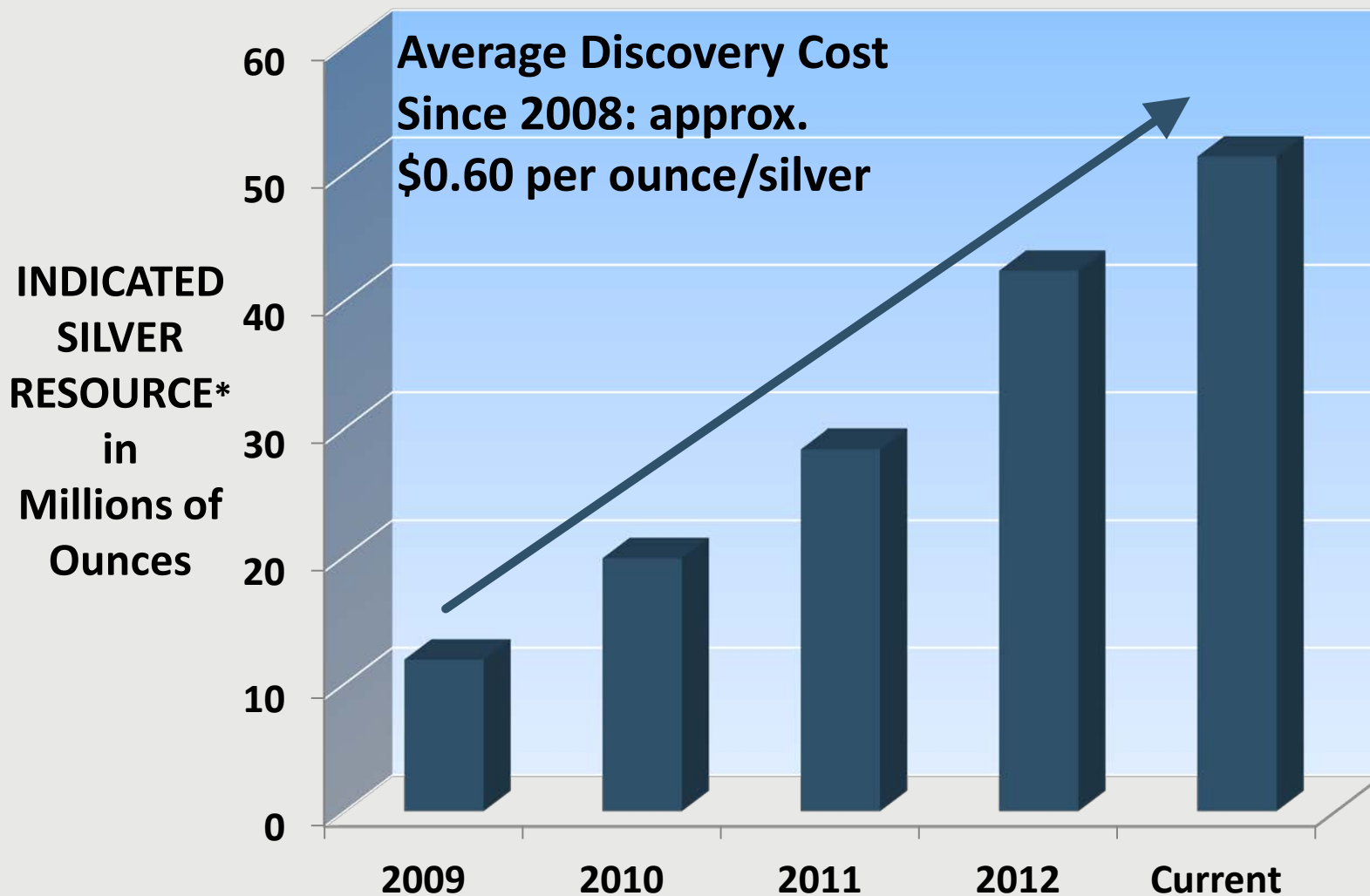
SILVER DISCOVERY	Inception – To Date	Inception – To Date
	<u>Discovery Cost</u>	<u>Discovery Rate</u>
All Exploration '05-'13	\$0.92/oz	500 oz/meter
Last 5 years '08-'13	\$0.60/oz	700 oz/meter
Flame & Moth	\$0.42/oz	1,040 oz/meter
Lucky Queen	\$0.72/oz	690 oz/meter
Bellekeno	\$1.08/oz	375 oz/meter
Onek	\$1.25/oz	400 oz/meter
Birmingham	\$1.69/oz	300 oz/meter

