

Resources and reserves

Minerals reserves and resources as at December 31, 2018 ⁰	Ore kt	Metal grade						Contained metal					
		Ni %	Cu %	Pd g/t	Pt g/t	Au g/t	6 PGM g/t	Ni kt	Cu kt	Pd koz	Pt koz	Au koz	6 PGM koz
TAIMYR PENINSULA													
Proven and probable reserves	683,625	0.92	1.73	4.23	1.12	0.24	5.60	6,286	11,858	92,864	24,600	5,331	122,982
Proven reserves													
Talnakh ore field, including	328,571	0.79	1.55	3.84	1.04	0.23	5.08	2,600	5,080	40,582	10,938	2,398	53,664
rich	51,627	2.52	3.10	6.25	1.30	0.23	7.89	1,299	1,603	10,380	2,156	385	13,100
cuprous	19,770	0.97	3.93	9.56	2.32	0.64	12.01	192	776	6,073	1,472	405	7,633
disseminated	257,174	0.43	1.05	2.92	0.88	0.19	3.98	1,109	2,701	24,129	7,310	1,608	32,931
Norilsk-1 deposit (disseminated ore)	21,628	0.35	0.51	3.95	1.58	0.18	5.82	76	110	2,744	1,101	122	4,045
Probable reserves													
Talnakh ore field, including	311,622	1.14	2.11	4.64	1.13	0.27	6.07	3,549	6,588	46,529	11,347	2,676	60,828
rich	79,629	2.90	3.95	7.11	1.40	0.26	9.05	2,308	3,145	18,199	3,581	664	23,160
cuprous	61,380	0.75	3.17	7.12	1.86	0.52	9.20	461	1,944	14,057	3,666	1,017	18,153
disseminated	170,613	0.46	0.88	2.60	0.75	0.18	3.56	780	1,499	14,273	4,100	995	19,515
Norilsk-1 deposit (disseminated ore)	21,804	0.28	0.37	4.29	1.73	0.19	6.34	61	80	3,009	1,214	135	4,445
Measured and indicated resources	1,708,565	0.70	1.31	3.56	1.00	0.21	4.78	11,892	22,437	195,441	55,122	11,565	262,296
Talnakh ore field, including	1,561,555	0.73	1.40	3.55	0.96	0.22	4.71	11,456	21,877	178,029	48,335	10,840	236,698
rich	113,786	3.23	4.25	7.96	1.60	0.29	10.10	3,675	4,840	29,123	5,845	1,069	36,950
cuprous	68,710	0.98	4.08	9.40	2.40	0.66	12.04	674	2,806	20,755	5,297	1,467	26,588
disseminated	1,379,059	0.52	1.03	2.89	0.84	0.19	3.91	7,107	14,231	128,151	37,193	8,304	173,160
Norilsk-1 deposit (disseminated ore)	147,010	0.30	0.38	3.68	1.44	0.15	5.42	436	560	17,412	6,787	725	25,598
Inferred resources	440,898	0.85	1.74	4.22	1.09	0.25	5.54	3,750	7,653	59,754	15,435	3,545	78,321
Talnakh ore field	439,830	0.85	1.74	4.22	1.09	0.25	5.54	3,747	7,650	59,627	15,385	3,541	78,054
Norilsk-1 deposit (disseminated ore)	1,068	0.28	0.28	3.69	1.46	0.13	7.78	3	3	127	50	4	267
KOLA PENINSULA (disseminated ore)													
Proven and probable reserves	100,918	0.58	0.27	0.03	0.02	0.01	0.05	581	271	93	60	29	155
Proven ore reserves	45,074	0.58	0.25	0.03	0.02	0.01	0.05	261	112	42	30	13	73
Probable reserves	55,844	0.57	0.28	0.03	0.02	0.01	0.05	320	159	51	30	16	82
Measured and indicated resources	327,277	0.69	0.33	0.05	0.03	0.02	0.08	2,247	1,089	488	314	177	862
Inferred resources	144,211	0.63	0.31	0.04	0.03	0.01	0.07	909	448	184	121	60	320

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		Ni %	Cu %	Pd g/t	Pt g/t	Au g/t	6 PGM g/t	Ni kt	Cu kt	Pd koz	Pt koz	Au koz	6 PGM koz
AUSTRALIA (Honeymoon Well)													
Measured and indicated resources (nickel sulfide ores)	173,300	0.68	0	0	0	0	0	1,180	0	0	0	0	0
Inferred resources (nickel sulfide ores)	11,900	0.68	0	0	0	0	0	81	0	0	0	0	0
Inferred resources (nickel laterite ores)	339,000	0.81	0	0	0	0	0	2,746	0	0	0	0	0
TOTAL RUSSIAN ASSETS													
Total proven and probable reserves	784,543	0.88	1.55	0.12	0.03	0.01	0.16	6,867	12,129	92,957	24,660	5,360	123,137
Total measured and indicated resources	2,035,842	0.69	1.16	0.10	0.03	0.01	0.13	14,139	23,526	195,929	55,436	11,742	263,158
Total inferred resources	585,109	0.80	1.38	0.10	0.03	0.01	0.13	4,659	8,101	59,938	15,556	3,605	78,641
TOTAL RUSSIAN AND INTERNATIONAL ASSETS													
Total proven and probable reserves	784,543	–	–	–	–	–	–	6,867	12,129	92,957	24,660	5,360	123,137
Total measured and indicated resources	2,209,142	–	–	–	–	–	–	15,319	23,526	195,929	55,436	11,742	263,158
Total inferred resources	936,009	–	–	–	–	–	–	7,486	8,101	59,938	15,556	3,605	78,641

Reserves and resources in South Africa (Nikomati) as at June 30, 2018 ^②	Ore kt	Metal grade				Contained metal			
		Ni %	Cu %	Co %	4 PGM g/t	Ni kt	Cu kt	Co kt	4 PGM koz
Proven and probable reserves	84,450	0.31	0.12	0.02	0.89	261	101	17	2,412
Measured and indicated resources	172,200	0.35	0.14	0.02	0.96	603	241	34	5,315
Inferred resources	46,350	0.40	0.13	0.02	0.97	185	60	9	1,445

① Data regarding the mineral resources and ore reserves of the deposits of the Taimyr and Kola peninsulas were classified according to the Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC code), created by the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists, and the Minerals Council of Australia, subject to the terminology recommended by the Russian Code for Public Reporting of Exploration Results, Mineral Resources, Mineral Reserves (NAEN Code). Data regarding the reserves and resources is based on the balance-sheet reserves of A, B, C1 and C2, categories (according to the terminology of the State Committee for Mineral Reserves) as of the end of the given calendar year.

Figures given as "Total" may differ from the sum of individual numbers due to rounding. Certain values may in some instances vary slightly from previously published values.

The six platinum group metals (PGMs) are platinum, palladium, rhodium, ruthenium, osmium, and iridium. Hereafter in the annual report, troy ounces are used as a weight measure for PGMS and gold.

Proven and probable ore reserves are included in mineral resources.

Ore losses applied ranged from 1.6 % to 26% and dilution from 6% to 31.9%.

Excluding deposits in Zabaykalsky Krai.

② The Group owns 50% of Nikomati, which operates a nickel mine of the same name. The co-shareholder of the company is African Rainbow Minerals. Nikomati's performance is reflected in financial results using proportional consolidation according to our stake and not reflected in other totals.