

## **Gold Ore (Frogs Leg Gold Mine, Western Australia), CRM**

Art. ID	OREAS-234-1KG
Unit	1 kg (powder)
Deliverydetails	No Dangerous Good /not restricted

### Description

OREAS 234 was prepared from a blend of gold-bearing ore and barren greenstone. The ore was sourced from the Frogs Leg Gold Mine located 19km west of Kalgoorlie in Western Australia. The Cambrian greenstone was sourced from a quarry 145km north of Melbourne, Australia.

Text/Information	Analyte/Parameter	CAS number	Concentration/Value	Unit	Method	Source
± standard deviation	Gold (Au)	[7440-57-5]	1,2 ± 0,03	ppm	Pb Fire Assay	
± standard deviation	Gold (Au)	[7440-57-5]	1,12 ± 0,058	ppm	Aqua Regia Digestion (sample weights 10-50g)	
± standard deviation	Gold (Au)	[7440-57-5]	1,17 ± 0,064	ppm	Cyanide Leach	
± standard deviation	Gold (Au)	[7440-57-5]	1,16 ± 0,047	ppm	X-ray Photon Assay	
± standard deviation	Silver (Ag)	[7440-22-4]	0,341 ± 0,029	ppm	Aqua Regia Digestion	
± standard deviation	Aluminium (Al)	[7429-90-5]	3,53 ± 0,171	%	Aqua Regia Digestion	
± standard deviation	Arsenic (As)	[7440-38-2]	55 ± 2	ppm	Aqua Regia Digestion	
± standard deviation	Boron (B)	[7440-42-8]	19,8 ± 3,9	ppm	Aqua Regia Digestion	
± standard deviation	Barium (Ba)	[7440-39-3]	29,6 ± 2,07	ppm	Aqua Regia Digestion	
± standard deviation	Beryllium (Be)	[7440-41-7]	0,27 ± 0,021	ppm	Aqua Regia Digestion	
± standard deviation	Bismuth (Bi)	[7440-69-9]	0,045 ± 0,005	ppm	Aqua Regia Digestion	
± standard deviation	Calcium (Ca)	[7440-70-2]	2,87 ± 0,384	%	Aqua Regia Digestion	
± standard deviation	Cadmium (Cd)	[7440-43-9]	0,54 ± 0,028	ppm	Aqua Regia	

± standard deviation	Cerium (Ce)	[7440-45-1]	10,1 ± 0,56	ppm	Digestion Aqua Regia Digestion
± standard deviation	Cobalt (Co)	[7440-48-4]	29,3 ± 1,43	ppm	Digestion Aqua Regia Digestion
± standard deviation	Chromium (Cr)	[7440-47-3]	21,7 ± 1,74	ppm	Digestion Aqua Regia Digestion
± standard deviation	Caesium (Cs)	[7440-46-2]	0,67 ± 0,045	ppm	Digestion Aqua Regia Digestion
± standard deviation	Copper (Cu)	[7440-50-8]	174 ± 7	ppm	Digestion Aqua Regia Digestion
± standard deviation	Dysprosium (Dy)	[7429-91-6]	2,06 ± 0,18	ppm	Digestion Aqua Regia Digestion
± standard deviation	Erbium (Er)	[7440-52-0]	1,28 ± 0,18	ppm	Digestion Aqua Regia Digestion
± standard deviation	Europium (Eu)	[7440-53-1]	0,42 ± 0,06	ppm	Digestion Aqua Regia Digestion
± standard deviation	Iron (Fe)	[7439-89-6]	5,39 ± 0,194	%	Digestion Aqua Regia Digestion
± standard deviation	Gallium (Ga)	[7440-55-3]	10,1 ± 0,88	ppm	Digestion Aqua Regia Digestion
± standard deviation	Gadolinium (Gd)	[7440-54-2]	1,97 ± 0,24	ppm	Digestion Aqua Regia Digestion
± standard deviation	Germanium (Ge)	[7440-56-4]	0,11 ± 0,02	ppm	Digestion Aqua Regia Digestion
± standard deviation	Hafnium (Hf)	[7440-58-6]	0,51 ± 0,09	ppm	Digestion Aqua Regia Digestion
± standard deviation	Holmium (Ho)	[7440-60-0]	0,42 ± 0,04	ppm	Digestion Aqua Regia Digestion
± standard deviation	Indium (In)	[7440-74-6]	0,036 ± 0,004	ppm	Digestion Aqua Regia Digestion
± standard deviation	Potassium (K)	[7440-09-7]	0,157 ± 0,013	%	Digestion Aqua Regia Digestion
± standard deviation	Lanthanum (La)	[7439-91-0]	4,37 ± 0,189	ppm	Digestion Aqua Regia Digestion
± standard deviation	Lithium (Li)	[7439-93-2]	10,1 ± 0,76	ppm	Digestion Aqua Regia Digestion
± standard deviation	Lutetium (Lu)	[7439-94-3]	0,16 ± 0,02	ppm	Digestion Aqua Regia