➤ **Fundamental Geology**

➤ Nothing fancy



# Significant Silver Resource Growth, Exploration Efficiency

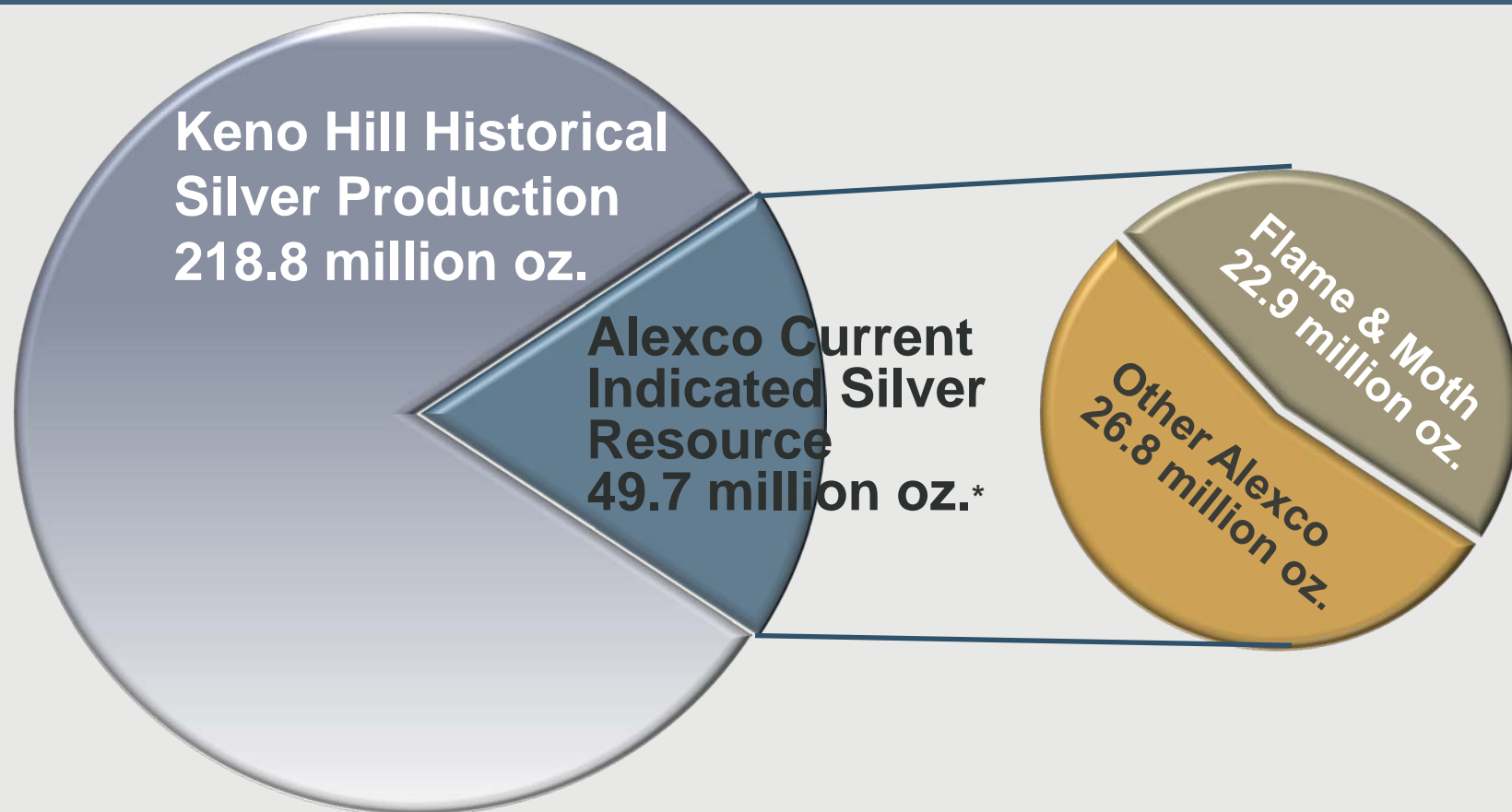


\*Please see appended Summary of Silver Resources slide for full mineral resource disclosure.



# Alexco Exploration Discoveries: Compares Impressively to Total Historical Production

Alexco's current Indicated silver resource already equals 23% of all historical silver production from 40+ mines in the District over the past 90 years.



\*Please see Mineral Resources table in Appendix for full mineral resource disclosure.



