

| Pan American Silver Corporation Mineral Reserves as of June 30, 2019 ^(1,2) | | | | | | | | | | | | | |
|--|-----------|--------------------------|--------------|------------|--------------------|-------------|--------------------|-------------|-------------------|-------------|-------------------|-------------|-------------------|
| Property | Location | Classification | Tonnes (Mt) | Ag (g/t) | Contained Ag (Moz) | Au (g/t) | Contained Au (koz) | Cu (%) | Contained Cu (kt) | Pb (%) | Contained Pb (kt) | Zn (%) | Contained Zn (kt) |
| Silver Segment | | | | | | | | | | | | | |
| Huaron | Peru | Proven | 6.2 | 168 | 33.5 | - | - | 0.69 | 43.0 | 1.44 | 89.5 | 3.02 | 188.1 |
| | | Probable | 3.7 | 170 | 20.1 | - | - | 0.33 | 12.3 | 1.55 | 57.1 | 3.00 | 110.2 |
| Morococha (92.3%) ⁽³⁾ | Peru | Proven | 4.1 | 147 | 19.5 | - | - | 0.38 | 15.5 | 1.38 | 57.1 | 4.03 | 166.7 |
| | | Probable | 2.2 | 173 | 12.3 | - | - | 0.31 | 6.9 | 1.20 | 26.5 | 3.26 | 72.2 |
| La Colorada | Mexico | Proven | 4.0 | 395 | 50.8 | 0.33 | 42.0 | - | - | 1.72 | 68.9 | 3.11 | 124.4 |
| | | Probable | 5.4 | 287 | 49.6 | 0.26 | 44.4 | - | - | 1.35 | 72.4 | 2.44 | 131.4 |
| Dolores | Mexico | Proven | 35.9 | 26 | 29.8 | 0.84 | 967.4 | - | - | - | - | - | - |
| | | Probable | 7.8 | 28 | 6.9 | 0.84 | 210.7 | - | - | - | - | - | - |
| Manantial Espejo | Argentina | Proven | 0.8 | 170 | 4.6 | 1.35 | 36.2 | - | - | - | - | - | - |
| | | Probable | 0.1 | 204 | 0.9 | 3.64 | 16.0 | - | - | - | - | - | - |
| San Vicente (95%) ⁽³⁾ | Bolivia | Proven | 1.4 | 414 | 18.6 | - | - | 0.43 | 6.0 | 0.35 | 4.9 | 3.06 | 42.9 |
| | | Probable | 0.5 | 345 | 6.0 | - | - | 0.32 | 1.7 | 0.42 | 2.3 | 2.71 | 14.5 |
| Joaquin | Argentina | Probable | 0.5 | 721 | 11.0 | 0.41 | 6.2 | - | - | - | - | - | - |
| COSE | Argentina | Probable | 0.1 | 918 | 2.2 | 17.7 | 43.3 | - | - | - | - | - | - |
| Escobal | Guatemala | Proven | 2.5 | 486 | 39.5 | 0.42 | 34.2 | - | - | 1.02 | 25.7 | 1.75 | 44.4 |
| | | Probable | 22.1 | 316 | 225.0 | 0.34 | 243.8 | - | - | 0.77 | 169.9 | 1.25 | 275.7 |
| Total Silver Segment⁽⁴⁾ | | | 97.5 | 169 | 530.4 | 0.64 | 1,644.1 | 0.47 | 85.4 | 1.10 | 574.1 | 2.24 | 1,170.6 |
| Gold Segment | | | | | | | | | | | | | |
| La Arena | Peru | Proven | 27.4 | - | - | 0.36 | 319.4 | - | - | - | - | - | - |
| | | Probable | 9.5 | - | - | 0.30 | 90.9 | - | - | - | - | - | - |
| Shahuindo | Peru | Proven | 69.8 | 6 | 14.4 | 0.51 | 1,133.2 | - | - | - | - | - | - |
| | | Probable | 42.8 | 6 | 7.8 | 0.46 | 629.9 | - | - | - | - | - | - |
| Timmins | Canada | Proven | 2.7 | - | - | 3.06 | 269.1 | - | - | - | - | - | - |
| | | Probable | 7.2 | - | - | 3.10 | 718.6 | - | - | - | - | - | - |
| La Bolsa | Mexico | Proven | 9.5 | 10 | 3.1 | 0.67 | 202.9 | - | - | - | - | - | - |
| | | Probable | 6.2 | 7 | 1.4 | 0.57 | 113.1 | - | - | - | - | - | - |
| Total Gold Segment⁽⁴⁾ | | | 175.0 | 6 | 26.8 | 0.62 | 3,476.9 | - | - | - | - | - | - |
| Total Gold and Silver Segments⁽⁴⁾ | | Proven + Probable | 272.5 | 77 | 557.2 | 0.63 | 5,121.1 | 0.47 | 85.4 | 1.10 | 574.1 | 2.24 | 1,170.6 |
| <p>⁽¹⁾ See table below entitled "Metal price assumptions used to estimate mineral reserves and resources as at June 30, 2019".</p> <p>⁽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).</p> <p>⁽³⁾ This information represents the portion of mineral reserves attributable to Pan American based on its ownership interest in the operating entity as indicated.</p> <p>⁽⁴⁾ Totals may not add up due to rounding. Total average grades of each element are with respect to those mines that produce the element.</p> | | | | | | | | | | | | | |