± standard deviation	Magnesium (Mg)	[7439-95-4]	1,63 ± 0,063	%	Digestion Aqua Regia
± standard deviation	Manganese (Mn)	[7439-96-5]	0,074 ± 0,004	%	Digestion Aqua Regia
± standard deviation	Molybdenum (Mo)	[7439-98-7]	1,39 ± 0,061	ppm	Digestion Aqua Regia
± standard deviation	Sodium (Na)	[7440-23-5]	0,217 ± 0,014	%	Digestion Aqua Regia
± standard deviation	Neodymium (Nd)	[7440-00-8]	6,02 ± 0,65	ppm	Digestion Aqua Regia
± standard deviation	Nickel (Ni)	[7440-02-0]	55 ± 4,7	ppm	Digestion Aqua Regia
± standard deviation	Phosphorus (P)	[7723-14-0]	0,039 ± 0,002	%	Digestion Aqua Regia
± standard deviation	Lead (Pb)	[7439-92-1]	26,2 ± 1,82	ppm	Digestion Aqua Regia
± standard deviation	Praseodymium (Pr)	[7440-10-0]	1,32 ± 0,119	ppm	Digestion Aqua Regia
± standard deviation	Platinum (Pt)	[7440-06-4]	13,9 ± 0,9		Digestion Aqua Regia
± standard deviation	Rubidium (Rb)	[7440-17-7]	6,39 ± 0,62	ppm	Digestion Aqua Regia
± standard deviation	Rhenium (Re)	[7440-15-5]	0,002 ± 0	ppm	Digestion Aqua Regia
± standard deviation	Sulfur (S)	[7704-34-9]	0,37 ± 0,026	%	Digestion Aqua Regia
± standard deviation	Antimony (Sb)	[7440-36-0]	0,81 ± 0,24	ppm	Digestion Aqua Regia
± standard deviation	Scandium (Sc)	[7440-20-2]	6,46 ± 0,505	ppm	Digestion Aqua Regia
± standard deviation	Samarium (Sm)	[7440-19-9]	1,56 ± 0,116	ppm	Digestion Aqua Regia
± standard deviation	Tin (Sn)	[7440-31-5]	0,62 ± 0,08	ppm	Digestion Aqua Regia
± standard deviation	Strontium (Sr)	[7440-24-6]	48,8 ± 7,7	ppm	Digestion Aqua Regia
± standard deviation	Tantalum (Ta)	[7440-25-7]	< 0,010 ± IND	ppm	Digestion Aqua Regia

