

## All Pan American Silver Proven and Probable Reserves<sup>1,2</sup>

Property	Location	Category	Tonnes (Mt)	Ag g/t	Au g/t	Zn%	Pb%	Cu%
Huaron	Peru	Proven	6.3	156		2.84	1.36	0.55
		Probable	4.1	163		2.84	1.49	0.42
Morococha (92.3%) <sup>3</sup>	Peru	Proven	3.7	160		4.17	1.36	0.44
		Probable	3.1	150		3.32	1.26	0.32
La Colorada	Mexico	Proven	4.3	387	0.31	2.92	1.66	
		Probable	4.3	346	0.27	2.13	1.21	
Dolores	Mexico	Proven	35.8	27	0.86			
		Probable	8.7	27	0.79			
La Bolsa	Mexico	Proven	9.5	10	0.67			
		Probable	6.2	7	0.57			
Manantial Espejo	Argentina	Proven	1.2	156	1.26			
		Probable	0.1	204	3.64			
San Vicente (95%) <sup>3</sup>	Bolivia	Proven	1.5	396		3.00	0.34	0.43
		Probable	0.7	383		2.90	0.37	0.40
Joaquin	Argentina	Probable	0.5	721	0.41			
COSE	Argentina	Probable	0.1	918	17.7			
Total <sup>4</sup>		Proven + Probable	90.0	97	0.76	2.98	1.31	0.45

**Notes:**

- (1) Prices used to estimate mineral reserves for 2018 were \$18.50 per ounce of silver, \$1,300 per ounce of gold, \$2,400 per tonne of zinc, \$2,100 per tonne of lead, and \$6,000 per tonne of copper, except at Manantial Espejo where \$16.50 per ounce of silver and \$1,250 per ounce of gold. Metal prices used for La Bolsa were \$14.00 per ounce of silver and \$825 per ounce of gold.
- (2) Mineral reserve estimates were prepared under the supervision of, or were reviewed by, Christopher Emerson, FAusIMM, Vice President Business Development and Geology and Martin G. Wafforn, P.Eng., Senior Vice President Technical Services and Process Optimization, each of whom are Qualified Persons as that term is defined in National Instrument 43-101 ("NI 43-101).
- (3) This information represents the portion of mineral reserves attributable to Pan American based on its ownership interest in the operating entity as indicated.
- (4) Totals may not add up due to rounding.

## All Pan American Silver Measured and Indicated Resources<sup>1,2</sup>

Property	Location	Category	Tonnes (Mt)	Ag g/t	Au g/t	Zn%	Pb%	Cu%
Huaron	Peru	Measured	2.1	155		2.91	1.56	0.19
		Indicated	1.7	151		2.76	1.47	0.30
Morococha (92.3%) <sup>3</sup>	Peru	Measured	0.3	145		2.15	0.87	0.21
		Indicated	0.5	151		2.93	0.98	0.26
La Colorada	Mexico	Measured	0.6	193	0.22	1.00	0.60	
		Indicated	2.0	156	0.15	1.11	0.54	
Dolores	Mexico	Measured	4.5	20	0.25			
		Indicated	1.6	27	0.53			
La Bolsa	Mexico	Measured	1.4	11	0.90			
		Indicated	4.5	9	0.50			
Manantial Espejo	Argentina	Measured	0.1	169	1.66			
		Indicated	0.2	241	2.86			
San Vicente (95%) <sup>3</sup>	Bolivia	Measured	0.8	154		2.23	0.17	0.21
		Indicated	0.2	148		1.73	0.22	0.22
Navidad	Argentina	Measured	15.4	137			1.44	0.10
		Indicated	139.8	126			0.79	0.04
Pico Machay	Argentina	Measured	4.7		0.91			
		Indicated	5.9		0.67			
Joaquin	Argentina	Indicated	0.1	385	0.58			
Total <sup>4</sup>		Measured + Indicated	186.3	121	0.58	2.18	0.86	0.05

Notes:

- (1) Prices used to estimate mineral resources for 2018 were \$18.50 per ounce of silver, \$1,300 per ounce of gold, \$2,400 per tonne of zinc, \$2,100 per tonne of lead, and \$6,000 per tonne of copper, except at Dolores and Manantial Espejo, where \$24.00 per ounce of silver and \$1,400 per ounce of gold were used. Metal prices used for Joaquin were \$25.00 per ounce of silver and \$1,400 per ounce of gold. Metal prices used for La Bolsa were \$14.00 per ounce of silver and \$825 per ounce of gold. Metal prices for Navidad were \$12.52 per ounce of silver and \$1,100 per tonne of lead.
- (2) Mineral resource estimates were prepared under the supervision of, or were reviewed by, Christopher Emerson, FAusIMM, Vice President Business Development and Geology and Martin G. Wafforn, P.Eng., Senior Vice President Technical Services and Process Optimization, each of whom are Qualified Persons as that term is defined in National Instrument 43-101 ("NI 43-101).
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- (4) Totals may not add up due to rounding.

## All Pan American Silver Inferred Resources<sup>1,2</sup>

Property	Location	Category	Tonnes (Mt)	Ag g/t	Au g/t	Zn%	Pb%	Cu%
Huaron	Peru	Inferred	6.2	157		2.75	1.50	0.37
Morococha (92.3%) <sup>3</sup>	Peru	Inferred	4.7	140		4.30	1.08	0.38
La Colorada	Mexico	Inferred	6.2	185	0.20	4.09	2.08	
Dolores	Mexico	Inferred	4.3	45	1.15			
La Bolsa	Mexico	Inferred	13.7	8	0.51			
Manantial Espejo	Argentina	Inferred	0.5	194	2.71			
San Vicente (95%) <sup>3</sup>	Bolivia	Inferred	2.5	322		3.44	0.33	0.27
Navidad	Argentina	Inferred	45.9	81			0.57	0.02
Pico Machay	Argentina	Inferred	23.9		0.58			
Joaquin	Argentina	Inferred	0.01	389	1.29			
COSE	Argentina	Inferred	0.03	382	7.10			
Total <sup>4</sup>		Inferred	108.0	92	0.59	3.64	0.83	0.10

Notes:

- (1) Prices used to estimate mineral resources for 2018 were \$18.50 per ounce of silver, \$1,300 per ounce of gold, \$2,100 per tonne of lead, \$2,400 per tonne of zinc, and \$6,000 per tonne of copper, except at Dolores and Manantial Espejo, where \$24.00 per ounce of silver and \$1,400 per ounce of gold were used. Metal prices used for Joaquin were \$25.00 per ounce of silver and \$1,400 per ounce of gold. Metal prices used for La Bolsa were \$14.00 per ounce of silver and \$825 per ounce of gold. Metal prices for Navidad were \$12.52 per ounce of silver and \$1,100 per tonne of lead.
- (2) Mineral resource estimates were prepared under the supervision of, or were reviewed by, Christopher Emerson, FAusIMM, Vice President Business Development and Geology and Martin G. Wafforn, P.Eng., Senior Vice President Technical Services and Process Optimization, each of whom are Qualified Persons as that term is defined in National Instrument 43-101 ("NI 43-101").
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- (4) Totals may not add up due to rounding.