# Flame & Moth: A (Historically) Significant Discovery

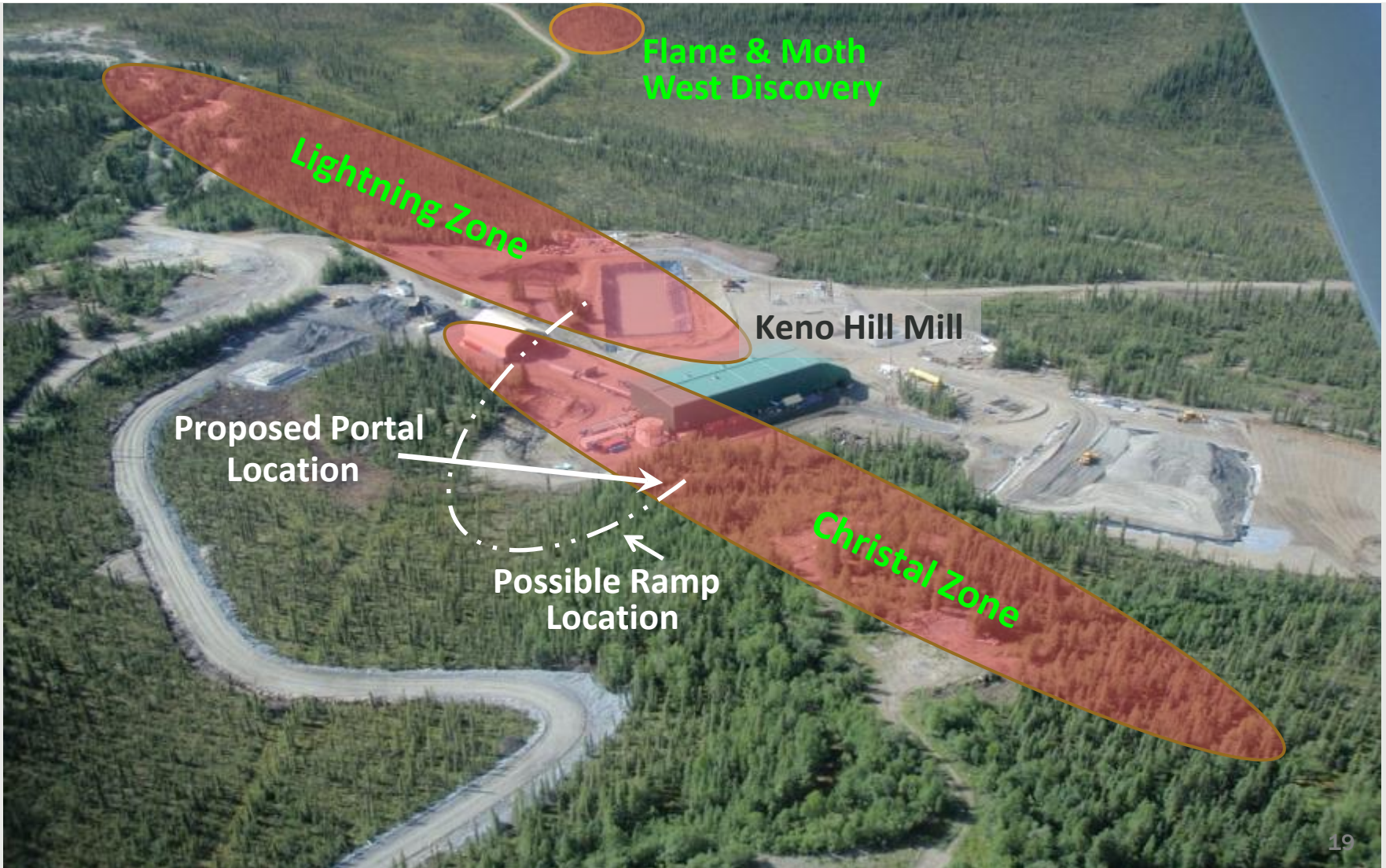
## Silver in Millions of Ounces

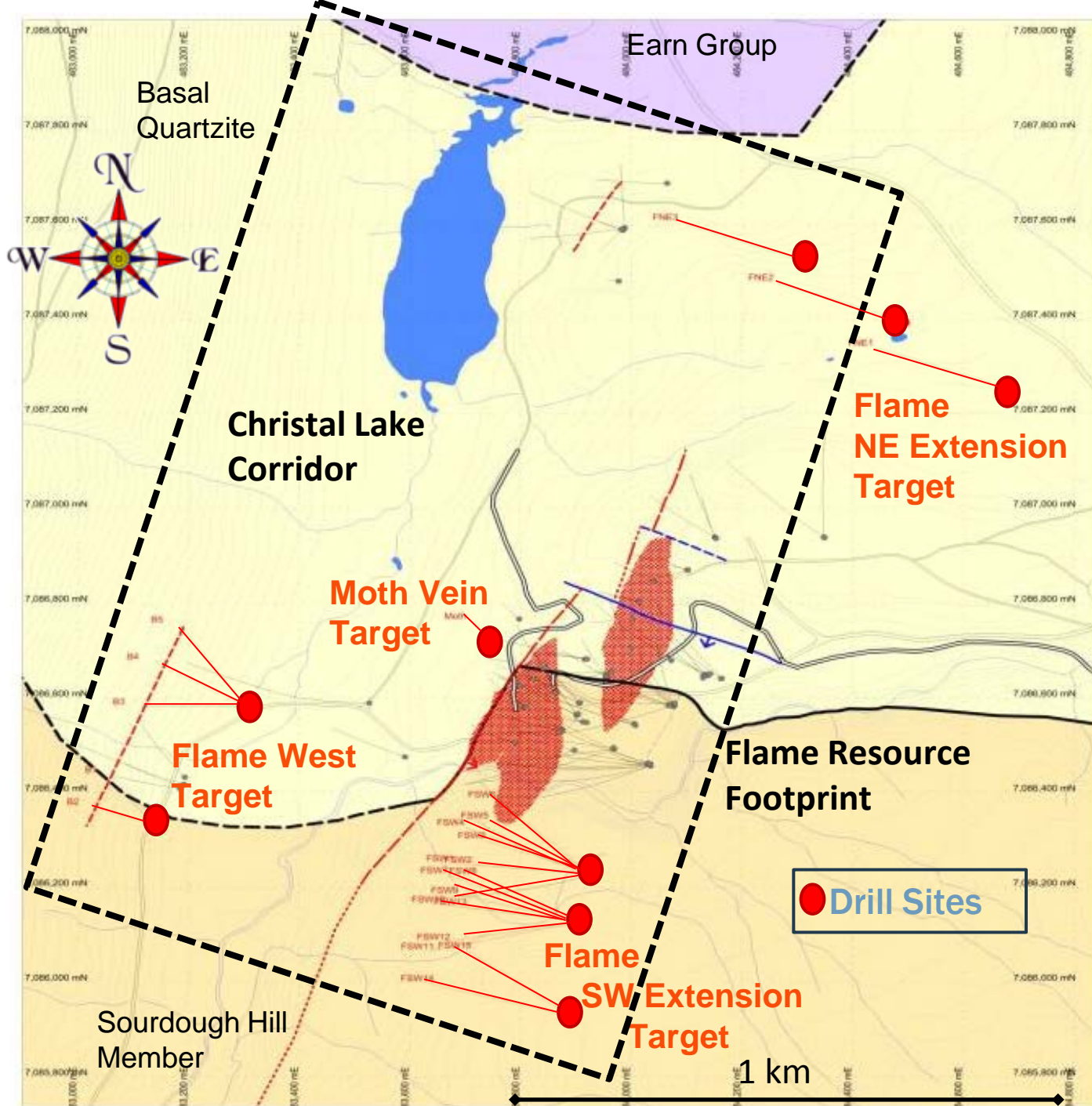
<u>Historic Production</u>		<u>Current Resource*</u>	
Hector-Calumet	96.2	Bellekeno Indicated	4.9
Elsa	30.2	Bellekeno Inferred	3.3
		Birmingham Indicated	3.8
		Birmingham Inferred	1.2
All other Historic	21.5	<b>Flame Indicated</b>	<b>22.9</b>
Husky	17.9	<b>Flame Inferred</b>	<b>1.1</b>
Sadie - Ladue	12.7	Lucky Queen Indicated	4.9
Lucky Queen	11.0	Lucky Queen Inferred	2.8
Keno 700	12.6	Onek Indicated	3.6
Silver King	11.0	Onek Inferred	1.5
Bellekeno	5.7	Silver King	5.4
<b>Total</b>	<b>218.8</b>	Elsa Tailings	9.5

\*Please see appended Summary of Silver Resources slide for full mineral resource disclosure. 18



