

## Gold Ore (Cortez Mine, Nevada, USA), CRM

Art. ID OREAS-282-60G  
 Unit 60 g (powder)  
 Deliverydetails No Dangerous Good /not restricted

### Description

Certified Reference Material (CRM) OREAS 282 was prepared from high-grade refractory gold ore from the Cortez Mine located in Lander and Eureka County, Nevada, USA. The mine is located on the Carlin Trend approximately 75 miles (120 km) southwest of Elko and is owned by Nevada Gold Mines (operated by Barrick).

| Text/Information     | Analyte/Parameter | CAS number  | Concentration/Value | Unit | Method              | Source |
|----------------------|-------------------|-------------|---------------------|------|---------------------|--------|
| ± standard deviation | Gold (Au)         | [7440-57-5] | 13,71 ± 0,327       | ppm  | Pb Fire As say      |        |
| ± standard deviation | Gold (Au)         | [7440-57-5] | 13,41 ± 0,314       | ppm  | X-ray Phot on Assay |        |
| ± standard deviation | Silver (Ag)       | [7440-22-4] | 0,611 ± 0,021       | ppm  | 4-Acid Digestion    |        |
| ± standard deviation | Aluminium (Al)    | [7429-90-5] | 2,95 ± 0,114        | %    | 4-Acid Digestion    |        |
| ± standard deviation | Arsenic (As)      | [7440-38-2] | 2328 ± 103          | ppm  | 4-Acid Digestion    |        |
| ± standard deviation | Barium (Ba)       | [7440-39-3] | 100 ± 3             | ppm  | 4-Acid Digestion    |        |
| ± standard deviation | Beryllium (Be)    | [7440-41-7] | 0,93 ± 0,056        | ppm  | 4-Acid Digestion    |        |
| ± standard deviation | Bismuth (Bi)      | [7440-69-9] | 0,93 ± 0,05         | ppm  | 4-Acid Digestion    |        |
| ± standard deviation | Calcium (Ca)      | [7440-70-2] | 17,47 ± 0,91        | %    | 4-Acid Digestion    |        |
| ± standard deviation | Cadmium (Cd)      | [7440-43-9] | 1,08 ± 0,051        | ppm  | 4-Acid Digestion    |        |
| ± standard deviation | Cerium (Ce)       | [7440-45-1] | 36,9 ± 1,89         | ppm  | 4-Acid Digestion    |        |
| ± standard deviation | Cobalt (Co)       | [7440-48-4] | 3,8 ± 0,248         | ppm  | 4-Acid Digestion    |        |
| ± standard deviation | Chromium (Cr)     | [7440-47-3] | 32,5 ± 6,3          | ppm  | 4-Acid Digestion    |        |
| ± standard deviation | Caesium (Cs)      | [7440-46-2] | 8,24 ± 0,387        | ppm  | 4-Acid Digestion    |        |

