

# Zincore Receives Positive Pre-Feasibility Study for Accha Zinc Oxide District Project

06.08.2013 | [Marketwired](#)

VANCOUVER, BRITISH COLUMBIA--(Marketwired - Aug 6, 2013) - **Zincore Metals Inc. (TSX:ZNC)(LMA:ZNC)** ("Zincore" or the "Company") is pleased to report it has received a positive Pre-Feasibility Study ("PFS") for the development of its Accha Zinc Oxide District ("AZOD") project in southern Peru. This independent study was prepared by AMEC, an international consultancy, engineering and project management company.

At the AZOD project, Zincore is pursuing a district strategy with a single pyrometallurgical facility, the Waelz kiln, to process zinc and lead oxide material from all AZOD project deposits to produce a high grade zinc-lead fume, or oxide concentrate. The PFS considered two scenarios for the production of final saleable products. A Base Case investigated further processing of the fume by the Company to produce a special high grade (SHG) zinc ingot and lead sulphate, by-product. An alternate scenario, the Fume Case, investigated selling the zinc-lead fume to third-party refineries.

## HIGHLIGHTS FROM THE PFS:

Highlights of the PFS results are presented below in Table 1 for both the Base and Fume Cases. Table 2 and Table 3 provide a summary of cash costs for the Base Case and Fume Case, respectively.

Table 1: Summary of Cash Flow Showing Sensitivities to Discount Rate  
(Base Case NPV is highlighted)

	Base Case		Fume Case	
	After-Tax (US\$'000)	Pre-Tax (US\$'000)	After-Tax (US\$'000)	Pre-Tax (US\$'000)
Cumulative net cash flow (undiscounted)	377,268	528,683	243,384	336,980
Net present value (2015)				
Discounted at 5%	217,024	332,216	135,342	205,805
Discounted at 8%	150,123	248,917	91,073	151,221
Discounted at 10%	114,287	203,823	67,617	121,986
Discounted at 12%	84,081	165,472	48,011	97,321
Internal rate of return	20.5 %	28.6 %	19.2 %	26.7 %
Payback period (years)	3.8	3.0	3.9	3.2
Total start-up capital	345.5M		214.5M	
Total life of mine capital	357.7M		225.9M	
Projected life of mine (years)	8.0		9.0	

- For assumptions, please see Table 3 notes

Zincore CEO and President, Jorge Benavides, commented, "This PFS demonstrates tremendous progress in moving the AZOD project towards becoming a zinc producing operation. In addition to helping us better understand our metallurgical processes, the work for the PFS included re-interpreting the geology at both the Accha and Yanque deposits. This has resulted in new resource and reserve models, which have driven efficient new mine plans. As discussed in the section of this news release titled 'Economic Sensitivities', this work indicates that both the project Base Case and Fume Case are cash flow positive, after tax and on an undiscounted basis, when considering the current three-year moving average prices of zinc and lead."

Mr. Benavides concluded: "There is a general industry consensus that we will see higher zinc prices within a few years as many larger mines have depleted their reserves and there has not been sufficient development of new zinc sources. These positive study results support the technical and economic viability of our AZOD project and we believe that Zincore holds a valuable asset. This gives us a good opportunity to deliver value to our shareholders, despite the current market conditions."

Table 2: Summary of Cash Costs - Base Case

	LOM Total (US\$'000)	Cost per tonne milled (US\$/t)	Cost per pound Zn payable (US\$/lb)
<b>Payable Metal</b>			
<b>Cash costs</b>			
Mining	177,215	16.76	0.17
Process	533,881	50.50	0.52
G&A	51,883	4.91	0.05
Smelter deductions	31,418	2.97	0.03
Treatment charges	129,836	12.28	0.13
Concentrate transport	26,533	2.51	0.03
<b>Sub-total</b>	<b>950,766</b>	<b>89.94</b>	<b>0.92</b>
<b>Credits</b>			
Zinc premium	(82,856 )	(7.84 )	(0.08 )
Lead	(534,109 )	(50.52 )	(0.52 )
<b>Sub-total</b>	<b>(616,966 )</b>	<b>(58.36 )</b>	<b>(0.60 )</b>
<b>Adjusted cash costs</b>			
<b>Total</b>	<b>333,800</b>	<b>31.58</b>	<b>0.32</b>

Table 3: Summary of Cash Costs - Fume Case

	LOM Total (US\$'000)	Cost per tonne milled (US\$/t)	Cost per pound Zn payable (US\$/lb)
<b>Payable Metal</b>			
<b>Cash costs</b>			
Mining	167,619	14.53	0.16
Process	415,422	36.02	0.39
G&A	42,624	3.70	0.04
Smelter deductions	362,234	31.41	0.34
Treatment charges	364,265	31.58	0.34
Concentrate transport	63,896	5.54	0.06
<b>Sub-total</b>	<b>1,416,061</b>	<b>122.78</b>	<b>1.31</b>
<b>Credits</b>			
Zinc premium (not applicable)			
Lead	(666,359 )	(57.78 )	(0.62 )
<b>Sub-total</b>	<b>(666,359 )</b>	<b>(57.78 )</b>	<b>(0.62 )</b>
<b>Adjusted cash costs</b>			
<b>Total</b>	<b>749,702</b>	<b>65.00</b>	<b>0.70</b>