# Flame & Moth: Conveniently Proximate to Mill





# Flame & Moth: 2014 Drill Targets

8,000  
meters  
planned

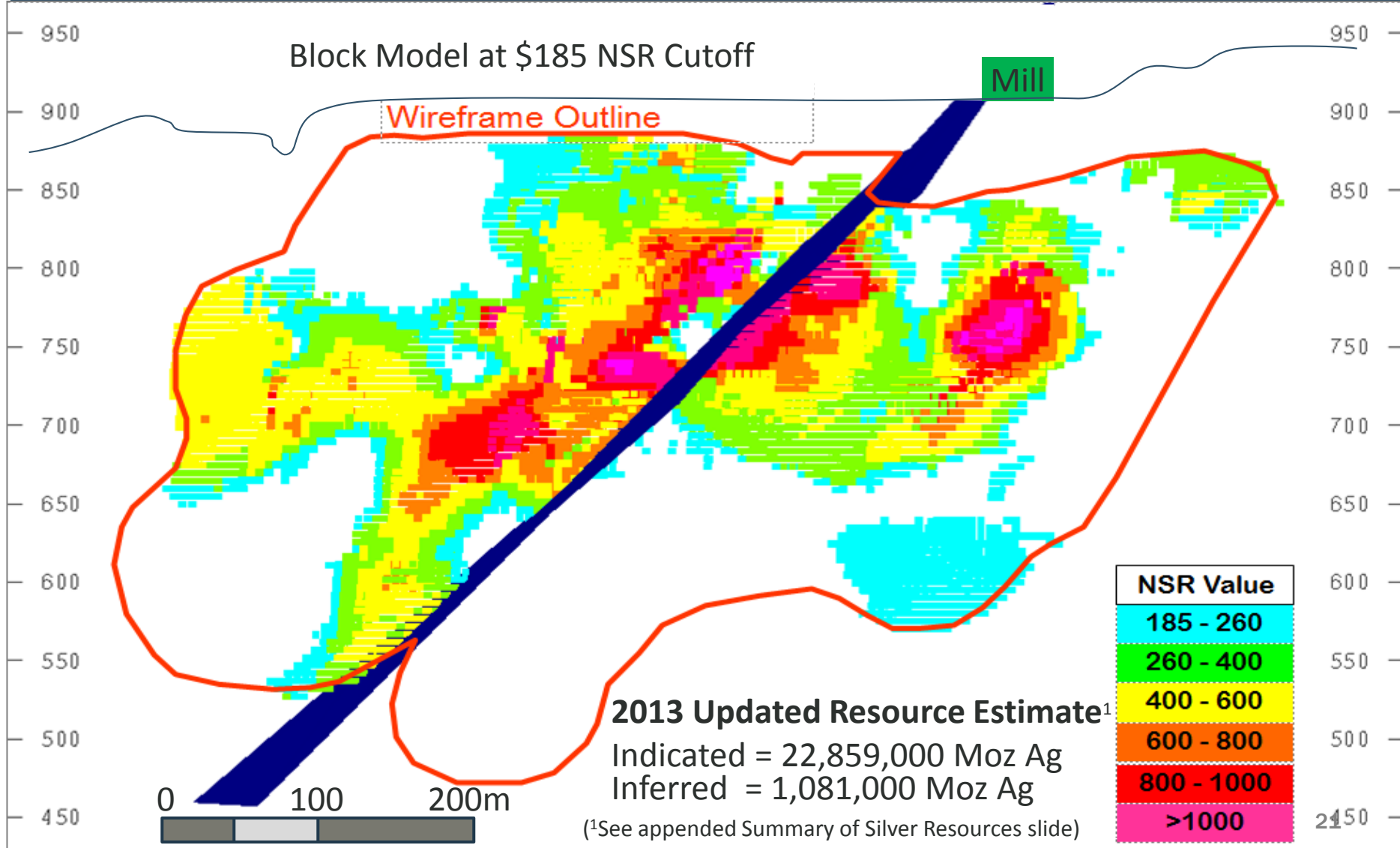




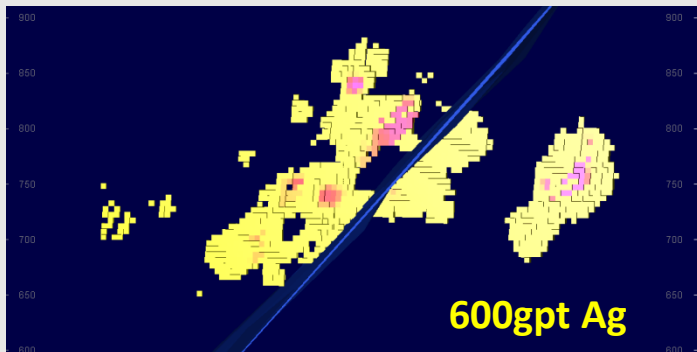
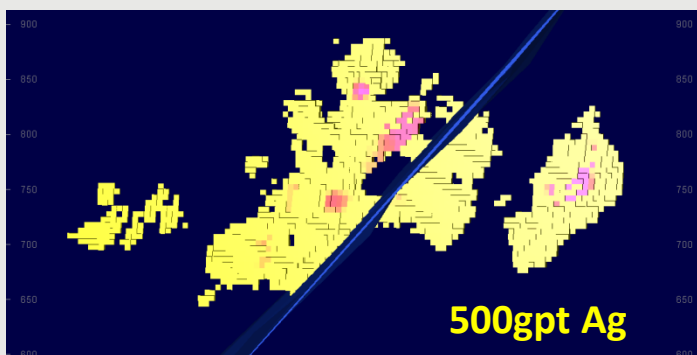
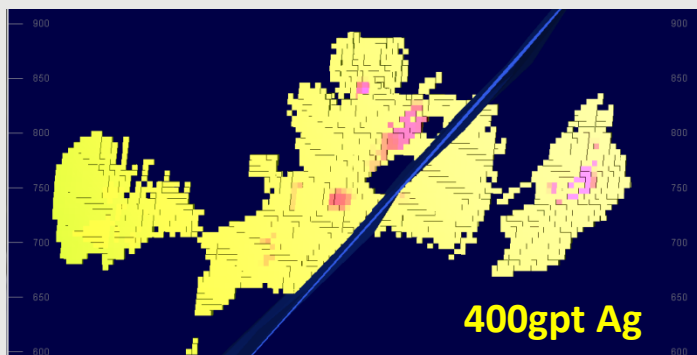


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# Flame & Moth Resource



# Flame & Moth Geologic Resource: By Silver Cutoff Grade



Robust Indicated Resource that holds together at varying cutoff grades

Ag Cutoff (g/t)	Tonnes	Ag (g/t)	Au (g/t)	Pb + Zn (%)	Ag (Troy Ounces)
400	710,000	747	0.55	8.72	17,060,000
500	515,000	861	0.62	9.13	14,250,000
600	388,000	964	0.68	9.44	12,015,000

(See the technical report filed on SEDAR dated March 15, 2013 entitled "Updated Technical Report on Flame & Moth Deposit, Flame & Moth Property, Keno Hill District, Yukon".)



# Alexco Environmental Group



Globeville smelter site, Denver, CO

\*Including the impacts from the execution of the ARSA and from changes in the estimates of the environmental services contract loss provision, the gross margin for 2012 and 2013 was 36% and 54%, respectively.

- A branded, respected and growing environmental remediation business with mining focus
- 2012 revenue: \$8.0 million, with a 40.3% gross margin\*
- 2013 revenue: \$16.3 million; 42.5% gross margin\*
- Mine water treatment, heap and dump detox, mine and smelter soil amendment, etc.
- Strong track record for timely project permitting
- Major industry and government clients





# What You Should Know About Alexco

- ✦ Holds the Canadian Silver Mining Franchise (Keno Hill District)
- ✦ Repositioning the District for sustainable operations during interim suspension
- ✦ Successful Silver Resource Growth/Exploration
- ✦ Flourishing and Profitable Environmental Business
- ✦ No Financial Debt
- ✦ 12/31/13 - \$8.6 mil. cash on hand, \$15.3 mil. net working capital, plus additional restricted cash of \$9.5 million
- ✦ NYSE-MKT: AXU      TSX: AXR



# Alexco Resource Corp.

## APPENDIX SLIDES



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# Year-End and 4Q 2013 Results

<i>In \$000s, except per share amounts</i>	<b>Year End <u>2013</u></b>	<b>Year End <u>2012</u></b>	<b>Fourth Quarter <u>2013</u></b>	<b>Fourth Quarter <u>2012</u></b>
Revenue	<b>59,433</b>	84,708	<b>5,163</b>	20,309
Gross Profit	<b>8,820</b>	17,920	<b>2,618</b>	3,931
Income (Loss) Before Taxes	<b>(62,079)</b>	7,979	<b>(505)</b>	737
Net Income (Loss)	<b>(50,450)</b>	3,420	<b>(1,131)</b>	(519)
Adjusted Net Income (Loss)*	<b>(4,313)</b>	3,420	<b>(1,131)</b>	(519)
Earnings (Loss) Per Share	<b>(\$0.81)</b>	\$0.06	<b>(\$0.01)</b>	(\$0.01)
Adjusted Earnings (Loss) Per Share*	<b>(\$0.07)</b>	\$0.06	<b>(\$0.01)</b>	(\$0.01)

\*Adjusted figures do not include the impairment charge recorded in Q2 2013



# Bellekeno Operating Statistics

	2013 <sup>1</sup>	2012
<b>Ore tonnes mined</b>	<b>65,206</b>	86,354
<b>Ore tonnes processed</b>	<b>66,297</b>	94,810
<b>Mill throughput (tonnes per day)</b>	<b>271</b>	260
<b>Grade of ore processed:</b>		
Silver (grams per tonne)	<b>705</b>	760
Lead	<b>7.7%</b>	9.6%
Zinc	<b>3.8%</b>	4.8%
<b>Recoveries:</b>		
Silver	<b>94%</b>	93%
Lead in lead concentrate	<b>92%</b>	90%
Zinc in zinc concentrate	<b>61%</b>	56%
<b>Concentrate production:</b>		
Lead concentrate:		
Tonnes produced	<b>7,796</b>	13,000
Concentrate grade:		
Silver (grams per tonne)	<b>5,458</b>	4,965
Lead	<b>60%</b>	63%
Zinc concentrate:		
Tonnes produced	<b>3,450</b>	5,685
Concentrate grade:		
Silver (grams per tonne)	<b>360</b>	413
Zinc	<b>45%</b>	45%
<b>Production – contained metal:</b>		
Silver (ounces)	<b>1,408,164</b>	2,150,959
Lead in lead con (pounds)	<b>10,324,978</b>	18,183,755
Zinc in zinc con (pounds)	<b>3,443,855</b>	5,676,284
<b>Sales volumes by payable metal:</b>		
Silver (ounces)	<b>1,456,925</b>	2,033,821
Lead (pounds)	<b>10,930,186</b>	17,207,146
Zinc (pounds)	<b>3,190,850</b>	4,771,416
<b>Cash costs of production<sup>2</sup></b>		
Per ounce of payable silver produced	<b>\$14.00</b>	\$11.89

<sup>1</sup> The year ended December 31, 2013 represents a shortened operating period encompassing 245 days.

