



ANALYSIS REPORT

Semi-quantitative screening analysis by ICP

Issued by: ALS Scandinavia AB, Aurorum 10, S-977 75 Luleå, Sweden
 Client: Kovohute Pribram nastupnicka, a.s., Pribram VI cp. 530, 26181 Pribram VI - Brezove Hory
 Date of receipt: 2013-03-12
 Date of analysis: 2013-03-13
 Order number (our): L1305821
 Your reference: Ing. Petr Pistulka
 Our reference: Ilia Rodushkin
 Sample name: PR1308910/001 "Thalium - ingot 4x5x0,5 cm"
 Lab number (our): U1305821

Aluminium, Al	<0.05	mg/kg	Manganese, Mn	0.03	mg/kg
Antimony, Sb	0.18	mg/kg	Molybdenum, Mo	<0.001	mg/kg
Arsenic, As	<0.01	mg/kg	Sodium, Na	<0.5	mg/kg
Barium, Ba	<0.01	mg/kg	Neodymium, Nd	<0.001	mg/kg
Beryllium, Be	<0.005	mg/kg	Niobium, Nb	<0.001	mg/kg
Lead, Pb	<1.1	mg/kg	Nickel, Ni	0.02	mg/kg
Boron, B	<0.01	mg/kg	Osmium, Os	<0.001	mg/kg
Bromine, Br	<0.05	mg/kg	Palladium, Pd	<0.001	mg/kg
Cerium, Ce	<0.001	mg/kg	Platinum, Pt	<0.003	mg/kg
Cesium, Cs	<0.001	mg/kg	Praseodymium, Pr	<0.001	mg/kg
Dysprosium, Dy	<0.001	mg/kg	Rhenium, Re	<0.001	mg/kg
Erbium, Er	<0.001	mg/kg	Rhodium, Rh	<0.001	mg/kg
Europium, Eu	<0.001	mg/kg	Rubidium, Rb	<0.001	mg/kg
Phosphorus, P	<0.05	mg/kg	Ruthenium, Ru	<0.001	mg/kg
Gadolinium, Gd	<0.001	mg/kg	Samarium, Sm	<0.001	mg/kg
Gallium, Ga	<0.001	mg/kg	Selenium, Se	<0.02	mg/kg
Germanium, Ge	<0.005	mg/kg	Silver, Ag	0.2	mg/kg
Gold, Au	<0.04	mg/kg	Scandium, Sc	<0.001	mg/kg
Hafnium, Hf	<0.001	mg/kg	Strontium, Sr	<0.005	mg/kg
Holmium, Ho	<0.001	mg/kg	Sulphur, S	<1	mg/kg
Iridium, Ir	<0.001	mg/kg	Tantalum, Ta	<0.001	mg/kg
Iodine, I	<0.01	mg/kg	Tellurium, Te	<0.001	mg/kg
Iron, Fe	2.6	mg/kg	Thallium, Tl	>99.999	%
Cadmium, Cd	0.04	mg/kg	Tin, Sn	0.16	mg/kg
Calcium, Ca	<1	mg/kg	Terbium, Tb	<0.001	mg/kg
Potassium, K	<0.5	mg/kg	Titanium, Ti	<0.01	mg/kg
Silicon, Si	<1	mg/kg	Thorium, Th	<0.001	mg/kg
Cobalt, Co	<0.001	mg/kg	Thulium, Tm	<0.001	mg/kg
Copper, Cu	0.26	mg/kg	Uranium, U	<0.001	mg/kg
Chromium, Cr	0.005	mg/kg	Vanadium, V	0.001	mg/kg
Mercury, Hg	<0.1	mg/kg	Bismuth, Bi	0.04	mg/kg
Lanthanum, La	<0.001	mg/kg	Tungsten, W	<0.001	mg/kg
Lithium, Li	<0.005	mg/kg	Ytterbium, Yb	<0.001	mg/kg
Lutetium, Lu	<0.001	mg/kg	Yttrium, Y	<0.001	mg/kg
Magnesium, Mg	0.03	mg/kg	Zinc, Zn	0.34	mg/kg
			Zirconium, Zr	<0.001	mg/kg

Comments

The analysis is carried out by ICP-SMS (HR-ICP-MS) on sub-sample surface-cleaned in HNO₃.

The trace elements are determined using 18 scans over the mass range, resulting in a total measurement time of 300 s

All concentrations are within ± 50% of the reported value. This may not apply to Br and I.

Tl concentration is calculated from the sum of measured impurities

Signature Ilia Rodushkin