## Assumptions

- Zinc price of US\$1.26/lb and lead price of US\$1.04/lb Base Case over life of mine average (weighted).
- Zinc price of US\$1.27/lb and lead price of US\$1.04/lb Fume Case over life of mine average (weighted).
- Metal prices are based on an average of prices from the World Bank and Wood Mackenzie. Prices peak from 2017 to 2022. Production is planned for 2017 but delays in production may increase the risk of not realizing the benefits of forecast high metal prices. See Table 8 in this news release for year by year metal prices used.
- NPV is as of 2015. 20% contingency applied to the capital expenditure direct estimates. Corporate income tax rate of 30%.
- PbSO<sub>4</sub> assumes Pb concentrate terms with 95% payability for lead, and a 3% deduction. Long term treatment charges (\$284/tonne) are based on average of Wood Mackenzie treatment charge forecasts for Pb concentrate.
- For Fume Case bulk payability concentrate terms with 80% of zinc with 7% deduction and for lead payability of 95% with 3% deduction have been assumed.
- No contaminants penalties were allowed for the bulk concentrate and PbSO<sub>4</sub>.
- Fume long-term treatment charges (\$334/t) are based on average of Wood Mackenzie treatment charge forecasts for bulk concentrate.
- Cash cost/pound of zinc payable is net of lead credits and includes an US\$0.08/lb premium for super high grade cathode in the Base Case.
- Anthracite is assumed to be sourced from the north of Peru. A cost of \$117/t was utilized for the anthracite and a Currency Exchange Rate \$1USD = 3.00 Peruvian Nuevo Sol was utilized for anthracite. Anthracite represents 41% and 56% of total processing costs of the Base Case and Fume Case respectively.
- A 3% contingency has been applied to all processing costs with the exception of anthracite which is presented as sensitivity and represents a risk to the project.

- It should be noted that the assumed level of payabilities for lead sulphate concentrate and zinc-lead oxide concentrate (Fume) used in the PFS were derived from a market study conducted by Wood Mackenzie and commissioned by Zincore, however, no buyers have been directly approached by the Company to confirm the assumed levels of payability.

## Project Description

The AZOD project covers approximately 47,000 hectares and is comprised of 64 contiguous exploration concessions within the Parcco, Colquemarca, Lacca Lacca and Yanque communities, 65 km south of Cuzco, the regional capital of the Cuzco Region. The specific concessions which are the subject of the PFS cover approximately 4,000 hectares within four of the exploration concessions.

The operational approach for the AZOD project is a district strategy with mines proposed to be located at two sites. The Yanque open pit site will be the base for all facilities including mining operations and the proposed pyrometallurgical plant. The Accha open pit and underground mine, which will be located approximately 60 km by road to the north of Yanque, will be equipped with minimal facilities. Hydrometallurgical facilities, as contemplated in the Base Case, will be located approximately 700 km from the AZOD facilities at the port city of Ilo.

The Project is anticipated to be constructed over approximately a year and a half time period from initial start to commencement of pre-operation commissioning activities.

## Mineral Resource Model Yanque and Accha

As part of the PFS, an updated mineral resource model for the Yanque deposit was constructed based on 2011 drilling at Yanque. The Accha resource model was updated based on existing drill data. Previous drilling at Accha has encountered mineralization beyond the limits of the current Mineral Resource estimates and has potential for expansion with additional drilling. At Accha, the Company carried out exploration trenching and drilled six exploration holes, which identified new mineralized zones to the north of the previously identified limits of the deposit, as reported in the Company's news releases dated October 12 and December 9, 2010.

### Accha

Updated Mineral Resources for the Accha deposit that are amenable to underground and open pit mining methods, have an effective date of 5 July, 2013. As shown in Table 5, open pit Measured and Indicated Mineral Resources total 6,613 kt averaging 6.37% Zn and 0.78% Pb and 197 kt of Inferred Mineral Resources of 4.60% Zn and 0.51% Pb using a cut-off grade of 2.2% Zn Eq. Underground Measured and Indicated Mineral Resources total 937 kt at an average grade of 5.57% Zn and 0.96% Pb and Inferred Mineral Resources total 553 kt at an average grade of 5.07% Zn and 0.81% Pb using a cut-off grade of 3.79% ZnEq.