<sup>2</sup> Cash costs of production per ounce of payable silver produced is a non-IFRS measure with no standardized meaning prescribed under IFRS. See page 16 of Alexco's December 31, 2013 MD&A for explanation and reconciliation.



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# PEA – Key Metrics

Consolidated production	806,900 tonnes (t)
Consolidated production grade	745 grams per tonne (gpt) silver (Ag), 0.4 gpt gold (Au), 2.7% lead (Pb), 4.7% zinc (Zn)
Commercial production period	Q2 2015 – Q2 2020
Development, construction period	Q2 2014 – Q1 2015
Mill throughput	Average 406 tonnes per day (tpd)
Mill recoveries	Ag 93.6%, Au 71.3%, Pb 83.9%, Zn 60.4%
Concentrate produced (6% moisture)	30,685 tonnes Pb con, 51,026 tonnes Zn con
Total payable metal production	Ag 16.8Moz, Au 5,800oz, Pb 37.7Mlb, Zn 36.4Mlb
Production cost (mining, milling and G&A)	\$253 per tonne of ore
Net Smelter Return (NSR) per tonne of ore (after incorporation of Silver Purchase Agreement)	\$419 per tonne of ore
Total capital (life of mine)	\$76 million, including \$37 million underground development
Initial capital to achieve positive cash flow	\$25 million
Net Cash Contribution Pre-Tax	\$53.7 million
IRR Pre-tax	45%
NPV Pre-tax (5%)	\$39.9 million
Net Cash Contribution After Tax	\$41.4 million
IRR After Tax	38%
NPV After Tax (5%)	\$29.6 million
Prices Used in PEA	Ag US\$24.00/oz, Pb US\$0.95/lb, Zn US\$0.85/lb, Au US\$1,300/oz

(See PEA Cautionary language on slide 3.)



# Summary of Silver Resources: Keno Hill Silver District

Category <sup>1,2,11</sup>	Property	Tonnes	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Contained Ag (oz)
<b>Indicated</b>	Bellekeno Deposit <sup>4</sup>	262,000	585	<i>n/a</i>	3.5%	5.3%	4,933,000
	Lucky Queen Deposit <sup>5</sup>	124,000	1,227	0.2	2.6%	1.7%	4,891,000
	Flame & Moth Deposit <sup>6</sup>	1,378,000	516	0.4	1.7%	5.7%	22,859,000
	<b>Eastern Keno Hill Silver District<sup>3</sup></b>	<b>1,764,000</b>	<b>576</b>	<b><i>n/a</i></b>	<b>2.0%</b>	<b>5.4%</b>	<b>32,683,000</b>
	Onek <sup>7</sup>	585,000	194	0.7	1.2%	13.7%	3,648,000
	Birmingham <sup>8</sup>	257,000	460	0.1	2.0%	2.1%	3,800,000
	<b>Total Indicated – Sub-Surface Deposits</b>	<b>2,606,000</b>	<b>479</b>	<b><i>n/a</i></b>	<b>1.9%</b>	<b>6.9%</b>	<b>40,131,000</b>
	Elsa Tailings <sup>9</sup>	2,490,000	119	0.1	1.0%	0.7%	9,526,000
	<b>Total Indicated – All Deposits</b>	<b>5,096,000</b>	<b>303</b>	<b><i>n/a</i></b>	<b>1.4%</b>	<b>3.9%</b>	<b>49,657,000</b>
<b>Inferred</b>	Bellekeno Deposit <sup>4</sup>	243,000	428	<i>n/a</i>	4.1%	5.1%	3,338,000
	Lucky Queen Deposit <sup>5</sup>	150,000	571	0.2	1.4%	0.9%	2,753,000
	Flame & Moth Deposit <sup>6</sup>	107,000	313	0.3	0.9%	4.2%	1,081,000
	<b>Eastern Keno Hill Silver District<sup>3</sup></b>	<b>500,000</b>	<b>446</b>	<b><i>n/a</i></b>	<b>2.6%</b>	<b>3.7%</b>	<b>7,172,000</b>
	Onek <sup>7</sup>	236,000	203	0.4	1.1%	11.5%	1,540,000
	Birmingham <sup>8</sup>	102,000	372	0.1	1.1%	1.8%	1,220,000
	<b>Total Inferred</b>	<b>838,000</b>	<b>369</b>	<b><i>n/a</i></b>	<b>2.0%</b>	<b>5.6%</b>	<b>9,932,000</b>
<b>Historical Resources</b>	Silver King <sup>10</sup>						
	- Proven, probable and indicated	<b>98,998</b>	<b>1,354</b>	<b><i>n/a</i></b>	<b>1.6%</b>	<b>0.1%</b>	<b>4,310,000</b>
	- Inferred	<b>22,581</b>	<b>1,456</b>	<b><i>n/a</i></b>	<b>0.1%</b>	<b><i>n/a</i></b>	<b>1,057,000</b>

#### Notes:

- All mineral resources are classified following the CIM Definition Standards for Mineral Resources and Mineral Reserves (December 2005), in accordance with the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines and the guidelines of NI 43-101.
- Mineral resources are not mineral reserves and do not have demonstrated economic viability. All numbers have been rounded to reflect the relative accuracy of the estimates.
- The Eastern Keno Hill Silver District property is comprised of three deposits: Bellekeno, Lucky Queen and Flame & Moth. The resource estimates for the Eastern Keno Hill Silver District are supported by disclosure in the news release dated December 5, 2013 entitled "Alexco Releases Positive Preliminary Economic Assessment for Expanded Silver Production from Eastern Keno Hill Silver District, Yukon" and by a technical report filed on SEDAR dated November 15, 2013 entitled "Updated Preliminary Economic Assessment for the Eastern Keno Hill Silver District Project – Phase 2, Yukon, Canada".
- The resource estimates for the Bellekeno deposit are based on a geologic resource estimate having an effective date of May 31, 2012. The Bellekeno indicated resources are as at September 30, 2013, and reflect the geologic resource less estimated subsequent depletion from mine production.
- The resource estimates for the Lucky Queen deposit have an effective date of July 27, 2011.
- The resource estimates for the Flame & Moth deposit have an effective date of January 30, 2013.
- The resource estimates for Onek have an effective date of July 27, 2011, and are supported by disclosure in the news release dated July 27, 2011 entitled "Alexco Announces Initial Resource Estimates for Lucky Queen and Onek" and by a technical report filed on SEDAR dated September 8, 2011 entitled "Technical Report on the Onek Deposit, Onek Property, Keno Hill District, Yukon".
- The resource estimates for Birmingham have an effective date of June 27, 2012, and are supported by disclosure in the news release dated June 28, 2012 entitled "Alexco Announces Initial Resource Estimates for Flame & Moth and Birmingham" and by a technical report filed on SEDAR and signature dated August 8, 2012 entitled "Technical Report on the Birmingham Deposit, Birmingham Property, Keno Hill District, Yukon".
- The resource estimate for the Elsa Tailings has an effective date of April 22, 2010, and is supported by the technical report dated June 16, 2010 entitled "Mineral Resource Estimation, Elsa Tailings Project, Yukon, Canada".
- Historical resources for Silver King were estimated by United Keno Hill Mines Limited, as documented in an internal report entitled "Mineral Resources and Mineable Ore Reserves" dated March 9, 1997. The historical resources were estimated based on a combination of surface and underground drill holes and chip samples taken on the vein and calculated using the polygonal (block) method and the 1997 CIM definitions for resource categories. These estimated historical resources include a total of 55,674 tonnes classified as proven and probable reserves and 43,324 tonnes classified as indicated resources, plus an additional 22,581 tonnes classified as inferred resources. Though believed by Alexco management to be relevant and reliable, this estimate of historical resources has not been verified by Alexco, pre-dates NI 43-101 and is not compliant with NI 43-101 resource categories. Verification of the estimate would require new drill holes into a statistically significant number of the historical resource blocks and/or a combination of on-vein sampling. A qualified person has not done sufficient work to classify this estimate of historical resources as current, nor is Alexco treating this historical estimate as a current mineral resource.
- The disclosure regarding the summary of estimated resources for Alexco's mineral properties within the Keno Hill District has been reviewed and approved by Scott Smith, P.Eng., Bellekeno Mine Manager with Alexco and a Qualified Person as defined by NI 43-101.