± standard deviation	Terbium (Tb)	[7440-27-9]	0,32 ± 0,026	ppm	Digestion Aqua Regia
± standard deviation	Tellurium (Te)	[13494-80-9]	0,094 ± 0,01	ppm	Digestion Aqua Regia
± standard deviation	Thorium (Th)	[7440-29-1]	0,83 ± 0,09	ppm	Digestion Aqua Regia
± standard deviation	Titanium (Ti)	[7440-32-6]	0,325 ± 0,049	%	Digestion Aqua Regia
± standard deviation	Thallium (Tl)	[7440-28-0]	0,12 ± 0,007	ppm	Digestion Aqua Regia
± standard deviation	Thulium (Tm)	[7440-30-4]	0,18 ± 0,02	ppm	Digestion Aqua Regia
± standard deviation	Uranium (U)	[7440-61-1]	0,2 ± 0,011	ppm	Digestion Aqua Regia
± standard deviation	Vanadium (V)	[7440-62-2]	136 ± 16	ppm	Digestion Aqua Regia
± standard deviation	Tungsten (W)	[7440-33-7]	18,1 ± 2,8	ppm	Digestion Aqua Regia
± standard deviation	Yttrium (Y)	[7440-65-5]	11,6 ± 1,3	ppm	Digestion Aqua Regia
± standard deviation	Ytterbium (Yb)	[7440-64-4]	1,12 ± 0,12	ppm	Digestion Aqua Regia
± standard deviation	Zinc (Zn)	[7440-66-6]	123 ± 5	ppm	Digestion Aqua Regia
± standard deviation	Zirconium (Zr)	[7440-67-7]	17,7 ± 1,59	ppm	Digestion Aqua Regia
± standard deviation	Silver (Ag)	[7440-22-4]	0,338 ± 0,015	ppm	4-Acid Dig estion
± standard deviation	Aluminium (Al)	[7429-90-5]	7,05 ± 0,175	%	4-Acid Dig estion
± standard deviation	Arsenic (As)	[7440-38-2]	55 ± 3,6	ppm	4-Acid Dig estion
± standard deviation	Barium (Ba)	[7440-39-3]	129 ± 4	ppm	4-Acid Dig estion
± standard deviation	Beryllium (Be)	[7440-41-7]	0,42 ± 0,029	ppm	4-Acid Dig estion
± standard deviation	Bismuth (Bi)	[7440-69-9]	0,047 ± 0,009	ppm	4-Acid Dig

± standard deviation	Calcium (Ca)	[7440-70-2]	7,08 ± 0,285	%	estion 4-Acid Dig
± standard deviation	Cadmium (Cd)	[7440-43-9]	0,57 ± 0,03	ppm	estion 4-Acid Dig
± standard deviation	Cerium (Ce)	[7440-45-1]	12,9 ± 0,72	ppm	estion 4-Acid Dig
± standard deviation	Cobalt (Co)	[7440-48-4]	41,2 ± 2,17	ppm	estion 4-Acid Dig
± standard deviation	Chromium (Cr)	[7440-47-3]	110 ± 12	ppm	estion 4-Acid Dig
± standard deviation	Caesium (Cs)	[7440-46-2]	0,92 ± 0,04	ppm	estion 4-Acid Dig
± standard deviation	Copper (Cu)	[7440-50-8]	175 ± 6	ppm	estion 4-Acid Dig
± standard deviation	Dysprosium (Dy)	[7429-91-6]	3,6 ± 0,191	ppm	estion 4-Acid Dig
± standard deviation	Erbium (Er)	[7440-52-0]	2,17 ± 0,087	ppm	estion 4-Acid Dig
± standard deviation	Europium (Eu)	[7440-53-1]	0,9 ± 0,047	ppm	estion 4-Acid Dig
± standard deviation	Iron (Fe)	[7439-89-6]	7,53 ± 0,225	%	estion 4-Acid Dig
± standard deviation	Gallium (Ga)	[7440-55-3]	15,5 ± 0,65	ppm	estion 4-Acid Dig
± standard deviation	Gadolinium (Gd)	[7440-54-2]	3,18 ± 0,233	ppm	estion 4-Acid Dig
± standard deviation	Hafnium (Hf)	[7440-58-6]	1,64 ± 0,103	ppm	estion 4-Acid Dig
± standard deviation	Holmium (Ho)	[7440-60-0]	0,76 ± 0,052	ppm	estion 4-Acid Dig
± standard deviation	Indium (In)	[7440-74-6]	0,074 ± 0,009	ppm	estion 4-Acid Dig
± standard deviation	Potassium (K)	[7440-09-7]	0,46 ± 0,018	%	estion 4-Acid Dig
± standard deviation	Lanthanum (La)	[7439-91-0]	5,51 ± 0,313	ppm	estion 4-Acid Dig
± standard deviation	Lithium (Li)	[7439-93-2]	11 ± 0,81	ppm	estion 4-Acid Dig