|                      |                 |             |               |     |                  |
|----------------------|-----------------|-------------|---------------|-----|------------------|
| ± standard deviation | Copper (Cu)     | [7440-50-8] | 19,2 ± 1,38   | ppm | 4-Acid Digestion |
| ± standard deviation | Dysprosium (Dy) | [7429-91-6] | 2,61 ± 0,121  | ppm | 4-Acid Digestion |
| ± standard deviation | Erbium (Er)     | [7440-52-0] | 1,46 ± 0,058  | ppm | 4-Acid Digestion |
| ± standard deviation | Europium (Eu)   | [7440-53-1] | 0,65 ± 0,032  | ppm | 4-Acid Digestion |
| ± standard deviation | Iron (Fe)       | [7439-89-6] | 1,06 ± 0,04   | %   | 4-Acid Digestion |
| ± standard deviation | Gallium (Ga)    | [7440-55-3] | 7,15 ± 0,459  | ppm | 4-Acid Digestion |
| ± standard deviation | Gadolinium (Gd) | [7440-54-2] | 3,05 ± 0,197  | ppm | 4-Acid Digestion |
| ± standard deviation | Hafnium (Hf)    | [7440-58-6] | 1,63 ± 0,141  | ppm | 4-Acid Digestion |
| ± standard deviation | Holmium (Ho)    | [7440-60-0] | 0,51 ± 0,031  | ppm | 4-Acid Digestion |
| ± standard deviation | Indium (In)     | [7440-74-6] | 0,059 ± 0,004 | ppm | 4-Acid Digestion |
| ± standard deviation | Potassium (K)   | [7440-09-7] | 1,85 ± 0,093  | %   | 4-Acid Digestion |
| ± standard deviation | Lanthanum (La)  | [7439-91-0] | 20,5 ± 1,47   | ppm | 4-Acid Digestion |
| ± standard deviation | Lithium (Li)    | [7439-93-2] | 21,6 ± 1,16   | ppm | 4-Acid Digestion |
| ± standard deviation | Lutetium (Lu)   | [7439-94-3] | 0,19 ± 0,016  | ppm | 4-Acid Digestion |
| ± standard deviation | Magnesium (Mg)  | [7439-95-4] | 3,39 ± 0,164  | %   | 4-Acid Digestion |
| ± standard deviation | Manganese (Mn)  | [7439-96-5] | 0,025 ± 0,001 | %   | 4-Acid Digestion |
| ± standard deviation | Molybdenum (Mo) | [7439-98-7] | 13,5 ± 0,51   | ppm | 4-Acid Digestion |
| ± standard deviation | Sodium (Na)     | [7440-23-5] | 0,065 ± 0,007 | %   | 4-Acid Digestion |
| ± standard deviation | Niobium (Nb)    | [7440-03-1] | 5,73 ± 0,307  | ppm | 4-Acid Digestion |

|                      |                   |              |               |     |                  |
|----------------------|-------------------|--------------|---------------|-----|------------------|
| ± standard deviation | Neodymium (Nd)    | [7440-00-8]  | 17,5 ± 0,73   | ppm | 4-Acid Digestion |
| ± standard deviation | Nickel (Ni)       | [7440-02-0]  | 21,8 ± 1,44   | ppm | 4-Acid Digestion |
| ± standard deviation | Phosphorus (P)    | [7723-14-0]  | 0,032 ± 0,002 | %   | 4-Acid Digestion |
| ± standard deviation | Lead (Pb)         | [7439-92-1]  | 18,8 ± 1,14   | ppm | 4-Acid Digestion |
| ± standard deviation | Praseodymium (Pr) | [7440-10-0]  | 4,6 ± 0,174   | ppm | 4-Acid Digestion |
| ± standard deviation | Rubidium (Rb)     | [7440-17-7]  | 126 ± 5       | ppm | 4-Acid Digestion |
| ± standard deviation | Rhenium (Re)      | [7440-15-5]  | 0,022 ± 0,002 | ppm | 4-Acid Digestion |
| ± standard deviation | Sulfur (S)        | [7704-34-9]  | 0,717 ± 0,049 | %   | 4-Acid Digestion |
| ± standard deviation | Antimony (Sb)     | [7440-36-0]  | 15,2 ± 0,83   | ppm | 4-Acid Digestion |
| ± standard deviation | Scandium (Sc)     | [7440-20-2]  | 3,94 ± 0,246  | ppm | 4-Acid Digestion |
| ± standard deviation | Selenium (Se)     | [7782-49-2]  | 2,35 ± 0,48   | ppm | 4-Acid Digestion |
| ± standard deviation | Samarium (Sm)     | [7440-19-9]  | 3,33 ± 0,111  | ppm | 4-Acid Digestion |
| ± standard deviation | Tin (Sn)          | [7440-31-5]  | 1,46 ± 0,112  | ppm | 4-Acid Digestion |
| ± standard deviation | Strontium (Sr)    | [7440-24-6]  | 277 ± 13      | ppm | 4-Acid Digestion |
| ± standard deviation | Tantalum (Ta)     | [7440-25-7]  | 0,4 ± 0,03    | ppm | 4-Acid Digestion |
| ± standard deviation | Terbium (Tb)      | [7440-27-9]  | 0,44 ± 0,03   | ppm | 4-Acid Digestion |
| ± standard deviation | Tellurium (Te)    | [13494-80-9] | 0,23 ± 0,03   | ppm | 4-Acid Digestion |
| ± standard deviation | Thorium (Th)      | [7440-29-1]  | 5,36 ± 0,22   | ppm | 4-Acid Digestion |
| ± standard deviation | Titanium (Ti)     | [7440-32-6]  | 0,161 ± 0,007 | %   | 4-Acid Digestion |