Table 4: Accha Mineral Resource Estimate Showing Sensitivity of the Estimate to Cut-off Grades  
(Base Case is highlighted)

Mineral Resources Amenable to Open Pit Mining Methods

Category	ZnEq Cut-Off (%)	Tonnage (kt)	ZnEq (%)	Zn (%)	Pb (%)	Contained ZnEq (Mlb)	Contained Zn (Mlb)	Contained Pb (Mlb)
Measured	2.20	2,119	8.75	8.11	0.93	408.8	378.9	43.4
	3.00	1,983	9.17	8.49	0.97	400.7	371.4	42.6
	4.00	1,751	9.91	9.18	1.06	382.6	354.4	40.9
	5.00	1,527	10.71	9.91	1.16	360.4	333.5	38.9
Indicated	2.20	4,494	6.03	5.55	0.71	597.4	549.9	70.3
	3.00	3,700	6.77	6.23	0.79	552.5	507.9	64.6
	4.00	2,916	7.66	7.04	0.89	492.2	452.8	57.1
	5.00	2,286	8.53	7.85	0.98	429.9	395.8	49.4
M & I	2.20	6,613	6.90	6.37	0.78	1,006.0	928.7	113.7
	3.00	5,683	7.61	7.02	0.86	953.2	879.3	107.2
	4.00	4,667	8.50	7.85	0.95	874.8	807.2	98.0

	5.00	3,813	9.40	8.68	1.05	790.3	729.4	88.3
Inferred	2.20	197	4.95	4.60	0.51	21.5	20.0	2.2
	3.00	151	5.66	5.25	0.60	18.8	17.5	2.0
	4.00	124	6.13	5.69	0.64	16.8	15.6	1.7
	5.00	89	6.77	6.29	0.69	13.3	12.3	1.4

## Mineral Resources Amenable to Underground Mining Methods

Category	ZnEq Cut-Off (%)	Tonnage (kt)	ZnEq (%)	Zn (%)	Pb (%)	Contained ZnEq (Mlb)	Contained Zn (Mlb)	Contained Pb (Mlb)
Measured	3.79	17	5.73	4.58	1.66	2.1	1.7	0.6
	4.00	17	5.74	4.60	1.66	2.2	1.7	0.6
	5.00	12	6.24	5.06	1.72	1.7	1.3	0.5
Indicated	3.79	920	6.24	5.58	0.95	126.5	113.3	19.2
	4.00	840	6.46	5.79	0.98	119.6	107.1	18.1
	5.00	554	7.49	6.72	1.12	91.4	82.0	13.6
M & I	3.79	937	6.23	5.57	0.96	128.6	115.0	19.8
	4.00	857	6.45	5.76	0.99	121.8	108.9	18.7
	5.00	566	7.46	6.68	1.13	93.1	83.4	14.1
Inferred	3.79	553	5.63	5.07	0.81	68.6	61.8	9.9
	4.00	514	5.76	5.19	0.82	65.3	58.8	9.3
	5.00	277	6.95	6.34	0.90	42.5	38.7	5.5

- (1) Mineral Resources have an effective date of 5 July 2013. The Mineral Resource estimates and geological models were prepared by Christopher Wright, P.Geo. of AMEC and reviewed by Stella Seearston, RM SME of AMEC who is the Qualified Person as defined under NI 43-101 for the estimate.
- (2) Mineral Resources are reported inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- (3) The estimate uses Ordinary Kriging as the interpolation method in a percent block model with a block size of 5x5x5 m. Density utilized in the mineral resource estimates was 2.51 t/m<sup>3</sup> for mineralization and 2.57 t/m<sup>3</sup> for waste.
- (4) Mineral Resources are estimated using a conceptual Lerchs-Grossmann pit shell and conceptual stope outlines that assumed a US\$1.28/lb zinc price, a US\$1.05/lb lead price, marketing treatment, and refining costs of US\$0.201/lb for zinc and US\$0.289/lb for lead, metallurgical recovery of 86.9% for zinc and 97.7% for lead, a mining cost of US\$2.09/t for open pit and of US\$34.92/t for underground mining, and processing, general and administrative costs of US\$48.15/t.
- (5) Overall slope angle for the Accha open pit is 33°.
- (6) Mineral Resources are reported above a marginal cut-off grade of 2.20% ZnEq. for the open pit estimate. Underground Mineral Resources are reported above a cut-off grade of 2.20% ZnEq, below the resource pit shell and within conceptual stope outlines defined at a break-even cut-off grade of 3.79% ZnEq. Zinc equivalent (ZnEq) was calculated by applying the differential of metallurgical recoveries and metal prices net of selling costs to zinc and lead grades.
- (7) Contained zinc and contained lead represent estimated metal contained in the ground and have not been adjusted for metallurgical or other recovery factors.
- (8) The metal prices used for the Mineral Resources estimates are based on a combination of AMEC's internal guidelines (based on long-term consensus prices) and those sourced from Wood Mackenzie and the World Bank. It is industry practice to apply higher long-term metal prices used for Mineral Resources than that used for Mineral Reserves.
- (9) Rounding as required by reporting guidelines may result in apparent summation differences between tonnes, grade and contained metal content.

For more information about the Accha deposit in-fill drilling program which generated the data used in re-modelling the Mineral Resource estimates, please see our news releases from 2010 dated: December 7<sup>th</sup>, November 4<sup>th</sup>, October 6<sup>th</sup>, September 15<sup>th</sup> and April 29<sup>th</sup>.