# Potentially Mineable Tonnes

## Potential Mineable Tonnes included in PEA Plant Feed

Mine	Diluted (kt)	Ag (gpt)	Au (gpt)	Pb (%)	Zn (%)	Calc'd NSR
Bellekeno	85.7	660		6.74	4.15	\$405
Lucky Queen	129	1054	0.12	2.35	1.47	\$557
Flame & Moth	593	690	0.52	2.18	5.44	\$391
<b>Total PEA Plant Feed (kt)</b>	<b>807</b>	<b>745</b>	<b>0.40</b>	<b>2.69</b>	<b>4.67</b>	<b>\$419</b>

## Potentially Mineable Tonnes Excluded from PEA Production Plan

In each of the three deposits there are some potentially mineable tonnes that were excluded from the PEA production plan for various reasons. Excluded tonnage is shown below.

Mine	Diluted (kt)	Ag (gpt)	Au (gpt)	Pb (%)	Zn (%)	Calc'd NSR
Bellekeno	111	545	0.00	3.50	3.20	\$314
Lucky Queen	19.5	932	0.10	2.40	0.97	\$495
Flame & Moth	32.1	419	0.31	1.25	6.77	\$243
<b>Excluded from PEA Plan (kt)</b>	<b>163</b>	<b>566</b>	<b>0.07</b>	<b>2.92</b>	<b>3.64</b>	<b>\$321</b>

Please see the December 12, 2013, Alexco Resource Corp. Preliminary Economic Assessment Technical Report entitled "Updated Preliminary Economic Assessment for the Eastern Keno Hill Silver District Project – Phase 2, Yukon, Canada" for further information.



# Flame & Moth Planned Development

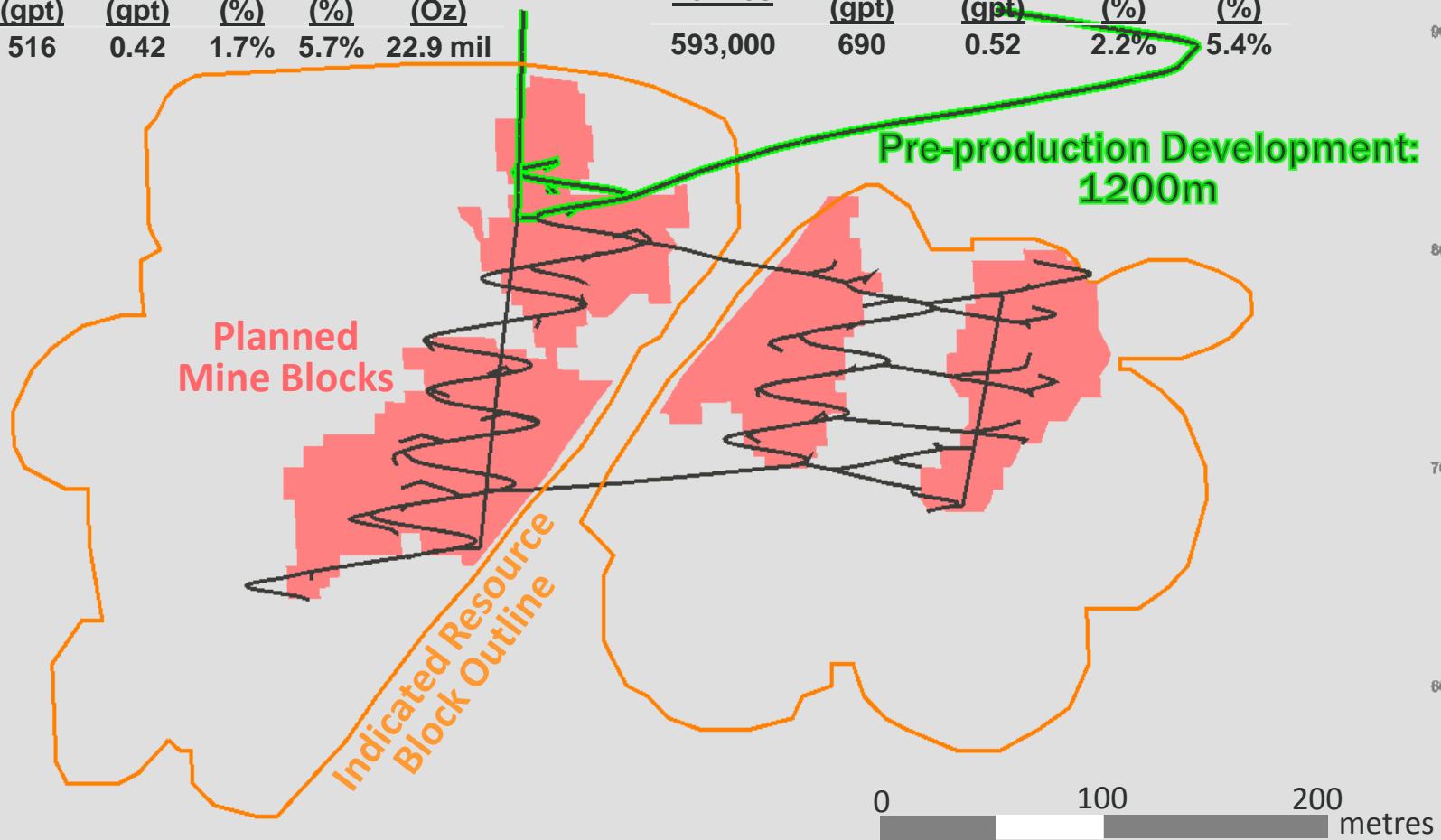
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## F&M Indicated Mineral Resource\*

## F&M Potentially Mineable Tonnes in PEA\*\*

Tonnes	Silver (gpt)	Gold (gpt)	Lead (%)	Zinc (%)	Silver (Oz)
1,378,000	516	0.42	1.7%	5.7%	22.9 mil

Tonnes	Silver (gpt)	Gold (gpt)	Lead (%)	Zinc (%)
593,000	690	0.52	2.2%	5.4%



\*Please see appended Summary of Resources slide for full mineral resource disclosure.