± standard deviation	Lutetium (Lu)	[7439-94-3]	0,31 ± 0,019	ppm	estion 4-Acid Dig
± standard deviation	Magnesium (Mg)	[7439-95-4]	3,59 ± 0,125	%	estion 4-Acid Dig
± standard deviation	Manganese (Mn)	[7439-96-5]	0,13 ± 0,004	%	estion 4-Acid Dig
± standard deviation	Molybdenum (Mo)	[7439-98-7]	1,49 ± 0,108	ppm	estion 4-Acid Dig
± standard deviation	Sodium (Na)	[7440-23-5]	1,64 ± 0,069	%	estion 4-Acid Dig
± standard deviation	Niobium (Nb)	[7440-03-1]	3,36 ± 0,226	ppm	estion 4-Acid Dig
± standard deviation	Neodymium (Nd)	[7440-00-8]	8,32 ± 0,37	ppm	estion 4-Acid Dig
± standard deviation	Nickel (Ni)	[7440-02-0]	81 ± 3,9	ppm	estion 4-Acid Dig
± standard deviation	Phosphorus (P)	[7723-14-0]	0,041 ± 0,002	%	estion 4-Acid Dig
± standard deviation	Lead (Pb)	[7439-92-1]	26,4 ± 1,36	ppm	estion 4-Acid Dig
± standard deviation	Praseodymium (Pr)	[7440-10-0]	1,75 ± 0,088	ppm	estion 4-Acid Dig
± standard deviation	Rubidium (Rb)	[7440-17-7]	14 ± 0,75	ppm	estion 4-Acid Dig
± standard deviation	Sulfur (S)	[7704-34-9]	0,376 ± 0,028	%	estion 4-Acid Dig
± standard deviation	Antimony (Sb)	[7440-36-0]	1,5 ± 0,1	ppm	estion 4-Acid Dig
± standard deviation	Scandium (Sc)	[7440-20-2]	38,7 ± 1,7	ppm	estion 4-Acid Dig
± standard deviation	Samarium (Sm)	[7440-19-9]	2,43 ± 0,097	ppm	estion 4-Acid Dig
± standard deviation	Tin (Sn)	[7440-31-5]	0,98 ± 0,096	ppm	estion 4-Acid Dig
± standard deviation	Strontium (Sr)	[7440-24-6]	211 ± 10	ppm	estion 4-Acid Dig
± standard deviation	Tantalum (Ta)	[7440-25-7]	0,23 ± 0,02	ppm	estion 4-Acid Dig

± standard deviation	Terbium (Tb)	[7440-27-9]	0,55 ± 0,04	ppm	4-Acid Dig estion
± standard deviation	Tellurium (Te)	[13494-80-9]	0,096 ± 0,015	ppm	4-Acid Dig estion
± standard deviation	Thorium (Th)	[7440-29-1]	1,03 ± 0,073	ppm	4-Acid Dig estion
± standard deviation	Titanium (Ti)	[7440-32-6]	0,587 ± 0,022	%	4-Acid Dig estion
± standard deviation	Thallium (Tl)	[7440-28-0]	0,23 ± 0,013	ppm	4-Acid Dig estion
± standard deviation	Thulium (Tm)	[7440-30-4]	0,31 ± 0,015	ppm	4-Acid Dig estion
± standard deviation	Uranium (U)	[7440-61-1]	0,29 ± 0,02	ppm	4-Acid Dig estion
± standard deviation	Vanadium (V)	[7440-62-2]	263 ± 9	ppm	4-Acid Dig estion
± standard deviation	Tungsten (W)	[7440-33-7]	26,2 ± 1,62	ppm	4-Acid Dig estion
± standard deviation	Yttrium (Y)	[7440-65-5]	19,5 ± 0,93	ppm	4-Acid Dig estion
± standard deviation	Ytterbium (Yb)	[7440-64-4]	2,14 ± 0,112	ppm	4-Acid Dig estion
± standard deviation	Zinc (Zn)	[7440-66-6]	135 ± 7	ppm	4-Acid Dig estion
± standard deviation	Zirconium (Zr)	[7440-67-7]	55 ± 4,5	ppm	4-Acid Dig estion