## Yanque

The new Yanque Mineral Resource estimate which is amenable to open pit mining methods, replaces the previous estimate announced by Zincore in 2011. This new estimate incorporates diamond drill data from 45 holes drilled in the Zincore 2011 drill campaign, executed from May to August, 2011 and totalling 6,527.30 m. The estimate totals 26,491 kt of Indicated Mineral Resources with an average grade of 2.37% Zn and 2.18% Pb and 1.169 kt of Inferred Mineral Resources with an average grade of 2.17% Zn and 1.09% Pb. Resources are estimated within a conceptual Lerchs-Grossmann pit shell constructed using prices of US\$ 1.28/lb Zn and US\$ 1.05/lb Pb and reported using a marginal cut-off grade of 1.67% zinc equivalent (ZnEq).

Table 5: Yanque Mineral Resource Estimate Showing Sensitivity of the Estimate to Cut-off Grades  
(Base Case is highlighted)

## Mineral Resources Amenable to Open Pit Mining Methods

Category	ZnEq Cut-Off (%)	Tonnage (kt)	ZnEq (%)	Zn (%)	Pb (%)	Contained ZnEq (Mlb)	Contained Zn (Mlb)	Contained Pb (Mlb)
Indicated	1.67	26,491	3.87	2.37	2.18	2,261.5	1,385.3	1,270.0

	2.00	23,242	4.16	2.55	2.33	2,129.9	1,306.7	1,193.1
	4.00	8,701	6.34	4.05	3.32	1,216.0	777.4	635.7
Inferred	1.67	1,169	2.91	2.17	1.09	75.1	55.8	28.0
	2.00	1,081	3.00	2.24	1.11	71.5	53.3	26.3
	4.00	20	5.21	3.32	2.75	2.3	1.5	1.2

- (1) Mineral Resources have an effective date of 5 July 2013. The Mineral Resource estimates and geological models were prepared by Christopher Wright, P.Geo. of AMEC and reviewed by Stella Seearston, RM SME of AMEC who is the Qualified Person as defined under NI 43-101 for the estimate.
- (2) Mineral Resources are reported inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- (3) The estimate used Ordinary Kriging as the interpolation method in a percent block model with a block size of 5x5x5 m. The density utilized in the mineral resource estimates was 2.37 t/m<sup>3</sup> for mineralized material and 2.49 t/m<sup>3</sup> for waste.
- (4) Mineral Resources are confined within a conceptual Lerchs-Grossmann pit shell and are estimated using a US\$1.28/lb zinc price, a US\$1.05/lb lead price, overall pit slope angles of 40°, metallurgical recovery of 86.9% for zinc and 97.7% for lead, a mining cost of US\$1.89/t, zinc premium of 5%, lead payability of 94.1%, marketing, treatment and refining costs of US\$0.201/lb for zinc and US\$0.289/lb for lead, and processing, general and administrative costs of US\$36.66/t. Zinc equivalent (ZnEq) was calculated by applying the differential of metallurgical recoveries and metal prices net of selling costs to zinc and lead grades.
- (5) Contained zinc and contained lead represent estimated metal contained in the ground and have not been adjusted for metallurgical or other recovery factors.
- (6) The metal prices used for the Mineral Resources estimates are based on a combination of AMEC's internal guidelines (based on long-term consensus prices) and those sourced from Wood Mackenzie and the World Bank. It is industry practice to apply higher long-term metal prices used for Mineral Resources than that used for Mineral Reserves.
- (7) Rounding as required by reporting guidelines may result in apparent summation differences between tonnes, grade and contained metal content.

For more information about the Yanque deposit in-fill drilling program, which generated a portion of the data used in re-modelling the Mineral Resource estimates, please see our 2011 news releases dated November 23<sup>rd</sup>, July 5<sup>th</sup>, June 21<sup>st</sup>, May 19<sup>th</sup> and March 23<sup>rd</sup>.

## Mineral Reserves

As part of the PFS, AMEC completed a mine plan which evaluated open pit mining at Yanque and a combined open pit and underground operation at Accha for both the Base Case and the Fume Case. Conventional selective open pit mining operations are contemplated, and include drilling, blasting, loading, and hauling by trucks. Dilution factors were applied to the block model in order to simulate the interaction between blocks during the mining process. Final open pit designs were defined by an iterative modeling process (skin analysis). As part of this analysis, non-economic marginally mineralized material was excluded from the pit, improving the strip ratio. Pit optimization was carried out using the Lerchs-Grossmann algorithm, and pit designs were constructed using reasonable mining, processing, general and administration, refining, treatment and marketing costs. The underground mine design at Accha utilizes the cut and fill method.

Due to differences between the conceptual mine design used in Mineral Resource estimation, and the final pit definition and interface between the open pit and underground mine established during the PFS planning, a portion of the Accha Underground Proven and Probable Reserves reported in Table 6 and 7 are contained in the Accha Open Pit Measured and Indicated Resources reported in Table 4. Table 6 summarizes the Mineral Reserve estimate for the Base Case.