\*\*Please see appended Potentially Mineable Tonnes slide for full disclosure.



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# Bellekeno Mine Plan

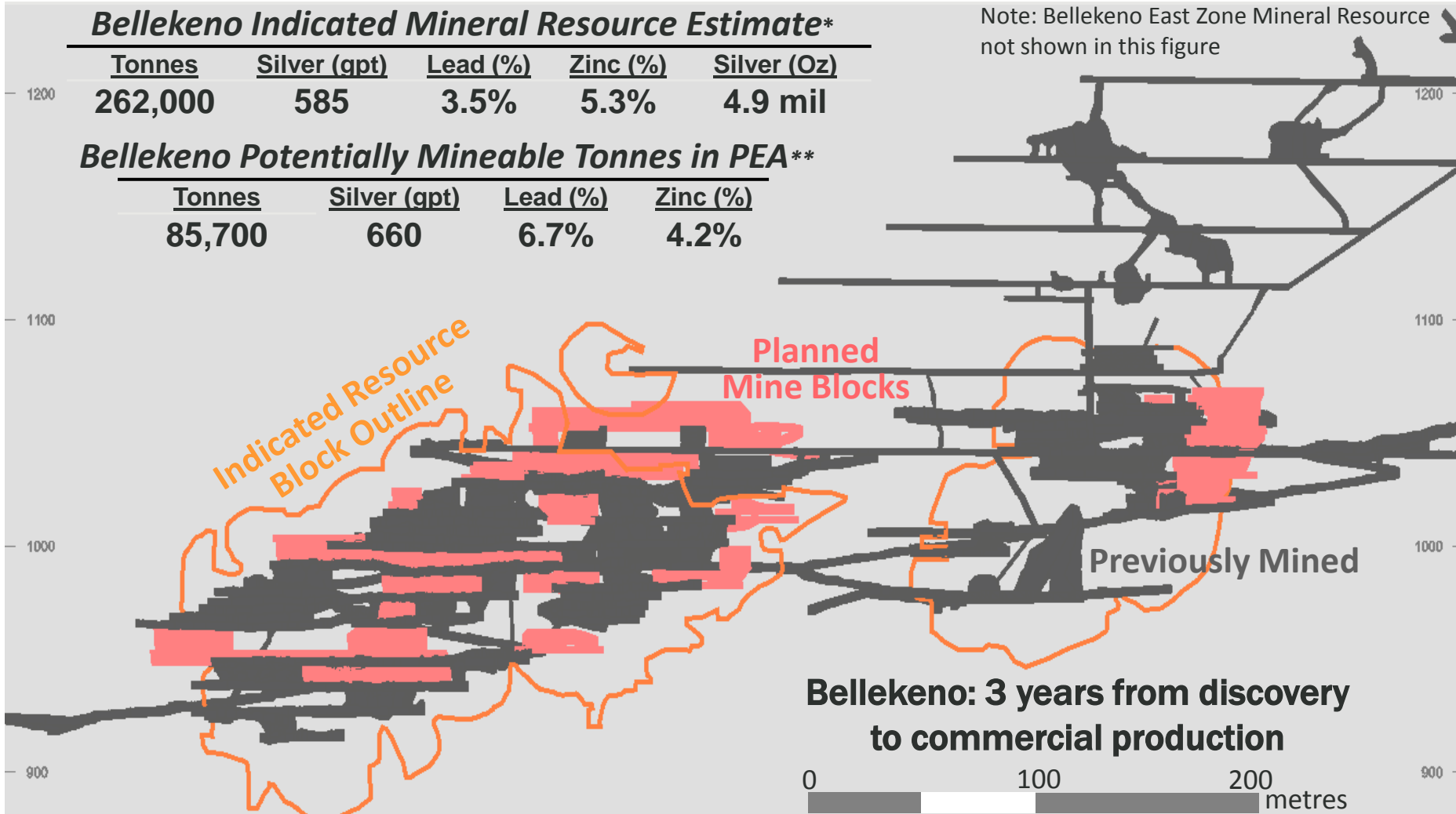
## *Bellekeno Indicated Mineral Resource Estimate\**

	<u>Tonnes</u>	<u>Silver (gpt)</u>	<u>Lead (%)</u>	<u>Zinc (%)</u>	<u>Silver (Oz)</u>
	262,000	585	3.5%	5.3%	4.9 mil

Note: Bellekeno East Zone Mineral Resource not shown in this figure

## *Bellekeno Potentially Mineable Tonnes in PEA\*\**

	<u>Tonnes</u>	<u>Silver (gpt)</u>	<u>Lead (%)</u>	<u>Zinc (%)</u>
	85,700	660	6.7%	4.2%



**Bellekeno: 3 years from discovery to commercial production**

\*Please see appended Summary of Resources slide for full mineral resource disclosure.

\*\*Please see appended Potentially Mineable Tonnes slide for full disclosure.

# Lucky Queen Development

## Current Resource

	Tonnes	Ag (gpt)	Au (gpt)	Pb (%)	Zn (%)	Ag ozs. (000)
Indicated	124,000	1,227	0.2	2.6	1.7	4,891
Inferred	150,000	571	0.2	1.4	0.9	2,753

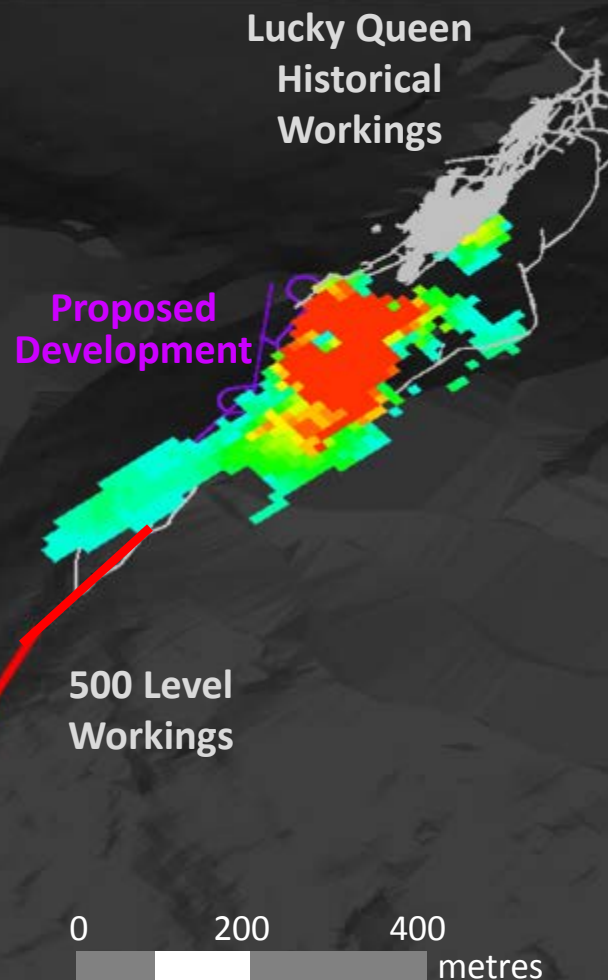
(see appended Summary of Silver Resources slide)