| Pan American Silver Corporation Measured and Indicated Mineral Resources as of June 30, 2019 ^(1,2) | | | | | | | | | | |
|---|-----------|----------------|--------------|------------|--------------------|-------------|--------------------|-------------|-------------|-------------|
| Property | Location | Classification | Tonnes (Mt) | Ag (g/t) | Contained Ag (Moz) | Au (g/t) | Contained Au (koz) | Cu (%) | Pb (%) | Zn (%) |
| Silver Segment | | | | | | | | | | |
| Huaron | Peru | Measured | 2.2 | 157 | 11.0 | - | - | 0.59 | 1.50 | 2.80 |
| | | Indicated | 2.4 | 155 | 12.0 | - | - | 0.61 | 1.64 | 3.03 |
| Morococha (92.3%) ⁽³⁾ | Peru | Measured | 0.3 | 138 | 1.2 | - | - | 0.29 | 0.86 | 2.14 |
| | | Indicated | 0.3 | 143 | 1.6 | - | - | 0.20 | 0.83 | 2.09 |
| La Colorada | Mexico | Measured | 0.5 | 229 | 3.8 | 0.24 | 4.0 | - | 0.65 | 1.16 |
| | | Indicated | 1.6 | 185 | 9.6 | 0.15 | 7.8 | - | 0.56 | 1.16 |
| Dolores | Mexico | Measured | 2.0 | 21 | 1.3 | 0.35 | 22.0 | - | - | - |
| | | Indicated | 1.5 | 28 | 1.4 | 0.56 | 27.1 | - | - | - |
| Manantial Espejo | Argentina | Measured | 0.1 | 164 | 0.7 | 1.65 | 7.1 | - | - | - |
| | | Indicated | 0.2 | 241 | 1.4 | 2.86 | 16.5 | - | - | - |
| San Vicente (95%) ⁽³⁾ | Bolivia | Measured | 0.9 | 161 | 4.4 | - | - | 0.22 | 0.20 | 2.27 |
| | | Indicated | 0.3 | 158 | 1.4 | - | - | 0.27 | 0.21 | 1.73 |
| Navidad | Argentina | Measured | 15.4 | 137 | 67.8 | - | - | 0.10 | 1.44 | - |
| | | Indicated | 139.8 | 126 | 564.5 | - | - | 0.04 | 0.79 | - |
| Joaquin | Argentina | Indicated | 0.1 | 385 | 0.7 | 0.58 | 1.1 | - | - | - |
| Escobal | Guatemala | Measured | 2.3 | 251 | 18.6 | 0.23 | 16.7 | - | 0.31 | 0.59 |
| | | Indicated | 14.2 | 201 | 91.6 | 0.20 | 93.0 | - | 0.38 | 0.66 |
| Total Silver Segment⁽⁴⁾ | | | 184.0 | 134 | 792.9 | 0.27 | 195.3 | 0.06 | 0.82 | 1.21 |
| Gold Segment | | | | | | | | | | |
| La Bolsa | Mexico | Measured | 1.4 | 11 | 0.5 | 0.90 | 39.9 | - | - | - |
| | | Indicated | 4.5 | 9 | 1.3 | 0.50 | 71.2 | - | - | - |
| Pico Machay | Peru | Measured | 4.7 | - | - | 0.91 | 137.5 | - | - | - |
| | | Indicated | 5.9 | - | - | 0.67 | 127.1 | - | - | - |
| La Arena | Peru | Measured | 1.3 | - | - | 0.41 | 17.5 | - | - | - |
| | | Indicated | 1.7 | - | - | 0.38 | 20.6 | - | - | - |
| Shahuindo | Peru | Measured | 3.7 | 7 | 0.8 | 0.53 | 63.2 | - | - | - |
| | | Indicated | 8.4 | 5 | 1.5 | 0.46 | 123.6 | - | - | - |
| Timmins | Canada | Measured | 1.7 | - | - | 3.89 | 212.4 | - | - | - |
| | | Indicated | 5.4 | - | - | 3.41 | 587.8 | - | - | - |
| La Arena II | Peru | Measured | 155.7 | - | - | 0.25 | 1,265.2 | 0.37 | - | - |
| | | Indicated | 586.7 | - | - | 0.23 | 4,371.9 | 0.35 | - | - |
| Fenn-Gib | Canada | Indicated | 40.8 | - | - | 0.99 | 1,298.6 | - | - | - |
| Whitney | Canada | Measured | 1.0 | - | - | 7.02 | 218.1 | - | - | - |
| | | Indicated | 2.3 | - | - | 6.77 | 490.5 | - | - | - |
| Gold River | Canada | Indicated | 0.7 | - | - | 5.29 | 117.4 | - | - | - |
| Juby | Canada | Indicated | 26.6 | - | - | 1.28 | 1,094.7 | - | - | - |
| Marlhill | Canada | Indicated | 0.4 | - | - | 4.52 | 57.4 | - | - | - |
| Vogel | Canada | Indicated | 2.2 | - | - | 1.75 | 125.0 | - | - | - |
| Total Gold Segment⁽⁴⁾ | | | 854.9 | 7 | 4.1 | 0.38 | 10,439.6 | 0.35 | - | - |