Table 6: Mineral Reserves Statement assuming Base Case, Effective Date July 11, 2013

Category	Tonnes (kt)	Zn Grade (%)	Pb Grade (%)	Zn (Mlb)	Pb (Mlb)
<b>Accha Open Pit</b>					
Proven	754	8.43	0.73	140.2	12.2
Probable	468	7.39	0.59	76.3	6.1
Proven & Probable	1,223	8.03	0.68	216.5	18.3
<b>Accha Underground</b>					
Proven	307	11.79	1.70	79.8	11.5
Probable	704	9.74	1.25	151.3	19.4
Proven & Probable	1,011	10.36	1.39	231.1	30.9
<b>Yanque Open Pit</b>					
Proven	0	0.00	0.00	0.0	0.0
Probable	8,338	3.97	2.60	730.5	477.1
Proven & Probable	8,338	3.97	2.60	730.5	477.1
<b>TOTAL - Accha &amp; Yanque</b>					
Proven	1,061	9.40	1.01	219.9	23.7
Probable	9,510	4.57	2.40	958.0	502.5

TOTAL Accha & Yanque					
Proven & Probable	10,571	5.05	2.26	1,177.9	526.2

- (1) Mineral Reserve estimates have an effective date of 11 July 2013. The Mineral Reserves estimates assuming open pit mining methods were prepared by Sergio Muñoz, Senior Mining Eng., RM Comisión Minera (Chile) of AMEC, and by William Bagnell, P.Eng. of AMEC for the estimates assuming underground mining methods.
- (2) Mineral Reserves are estimated using the following assumptions: a US\$1.03/lb zinc price, a US\$0.95/lb lead price, and an economic function that includes an average processing, G&A, and ore haulage costs of US\$60.59/t in Accha and US\$37.50/t in Yanque and, marketing, treatment and refining costs of US\$0.201/lb for zinc and US\$0.190/lb for lead, a zinc premium of 5%, a lead payability of 94.1%, and metallurgical recoveries for zinc of 89.6% in Accha and 86.9% in Yanque, and lead recoveries of 97% in Accha and 97.7% in Yanque. Open pit mine designs assumed average inter-ramp pit slope angles of 37° and 46° for Accha and Yanque respectively.
- (3) The open pit referential cut-off grades for Accha are 3.5% Zn and for Yanque are 2.2% Zn. The referential cut-off grade for underground is 6.0% Zn.
- (4) The projected life-of-mine strip ratio for the Accha pit is 3.32 and for the Yanque pit is 1.36.
- (5) The metal prices used for the Mineral Reserves estimates are based on AMEC's internal guidelines (which are based on long-term consensus prices).
- (6) Rounding as required by reporting guidelines may result in apparent summation differences between tonnes, grade and contained metal content.

Based on the Mineral Reserve estimates for the Base Case, the forecast life-of-mine is approximately eight years with an average ore production rate of 1,340 kt per year with the first year at 80% production and the last year at 15%. The Accha underground operations will be conducted simultaneously with the Accha open-pit operations, commencing two years after open pit pre-stripping begins. The amount of waste rock produced from operations is estimated to be 15,404 kt, with a waste/ore average stripping ratio of 3.32 and 1.36 for Accha and Yanque respectively.

Mineral Reserves for the Fume Case are summarized in Table 7.

Table 7: Mineral Reserves Statement assuming Fume Case, Effective Date July 11, 2013

Category	Tonnes (kt)	Zn Grade (%)	Pb Grade (%)	Zn (Mlb)	Pb (Mlb)
Accha Open Pit					
Proven	651	9.26	0.80	132.9	11.4
Probable	388	8.26	0.66	70.7	5.6
Proven & Probable	1,039	8.88	0.74	203.5	17.1
Accha Underground					
Proven	237	13.78	1.97	71.9	10.3
Probable	547	11.17	1.43	134.6	17.2
Proven & Probable	783	11.96	1.59	206.5	27.5
Yanque Open Pit					
Proven	0	0.00	0.00	0.0	0.0
Probable	9,711	3.57	2.86	763.3	611.5
Proven & Probable	9,711	3.57	2.86	763.3	611.5
TOTAL - Accha & Yanque					
Proven	888	10.46	1.11	204.8	21.7
Probable	10,646	4.13	2.70	968.5	634.4
TOTAL Accha & Yanque					
Proven & Probable	11,533	4.61	2.58	1,173.3	656.1