## Historical Production:

**10.96 Moz Ag**

**123,530 tons @ 88.7opt Ag**

**Lucky Queen  
Rehabilitation  
Completed**





# Delivering on the Plan: Increasing Throughput

<b><i>Bellekeno Comparative Production</i></b>	<b>Third Quarter 2013*</b>	<b>Second Quarter 2013</b>
<b>Silver Grade Processed (grams per tonne)</b>	<b>717</b>	<b>751</b>
<b>Ore Tonnes Processed</b>	<b>20,520</b>	<b>25,708</b>
<b>Production: Contained Metal</b>		
<b>Silver (ounces)</b>	<b>452,392</b>	<b>576,155</b>
<b>Lead (pounds)</b>	<b>3,665,305</b>	<b>3,658,668</b>
<b>Zinc (pounds)</b>	<b>1,112,594</b>	<b>1,297,116</b>
<b>Average Mill Throughput (tpd)</b>	<b>321</b>	<b>283</b>

**\*Q3 2013 consisted of just 64 days of operation due to the winter suspension of operations, compared to 90 days in Q2 2013.**



# A Win-Win Partnership



A unique business model combining mine operations and environmental remediation expertise

- ◆ A “Win-Win” partnership between Alexco/Canada/Yukon/First Nations through a cooperative District Closure Plan
- ◆ Contributions of \$22M to date to remediate historical environmental liabilities
- ◆ Reduction of zinc release to the environment from the historical Galkeno 300 mine by 99.5%, reduced the concentration of zinc in Christal Creek by 75%
- ◆ Taxpayer liability reduced

# Alexco History

- ◆ **2005** Company Founded
- ◆ **2006** Listed with TSX; symbol AXR
- ◆ **2006** Acquired Keno Hill Silver District, initiated exploration
- ◆ **2007** Listed with NYSE-MKT; symbol AXU  
“Discovery” of Bellekeno deposit
- ◆ **2008** Silver Wheaton Agreement - \$50 million and \$3.90/oz for 25% of future silver mined
- ◆ **2009** Bellekeno Construction Begins
- ◆ **2010** Comprehensive Cooperation Agreement with First Nation
- ◆ **2011** Bellekeno Mine Production – Three years discovery to production
- ◆ **2012** 52% Increase in Indicated Silver Resources
- ◆ **2013** Grew Flame & Moth to approx. 23 million oz Indicated resource
- ◆ **2013** Announced interim winter shutdown of operations to optimize costs, Published new PEA for Eastern Keno Hill Silver District



# Share Structure

- Trading Symbol: NYSE-MKT:AXU TSX:AXR
- Issued & Outstanding: 62.6 million shares
- Fully diluted: 66.8 million shares
- Major Shareholders:
  - Alexco Directors & Officers
  - Van Eck Associates
  - Sprott Inc.
  - Columbia Wanger Asset Mgt.

## **SENIOR MANAGEMENT**

- Clynton R. Nauman, B.Sc. (Hons.) - President & CEO
- Brad A. Thrall, B.Sc., MBA - Executive Vice President & COO
- David E. Whittle, C.A. - Senior Vice President & CFO
- Al McOnie, M.Sc. (Geology), FAusIMM - Vice President, Exploration
- Jim Harrington, M.Sc. - President, Alexco Environmental Group
- Vicki Veltkamp - Vice President, Investor Relations

## **BOARD OF DIRECTORS**

- George Brack, Chairman
- Michael Winn
- David H. Searle, C.M., Q.C.
- Terry Krepiakevich, C.A., ICD.D.
- Rick Van Nieuwenhuyse, M.Sc.
- Rick Zimmer, P.Eng., MBA
- Clynton R. Nauman, B.Sc. (Hons.)



# Senior Management & Board of Directors



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# Qualified Persons & Cautionary Note Concerning Reserve & Resources Estimate

*Except where specifically indicated otherwise, the disclosure in this presentation of scientific and technical information regarding exploration projects on Alexco's mineral properties has been reviewed and approved by Alan McOnie, FAusIMM, Vice President, Exploration, while that regarding mine development and operations has been approved by Scott Smith, P.Eng., former Bellekeno Mine Manager, both of whom are Qualified Persons as defined by National Investment 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101"). All material technical information included herein has previously been disclosed by Alexco, and the viewer is particularly directed to the company's most recently filed AIF and U.S. Form 40-F and its most recently filed interim and annual financial reports; as well as the remaining filings completing Alexco's continuous disclosure records.*

*This presentation has been prepared in accordance with the requirements of the securities laws in effect in Canada, which differ from the requirements of U.S. securities laws. Unless otherwise indicated, all resource and reserve estimates included in this presentation have been prepared in accordance with NI 43-101 and the Canadian Institute of Mining and Metallurgy Classification System. NI 43-101 is a rule developed by the Canadian Securities Administrators which establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. NI 43-101 permits the disclosure of an historical estimate made prior to the adoption of NI 43-101 that does not otherwise comply with NI 43-101, using the historical terminology, if the disclosure: (a) identifies the source and date of the historical estimate; (b) comments on the relevance and reliability of the historical estimate; (c) to the extent known, provides the key assumptions, parameters and methods used to prepare the historical estimate; (d) states whether the historical estimate uses categories other than those prescribed by NI 43-101 and if so includes an explanation of the differences; (e) includes any more recent estimates or data available to the issuer; (f) comments on what work needs to be done to upgrade or verify the historical estimate as current mineral resources or mineral reserves; and (g) states with equal prominence that a qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves and that the issuer is not treating the historical estimate as current mineral resources or mineral reserves.*

*Canadian standards, including NI 43-101, differ significantly from the requirements of Industry Guide 7 promulgated by the United States Securities and Exchange Commission ("SEC") under the United States Securities Act of 1933, as amended, and resource and reserve information contained herein may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, the term "resource" does not equate to the term "reserves". Under U.S. standards, mineralization may not be classified as a "reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. The SEC's disclosure standards under Industry Guide 7 do not define the terms and normally do not permit the inclusion of information concerning "measured mineral resources", "indicated mineral resources" or "inferred mineral resources" or other descriptions of the amount of mineralization in mineral deposits that do not constitute "reserves" by U.S. standards in documents filed with the SEC. U.S. Investors should also understand that "inferred mineral resources" have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an "inferred mineral resource" will ever be upgraded to a higher category. Under Canadian rules, estimated "inferred mineral resources" may not form the basis of feasibility or pre-feasibility studies except in rare cases. Investors are cautioned not to assume that all or any part of an "inferred mineral resource" exists or is economically or legally mineable.*

*Disclosure of "contained ounces" in a resource is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute "reserves" by SEC standards as in place tonnage and grade without reference to unit measures. The requirements of NI 43-101 for identification of "reserves" are also not the same as those of the SEC's Industry Guide 7, and reserves reported by the Corporation in compliance with NI 43-101 may not qualify as "reserves" under Industry Guide 7 standards. Accordingly, information concerning mineral deposits set forth herein may not be comparable with information made public by companies that report in accordance with U.S. standards.*



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