| | | | | | | | | | | |
|---|--|-----------------------------|----------------|--------------|--------------|-------------|-----------------|-------------|-------------|-------------|
| Total Gold and Silver Segments ⁽⁴⁾ | | Measured + Indicated | 1,038.8 | 122.8 | 797.0 | 0.38 | 10,634.9 | 0.30 | 0.82 | 1.21 |
| ⁽¹⁾ See table below entitled “Metal price assumptions used to estimate mineral reserves and resources as at June 30, 2019”. ⁽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”). ⁽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. Total average grades of each element are with respect to those mines that produce the element. | | | | | | | | | | |

| Pan American Silver Corporation Inferred Mineral Resources as of June 30, 2019 ^(1,2) | | | | | | | | | | |
|--|-----------|-----------------|--------------|------------|--------------------|-------------|--------------------|-------------|-------------|-------------|
| Property | Location | Classification | Tonnes (Mt) | Ag (g/t) | Contained Ag (Moz) | Au (g/t) | Contained Au (koz) | Cu (%) | Pb (%) | Zn (%) |
| Silver Segment | | | | | | | | | | |
| Huaron | Peru | Inferred | 6.2 | 155 | 30.8 | - | - | 0.41 | 1.45 | 2.77 |
| Morococha (92.3%) ⁽³⁾ | Peru | Inferred | 4.5 | 138 | 19.9 | - | - | 0.37 | 1.02 | 3.26 |
| La Colorada | Mexico | Inferred | 8.1 | 133 | 34.5 | 0.12 | 31.6 | - | 2.03 | 4.01 |
| Dolores | Mexico | Inferred | 4.0 | 47 | 6.0 | 1.22 | 156.3 | - | - | - |
| Manantial Espejo | Argentina | Inferred | 0.5 | 194 | 3.0 | 2.71 | 41.4 | - | - | - |
| San Vicente (95%) ⁽³⁾ | Bolivia | Inferred | 3.0 | 289 | 27.9 | - | - | 0.24 | 0.38 | 3.32 |
| Navidad | Argentina | Inferred | 45.9 | 81 | 119.4 | - | - | 0.02 | 0.57 | - |
| Joaquin | Argentina | Inferred | 0.01 | 389 | 0.1 | 1.29 | 0.2 | - | - | - |
| COSE | Argentina | Inferred | 0.03 | 382 | 0.3 | 7.10 | 6.3 | - | - | - |
| Escobal | Guatemala | Inferred | 1.9 | 180 | 10.7 | 0.90 | 53.7 | - | 0.22 | 0.42 |
| Total Silver Segment ⁽⁴⁾ | | | 74.0 | 106 | 252.5 | 0.62 | 289.5 | 0.10 | 0.83 | 3.17 |
| Gold Segment | | | | | | | | | | |
| La Bolsa | Mexico | Inferred | 13.7 | 8 | 3.3 | 0.51 | 224.6 | - | - | - |
| Pico Machay | Peru | Inferred | 23.9 | - | - | 0.58 | 445.7 | - | - | - |
| La Arena | Peru | Inferred | 1.1 | - | - | 0.30 | 10.7 | - | - | - |
| Shahuindo | Peru | Inferred | 10.0 | 5 | 1.6 | 0.44 | 140.6 | - | - | - |
| Shahuindo Sulphide | Peru | Inferred | 97.4 | 14 | 45.1 | 0.74 | 2,323.3 | - | - | - |
| Timmins | Canada | Inferred | 3.7 | - | - | 3.74 | 443.8 | - | - | - |
| La Arena II | Canada | Inferred | 91.6 | - | - | 0.23 | 683.1 | 0.17 | - | - |
| Fenn-Gib | Canada | Inferred | 24.5 | - | - | 0.95 | 750.0 | - | - | - |
| Whitney | Canada | Inferred | 1.0 | - | - | 5.34 | 170.7 | - | - | - |
| Gold River | Canada | Inferred | 5.3 | - | - | 6.06 | 1,027.4 | - | - | - |
| Juby | Canada | Inferred | 96.2 | - | - | 0.94 | 2,908.8 | - | - | - |
| Vogel | Canada | Inferred | 1.5 | - | - | 3.60 | 168.8 | - | - | - |
| Total Gold Segment ⁽⁴⁾ | | | 369.8 | 13 | 50.0 | 0.78 | 9,297.6 | 0.17 | - | - |
| Total Gold and Silver Segments ⁽⁴⁾ | | Inferred | 443.8 | 48 | 302.5 | 0.78 | 9,587.1 | 0.14 | 0.83 | 3.17 |
| ⁽¹⁾ See table below entitled “Metal price assumptions used to estimate mineral reserves and resources as at June 30, 2019”. | | | | | | | | | | |

- (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).
- (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. Total average grades of each element are with respect to those mines that produce the element.