- (1) Mineral Reserve estimates have an effective date of 11 July 2013. The Mineral Reserves estimates assuming open pit mining methods were prepared by Sergio Muñoz, Senior Mining Eng., RM Comisión Minera (Chile) of AMEC by William Bagnell, P.Eng. of AMEC (for the estimates assuming underground mining methods).
- (2) Mineral Reserves are estimated using the following assumptions: a US\$1.03/lb zinc price, a US\$0.95/lb lead price, and an economic function that include an average processing, G&A ore haulage of US\$60.12/t in Accha and US\$36.80/t in Yanque, marketing, treatment and refining cost of US\$0.290/lb for zinc and US\$0.190/lb for lead, zinc payability of 79.4%, lead payability of 93.8%, and metallurgical recoveries for zinc of 91% in Yanque and 93.8% in Accha, and lead recoveries of 97.7% in Yanque and 97% in Accha. A percent model was used with a blocks size of 5x5x5 m. Open pit mine designs assumed average inter-ramp pit slope angles of 37° and 46° for Accha and Yanque respectively.
- (3) The life-of-mine strip ratio for the Accha pit is 4.08 and for the Yanque pit is 1.36.
- (4) The Fume Case open pit referential cut-off grades for Accha are 5.5% Zn, and for Yanque are 2.9% Zn. The cut-off grade for Accha underground is 8.6% Zn.
- (5) The metal prices used for the Mineral Reserves estimates are based on AMEC's internal guidelines (based on long-term consensus prices).
- (6) Rounding as required by reporting guidelines may result in apparent summation differences between tonnes, grade and contained metal content.

The Fume Case life-of-mine forecast is nine years, and assumes an average ore throughput of 1,349 kt per year with 80% of annual production capacity in the first year and 80% of the annual production capacity in the last year. The Accha underground operations are planned to be conducted simultaneously with the Accha open-pit operations, commencing two years after open pit pre-stripping begins. The amount of waste rock produced from operations is projected to be 17,485 kt, with a waste/ore average stripping ratio of 4.08

and 1.36 for Accha and Yanque respectively.

## Metal Prices for Economic Model

As part of the PFS, a study was undertaken by third-parties to provide independent views of metal pricing forecasts and treatment charges. Unlike many other metals, significant new sources of zinc have not been developed in recent years. Given that it takes many years to develop a new mining operation, this has created a situation where there are limited new sources of zinc that can be brought into the market in the foreseeable future. This lack of new supply is set against a backdrop where a number of the large producers of zinc have depleted their reserves and are nearing the end of their expected lives. As a basic metal of industry used primarily for galvanizing steel, there is a general consensus among metals markets participants that a supply-demand imbalance is coming for zinc, with an expectation of long term price increases.

The outlook for lead is also favourable given its use in batteries for motorized vehicles, including automobiles and electric-bicycles that have been adopted in rapidly modernizing economies such as China, India, Brazil and Russia. Unlike zinc, lead has enjoyed a more favourable pricing environment in recent years, and the Company's forecast sources expect lead price increases to be more moderate than those for zinc during the forecast AZOD project mine life.

In order to balance this optimism, it was decided to use two sources of zinc and lead pricing forecasts for the financial analysis in the PFS financial model. Metal prices are reported as averages from forecasts from Wood Mackenzie, an acknowledged leader in metals pricing and market terms, and forecasts from the World Bank. Treatment charges, which are a critical factor in the end revenue streams, have been taken from Wood Mackenzie sources. Table 8 shows the lead and zinc pricing assumptions as used for the financial analysis in the PFS. Prices used in the table are higher than the three-year moving average price of \$US0.94/lb for zinc and \$US1.01/lb for lead; the effect of differing metal price assumptions on the financial model is provided as part of the project sensitivities in Tables 12 and 13.

Table 8: Summary of PFS Zinc and Lead Price Assumptions

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Zinc										
US\$/lb	1.36	1.37	1.33	1.22	1.18	1.18	1.18	1.20	1.20	
Lead										
US\$/lb	1.09	1.08	1.05	1.03	1.03	1.03	1.03	1.04	1.04	

(1) Wood Mackenzie prices have been taken from that company's June 2013 Metals Market Services

(2) World Bank prices have been taken from the World Bank website and are as at May 2013

(3) Pricing shown for years of planned production only

## Capital and Operating Cost Summary

Capital cost estimates utilized in the PFS are itemized below in Table 9. Capital costs are estimated with an accuracy range of +/-25% (including contingency) and are consistent with an AACE Class 4 estimate. Operating costs used in the PFS are listed in Table 10 and 11 for the Base Case and Fume Case respectively, and contemplate using a mining contractor for both the open pit and underground mining operations.

Table 9: Capital Cost Estimate Summary

Description	Base Case (US \$M)	Fume Case (US \$M)
Mining Direct Costs		
Pre-Strip and pioneering	10.9	10.9
Process Plant Direct Costs		
Mine infrastructure	6.9	6.9
Site development	4.5	4.1
Pyrometallurgical process plant	69.5	80.5
Hydrometallurgical refinery	79.9	0.0
Site utilities	15.4	9.2
Ancillary building	13.9	7.5
Waste storage facilities	7.5	7.5
Off project boundary services	20.1	15.4

Sub-Total Direct Mining Costs	228.6	142.0
Indirect costs		
Indirect capital	62.0	39.3
Owner's cost	11.4	7.1
Contingency - plant (20% of plant direct costs)	43.5	26.2
Sub-Total Indirect Costs	116.9	72.5
Total Project Costs	345.5	214.5

- (1) Mining equipment is considered to be part of the contractor supply and is included as part of the operational costs in Tables 10 and 11. Infrastructure for the mine is included in the capital costs.
- (2) Project indirect costs for mining pre-strip and pioneering roads are included in the capital cost and are not broken out in the table as a line item.
- (3) Dehalogenation of the fume will be carried out using hydrometallurgical facilities in the Base Case and pyrometallurgical facilities in the Fume Case.
- (4) Contingency is based on an assumed 20% of direct costs.
- (5) Owner's costs are based on an assumed 10% of direct costs.
- (6) Currency Exchange Rates used were \$1USD = 2.78 Peruvian Nuevo Sol.
- (7) Estimate is based on 2nd Qtr. 2013.
- (8) Costs have been rounded.