|                      |                |             |               |     |                      |
|----------------------|----------------|-------------|---------------|-----|----------------------|
| ± standard deviation | Thallium (Tl)  | [7440-28-0] | 28,8 ± 1,06   | ppm | 4-Acid Digestion     |
| ± standard deviation | Thulium (Tm)   | [7440-30-4] | 0,2 ± 0,006   | ppm | 4-Acid Digestion     |
| ± standard deviation | Uranium (U)    | [7440-61-1] | 7,31 ± 0,356  | ppm | 4-Acid Digestion     |
| ± standard deviation | Vanadium (V)   | [7440-62-2] | 105 ± 5       | ppm | 4-Acid Digestion     |
| ± standard deviation | Tungsten (W)   | [7440-33-7] | 25,9 ± 1,62   | ppm | 4-Acid Digestion     |
| ± standard deviation | Yttrium (Y)    | [7440-65-5] | 16,6 ± 0,8    | ppm | 4-Acid Digestion     |
| ± standard deviation | Ytterbium (Yb) | [7440-64-4] | 1,31 ± 0,065  | ppm | 4-Acid Digestion     |
| ± standard deviation | Zinc (Zn)      | [7440-66-6] | 121 ± 8       | ppm | 4-Acid Digestion     |
| ± standard deviation | Zirconium (Zr) | [7440-67-7] | 58 ± 7        | ppm | 4-Acid Digestion     |
| ± standard deviation | Silver (Ag)    | [7440-22-4] | 0,577 ± 0,032 | ppm | Aqua Regia Digestion |
| ± standard deviation | Aluminium (Al) | [7429-90-5] | 0,815 ± 0,074 | %   | Aqua Regia Digestion |
| ± standard deviation | Arsenic (As)   | [7440-38-2] | 2320 ± 130    | ppm | Aqua Regia Digestion |
| ± standard deviation | Barium (Ba)    | [7440-39-3] | 29,8 ± 2,38   | ppm | Aqua Regia Digestion |
| ± standard deviation | Beryllium (Be) | [7440-41-7] | 0,67 ± 0,044  | ppm | Aqua Regia Digestion |
| ± standard deviation | Bismuth (Bi)   | [7440-69-9] | 0,91 ± 0,026  | ppm | Aqua Regia Digestion |
| ± standard deviation | Calcium (Ca)   | [7440-70-2] | 16,35 ± 1,126 | %   | Aqua Regia Digestion |
| ± standard deviation | Cadmium (Cd)   | [7440-43-9] | 1,09 ± 0,067  | ppm | Aqua Regia Digestion |
| ± standard deviation | Cerium (Ce)    | [7440-45-1] | 33,8 ± 2,08   | ppm | Aqua Regia Digestion |
| ± standard deviation | Cobalt (Co)    | [7440-48-4] | 3,61 ± 0,38   | ppm | Aqua Regia Digestion |

|                      |                 |             |               |     |                         |
|----------------------|-----------------|-------------|---------------|-----|-------------------------|
| ± standard deviation | Chromium (Cr)   | [7440-47-3] | 23,8 ± 1,73   | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Caesium (Cs)    | [7440-46-2] | 4,23 ± 0,73   | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Copper (Cu)     | [7440-50-8] | 18,6 ± 1,46   | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Dysprosium (Dy) | [7429-91-6] | 2,43 ± 0,203  | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Erbium (Er)     | [7440-52-0] | 1,26 ± 0,072  | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Europium (Eu)   | [7440-53-1] | 0,6 ± 0,054   | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Iron (Fe)       | [7439-89-6] | 0,998 ± 0,042 | %   | Aqua Regia<br>Digestion |
| ± standard deviation | Gallium (Ga)    | [7440-55-3] | 2,99 ± 0,37   | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Gadolinium (Gd) | [7440-54-2] | 2,92 ± 0,226  | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Germanium (Ge)  | [7440-56-4] | < 0,10 ± IND  | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Hafnium (Hf)    | [7440-58-6] | 0,35 ± 0,029  | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Mercury (Hg)    | [7439-97-6] | 40,3 ± 2,02   | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Holmium (Ho)    | [7440-60-0] | 0,45 ± 0,024  | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Indium (In)     | [7440-74-6] | 0,056 ± 0,006 | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Potassium (K)   | [7440-09-7] | 0,412 ± 0,025 | %   | Aqua Regia<br>Digestion |
| ± standard deviation | Lanthanum (La)  | [7439-91-0] | 18,2 ± 1,25   | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Lithium (Li)    | [7439-93-2] | 12,3 ± 0,61   | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Lutetium (Lu)   | [7439-94-3] | 0,15 ± 0,011  | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Magnesium (Mg)  | [7439-95-4] | 2,8 ± 0,07    | %   | Aqua Regia<br>Digestion |