Table 10: Operating Cost Summary - BASE Case

	US\$/t Mined	US\$/t Ore
O/P Mining cost - contract	4.60	11.70
U/G Mining cost - contract		64.70
Weighted Average of O/P and U/G Mining Costs		16.80
Processing - crushing/pyro		33.00
Processing - Hydro (refinery)		17.50
Sub-Total (Process)		50.50
G & A - Total		4.90
<b>TOTAL</b>		<b>72.20</b>

- (1) Costs have been rounded

Table 11: Operating Cost Summary - FUME Case

	US\$/t Mined	US\$/t Ore
O/P Mining cost - contract	4.20	10.80
U/G Mining cost - contract		66.10
Weighted Average of O/P and U/G Mining Costs		14.50
Processing - crushing/pyro		32.80
Processing - alkaline leach		3.20
Sub-Total (Process)		36.00
G & A - Total		3.70
<b>TOTAL</b>		<b>54.20</b>

- (1) Costs have been rounded

## Economic Sensitivities

Table 1 in this news release presented the results of the financial analysis on both a pre-tax and post-tax basis for the Base Case and the Fume Case. Table 12 shows the sensitivity of the financial analysis using the Base Case assumptions on an after-tax basis at an 8% discount rate. Table 13 presents the sensitivity of the financial analysis using the Fume Case on an after-tax basis at an 8% discount rate.

Table 12: Summary of Base Case Economic Sensitivity to Changes in Key Variables (After-Tax)

SENSITIVITY OF NPV @ 8%	Change in Factor (US\$ '000)						
	(2015)	-30%	-20%	-10%	0%	10%	20%
Capital expenditure	213,943	192,783	171,509	150,123	128,678	107,132	85,573
Operating expenditure	233,379	205,975	178,280	150,123	121,603	92,814	62,670
Metal price	(63,269 )	12,252	83,044	150,123	216,251	281,677	346,670
Anthracite price	174,419	166,341	158,234	150,123	141,987	133,806	125,597
Grade	(23,059 )	36,395	94,119	150,123	205,635	260,686	315,526

Table 13: Summary of Fume Case Economic Sensitivity to Changes in Key Variables (After-Tax)

SENSITIVITY OF NPV @ 8%	Change in Factor (US\$ '000)						
	(2015)	-30%	-20%	-10%	0%	10%	20%

Capital expenditure	131,928	118,337	104,725	91,073	77,380	63,656	49,897
Operating expenditure	159,214	136,783	114,070	91,073	67,806	44,226	20,369
Metal price	(125,567 )	(40,995 )	29,491	91,073	151,599	211,439	270,774
Anthracite price	116,821	108,269	99,685	91,073	82,406	73,713	64,990
Grade	(73,829 )	(12,658 )	41,161	91,073	140,576	190,163	239,921

#### Assumptions

- (1) 8% discount rate
- (2) Zinc price of US\$1.26/lb and lead price of US\$1.04/lb Base Case over life of mine average (weighted)
- (3) Zinc price of US\$1.27/lb and lead price of US\$1.04/lb Fume Case over life of mine average (weighted)
- (4) Metal prices represent a ±10, 20, and 30% change applied to both zinc and lead price
- (5) Grade represents a ±10, 20, and 30% change applied to both zinc and lead grades

Cash flow models were also prepared considering the current three-year moving average zinc and lead prices and resulted in after tax undiscounted cumulative net cash flows of US \$169.9 million for the Base Case and US \$64.3 million for the Fume Case.

## Permitting

Zincore, through its wholly indirectly owned subsidiary Exploraciones Collasuyo S.A.C., has the appropriate exploration concessions, permits and community relations agreements required to allow the company to continue to explore and carry out study work on the AZOD Project. There are no currently-known environmental, archaeological, social or political conditions that would limit Zincore's ability to continue to advance the Project.

## Social

The proposed open pits, underground mine and centralised mineral processing and pyrometallurgical plant will be situated between 70 km to 150 km south of Cusco in areas that are sparsely populated. Zincore is very aware of importance of good community relations and communication and devotes significant time and effort to maintain successful outcomes in these areas. The Company is also aware of the sensitivity around issues relating to communities as a whole in Peru. Zincore believes that it has been very proactive and has sound relations with the various communities and individuals who own the surface rights to the land which would be affected by any form of mine development. As the Company moves towards development of the AZOD project, it anticipates engaging in discussions with local communities, municipalities, the Regional government of Cusco, and regulatory authorities with a view to agreeing on plans that best suit all parties that may be impacted by the proposed operation.

## Opportunities for Investigation to Further Improve AZOD Project Economics

The Company is considering undertaking further evaluations of several aspects of the project that may extend the life and/or profitability of the project that include:

- Expanding the extent of the known mineralization at both the Accha and Yanque deposits with a view to identifying mineralization that may support an expansion of the Mineral Resource estimates
- Conducting further exploration and drilling on other known zinc/lead oxide prospects within the AZOD, which may lead to the identification of additional deposits and subsequently development of new mines to supply material to the central processing facility
- Advancing the permitting to commence metal production in order to better capture the benefit of higher forecast metals prices
- Identifying buyers for the Fume Case concentrate such that a reduction of concentrate transport costs may be achieved
- Further detailed pyrometallurgical and hydrometallurgical test work to optimize the economics of the planned metallurgical process
- Further improvement of mine design and logistics relating to the transport of ore and oxide fume
- Further evaluating the planned refinery at the port of Ilo and considering the option of finding a strategic partner for the development of the refinery
  - ZNC believes the refinery could also provide project cost reductions if oxide concentrate feed sources from other oxide deposits and third parties could be identified

The NI-43-101 technical report on the results of the PFS will be filed on SEDAR within 45 days. The NI

43-101 technical report will be authored by Stella Searston, RM SME, Christopher Wright, P.Geo., Sergio Munoz, CMC, William Bagnell, P.Eng., Vikram Khera, P.Eng., and Stewart Twigg, P.Eng., of AMEC, and Michael Valenta, Pr.Eng (Int), FSAIMM, of Metallicon Process Consulting (Pty) Ltd. These Qualified Persons have verified the data in the news release that pertain to the PFS.

Readers are cautioned that the conclusions, projections and estimates set out in this press release are subject to important qualifications, assumptions and exclusions, all of which are detailed in the PFS and technical report. To fully understand the summary information set out above, the technical report that will be filed on SEDAR at [www.sedar.com](http://www.sedar.com) should be read in its entirety.

David Terry, Ph.D., P.Geo., Vice President, Exploration for Zincore has reviewed the information contained in this news release and is a Qualified Person as defined under National Instrument 43-101.

#### **About Zincore**

Zincore is a Vancouver-based mineral exploration company focused mainly on zinc and related base metal opportunities in Peru. The Company's common shares trade on both the Toronto and Lima Stock Exchanges under the symbol ZNC. For more information, please see our website at [www.zincoremetals.com](http://www.zincoremetals.com).

#### ***Cautionary Note Regarding Forward-Looking Information***

*Certain statements contained in this press release constitute forward-looking information within the meaning of applicable securities laws. These statements relate to future events or the Company's future performance, business prospects or opportunities including, without limitation, the results of the Pre-Feasibility Study on the Accha Zinc Oxide District. Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance (often, but not always, using words or phrases such as "seek", "anticipate", "plan", "continue", "estimate", "expect", "forecast", "may", "will", "project", "predict", "potential", "targeting", "intend", "could", "might", "should", "believe", "outlook" and similar expressions) are not statements of historical fact and may be forward looking information. Forward looking information involves risks and uncertainties which may cause actual results to be materially different from those expressed or implied by such forward looking information. The Pre-Feasibility Study results are estimates only, are preliminary in nature and are based on a number of assumptions, any of which, if incorrect, could materially change the projected outcome. Until a positive feasibility study has been completed, and even with the completion of a positive feasibility study, there are no assurances that Accha Zinc Oxide District will be placed into production. Factors that could affect the outcome include, among others: the actual results of development activities, project delays, inability to raise the funds necessary to complete development, general business, economic, competitive, political and social uncertainties, future prices of metals, particularly zinc, actual zinc recovery, inability to confirm specific buyers and terms for the Fume product, conclusions of economic evaluations, changes in project parameters as plans continue to be refined, accidents, labour disputes and other risks of the mining industry, political instability, insurrection or war, delays in obtaining governmental approvals, necessary permitting or in the completion of development or construction activities as well as those factors discussed in the section entitled "Risk Factors" and elsewhere in the Annual Information Form of Zincore dated March 22, 2013 which is filed with Canadian securities regulatory authorities and available on SEDAR ([www.sedar.com](http://www.sedar.com)). The Company believes that the expectations reflected in such forward-looking information are reasonable, but no assurance can be given that these expectations will prove to be correct and such forward-looking information should not be unduly relied upon. These statements speak only as of the date of this press release. The Company does not intend, and does not assume any obligation, to update any forward-looking information except as required by law.*

## Contact

### Zincore Metals Inc.

Adam Ho  
Manager, Investor Relations  
(604) 669-6611 ext.3  
(604) 669-6616  
aho@zincoemetals.com  
[www.zincoremetals.com](http://www.zincoremetals.com)

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<https://www.rohstoff-welt.de/news/154045--Zincore-Receives-Positive-Pre-Feasibility-Study-for-Accha-Zinc-Oxide-District-Project.html>

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