|                      |                   |             |               |     |                         |
|----------------------|-------------------|-------------|---------------|-----|-------------------------|
| ± standard deviation | Manganese (Mn)    | [7439-96-5] | 0,024 ± 0,002 | %   | Aqua Regia<br>Digestion |
| ± standard deviation | Molybdenum (Mo)   | [7439-98-7] | 13,1 ± 0,83   | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Niobium (Nb)      | [7440-03-1] | 0,17 ± 0,05   | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Neodymium (Nd)    | [7440-00-8] | 16,2 ± 1,61   | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Nickel (Ni)       | [7440-02-0] | 21 ± 1,9      | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Phosphorus (P)    | [7723-14-0] | 0,031 ± 0,003 | %   | Aqua Regia<br>Digestion |
| ± standard deviation | Lead (Pb)         | [7439-92-1] | 17,5 ± 1,1    | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Praseodymium (Pr) | [7440-10-0] | 4,21 ± 0,45   | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Rubidium (Rb)     | [7440-17-7] | 39 ± 3,85     | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Rhenium (Re)      | [7440-15-5] | 0,024 ± 0,002 | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Sulfur (S)        | [7704-34-9] | 0,708 ± 0,056 | %   | Aqua Regia<br>Digestion |
| ± standard deviation | Antimony (Sb)     | [7440-36-0] | 10,5 ± 1,2    | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Scandium (Sc)     | [7440-20-2] | 3,52 ± 0,324  | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Selenium (Se)     | [7782-49-2] | 2,35 ± 0,4    | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Samarium (Sm)     | [7440-19-9] | 3,13 ± 0,284  | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Tin (Sn)          | [7440-31-5] | 1,02 ± 0,094  | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Strontium (Sr)    | [7440-24-6] | 218 ± 18      | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Tantalum (Ta)     | [7440-25-7] | < 0,010 ± IND | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Terbium (Tb)      | [7440-27-9] | 0,42 ± 0,032  | ppm | Aqua Regia<br>Digestion |

|                      |                |              |              |     |                         |
|----------------------|----------------|--------------|--------------|-----|-------------------------|
| ± standard deviation | Tellurium (Te) | [13494-80-9] | 0,24 ± 0,03  | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Thorium (Th)   | [7440-29-1]  | 4,71 ± 0,232 | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Titanium (Ti)  | [7440-32-6]  | 0,02 ± 0,002 | %   | Aqua Regia<br>Digestion |
| ± standard deviation | Thallium (Tl)  | [7440-28-0]  | 25,3 ± 1,46  | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Thulium (Tm)   | [7440-30-4]  | 0,17 ± 0,014 | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Uranium (U)    | [7440-61-1]  | 6,17 ± 0,335 | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Vanadium (V)   | [7440-62-2]  | 60 ± 5,1     | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Tungsten (W)   | [7440-33-7]  | 4,46 ± 0,55  | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Yttrium (Y)    | [7440-65-5]  | 15 ± 0,7     | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Ytterbium (Yb) | [7440-64-4]  | 1,11 ± 0,055 | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Zinc (Zn)      | [7440-66-6]  | 112 ± 7      | ppm | Aqua Regia<br>Digestion |
| ± standard deviation | Zirconium (Zr) | [7440-67-7]  | 12 ± 1,6     | ppm | Aqua Regia<br>Digestion |